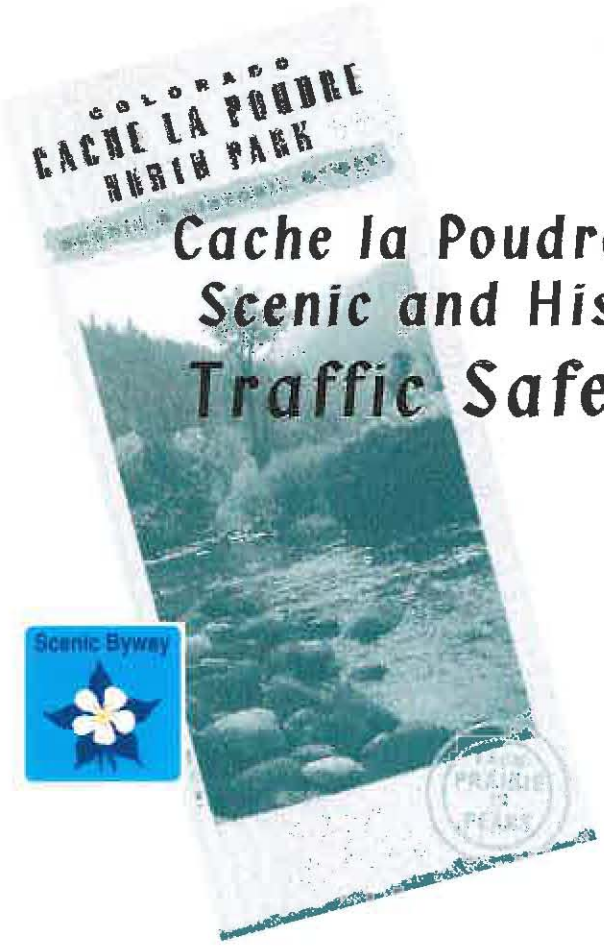

Cache la Poudre--North Park Scenic and Historic Byway

Traffic Safety Review

Prepared for the
Cache la Poudre--North Park Scenic and Historic Byway

July 1999

Prepared By
Carter Burgess, Inc.
In Association with ERO Resources

DRAFT

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May 1999

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1.0 EXISTING TRAFFIC SAFETY AND TRANSPORTATION ISSUES

1.1 OVERVIEW OF ROADWAY SEGMENTS

The Cache La Poudre – North Park Scenic and Historic Byway is a 101 route that follows Colorado State Highway (SH) 14, extending from Interstate 25 in Fort Collins to Colorado State Highway (SH) 125 in Walden. The roadway connects the communities of Fort Collins, Poudre Park, Rustic, Gould and Walden, and includes numerous segments that offer scenic and historically significant rural landscape in addition to numerous recreational opportunities. Much of the route parallels the Cache La Poudre Wild and Scenic River within the Poudre Canyon. The Corridor Management Plan completed in February 1998 presents the intrinsic resources of the corridor in four distinctive regions. The roadway segments within each region are also unique in regard to their transportation characteristics and physical roadway attributes. An overview of each segment is provided below.

Walden and North Park Region – This segment begins at the Town of Walden and ends just north of Gould at the Colorado State Forest Boundary, a distance of approximately 19 miles. The roadway through this segment is a paved two-lane minor arterial serving the small settlement of Walden and a few widely scattered ranching developments. From Walden, connections can be made to the north along SH 125 towards Laramie, Wyoming, or to the southeast and southwest via SH 125 or SH 14 respectively. Both southern routes connect to US 40, with access provided to Granby from SH 125 and to Steamboat Springs from SH 14.

Terrain along this portion of the route consists of both flat and rolling highway segments within a rural developed setting. Average pavement width is approximately 22 feet with no paved shoulders. Much of the asphalt and base material is in poor condition due to seasonal weather changes and ground moisture. The Colorado Department of Transportation (CDOT) Region 3 maintains this portion of roadway and a significant amount of time is spent patching the roadway surface. Chip seal repair is scheduled along approximately 12 miles of this segment for the upcoming construction season. A full surface overlay is programmed to occur in the next three to four years.

Current 1996 traffic count data prepared by CDOT indicates that existing average annual daily traffic (AADT) volumes along this stretch of SH 14 range from 540 to 1,350 vehicles, with 7 percent to 11 percent of the daily volume representing truck traffic. The highest volumes occur on the road segments within and near Walden, with the remaining segments containing the lowest volumes of the entire byway. Other key access roads intersecting this segment of the Byway include Main Street

in Walden (SH 125), Washington Street in Walden, Colorado Road (CO Rd.) 30 and CO Rd. 27.

Only a few recreation access points are located along this segment including a National Forest information center and campground facilities. The moderate visitor use at these locations does not create any notable traffic safety problems. No other formal roadway turnouts or recreational parking facilities are located along this portion of the Byway.

Cameron Pass Region – This segment begins just north of Gould and stretches to the confluence of the Cache la Poudre and Joe Wright Creek, a distance of about 22 miles. SH 14 in this region is classified as a minor arterial and characterized by segments either approaching or along a "mountain pass". The two-lane paved surface consists of winding roadway with steep grades, including switchbacks and sharp drop-offs. Separate climbing or passing lanes are not provided. Segments approaching the pass have moderate sustained grades with milder curves and better pavement conditions. CDOT Region 4 maintains the majority of this segment including Cameron Pass and the eastern approach. CDOT Region 3 maintains the western approach to the pass.

The western approach to Cameron Pass is an extension of the typical roadway section that leads from Walden, and is characterized by narrow lanes, lack of shoulders and deteriorating pavement. Cameron Pass and the eastern approach has an average pavement width of 34 feet with 12-foot lanes and shoulder widths of 5 feet. This wider cross-section of roadway was constructed in the late 1970s and the pavement is currently in good condition. A complete overlay was done approximately three years ago. Based on information collected by CDOT, existing AADT volumes along this portion of the road range from 490 to 870 vehicles, with the highest volume occurring furthest to the east. Truck traffic accounts for 8 percent to 10 percent of the vehicles.

Other roads providing access to and from this segment include Colorado Road (CO Rd.) 21 to Gould, Long Draw Road (CO Rd. 156) and Laramie River Road (CO Rd. 103). Parking provisions are provided at many of the lakes and trailheads on the eastern side of the pass, in addition to generous turnouts for chaining tires during winter weather conditions. A National Forest information center is also provided along the eastern approach to Cameron Pass.

Poudre Canyon Region – This segment begins at the confluence of the Cache La Poudre River and Joe Wright Creek, just east of Cameron Pass, extends to Ted's Place, at the junction of SH 14 and US Highway 287, a distance of approximately 46 miles. The Byway parallels the Cache la Poudre within the canyon for the majority of this segment. The general character of the roadway is very scenic and

attracts many sightseers in addition to other recreation enthusiasts. Compared to other portions of the route, this segment is most highly utilized for recreational activities such as camping, picnicking, fishing, rafting/kayaking, hiking and bicycling. A combination of various formal and informal parking facilities provides access to the many day-use and overnight activity locations.

Classified as a minor arterial, the two-lane roadway through this area is narrow and winds through many tight canyon segments. Average lane width within the canyon is typically 11 feet with paved shoulders ranging from 0 to 3 feet maximum. Much of the roadway does not have any shoulders (paved or unpaved) adjacent to the travel lanes. Limited sight distance, sharp curves and steep embankments require cautious travel for both motorists and bicyclists. The pavement surface through the Canyon is in reasonably good condition. CDOT Region 4 completed chip seal treatment for much of this segment five years ago.

The most current 1996 CDOT traffic counts indicate AADT volumes ranging from 1,250 at the western end of the segment to 2,350 at the eastern end. Incremental increases are evident along the segments in between. Truck traffic ranges from 7 to 9 percent of the daily volume. Other roadways connected to SH 14 through this area include CO Rd. 69 to Red Feather Lakes, Pingree Park Road (CO Rd. 63E) and Stove Prairie Road (CO Rd. 27). These facilities provide access to many of the area's recreational attractions that are not directly along the river.

Concentrations of rural private residences, seasonal lodging and small businesses are found along this segment in the communities of Rustic and Poudre Park. Additional residences are scattered throughout the corridor adjacent to SH 14. Local road connections, and in many cases, direct driveway access is provided to the main roadway to serve these developments. Campgrounds, picnic areas, day-use recreation access points and staging areas also contribute to the number of direct access locations for vehicles. While most of these locations generate low daily traffic volumes, drivers often encounter unexpected movements to and from SH 14, requiring the need to slow down or yield to a turning vehicle.

The last 2.5 miles of this segment extend beyond the canyon area and is characterized by a generally flat roadway section. Paved shoulders ranging from 2 to 5 feet are evident only for the last mile. The east terminus of this segment at US Highway 287 is the primary source of traffic volume. The junction of SH 14 and US Highway 287 is perceived by many as the entrance to the Byway. US Highway 287 provides access to Laramie, Wyoming to the north and Fort Collins to the east.

Laporte and Fort Collins Region – This segment begins at Ted's Place, at the junction of SH 14 and US Highway 287, and extends through Fort Collins to the junction of SH 14 and Interstate 25. This portion of the Byway is classified by

CDOT as a principal arterial and is a combination of 2, 3 and 4-lane segments with turn lane provisions at high use locations. Lane widths and pavement conditions vary somewhat, but the facility is generally in a good state of repair. The roadway extends through suburban development along the eastern and western fringes of Fort Collins, and urban development within the City of Fort Collins. Most of the development along the Byway in both suburban and rural areas is commercial related, resulting in numerous access provisions.

SH 14 and US Highway 287 share the same alignment between their junction at Ted's Place and the intersection of Riverside Avenue and College Avenue in north Fort Collins. A portion of this segment was newly constructed in the late 1980s as a bypass of the community of Laporte. The Byway then follows SH 14 exclusively via Riverside Avenue and Mulberry Street to its' eastern terminus at I-25.

Traffic capacity, access and safety issues have prompted recent or upcoming studies along the route in the Fort Collins area. These activities have been accomplished through participation and coordination with CDOT Region 4. The North Front Range Transportation and Air Quality Planning Council along with the City of Fort Collins recently conducted a study of SH 14 on the eastern fringe of Fort Collins to evaluate roadway capacity and access control. Some restrictions have recently been implemented to reduce turn movements and some new traffic signals are planned.

A truck bypass study was also recently completed to evaluate alternative routes for truck traffic on SH 14. Project recommendations under development would divert trucks around the downtown area to the northeast via Vine Drive and Summit View Drive.

An environmental assessment will soon be conducted to evaluate general traffic safety improvements along US Highway 287 between SH 1 and the Laporte bypass. This segment currently exists as a 2-lane roadway between higher capacity segments. The study will evaluate additional lanes, median applications and access management improvements.

