

**TOWN OF SILT  
TRANSPORTATION MASTER PLAN  
Silt, Colorado**



prepared for



**PO Box 70  
Silt, CO 81652**

prepared by

**Schmueser Gordon Meyer  
Glenwood Springs, Colorado**

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**TOWN OF SILT, COLORADO  
TRANSPORTATION MASTER PLAN**

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**TOWN OF SILT, COLORADO  
TRANSPORTATION MASTER PLAN**

**1.0 INTRODUCTION**

The Town of Silt is located along US Highway 6 and the Union Pacific (Denver & Rio Grande) railroad, which have provided the historical transportation links to other communities prior to the construction of Interstate 70 in the 1960's. The town has a grid road network north of the interstate, with several county roads extending from Town streets to the north and south to serve mostly rural development in unincorporated Garfield County. The current population for the Town of Silt is approximately 2,665 residents (1,750 in the 2000 Census).

This report was prepared in coordination with the Town of Silt's Community Development and Public Works Departments to assess the Town's current transportation network, identify areas of growth and future transportation needs, and update the capital improvements needs for the next 25 years. This report provides further basis for developing the Town's transportation impact fee program to account for new development impacting the transportation network.

**1.1 Summary of Current Transportation Issues**

The Town of Silt has recently experienced substantial growth that has seen the number of housing units and businesses in the Town essentially double over a twelve-year period. Additionally, County growth to the north and south of Town has also increased, which has begun to degrade peak hour operations at the primary interchange and intersections serving the Town.

This growth has created limited short-term traffic impacts by utilizing the reserve capacity available in the local, county, and state road system. However, without a method established to assess traffic impact fees for new developments and better coordination between the County and CDOT, the Town has lost the opportunity to levy additional financial commitments from the developments to pay for their fair-share of impacts to the overall road system. When there is reserve capacity in the system, the impacts from any one development may appear negligible in the short-term; but cumulatively, new development impacts the town-wide network and should be held financially accountable for that impact in an equitable process. During this current period of flat growth, the Town has the opportunity to adopt an impact fee program that can be implemented during future periods of growth.

Recent growth in unincorporated Garfield County to the north and south of town has impacted the town's transportation system by absorbing a share of the current reserve capacity at the primary intersections. This has been most evident at the interchange, where development to the south has changed the distribution of traffic utilizing the interchange. This County and limited Town growth to the south of the interstate has created conflicting movements at an interchange to I-70 which previously had served as a "tee-intersection" with limited demand on the south leg. As traffic volumes have increased to the south on CR 311, the impact of more traffic including heavy, slow-moving vehicles has congested the interchange during peak periods. Traffic associated with the gas industry and the gravel pits to the south of Silt have become a significant portion of traffic contributing to this changed distribution.

Future phases of the planned Ferguson Crossing development south of the interstate within the Town of Silt have stalled due to economic conditions. The triggers for interchange improvements and the potential for a separate crossing of the interstate to serve local traffic will be discussed later in this report.

Other areas where County growth has affected the town’s network include the rural developments to the north accessed by the major collectors of 1<sup>st</sup> (County haul/truck route) and 7<sup>th</sup> Streets. Due to Town and County growth, turning movements at these intersections along US 6 have increased to levels that meet warrants for turn lanes, as set forth in the State of Colorado’s *State Highway Access Code*. Though not triggered solely by one development, the cumulative effect of the growth in the Town and County has caught up to negatively impact the Town’s intersections along US 6. With additional units approved to the north using these collector streets for access, solutions for these intersections will become necessary in the near future. The Town has completed an access control plan with CDOT for the US 6 and River Frontage corridors to plan for future accesses and control along the primary east-west corridors through Town.

The downtown area (from approximately 5<sup>th</sup> to 9<sup>th</sup> Streets and Front to Grand) within the old town core or the “Old Silt Townsite” is another focus area for future improvements, predominantly to improve pedestrian and cyclist safety and mobility in this developing area. Historically, the roadways have carried all modes of traffic, but as vehicular traffic on certain roads within the core has increased due to new development and infill, the need for separated pedestrian facilities in popular corridors is becoming more apparent.