Existing AADT volumes throughout this segment generally range from 15,000 to 33,000 vehicles per day, representing the highest volumes along the Byway. Volumes at the eastern terminus prior to connecting to I-25 range from 6,000 to 7,000 AADT.

The local and regional roadways connected to this segment of the Byway provide access from multiple directions. However, limited signing makes the Byway somewhat difficult to follow through the City. US Highway 287 provides connections towards Laramie, Wyoming to the north and to Loveland to the south. State Highway (SH) 1 also provides access to Fort Collins and the Byway from

other outlying communities to the north. Interstate 25 provides Byway access for many trips outside of the immediate North Front Range area. However, I-25 does not have any directional signing that identifies the SH 14 interchange as a Byway access point.

1.2 TRAFFIC VOLUME HISTORY

Available historic traffic counts along SH 14 were collected from CDOT for the years 1988 through 1996. A summary of Annual Average Daily Traffic (AADT) is maintained for specific milepost locations along the corridor. Actual daily traffic counts may vary dramatically depending on the season sampled. However, sample daily counts along the roadway are used to develop AADT estimates by applying adjustment factors for seasonal activity.

Traffic volume trends vary somewhat by location along the Byway. In general, traffic has displayed steady overall growth, especially in the areas of high recreational use. Figure 1 on the following page provides an overview map of the Cache la Poudre – North Park Scenic and Historic Byway. Approximate milepost locations are also indicated to provide a general reference for traffic count summaries.

Figures 2 through 7 graphically illustrate AADT summaries at several locations for years 1988 through 1996. The annual average percentage increase in traffic volume is noted along with the overall percentage of traffic growth. Key observations associated with the traffic counts are noted below.

- Traffic volumes at the west end of the Byway in Walden have doubled over the last eight years. Volumes have declined slightly between certain years but display an average overall growth trend of over 9 percent annually. (See Figure 2)

- Roadway volumes near the Town of Gould, on the west side of Cameron Pass, illustrate a mild decline between 1988 and 1992. Overall traffic activity increased after 1992 but are still lower than counts from 1988. (See Figure 3)

- Byway traffic activity from the east side of Cameron Pass to at the junction of SH 14 and US Highway 287 has exhibited consistent trends at several locations. Considerable growth in 1990 was followed by a downward trend through 1993. Since 1993, traffic volumes have shown steady growth with a sharp increase between 1995 and 1996. (See Figures 4 through 6)