## **1.2 Planning Area**

The planning area for this Master Transportation Plan extends from one-quarter section west of Ukele Lane (CR 229) to the rural access bridge over I-70, about one-quarter section east of Mid-Valley Lane (CR 262). The Colorado River provides the south boundary of the planning area, while Silt Mesa Road (CR 233) and Peach Valley Road (CR 214) provide the northern boundary. This planning area, consistent with the Comprehensive Plan’s Tier 1 priority growth planning area, nearly doubles the area of the current town limits to include the land along US 6 extending past Coal Ridge High School. The overall planning area is shown on Figure 1.

The planning area of focus for this Master Transportation Plan was condensed to extend from Ukele Lane (CR 229) on the west to Davis Point Road (CR 235) on the east, and from the Colorado River Park on the south to Silt Mesa Road (CR 233) and Peach Valley Road (CR 214) on the north. This area represents the most realistic boundaries for responsible Town growth within the next 25 years. The “master” planning area is shown on Figure 2.

## **1.3 Previous Plans and Studies**

The goals in the recently completed Comprehensive Plan 2009 (Comp Plan) section “Land Use and Growth of the Town” identify three areas (“Tiers”) of future development with the primary goal of promoting growth which “emanates from the core of town”. This concept focuses on using existing capacities for infrastructure to their maximum, and expanding efficiently with the least means. This Master Transportation Plan will show that there is currently substantial existing capacity in areas of the Town’s roadway network, while other areas are currently approaching capacity or in need of improvements. The 25-year planning horizon for this study will focus on likely growth in the Tier 1 and some Tier 2 areas only. It is assumed that Tier 3 growth occurring before Tiers 1 and 2 buildout would be constrained by economic and political factors and inconsistent with the goals of the Comprehensive Plan.

The Comp Plan also identifies the following specific future transportation goals in the “Public Services/Infrastructure/Transportation” section:

- Provide a second crossing of the interstate and railroad for vehicles and pedestrians, which will serve a more local-oriented component of traffic, allowing the interchange to serve more regional-oriented traffic.
- Identify preliminary locations for additional interchanges along I-70.

This report will demonstrate that the need for this connection/interchange is controlled by the rate of development south of the interstate, the rate of continued unincorporated County development, and the rate of infill and development of approved areas within the Town of Silt.

The *Development and Operation Impacts of Gas Wells: Town of Silt Roads System*, completed by RPI Consultants in January 2008, provides analysis of the recent natural gas development impacts on the Town's roads (essentially south of the interstate). Many of these roads that had been annexed into the Town for the planned Stillwater development were de-annexed back to the County in 2008. The report looks at both ADT (average daily traffic) and ESAL (Equivalent Standard Axle Loadings) calculations to identify road impacts by the traffic serving the gas industry. The report calculated a total cost per gas well of \$11,309, which represents the cumulative maintenance costs for each gas well on County Roads 311, 346, and 331 (previously Town of Silt streets).

The *Support Study for Town of Silt Transportation Impact Fee*, completed by RPI Consultants in April 2008, assesses impact fees for residential and non-residential development. The report presents a generalized method of assessing traffic impact fees and provides some comparisons to other towns that have adopted impact fees for new development. The study contains an inventory of Town equipment and facilities, as well as the "Capacity Improvement Plan" that identifies nine capital projects on the Town's horizon (two of which have been completed to date). This plan will be updated later in this report as the Capital Improvements Plan (CIP).

The US 6/River Frontage Access Control Plan (ACP) has recently been completed by PBS&J and provides a long-term plan for the US 6 and River Frontage Road corridors that balances access and mobility for all roadway users. The plan was established to provide a framework for future access conditions along these primary corridors and focuses on solutions to the primary problem intersections mentioned previously in this report.

The final plan obtained for this study is the Public Works Department's "Roads Capital Improvements" spreadsheet of Town roads and anticipated years for maintenance projects. A copy of this in an updated form is attached in the appendix. Traffic counts collected during the recent US 6 Access Control Plan process have also been used in this study and will be discussed further in the next section.

## **2.0 EXISTING TRANSPORTATION INVENTORY**

The existing transportation system inventory for the Town of Silt is shown on Figure 2. The current boundaries for the Town and the adjacent county roads that impact Silt's network are shown. Existing trails and pedestrian facilities are not shown on this map for clarity. The figure shows all existing roadways including roads and highways that are under the County's and State's jurisdiction. All intersections in the study area are controlled by stop signs, with the exception of the roundabout at the intersection of Main Street (US 6) and 9<sup>th</sup> Street that was constructed in the summer of 2008.