Figure 2

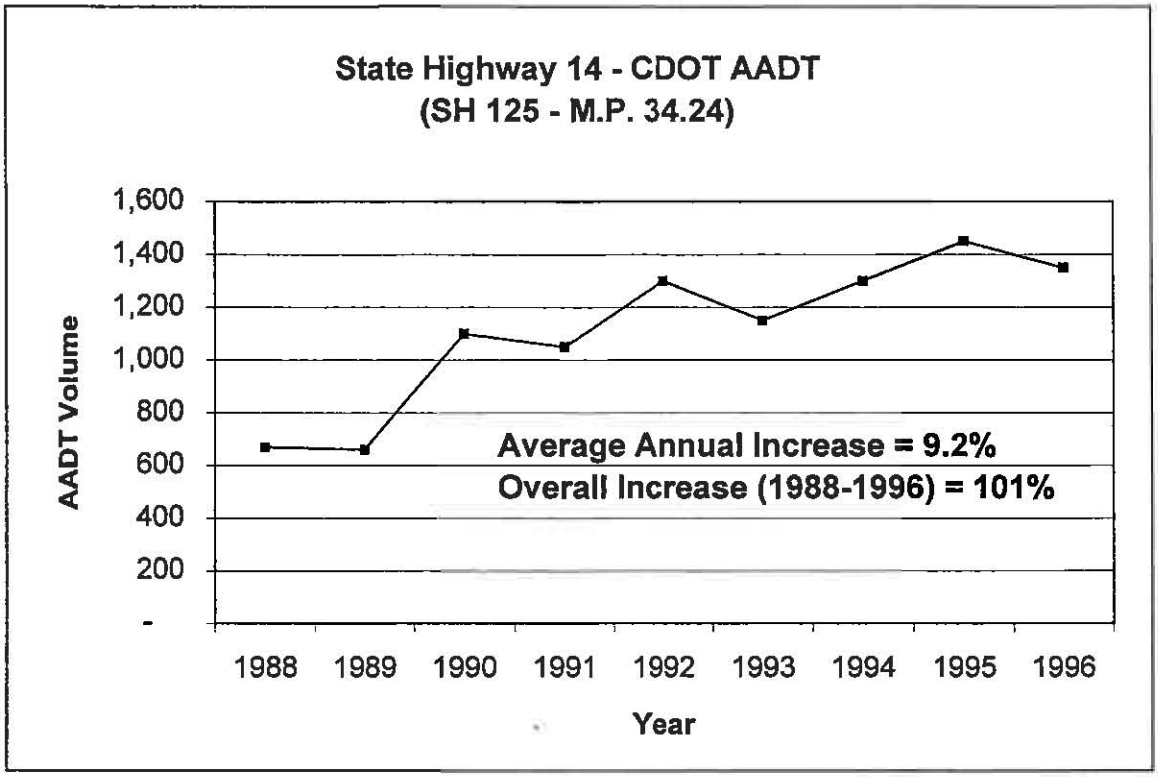


Figure 3

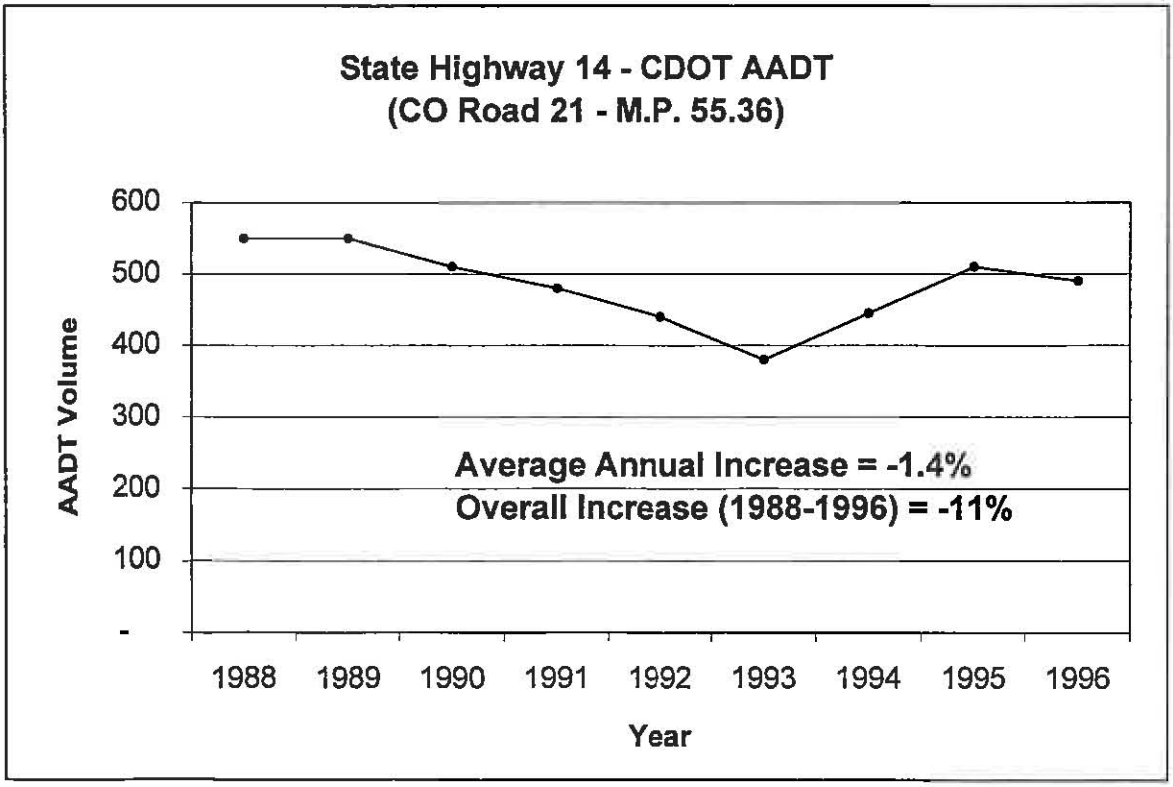


Figure 4

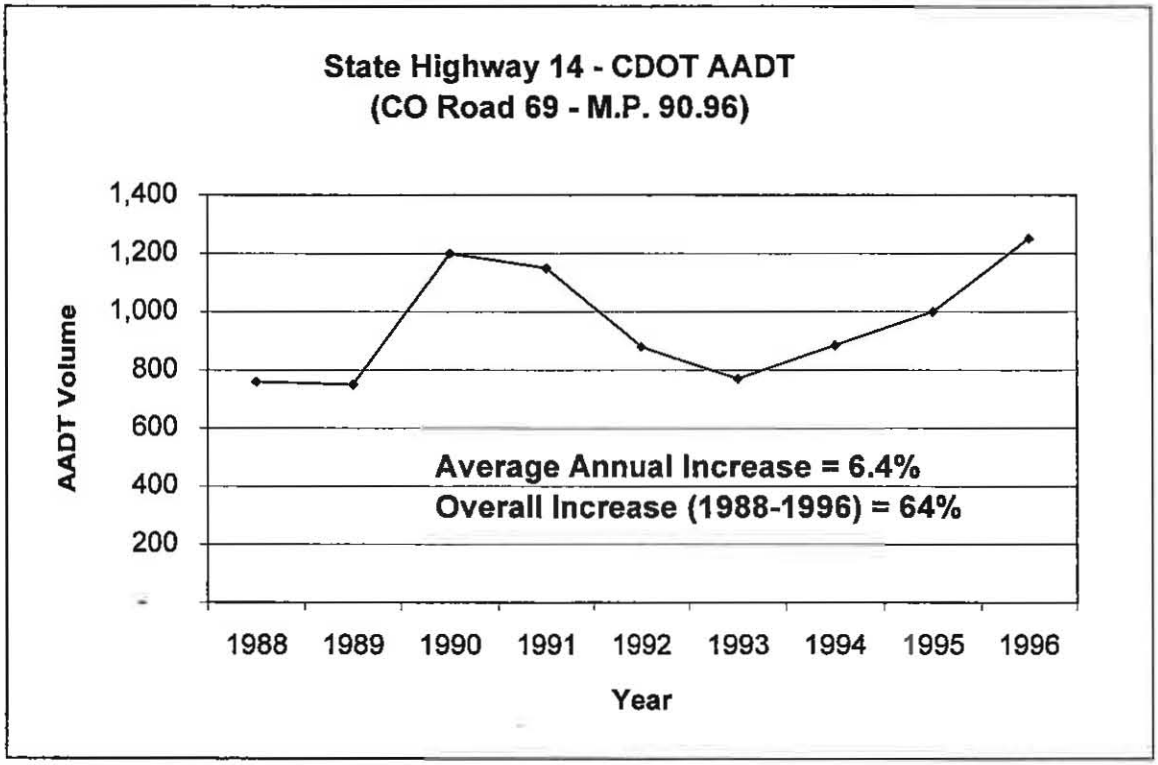


Figure 5

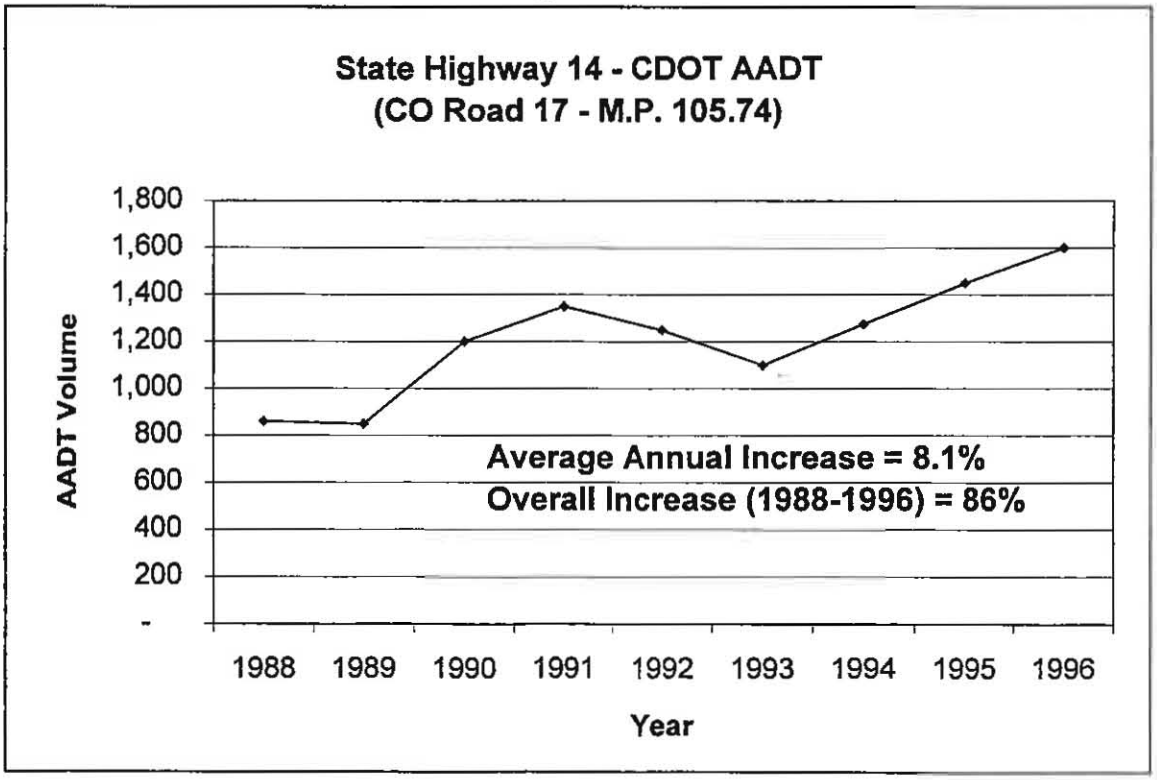


Figure 6

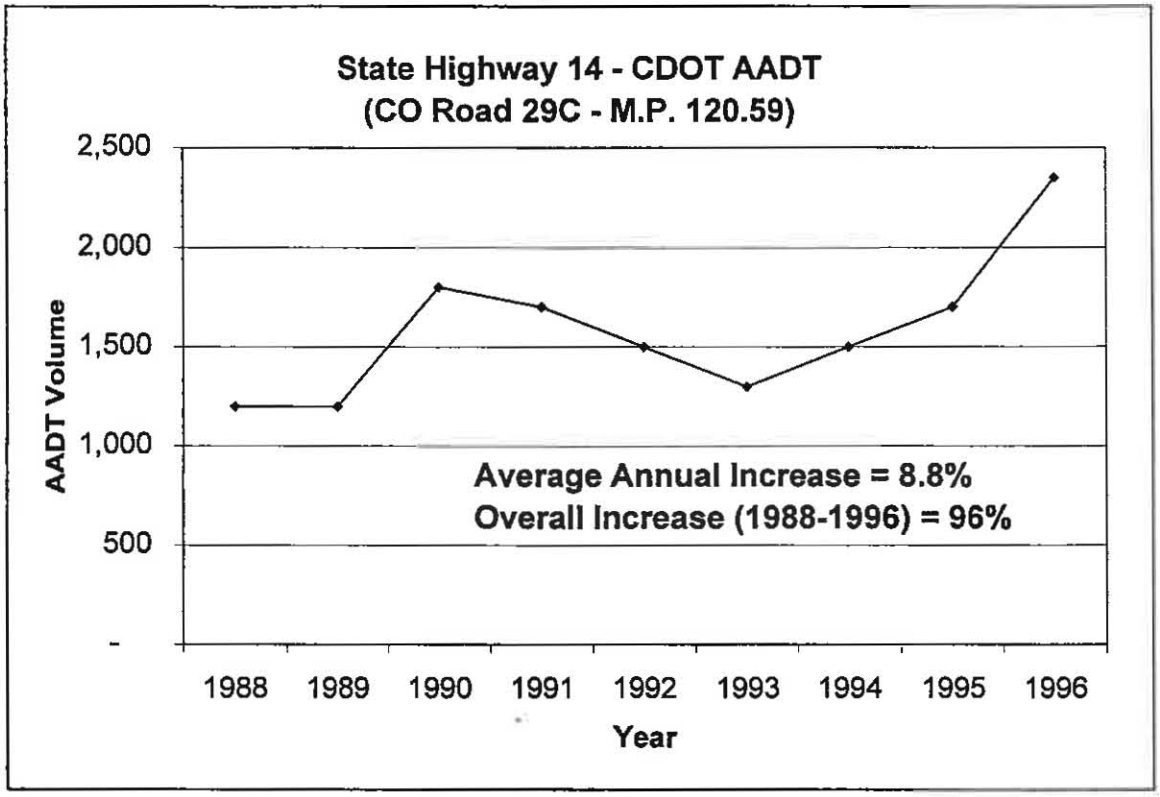
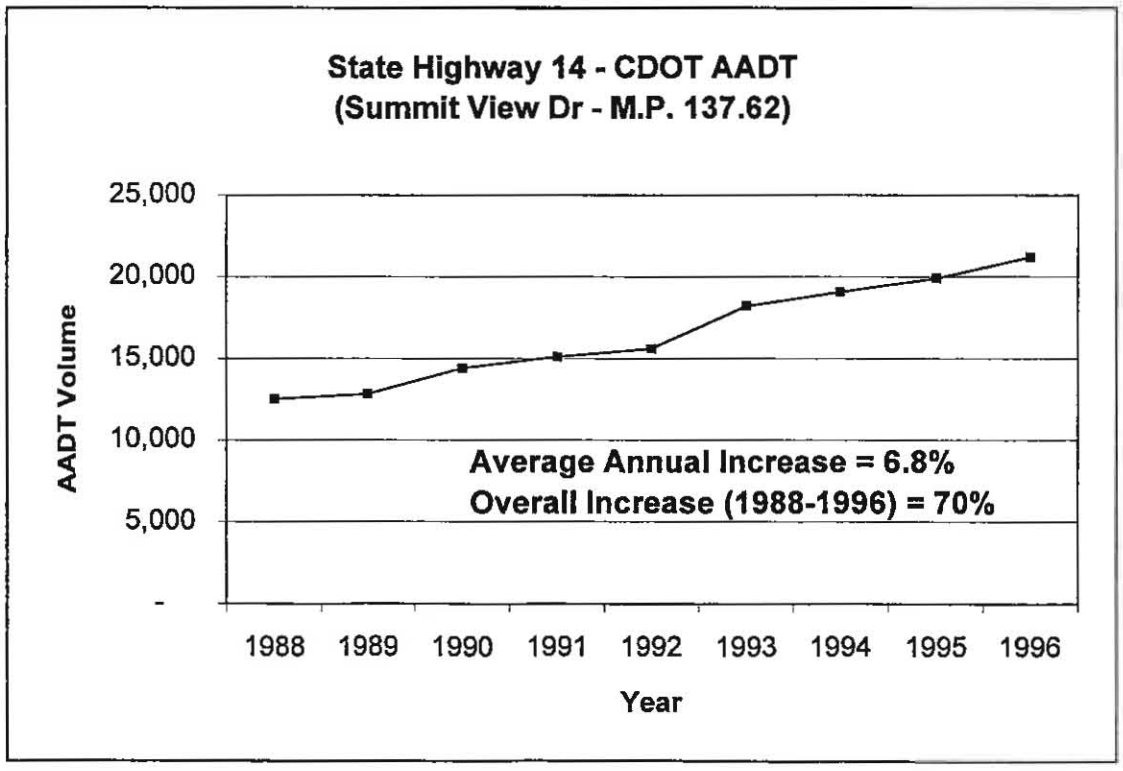


Figure 7



- SH 14 traffic counts through the Fort Collins area and the surrounding suburbs exhibit consistent growth over the last eight years. Depending on the specific location, volumes have grown at an average of 4 to 7 percent per year. The single highest overall growth (70 percent since 1988) has occurred near Summit View Drive to the east of Town. (See Figure 7)

Truck traffic percentages for 1996 ranged from 6 to 11 percent for most of the Byway. The segment closest to I-25 was an exception with nearly 16 percent of traffic identified as trucks. Between 1988 and 1996, the proportion of truck traffic within the Poudre Canyon segments has not notably changed. For the most recent two years of available count information (1995 and 1996), truck traffic between Walden and Gould exhibited the most distinguishable increase. Approximately 20 to 30 more trips per day were reported. Truck traffic percentages through the Town of Fort Collins decreased slightly between 1995 and 1996.

A tabular summary of overall AADT count data and traffic activity at additional locations are provide in Appendix A.

1.3 TRAFFIC ACCIDENT HISTORY

Traffic accident data from January 1993 through July 1998 was collected from CDOT Region 4 for approximately 60 miles of the Byway. Data was collected from milepost 60.0 (west side of Cameron Pass) to milepost 121.7 (junction of SH 14 and US Highway 287) to evaluate the areas of most concern regarding traffic safety. The general findings are summarized below.

- A total of 307 accidents were recorded over this 5-½ year time period. Just over 50 percent of the accidents involved injuries and nine fatalities resulted.

- This portion of SH 14 has a weighted average accident rate of 4.50 (accidents per million vehicle miles of travel). This rate is higher than statewide average rates recorded annually for rural state highways, but may not be uncommon for mountainous roads of the same nature.