**2.1 Roadway Classification and Traffic Counts**

Figure 2 also identifies the classification of the roadways within the Town of Silt. The three roadway classifications include arterials/interstate, collectors, and locals. US 6 and I-70 are the only arterial highway and interstate, respectively, which traverse town. The 9<sup>th</sup> Street spur, which provides access from US 6 to River Frontage Road is also considered an arterial roadway. River Frontage Road, east of the interchange is classified as a Frontage Road by the CDOT *State Highway Access Category and Assignment Schedule*. These four facilities are under the jurisdiction of the Colorado Department of Transportation (CDOT). The remaining roads were classified by assessing current traffic volumes and the function that these roads provide in the Town’s network. All **local roadways** within the Town currently carry less than 1,000 vehicles per day and are generally residential in nature with low travel speeds.

**Collector roadways** are typically defined as roadways carrying between 1,000 and 8,000 vehicles per day (vpd) and link local roadways to the arterials. Collectors can further be defined as “Minor” or “Major” depending on the volume and composition of traffic they carry. Silt’s collectors include the following roadways with corresponding 2009 daily volumes:

- River Frontage Road – 3,728 ADT
- 9<sup>th</sup> Street (US 6 to Home) – 1,940 ADT
- 1<sup>st</sup> Street (north of US 6 to town limits) – 1,720 ADT
- 7<sup>th</sup> Street (north of US 6 to town limits) – 1,506 ADT
- 16<sup>th</sup> Street (north of US 6 to Morningstar) – 1,794 ADT
- Lyons Boulevard – 2,655 ADT
- Grand Avenue – not collected
- Home (7<sup>th</sup> to 9<sup>th</sup>) – not collected
- Orchard Avenue (4<sup>th</sup> to Kim) – not collected

Current traffic counts were collected on many of the Town streets in December 2008 by ATD Services. For this report, existing volumes will often be referred to as “2009 volumes”. Current counts were not available on Orchard, Home, and Grand. All other collectors within the Town carry between 1,000 vpd and 3,000 vpd, with the exception of River Frontage Road east of the interchange, which carried 3,728 vpd in 2009. The counts on 9<sup>th</sup> Street (I-70 spur) indicate that almost 7,000 vpd cross the railroad structure, south of US 6, while nearly 10,500 vpd cross the interchange structure on a typical weekday. Below is a table from CDOT’s website that shows the daily volumes at many locations along US 6 through the Town of Silt.

**Table 1  
Existing CDOT Traffic Counts on US Highway 6 \***

Route	Ref Point	End Ref Point	Start Point Description	Annual Average Daily Traffic	AADT Year	AADT Single Trucks	AADT Comb. Trucks	Percent Trucks	20 Year Factor	Design Hour Vol (%AADT)	Daily Vehicle Miles Traveled
006D	93.426	98.735	SH 6 E/O CR 210	5,400	2008	210	160	6.80%	1.47	10	28,296
006D	98.735	99.114	SH 6, MAIN ST E/O 5TH ST, SILT	5,900	2008	220	100	5.40%	1.46	10	2,224
006D	99.114	99.232	SH 6, MAIN ST W/O I 70 SPUR, 9TH	7,300	2008	280	60	4.70%	1.42	10	876
006D	99.232	104.429	SH 6, MAIN ST E/O I 70 SPUR, 9TH	5,200	2008	150	80	4.30%	1.46	10	27,024
006D	104.429	105.906	SH 6 E/O PEACH VALLEY RD, CR 214	2,700	2008	80	60	5.00%	1.30	10	3,977

\* Source: CDOT Website 2008

As the table shows, the 2008 volumes on US 6 ranged from 2,700 vpd (east of town) to 7,300 vpd (west of the 9<sup>th</sup>/Main roundabout). Generalized Level of Service thresholds have been investigated to understand the capacity of the Town’s collectors and arterials. Using the methodology set forth in the *Highway Capacity Manual* (Transportation Research Board, 4<sup>th</sup> Edition, 2000), the following daily thresholds were estimated:

**Table 2  
2-Lane LOS Thresholds**

<u>2-Lane Facilities</u>	Collector	Arterial
Level of Service C	6,200	15,800
Level of Service D	9,900	17,100
Level of Service E	11,100	18,400

The LOS D/E is the threshold CDOT, Garfield County, and most jurisdictions use for warranting improvements to a roadway or intersection. Typically, impacts are analyzed and assessed during the peak hour at intersections. Given the volumes collected in 2008, the Town’s roadways and CDOT facilities operate within acceptable standards when considering average daily traffic. Recent analysis from the Ferguson Crossing Access Management Plan show that the intersections at the ramps and 9<sup>th</sup> Street operate acceptably, with certain ramp approaches occasionally experiencing LOS “E/F” conditions during the peak hour. Other intersection analyses completed for the US 6 Access Control Plan show that most intersections along US 6 currently operate within acceptable level of service standards.

To provide a volume comparison to other local communities with an interchange along I-70, State Highway 13 carries almost 18,000 vehicles per day north of the I-70 interchange at Exit 90 in Rifle, while the structure over I-70 at exit 75 in Parachute carries approximately 9,000 – 10,000 vpd. The volume on US 6 in adjacent downtown New Castle is similar at approximately 7,100 vpd.

## **2.2 Roadway Cross Sections**

The Town of Silt has not historically applied a standard geometric design for roadway construction within the town. The Public Works Manual (2003) provides a general typical section describing the minimum roadway template section, but no direction is given for roadway widths, including travel lanes, bike lanes, parking lanes, sidewalks and other roadside and roadway design elements. The existing widths of local roadways within the Town range from 16 feet to 44 feet in paved width, while the existing widths of collector roadways within the Town range from 20 feet to 68 feet in paved width. Very little curb and gutter exists in town; generally, all older roadways have borrow-ditch shoulders that terminate at the Cactus Valley Ditch, which meanders from east to west through the town grid, or at the railroad. Newer streets have curb and gutter as per Town Code and the Public Works Manual.

The design of local streets and collectors should be standardized to provide a consistent look and feel throughout Town streets. Excessive pavement widths, various parking configurations, and piece-meal drainage facilities create maintenance and user issues that could be eliminated by constructing uniform local and collector street sections. Although the standard section in the Public Works Manual shows a curb and gutter section, the Town supports a more contemporary de facto approach to Low Impact Development (LID) by maintaining the borrow-ditch storm water collection system as much as possible. This cross-section option should be added to the

manual with additional details regarding lane, shoulder and parking widths. Additionally, this work should be coordinated with a Master Drainage Plan to ensure the ditches are properly sized.

All state highway and interstate design is governed by CDOT's design process and the State Highway Access Code. The Town of Silt should adopt a similar plan to the Town of Basalt's *Complete Street Design* to provide future standards and guidance for the design of Town streets. Using a tiered approach, street categories specific to the Town of Silt should be developed taking into account the function, access, and mobility of the facility. The sections should provide guidance for pavement structural section, roadway geometry, lane width and use, bike and pedestrian facilities, parking, drainage, lighting, landscaping, signing and striping.

### **2.3 PASER Surface Conditions**

The Pavement Surface Evaluation and Rating (PASER) manual was developed by the Wisconsin Transportation Information Center in 1987 to provide a method of rating asphalt pavement conditions to manage the maintenance of these facilities. The Town of Silt Public Works department has been using this rating system to annually update the maintenance and repair schedule for the Town's streets.

A PASER rating of 1 – 3 is characterized by “Poor” pavement conditions where structural improvements are necessary and even full reconstruction may be needed. A PASER rating of 4 – 7 represents “Fair” to “Good” pavement conditions where preservative maintenance treatments are required, including crack sealing and limited patching. PASER ratings from 8 – 10 are characterized by “Very Good” to “Excellent” conditions, with little to no maintenance required. Typically, newly constructed roadways can last ten to twenty years at this rating level if constructed well to begin with. Figure 3 shows the current PASER ratings on all roads within the Town limits. Roadways with the poor ratings generally include the north-south local streets within the grid, as well as Orchard and portions of Grand, Ballard, and Charlin. Skyline Drive, which accesses the local cemetery, is likely to remain unpaved for the foreseeable future.