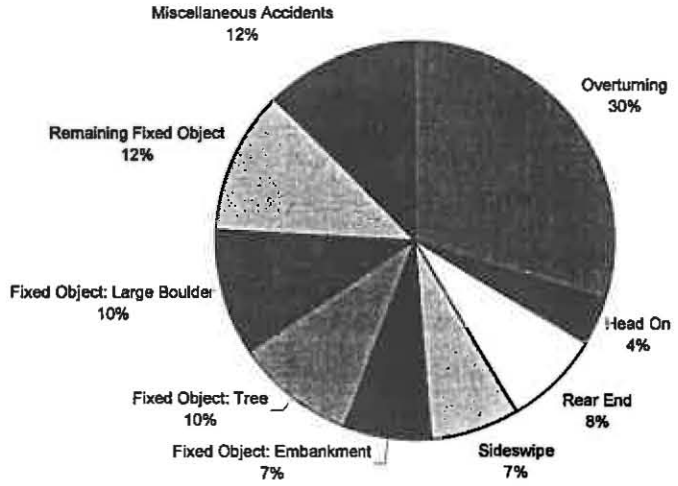
- Approximately 30 percent of the accidents involved overturning vehicles and nearly 40 percent of the accidents were associated with fixed objects (i.e. tree, large boulder, embankment, etc.). Figure 8 illustrates the general range and frequency of accident types.

- The majority of accidents occurred under dry road conditions. Approximately one third of all accidents involved either wet, snowy or icy road conditions.

- Accidents related to an intersection or driveway location accounted for only 10 percent of the total accidents. The remaining accidents were in segments without intersections.
- Fewer than 5 percent of all accidents involved a large truck or bus.
- Just over 11 percent of the accidents involved drivers impaired by alcohol or drugs.

Figure 8

State Highway 14 - Accident Frequencty by Type
(M.P. 60.0 - M.P. 121.99)



- When reviewing accident activity over the course of an entire, the second and third annual quarters (April through September) account for the greatest number of accidents. This likely corresponds with the seasons of highest recreational use and related traffic volumes.

Accident Activity by Season
Years 1993 through 1997

Quarters	Months	Accident Activity
1	January through March	56 accidents (20.3%)
2	April through June	67 accidents (24.3%)
3	July through September	91 accidents (33.0%)
4	October through December	60 accidents (21.7%)

- The weighted hazard index (WHI) for this accident sample is 1.64, indicating the likely presence of traffic safety issues. A WHI of 0.0 is considered to represent a safe facility. The WHI rates the hazardousness of a segment or type of roadway. It accounts for the different degree of severity among accidents involving fatalities, injuries and property damage only by weighting the number of each of these three types when totaling the number of accidents. The index also accounts for the number of vehicles and length of roadway being considered.

Traffic accident data was also evaluated to determine whether specific locations had a higher frequency of problems. Segments to the east of Poudre Park (milepost 112 to 114) were identified as higher frequency accident locations. Tight curves, visibility and narrow lanes are likely contributors to the concentrations of accidents in these areas. These characteristics can create safety issues if combined with unsafe operating speeds and lack of driver concentration. Safety improvements including improved roadway edge delineation, barriers, guardrail and curve warning signs have been implemented in some of these sections recently.

Another location with a notable frequency of intersection related accidents is the junction of SH 14 and US Highway 287 adjacent to Ted's Place. This location generates safety concerns for a number of reasons, including the mixture of turn movements with high speed through volumes on US Highway 287, truck traffic access and the congregation of river rafting groups and other recreation visitors. Some recent modifications have been made to the intersection to improve traffic safety. However, access provisions for adjacent property owners have been modified and remain a issue when considering additional improvements.

Summaries of traffic accident frequency by location are provided in Appendix B.

1.4 RECREATIONAL VISITOR ACTIVITY

Much of the peak season traffic along the Byway, particularly in the Poudre Canyon segments, is directly related to recreational travel and activities. During the height of the summer recreation season visitors access the roadway on a daily basis for camping, picnicking, fishing, rafting/kayaking, hiking and bicycling. While the

magnitudes of these uses are difficult to quantify, it is apparent that this variety of activities occasionally generates conflicts and safety issues throughout the corridor's transportation and parking system.

The National Forest Service operates many of the formal recreation sites along the Byway. Campgrounds, picnic areas and hiking trailheads are provided at several locations. Fishing access occurs at both designated day-use access locations and informal roadway turnout locations. The Cache la Poudre Wild and Scenic River is also used by a significant number of raft and kayak enthusiasts each summer season. This activity involves the transport of many individuals and pieces of equipment. Several parking or turnout locations adjacent to the river are used for visitor gathering or staging areas for raft put-in and take-out requirements.

A total of five private commercial outfitters provide rafting and kayaking excursions along the Cache la Poudre Wild and Scenic River. The river has the fourth highest amount of rafting activity among other rivers in the state and is the only river regulated by the National Forest Service for such activity. Staff of the Arapahoe and Roosevelt National Forest coordinates and administers the river permit process. Each commercial outfitter is limited to a specific number of clients for each weekend day or weekday. Means of transportation used by each operator varies from buses to vans to private autos, depending on the number of clients on each trip. The following table summarizes the level of commercial raft and kayak activity documented for the summer of 1998.

Cache la Poudre Wild and Scenic River
1998 Raft and Kayak Activity Summary

Month	Number of Clients	Percentage of Total
May	1,365	4 percent
June	8,314	25 percent
July	13,733	42 percent
August	9,213	28 percent
Total	**32,625**	**100 percent**

Based on 1998 records, the month of July serves the greatest number of users. Over 13,700 individuals participated in commercial rafting or kayaking activities during July 1998. This represents 42 percent of the total season activity and an average of nearly 450 clients per day.

1.5 PARKING ISSUES

Recreation related parking locations are provided at multiple sites throughout the Byway. However, the parking demand during the peak visitor season and the various activities concentrated at particular locations create parking supply

problems and safety issues for both vehicle traffic and pedestrians. Many visitors often enter the Byway area without any advance knowledge or information related to parking accommodations. This lack of information results in increased visitor circulation by travelers seeking a suitable parking location.

Through field observations and discussions with CDOT traffic and maintenance personnel, the following general issues have been noted in regards to parking problems and concerns. The issues are focused in the canyon area of the Byway.

- Lack of advance visitor knowledge or information regarding the location and capacity of parking facilities.

- Parking demand levels at many locations exceed capacity due to the needs of multiple recreation user groups.

- Long parking turnout locations are sometimes used for right side passing in roadway segments where higher speeds are prevalent. This creates dangerous conditions for roadway traffic and safety issues for travelers who use the turnout for parking purposes.

- High levels of bus, private vehicle and pedestrian activity occur at river access locations for commercial rafting and kayaking operations. Parking conflicts often result and pedestrian activity is high. The Steven's Gulch area is the primary raft put-in location and Picnic Rock is the primary take-out point. Other access locations present difficulties for maneuvering and parking larger vehicles.

- Parking demand for fishing access often conflicts with locations used for rafting and kayaking access. Many informal parking turnouts or narrow roadway shoulders are also used for fishing access or other recreation activities when formal designated sites are full. Informal parking areas are typically close to the main roadway and parked vehicles often encroach into the travel lanes.

- The general lack of sufficient parking supply at the Mishawaka event center is a significant problem. Parking occurs adjacent to the roadway edge with drivers required to access spaces directly from the general travel lanes. Through traffic often must yield to vehicles entering or exiting a parking space, or maneuver around pedestrians that are moving between the event center and their vehicles.

1.6 PEDESTRIAN AND BICYCLIST ISSUES

The primary pedestrian activities along the Byway are focused at high-use parking and gathering locations. Pedestrian movements along and across the roadway can create safety issues. There are currently no formal designated pedestrian crossings in the rural areas of the Byway where high recreational use occurs. Driver site distance along winding roadway segments can reduce response time if it becomes necessary to slow down near pedestrians activity. Drivers who use the corridor for the first time may not be aware of the unique pedestrian activities associated with a this high use recreation area.

Many visitors to the Cache la Poudre – North Park Scenic and Historic Byway also utilize bicycles as part of their trip. Some bicyclists use SH 14 for touring the corridor while others use trails connecting to the route for mountain bike rides along more rugged terrain. Both types of uses create traffic safety issues.

Bicycle riders along the main roadway are provided minimal shoulder areas for maintaining separation from motor vehicle travel. Bicycle and motor vehicle users must typically share general traffic lanes and use extreme caution when passing or when oncoming traffic creates constrained conditions. This is especially true in narrow winding segments with poor sight distance or blind curves. The use of safe travel speeds is important for all users due to the mixture of bicycle, auto, bus and truck traffic on the same facility.

Mountain bike enthusiasts who use connecting roadways and trails are faced with many of the same general access issues that challenge other visitors. The demand for parking is very high near trailheads and overflow locations along the main roadway are often used. Many informal parking locations do not provide sufficient space for unloading and loading bicycles from private vehicles.

2.0 TRAFFIC SAFETY IMPROVEMENT RECOMMENDATIONS

In order to address the multiple traffic safety issues associated with the Cache la Poudre – North Park Scenic and Historic Byway, a comprehensive traffic safety study is recommended for the corridor. The safety study would be used to inventory the corridor for site specific access and safety problems, document statistics that can be assembled as part of an issue tracking process, and develop a list of short-term (1 to 3 years) and long-term (3 to 5 years and greater) projects. Information developed through this study would assist in clarifying and quantifying the specific need for action, plus help to prioritize projects which need the most immediate attention. Project recommendations would also be organized by cost

range in order to compare the relative magnitude and help prioritize an implementation strategy.

As a result of this traffic safety review, recommended strategies have been outlined for five categories. The suggested traffic safety study tasks are also listed under each category.

2.1 VISITOR MANAGEMENT

General Strategies

Currently a visitor orientation kiosk is located at the junction of SH 14 and US Highway 287. This location serves as the only formal gateway to the Cache la Poudre – North Park Scenic and Historic Byway. General information is available regarding the Byway resources and the Cache la Poudre Wild and Scenic River. However, available information brochures do not provide guidance regarding traffic access and related safety precautions.

Due to the various activities that take place along the corridor and the intrinsic traffic conflicts that arise between users, a traffic safety kiosk and brochure could be extremely valuable as a supplement to general visitor orientation provisions. Although the National Forest Service information centers along the corridor help disseminate this type of information, it is important to have this type of guidance associated with a gateway location. A kiosk and associated brochure could provide specific guidance regarding parking facilities, suggested driver safety precautions, bicycle and pedestrian guidance and a general Byway visitor courtesy policy. Information could also be available to direct commercial raft clients to appropriate meeting places.

The use of shuttle bus services based from common locations(s) outside of the canyon area should also be considered to serve clients of commercial rafting operators or other recreation visitors. Due to the parking supply limitations throughout the corridor, an advance staging area could assist in consolidating group activities and preserving parking areas for visitors who may require more direct access. A shuttle staging area could be combined with other gateway visitor orientation services.

Concepts have previously been discussed for serving areas such as the Gateway Park in the lower portion of the Canyon, which is currently programmed for visitor and roadway improvements. A general shuttle service could run on specific schedules and provide reliable access to key locations throughout the corridor.

Traffic Safety Study Tasks

- Identify candidate location(s) for traffic safety kiosk
- Develop oversight group for coordination of traffic safety brochure
- Compile information to be used in traffic safety brochure (parking supplies, pedestrian activity issues, milepost location references, visitor courtesy guidance, etc.)
- Develop shuttle bus service concepts including general route definition, frequency of service and hours of operation
- Identify candidate location(s) for shuttle bus service staging area

2.2 ROADWAY IMPROVEMENTS

General Strategies

Due to the unique natural setting of the Byway and physical constraints adjacent to the roadway corridor, specifically in the Poudre Canyon area where traffic safety issues are most prevalent, major improvements to the roadway system would be very costly and require significant environmental considerations. However, opportunities exist to address site specific safety concerns with lower cost measures that may not require substantial construction.

Traffic safety improvements have periodically been implemented along SH 14 at locations with high accident rates or outstanding safety issues. These improvements may involve adjustments to roadway curve or intersection geometry, roadway striping, roadway curve delineation, guardrail placement, grooved pavement applications and signing modifications. Many locations are currently candidates for these types of improvements.

An inventory of candidate locations and their key characteristics could be accomplished as part of a subsequent traffic safety study. This would require participation by a traffic engineer to evaluate and confirm key technical elements.

The assessment of the following roadway improvement projects should be considered as part of a traffic safety study:

- Minor modifications to roadway alignment geometry in segments with sharp turns
- Modifications to improve driver sight distance (i.e. moving/removing fixed objects such as rocks or trees)
- Consolidation of access roads or driveways
- Modifications to roadway striping for passing provisions
- Modifications to roadway striping at intersections or key access locations

- Addition of guardrail along unsafe roadway edges
- Addition of rumble strips or grooved pavement to warn motorists when straying from travel lanes

Traffic Safety Study Tasks

- Collect previous traffic study reports for SH 14
- Conduct peak season traffic counts at key locations
- Inventory and assess traffic accident data
- Inventory sharp curves and assess the geometry for opportunities to improve
- Inventory poor sight line distances and assess opportunities to enhance
- Inventory passing segment provisions
- Inventory intersection geometry at high use access locations and assess opportunities to reconfigure or consolidate access
- Inventory existing guard rail locations and assess unsafe roadway edges for potential implementation of new guard rail

2.3 SIGNING IMPROVEMENTS

General Strategies

The use of warning and regulatory signing is often a key element of traffic safety projects. Signing additions or modifications can also accompany other design improvements. Improvements in signing or warning lights can help notify drivers of dangerous areas and increase their awareness for anticipating unsafe conditions.

The assessment of the following warning and regulatory signing applications should be considered as part of a subsequent traffic safety study:

- Addition of Chevron (directional arrow) signs to guide motorists around sharp curves
- Addition of curve warning signs, possibly supplemented by advisory speed (below posted speed limit)
- Addition of warning signs or flashing signals to notify drivers of areas with high pedestrian activity, multiple vehicle access points or access locations where slow moving vehicles are entering roadway
- Use of regulatory signing to identify "speed zones" where posted speeds are reduced to enhance safety (i.e. areas with high pedestrian activity or clusters of private development)
- Use of portable speed monitoring trailers with variable message signs that display actual travel speed

The use of informational and route guide signs are also commonly used in recreation areas to guide travelers along particular routes or to specific sites and facilities. The Cache la Poudre – North Park Scenic and Historic Byway currently has several examples of this type of signing, much of which is related to National Forest Service and State recreation facilities. However, additional informational signing may also be valuable to direct travelers to primary day-use parking facilities and locations specific to a desired recreation purpose (i.e. rafting vs. fishing access parking).

The eastern end of the Byway currently has minimal signing that guides travelers through the City of Fort Collins. There is also no signing that directs motorists from I-25 to the Byway. Additional signing in this area could help to better designate and distinguish the eastern gateway. Bicycle routes should also be considered as part of a guide sign plan. Appropriate bicycle routes should be designated if the primary Byway route differs from local Fort Collins bike route designations.

The assessment of the following informational and guide signing applications should be considered as part of a subsequent traffic safety study:

- Use of informational signs to direct visitors to primary day-use parking facilities or locations specific to a particular recreation use.
- Use of informational signs to identify formal turnouts designated for day-use parking or for slow moving vehicles.
- Use of route guide signs to help clarify the Byway route for motor vehicle travelers and bicycle users.

Traffic Safety Study Tasks

- Update the CDOT signage inventory for SH 14.
- Inventory the need for additional signs not included in the CDOT signage inventory.

2.4 PARKING IMPROVEMENTS

General Strategies

Parking facilities along the Byway are often full or over capacity due to the multiple recreational activities that take place along the corridor. The use of informal parking sites for overflow parking or improved access also contributes to traffic safety problems.

An inventory of Byway parking facilities and samples of peak demand conditions would assist in the formation of a corridor-wide parking management plan. A traffic safety study could initiate the first phase of a parking management plan by providing such an inventory. Formal shared parking strategies may help distribute parking demands more efficiently. This plan could be developed over time and be refined in an attempt to balance parking demand and improve related traffic safety.

The assessment of the following parking improvement strategies should be considered as part of a traffic safety study:

- Conversion of informal roadway turnouts to formal turnouts or parking locations
- Restriction of parking at locations where traffic safety is a problem
- Expansion or reconfiguration of existing parking facilities
- Provision of new parking facilities
- Reducing length of parking turnouts on roadway segments that generate higher speeds
- Use of berm or guardrail to better define limits of parking turnout
- Designation of parking facilities for specific recreational uses
- Modification of access drive geometry between the roadway and parking facility

Traffic Safety Study Tasks

- Conduct a parking and turnout inventory including capacities, sample peak demands and general orientation relative to CDOT's rights-of-way
- Define initial strategies and outline subsequent phases of parking management plan

2.5 PEDESTRIAN AND BICYCLE USER IMPROVEMENTS

General Strategies

Pedestrian safety issues are primarily concentrated around parking facilities throughout the Byway corridor. Potential improvements associated with pedestrian activity have been outlined as part of signing strategies. Both warning and regulatory signs can be used to notify travelers of pedestrian activity and enhance driver awareness. Pedestrian crossings could potentially be formalized in areas where there is a significant amount of movement across general travel lanes. Specific locations with pedestrian crossing issues should be evaluated as part of a subsequent traffic safety study.

Bicycle traffic, related safety and user parking provisions have been identified through public comment as an increasing concern along the Byway. Narrow travel lanes and minimal shoulder widths leave limited space for motorists and bicycle users to share. The natural and physical constraints associated with the roadway corridor offers limited opportunities to widen either travel lanes or roadway shoulders. Alternatively, development of an exclusive bikeway alignment would likely be a significant investment and require extensive environmental considerations.

Other lower-cost strategies can be considered to improve the general safety conditions for bicycle users traveling along the Byway corridor. In addition, techniques can be used to provide more information to bicycle users and to educate motorists regarding the presence of bicycle traffic.

The following bicycle related improvement strategies should be considered as part of a traffic safety study:

- Spot shoulder widening where space allows
- Designated or suggested parking facilities for bicycle users
- Information and guidance regarding travel precautions associated with bicycle use along Byway (included with general traffic safety brochure)
- Signing improvements to direct bicycle users along Byway route or to connecting routes and trails

Traffic Safety Study Tasks

- Inventory high pedestrian use locations and areas that require pedestrian crossings of the main roadway
- Coordinate general signing inventory and assessment with pedestrian safety issues
- Identify locations that could potentially accommodate shoulder widening
- Coordinate general signing inventory and assessment with bicycle safety and information issues
- Review local Fort Collins bicycle route designations and identify relationship with Byway route
- Coordinate parking inventory and assessment with demand for bicycle user parking

2.6 FUNDING OPTIONS

The greatest challenge in addressing roadway upgrade and maintenance issues along the Byway is the ability to secure funding. Currently, specific improvements are funded by different sources.

Three main sources of funding opportunities exist for scenic corridors - 1) Federal, 2) State and 3) other. The majority of funding will be found at the Federal and State levels through government grants, trusts and assistance programs. Additional funding may be found in other public agencies or from private groups.

Each funding program has different requirements for eligible applicants and stipulations on how the monies can be used. Most often, these determinations are made on a case-by-case basis dependent upon the applicant and their needs. Just as a scenic corridor differs from the next, so too will their eligibility for funding. For example, a corridor with significant historic or cultural resources may be eligible for funding under programs administered by historical/cultural agencies.

The following Federal level funding opportunities exist may exist for the Cache la Poudre – North Park Scenic and Historic Byway:

- National Scenic Byways Grant - The Federal share shall be 80 percent reimbursable with a matching 20 percent coming from State funds. These grant funds include projects associated with the development of Corridor management Plans involving work activities such as safety improvements to a highway, construction along scenic byway facilities (i.e. rest areas, turnouts, shoulder improvements, passing lanes, overlooks, interpretive facilities, pedestrian and bicycle amenities), protection of historical, archaeological, and cultural resources adjacent to the highway, and development and provision of tourist information to the public, including interpretive information about the byway.

- Transportation Enhancement Funds - The Federal share shall not exceed 80 percent with matching 20 percent coming from the State or local funds. Use of these funds must involve projects associated with the development of Corridor Management Plans after eligibility has been determined.

- Other Federal Funds - Other Federal funds (i.e. Surface Transportation Programs) may possibly be used for transportation improvements under the Transportation Efficiency Act for the 21st Century (TEA-21) of 1998 and similar subsequent legislation.

Many funding programs may be available at the State level that could contribute to specific project types. The following list includes programs that have been utilized in other states and may have counterparts that exist in Colorado:

- Highway Beautification Council Grant Program
- Adopt-a-Highway Program
- National Urban and Community Forestry Matching Grant Program

- Historic Preservation Grants-in-Aid
- Historical Museums Grants-in-Aid
- Cultural Grants Program
- Small Cities Community Development Block Grant
- Communities Trust Land Acquisition Grants, Loans and Matching Grants
- Recreation and Development Assistance Grant Program
- Land and Water Conservation Trust Fund
- Greenways and Rails-to-Trails Programs
- Technical Assistance For Community-Based Organizations
- Rural Job Tax Credit Program

Other agencies (listed below) offer funding opportunities for scenic highway development and enhancement projects:

- Local Funding
- Private Donations
- Not For Profit Groups
- Fundraising and Sponsorships
- Special Legislative Funding

2.7 SUMMARY

A subsequent traffic safety study should be the next logical step in moving towards site specific project recommendations and assigning relative cost implications to each option. Existing information collected by CDOT, local jurisdictions, and information developed as part of the existing Corridor Management Plan should be utilized wherever possible. Study findings and recommendations should also be also be coordinated with the local Byway Council.