### **2.4 Trails and Paths**

The Town's trail system continues to evolve with development, but until recently was considered an afterthought of most development plans. Figure 4 shows the existing trails plan, including potential future trails to provide better alternative-mode choices for residents making local trips. A goal of this plan will be to develop a trail system that best connects the Town trails with the regionally planned recreational trails that will ultimately connect the communities in Garfield County. The regional trail planned is the Lower Valley Trails Group's, LoVa Trail, which is planned to extend from Glenwood Springs to the western county border, ultimately connecting to the planned Debeque Canyon trail segment. Other planned trails and connections within the Town of Silt shown on the map include:

- 1<sup>st</sup> Street (north of US 6)
- Davis Point Trail (LoVa)
- Painted Pastures
- Colorado River Park Trails
- Divide Creek & Ferguson Crossing River Trail
- 16<sup>th</sup> Street Underpass
- Cactus Valley Ditch Trail



As the figure shows, additional trail and sidewalk connections should be planned north of US 6 connecting along 7<sup>th</sup> and 16<sup>th</sup> Streets north to the existing sidewalks constructed with the Mesa View and Eagles View developments. Any future trails should be designed using the American Association of Highway and Transportation Officials (AASHTO) *Guide for Development of Bicycle Facilities* (1999) or the latest standard or “guide” for design.

### **3.0 COMPOSITION OF TRAFFIC**

To understand the proportion of traffic any development may add to the system, different contributors of traffic need to be isolated and examined. In addition to new growth occurring from 2010 and beyond, there are several notable areas of traffic generation when examining the composition of users traveling on Silt’s roadways. These include:

- Pre-1996 Traffic
- 1996-2008 Town Growth
- 1996-2008 County Growth

Currently, there are approximately 742 residential units approved in the Town limits that have yet to be constructed. In addition, there are approximately 205,000 square feet of commercial space approved south of the interstate (Divide Creek Center), which is yet to be constructed and occupied. This future development represents an increase of over 50% when compared to the existing residential and commercial uses that are occupied. This equates to approximately 20 years of 2.3% annual growth required to occupy the existing approved uses.

#### **3.1 Existing Roadway Users**

The breakdown of existing roadway users is necessary to understand because this represents the proportion of traffic users that have been accounted for by the Town in the past. Although these users may or may not have had to pay a “fair share” at the time of development, the proportion of these users needs to be recognized as part of the “Town’s Share” of traffic when considering all roadway users for an equitable impact fee calculation in the future. The second part of the town’s share would include traffic generated by “approved development”, discussed in the next section.

The existing traffic includes all users of the roadway today, which can further be broken down into the “Pre-1996 traffic”, which includes mostly Town of Silt traffic and a small proportion of County generated traffic that accesses Silt from the north and south via county roads; “1996-2008 Town Growth” including the traffic generated by the developments shown on Figure 5 (except Tara subdivision); and the “1996-2008 County Growth”, representing the recent County growth north and south of the Town. Isolating the recent County growth (from the town’s portion) is important for the purposes of further identifying the sources of traffic affecting the Town’s infrastructure.

Using the available historical counts from CDOT’s database, traffic data on CDOT facilities through Town were compiled from 2000 and compared to the recent counts collected in December 2008. The counts are shown below, including the percent increase over this time.

**Table 3  
Average Daily Traffic Counts\***

Facility	2000	2008	% Increase
US 6 West of 9 <sup>th</sup> Street	6,180	9,202	49%
US 6 East of 9 <sup>th</sup> Street	3,920	6,012	53%
I-70 Spur	6,849	10,481	53%
I-70 at Exit 97 **	25,844	28,593	11%
River Frontage Road ***	1,860	3,728	100%

\* Source: CDOT Website 2000, ATD Services Counts 2008

\*\* Counts available from CDOT were 2002 and 2008

\*\*\* Counts available from 2003 (Ferg Xing AMP) and 2008

Although the data was only available from 2000 and 2008, the approximate 50% increase shown represents the lower threshold of the 1996-2008 Town and County growth (since baseline data was 2000 and not 1996). Separating Town growth from County growth over this time could be understood by compiling county building and special use permits (from areas north and south of Silt which impact Silt’s roadways) and comparing them to the number of town building permits that have been recorded during this same time. Coordination with the Garfield County Planning Department is needed to pinpoint the proportion of County vs. Town traffic.