Appendix A

Traffic Count Information

Cache la Poudre - North Park Scenic and Historic Byway

CDOT Traffic Count Information - Average Annual Daily Traffic (AADT)

Year	SH 125 Main St, Walden M.P. 34.24	Trucks	% Trucks	Annual Increase	Washington St, Walden M.P. 34.48	Trucks	% Trucks	Annual Increase	CO Rd 30 M.P. 47.74	Trucks	% Trucks	Annual Increase
1988	670	50	7.5%		660	50	7.6%		660	40	6.1%	
1989	660	53	8.0%	-1.5%	650	52	8.0%	-1.5%	650	39	6.0%	-1.5%
1990	1,100	66	6.0%	66.7%	750	45	6.0%	15.4%	610	43	7.0%	-6.2%
1991	1,050	63	6.0%	-4.5%	710	45	6.4%	-5.3%	580	39	6.7%	-4.9%
1992	1,300	75	5.8%	23.8%	1,000	60	6.0%	40.8%	500	35	7.0%	-13.8%
1993	1,150	70	6.1%	-11.5%	870	60	6.9%	-13.0%	440	40	9.1%	-12.0%
1994	1,300	71	5.5%	13.0%	960	60	6.3%	10.3%	510	41	8.0%	15.9%
1995	1,450	70	4.8%	11.5%	1,050	60	5.7%	9.4%	580	40	6.9%	13.7%
1996	1,350	100	7.4%	-6.9%	780	80	10.3%	-25.7%	540	60	11.1%	-6.9%
Avg. Annual % Increase				9.2%				2.1%				-2.5%
Total % Increase (1988 to 1996)				101%				18%				-18%

Note: Estimated 1994 counts based on interpolation between 1993 and 1995 data

Year	CO Rd 27 M.P. 51.32	Trucks	% Trucks	Annual Increase	CO Rd 21 M.P. 55.36	Trucks	% Trucks	Annual Increase	CO Rd. 103 M.P. 71.54	Trucks	% Trucks	Annual Increase
1988	660	40	6.1%		550	40	7.3%		410	40	9.8%	
1989	650	39	6.0%	-1.5%	550	39	7.0%	0.0%	410	41	10.0%	0.0%
1990	610	43	7.0%	-6.2%	510	36	7.0%	-7.3%	1,150	92	8.0%	180.5%
1991	580	39	6.7%	-4.9%	480	34	7.1%	-5.9%	1,100	94	8.5%	-4.3%
1992	450	32	7.2%	-22.4%	440	32	7.3%	-8.3%	490	47	9.6%	-55.5%
1993	390	30	7.7%	-13.3%	380	30	7.9%	-13.6%	430	50	11.6%	-12.2%
1994	455	31	6.8%	16.7%	445	31	6.9%	17.1%	545	52	9.6%	26.7%
1995	520	30	5.8%	14.3%	510	30	5.9%	14.6%	660	50	7.6%	21.1%
1996	540	50	9.3%	3.8%	490	50	10.2%	-3.9%	870	70	8.1%	31.8%
Avg. Annual % Increase				-2.5%				-1.4%				9.9%
Total % Increase (1988 to 1996)				-18%				-11%				112%

Note: Estimated 1994 counts based on interpolation between 1993 and 1995 data

Cache la Poudre - North Park Scenic and Historic Byway

CDOT Traffic Count Information - Average Annual Daily Traffic (AADT)

Year	CO Rd. 69 M.P. 90.96	Trucks	% Trucks	Annual Increase	CO Rd. 63E M.P. 97.00	Trucks	% Trucks	Annual Increase	CO Rd. 27 M.P. 105.74	Trucks	% Trucks	Annual Increase
1988	760	70	9.2%		860	80	9.3%		860	80	9.3%	
1989	750	68	9.0%	-1.3%	850	77	9.0%	-1.2%	850	77	9.0%	-1.2%
1990	1,200	96	8.0%	60.0%	1,200	96	8.0%	41.2%	1,200	96	8.0%	41.2%
1991	1,150	98	8.5%	-4.2%	1,250	105	8.4%	4.2%	1,350	112	8.3%	12.5%
1992	880	77	8.7%	-23.5%	900	78	8.7%	-28.0%	1,250	105	8.4%	-7.4%
1993	770	80	10.4%	-12.5%	780	80	10.3%	-13.3%	1,100	110	10.0%	-12.0%
1994	885	81	9.2%	14.9%	890	90	10.1%	14.1%	1,275	112	8.8%	15.9%
1995	1,000	80	8.0%	13.0%	1,000	100	10.0%	12.4%	1,450	110	7.6%	13.7%
1996	1,250	110	8.8%	25.0%	1,450	130	9.0%	45.0%	1,600	150	9.4%	10.3%
Avg. Annual % Increase				6.4%				6.7%				8.1%
Total % Increase (1988 to 1996)				64%				69%				86%

Note: Estimated 1994 counts based on interpolation between 1993 and 1995 data

Year	CO Rd. 600 M.P. 111.74	Trucks	% Trucks	Annual Increase	CO Rd. 29C M.P. 120.59	Trucks	% Trucks	Annual Increase	Jct. 287, Ted's Place M.P. 121.48	Trucks	% Trucks	Annual Increase
1988	1,050	90	8.6%		1,200	101	8.5%		1,200	101	8.5%	
1989	1,050	95	9.0%	0.0%	1,200	108	9.0%	0.0%	-	-	0.0%	-100.0%
1990	1,550	124	8.0%	47.6%	1,800	144	8.0%	50.0%	-	-	0.0%	#DIV/0!
1991	1,450	120	8.3%	-6.5%	1,700	139	8.2%	-5.6%	-	-	0.0%	#DIV/0!
1992	1,250	105	8.4%	-13.8%	1,500	124	8.3%	-11.8%	-	-	0.0%	#DIV/0!
1993	1,100	110	10.0%	-12.0%	1,300	120	9.2%	-13.3%	-	-	0.0%	#DIV/0!
1994	1,275	112	8.8%	15.9%	1,500	122	8.2%	15.4%	-	-	0.0%	#DIV/0!
1995	1,450	110	7.6%	13.7%	1,700	120	7.1%	13.3%	-	-	0.0%	#DIV/0!
1996	2,150	150	7.0%	48.3%	2,350	160	6.8%	38.2%	-	-	0.0%	#DIV/0!
Avg. Annual % Increase				9.4%				8.8%				-100.0%
Total % Increase (1988 to 1996)				105%				96%				-100%

Note: Estimated 1994 counts based on interpolation between 1993 and 1995 data

Cache la Poudre - North Park Scenic and Historic Byway

CDOT Traffic Count Information - Average Annual Daily Traffic (AADT)

Year	Jct 287, Fort Collins M.P. 134.73	Trucks	% Trucks	Annual Increase	Linden St M.P. 134.92	Trucks	% Trucks	Annual Increase	Mountain Ave M.P. 135.13	Trucks	% Trucks	Annual Increase
1988	10,700	1,749	16.4%		10,700	1,749	16.4%		12,900	1,970	15.3%	
1989	11,000	1,760	16.0%	2.8%	11,000	1,760	16.0%	2.8%	13,200	1,980	15.0%	2.3%
1990	10,300	1,133	11.0%	-6.4%	10,300	1,133	11.0%	-6.4%	13,200	1,188	9.0%	0.0%
1991	10,400	1,342	12.9%	1.0%	10,500	1,344	12.8%	1.9%	13,600	1,469	10.8%	3.0%
1992	11,100	1,294	11.7%	6.7%	11,200	1,298	11.6%	6.7%	14,500	1,430	9.9%	6.6%
1993	11,500	1,440	12.5%	3.6%	11,700	1,450	12.4%	4.5%	15,500	1,629	10.5%	6.9%
1994	11,900	1,380	11.6%	3.5%	11,900	1,392	11.7%	1.7%	14,700	1,544	10.5%	-5.2%
1995	12,300	1,320	10.7%	3.4%	12,100	1,330	11.0%	1.7%	13,900	1,460	10.5%	-5.4%
1996	15,800	1,356	8.6%	28.5%	15,400	1,349	8.8%	27.3%	18,000	1,480	8.2%	29.5%
Avg. Annual % Increase				5.0%				4.7%				4.3%
Total % Increase (1988 to 1996)				48%				44%				40%

Note: Estimated 1994 counts based on interpolation between 1993 and 1995 data

Year	Mulberry St/Riverside Dr M.P. 135.71	Trucks	% Trucks	Annual Increase	Lemay St M.P. 136.05	Trucks	% Trucks	Annual Increase	Link Ln M.P. 136.41	Trucks	% Trucks	Annual Increase
1988	14,400	2,199	15.3%		23,600	3,073	13.0%		16,400	2,389	14.6%	
1989	14,700	2,205	15.0%	2.1%	24,100	3,133	13.0%	2.1%	16,700	2,505	15.0%	1.8%
1990	15,000	1,350	9.0%	2.0%	24,600	1,722	7.0%	2.1%	17,100	1,539	9.0%	2.4%
1991	15,700	1,570	10.0%	4.7%	25,500	1,938	7.6%	3.7%	16,700	1,603	9.6%	-2.3%
1992	16,200	1,421	8.8%	3.2%	26,300	1,733	6.6%	3.1%	17,200	1,450	8.4%	3.0%
1993	18,500	1,589	8.6%	14.2%	30,100	1,719	5.7%	14.4%	19,700	1,631	8.3%	14.5%
1994	18,450	1,522	8.3%	-0.3%	28,550	1,742	6.1%	-5.1%	19,700	1,556	7.9%	0.0%
1995	18,400	1,450	7.9%	-0.3%	27,000	1,742	6.5%	-5.4%	19,700	1,479	7.5%	0.0%
1996	21,300	1,559	7.3%	15.8%	32,900	1,921	5.8%	21.9%	25,200	1,600	6.4%	27.9%
Avg. Annual % Increase				5.0%				4.2%				5.5%
Total % Increase (1988 to 1996)				48%				39%				54%

Note: Estimated 1994 counts based on interpolation between 1993 and 1995 data

Cache la Poudre - North Park Scenic and Historic Byway

CDOT Traffic Count Information - Average Annual Daily Traffic (AADT)

Year	Summit View Dr M.P. 137.62	Trucks	% Trucks	Annual Increase	Jct I-25 M.P. 138.97	Trucks	% Trucks	Annual Increase
1988	12,500	2,020	16.2%		4,800	540	11.3%	
1989	12,800	2,048	16.0%	2.4%	-	-	0.0%	
1990	14,400	1,440	10.0%	12.5%	4,700	564	12.0%	
1991	15,100	1,555	10.3%	4.9%	-	-	0.0%	
1992	15,600	1,402	9.0%	3.3%	4,400	805	18.3%	
1993	18,200	1,562	8.6%	16.7%	5,200	830	16.0%	18.2%
1994	19,050	1,505	7.9%	4.7%	5,600	960	17.2%	7.7%
1995	19,900	1,429	7.2%	4.5%	6,000	1,100	18.3%	7.1%
1996	21,200	1,541	7.3%	6.5%	6,400	990	15.5%	6.7%
Avg. Annual % Increase				6.8%				3.7%
Total % Increase (1988 to 1996)				70%				33%

Note: Estimated 1994 counts based on interpolation between 1993 and 1995 data

Appendix B

Traffic Accident Information

Visual FoxPro

Colorado Department of Transportation
Transportation Safety and Traffic Engineering
Accident Detailed Summary Report

01/26/1999

Job #: 19990126142301

Highway: 14B **Begin:** 60.00 **End:** 121.69 **From:** 01/01/1993 **To:** 07/31/1998

Severity

PDO:	141	
INJ:	157	235 :Injured
FAT:	9	9 :Killed
Total:	**307**	

Multi-Vehicle

One Vehicle:	227
Two Vehicles:	70
Three or More:	10
Unknown:	0
Total:	**307**

Location

On Road:	106	Off in Median:	0
Off Road Left:	81	Unknown:	2
Off Road Right:	117		
Off Road at Tee:	1	**Total:**	**307**

Accident Type

Overturning:	91	Domestic Animal:	7	Tree:	30
Other Non Collision:	5	Wild Animal:	8	Large Boulder:	31
School Age Peds:	0	Light/Utility Pole:	2	Rocks in Roadway:	1
Other Pedestrians:	0	Traffic Signal Pole:	0	Barricade:	1
Broadside:	3	Sign:	7	Wall/Building:	3
Head On:	12	Bridge Rail:	0	Crash Cushion:	0
Rear End:	24	Guard Rail:	7	Mailbox:	1
Sideswipe (Same):	5	Median Barrier:	0	Other Fixed Object:	3
Sideswipe (Opposite):	17	Bridge Abutment:	0	Total Fixed Objects:	119
Approach Turn:	1	Column/Pier:	0	Involving Other Object:	2
Overtaking Turn:	7	Culvert/Headwall:	0	Road Maintenance Equipment:	1
Parked Motor Vehicle:	2	Embankment:	22	Total Other Objects:	4
Railway Vehicle:	0	Curb:	0	Unknown:	1
Bicycle:	1	Delineator Post:	9		
Motorized Bicycle:	0	Fence:	3	**Total:**	**307**

Lighting Conditions

Daylight:	217
Dawn or Dusk:	14
Dark - Lighted:	0
Dark - Unlighted:	75
Unknown:	1
Total:	**307**

Weather Conditions

None:	231	Dust:	0
Rain:	14	Wind:	8
Snow/Sleet/Hail:	52	Unknown:	1
Fog:	1	**Total:**	**307**

Road Description

At Intersection:	8
At Driveway Access:	18
Intersection Related:	7
Non Intersection Urban:	0
In Alley:	0
Non Intersection Rural:	273
Highway Interchange:	0
Unknown:	1
Total:	**307**

Road Conditions

Dry:	200
Wet:	28
Muddy:	0
Snowy:	23
Icy:	45
Slushy:	8
Foreign Material:	2
With Road Treatment:	0
Dry w/Icy Road Treatment:	0
Wet w/Icy Road Treatment:	0
Snowy w/Icy Road Treatment:	0
Icy w/Icy Road Treatment:	0
Slushy w/Icy Road Treatment:	0
Unknown:	1
Total:	**307**

Mainline/Ramps

Mainline:	307
Crossroad:	0
Ramp B:	0
Ramp C:	0
Ramp D:	0
Ramp E:	0
Ramp F:	0
Ramp G:	0
Ramp H:	0
Ramp I:	0
Ramp J:	0
Ramp K:	0
Ramp L:	0
Unknown:	0
Total:	**307**

Accident Rates

PDO:	0.87		
Injury:	0.97		
Fatal:	5.56	Total:	1.90

ADT: 1248 **WHI:** 1.64 **Length:** 63.63 **Weighted Average Accident Rate:** 4.50 **Coris File:** tcoris1998.dbf

Highway: 14B **Begin:** 60.00 **End:** 121.69 **From:** 01/01/1993 **To:** 07/31/1998

Vehicle Type	Veh 1	Veh 2	Veh 3
Passenger Car/Van:	163	37	4
Passenger Car/Van w/Trl:	3	1	0
Pickup Truck/Utility Van:	64	16	1
Pickup Truck/Utility Van w/Trl:	11	6	3
Truck 10k lbs or Less:	1	3	0
Trucks > 10k lbs/Bus > 15 People:	14	4	0
School Bus < 15 People:	0	0	0
Non School Bus < 15 People:	0	0	0
Motorhome:	1	0	0
Motorcycle:	45	5	0
Bicycle:	0	0	0
Motorized Bicycle:	0	0	0
Farm Equipment:	0	0	0
Hit and Run - Unknown:	3	0	0
Other:	0	2	0
Unknown:	2	6	2
Total:	**307**	**80**	**10**

Vehicle Movement	Veh 1	Veh 2	Veh 3
Going Straight:	262	43	6
Slowing:	7	4	0
Stopped in Traffic:	1	12	2
Making Right Turn:	2	1	0
Making Left Turn:	3	6	0
Making U-Turn:	2	0	0
Passing:	13	5	0
Backing:	1	0	0
Enter/Leave Parked Position:	1	0	0
Starting in Traffic:	2	1	0
Parked:	0	0	0
Changing Lanes:	2	0	0
Avoiding Object in Road:	4	1	0
Weaving:	1	0	0
Other:	2	0	0
Unknown:	4	7	2
Total:	**307**	**80**	**10**

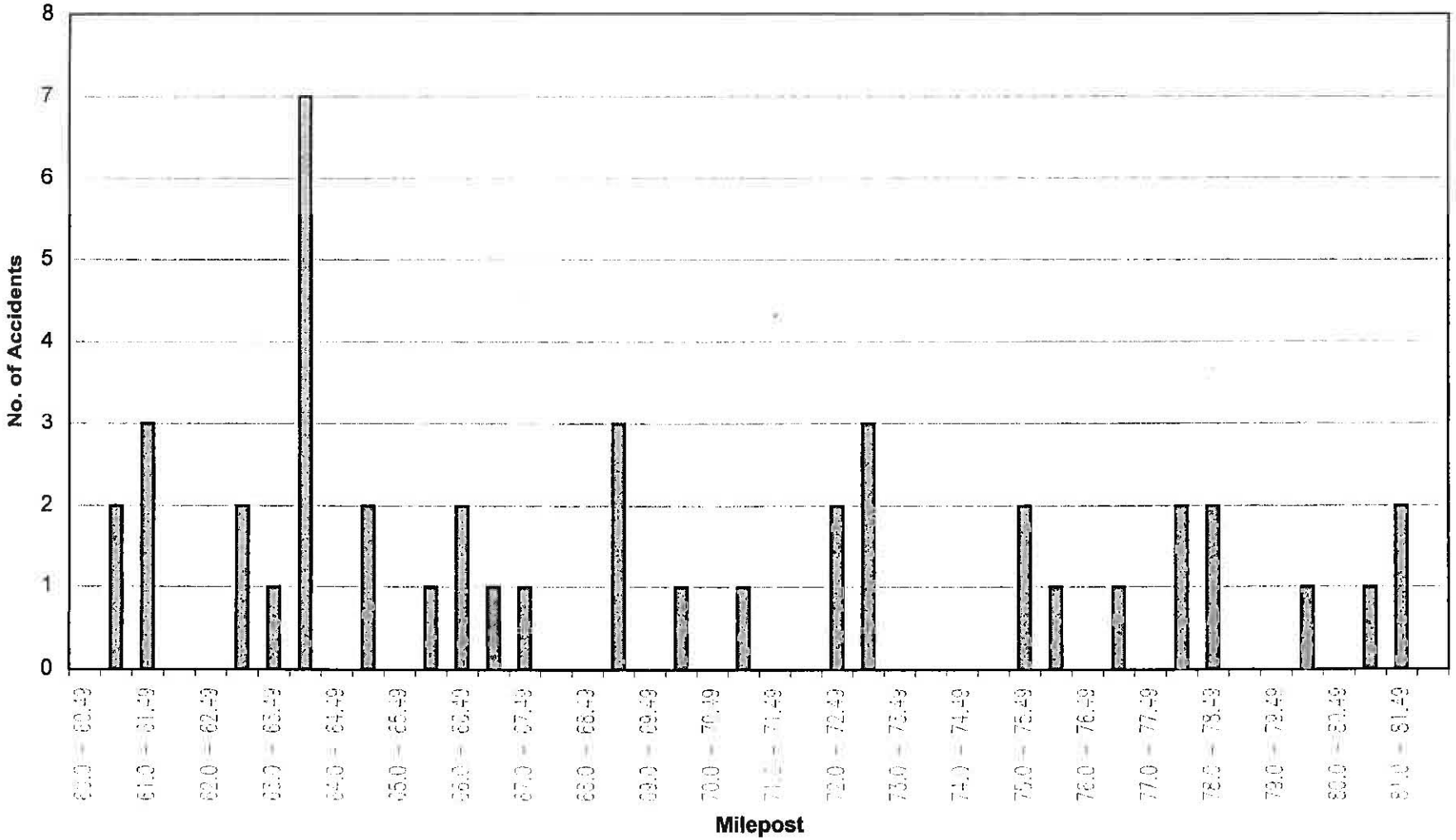
Contributing Factor	Veh 1	Veh 2	Veh 3
No Apparent Contributing Factor:	190	70	8
Asleep at the Wheel:	19	0	0
Illness:	3	0	0
Distracted by Passenger:	3	0	0
Driver Inexperience:	24	1	0
Driver Fatigue:	2	0	0
Driver Preoccupied:	40	1	0
Driver Unfamilar with Area:	20	2	0
Driver Emotionally Upset:	1	0	0
Evading Law Enforcement Officier:	0	0	0
Physical Disability:	2	0	0
Unknown:	3	6	2
Total:	**307**	**80**	**10**

Direction	Veh 1	Veh 2	Veh 3
North:	0	2	0
Northeast:	1	0	0
East:	177	37	5
Southeast:	0	0	0
South:	3	2	0
Southwest:	0	0	0
West:	124	33	3
Northwest:	0	0	0
Unknown:	2	6	2
Total:	**307**	**80**	**10**

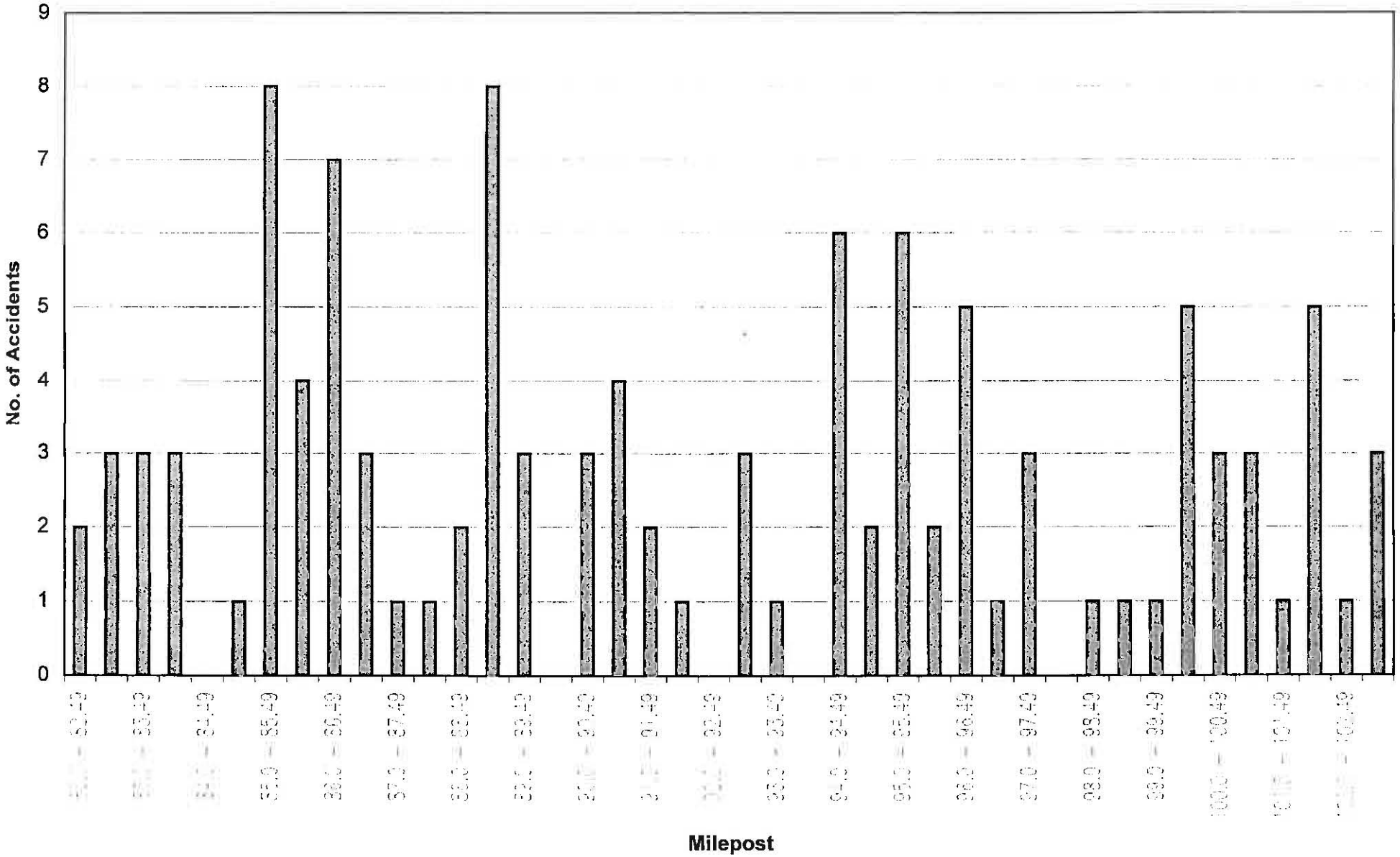
Condition of Driver	Veh 1	Veh 2	Veh 3
No Impairment Suspected:	241	71	8
Alcohol Involved:	34	1	0
RX Drugs or Medication Involved:	1	0	0
Illegal Drugs Involved:	0	0	0
Alcohol and Drugs Involved:	1	0	0
Driver/Pedestrian not Observed:	26	1	0
Unknown:	4	7	2
Total:	**307**	**80**	**10**

ADT: 1248 **WHI:** 1.64 **Length:** 63.63 **Weighted Average Accident Rate:** 4.50 **Coris File:** tcoris1998.dbf

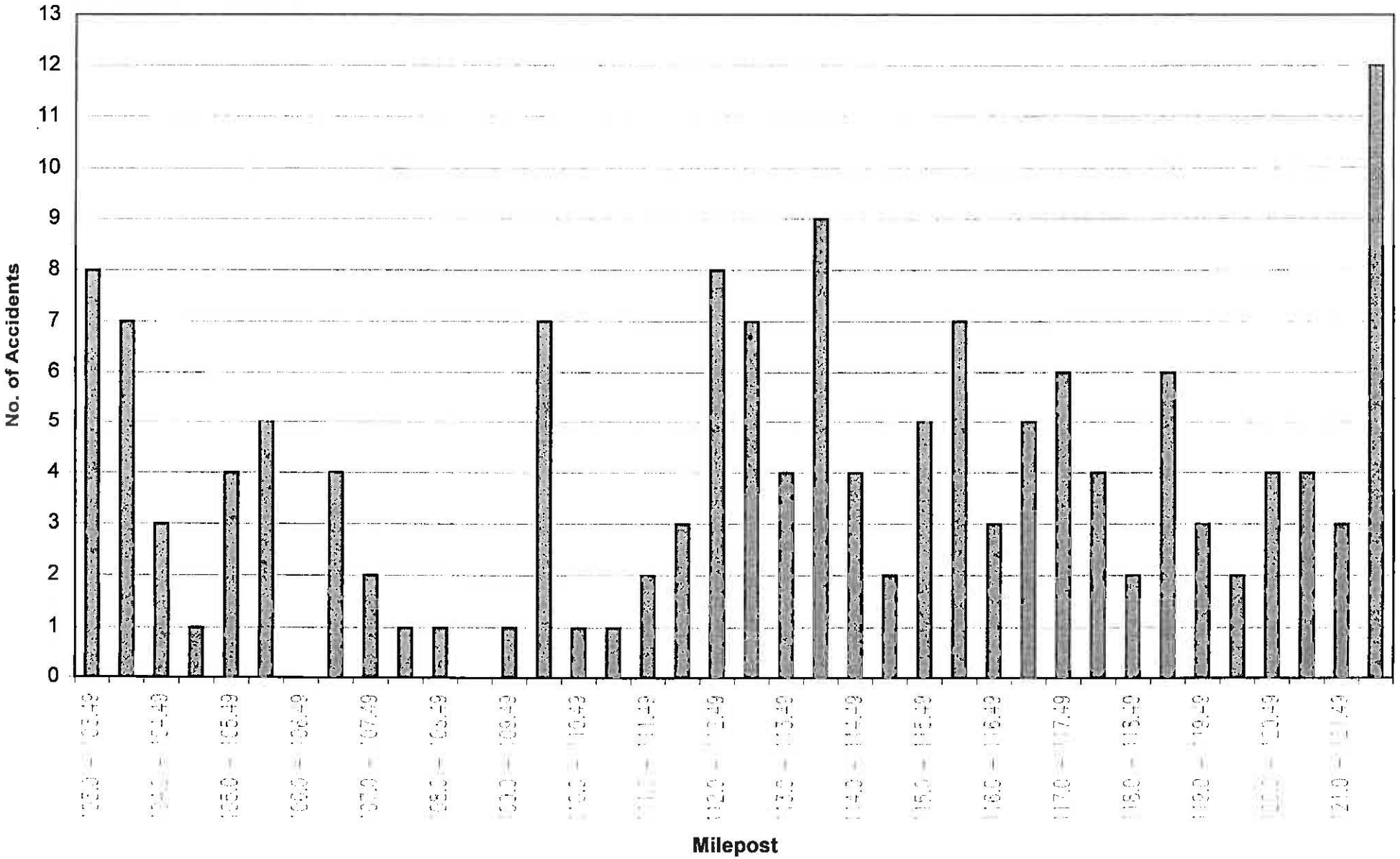
State Highway 14 - Accident Frequency by Milepost
(M.P. 60.0 - M.P. 81.99)

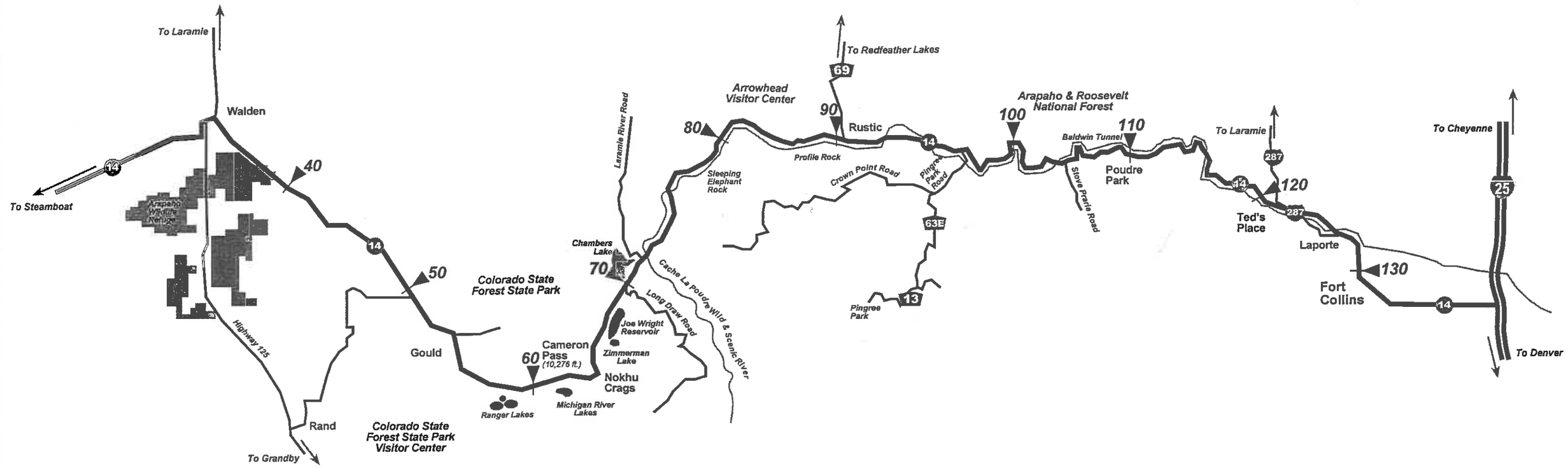


State Highway 14 - Accident Frequency by Milepost
(M.P. 82.0 - M.P. 102.99)



State Highway 14 - Accident Frequency by Milepost
(M.P. 103.0 - M.P. 121.99)





Legend:

N

0 1 2 3 4
Scale in Miles

60 = Approximate Mile Post Location

Figure 1

Cache La Poudre - North Park Scenic and Historic Byway Corridor Overview Map

CorrMap.FH7