The growth in traffic on River Frontage Road could be mostly attributable to growth in the County, with the exception of the new hotel that was constructed in Phase 1A of Ferguson Crossing in 2008. According to the Phase 1A Traffic Impact Analysis, the hotel component would generate 650 daily trips at buildout. This leaves approximately 1,200 additional trips that could be assumed generated by County uses over the previous six years. County traffic represents over half of the traffic on River Frontage Road and about one-third of the traffic at the interchange.

### **3.2 Approved Development**

The second component of the “Town’s Share” of traffic includes all traffic related to developments already approved but not constructed within the Town’s limits. Several development projects have been approved by the Town and will have an impact on the Town’s roadway network. The developments currently approved and not built out include:

- Miraloma
- Spruce Meadows
- Stoney Ridge
- Camario
- Painted Pastures
- Divide Creek Center
- Autumn Ridge
- Mesa View

There are several other smaller scale development and infill projects within the Town, but this list represents a significant “backlog” of residential units already approved and platted by the Town. The following table shows the estimated traffic generation associated with this “unconstructed” component of future Town traffic.

**Table 4  
Estimated Traffic Generation**

Land Use	# of UNITS	DAILY TRIPS	AM IN	AM OUT	PM IN	PM OUT
Single-family Detached Home <sup>1</sup>	612 du	5,857	116	343	392	226
Commercial <sup>2</sup>	205 ksf	5,667	254	108	189	285
Condominium / Townhouse <sup>3</sup>	70 du	410	5	26	25	12
<b>Total Traffic Generation:</b>		<b>11,934</b>	<b>375</b>	<b>477</b>	<b>606</b>	<b>523</b>
<b>Total Peak Hour:</b>			<b>AM: 852</b>	<b>PM: 1,129</b>		

<sup>1</sup> – ITE Land Use Code #210 – Single-family Detached Homes, trip rate based on number of dwelling units  
<sup>2</sup> – Trip generation results from Divide Creek Center TIA (LSC , August 2008)  
<sup>3</sup> – ITE Land Use Code #230 – Condo/Townhouse, trip rate based on number of dwelling units

Single-family detached housing includes unconstructed lots in Miraloma, Spruce Meadows, Stoney Ridge, Camario, Painted Pastures, and Autumn Ridge. Existing approved commercial space exists in Divide Creek, Main Street Plaza, and Lyons Commercial, and approved multi-family units exist in Divide Creek and Main Street Plaza. Not all of the daily trips would occur in one location, but this table provides an estimate of the Town’s potential share of total future trips that will be using the Town of Silt’s road system when these developments are built out.

Committed transportation improvements by Painted Pastures include construction of a roundabout at the US 6/Painted Pastures access. Committed transportation improvements by Miraloma include new asphalt on 1<sup>st</sup> Street (Main to Miraloma) with a cost recovery on the portion from Main to Harness (provided by the Spruce Meadows developers). Additionally, Miraloma has committed to build an eastbound left turn lane along US 6 at 1<sup>st</sup> Street prior to Phase 3. Otherwise, the existing infrastructure is required to serve this future increase in traffic. Intersections experiencing level of service “C” and “D” conditions today will likely experience a deficient level of service in the future when the remaining approved development comes online and the remaining roadway capacity gets consumed by this future traffic demand.

### 3.3 Future Growth Areas

Future growth areas that do not include approved planned developments include several notable areas within the 25-year planning area. Lands north of US 6 include parcels west of Spruce Meadows and Miraloma, north of the grid between 1<sup>st</sup> and 7<sup>th</sup> Streets, north of Stoney Ridge, and Painted Pastures North. South of US 6, infill in the County lands is possible, but the at-grade railroad crossing at 16<sup>th</sup> Street creates the need for a gated crossing at this location before any development occurs. South of the interstate, subsequent phases of Ferguson Crossing and Divide Creek Commercial Center will remain the primary sources of future trips.

Additional growth that may be difficult to quantify but should be accounted for includes the increase of residential and commercial uses in Garfield County, north and south of Silt. This element of growth has been a substantial component of existing traffic generation at the interchange, arterial, and collector streets within Silt, and must be assumed to grow at similar rates in the future. Oil & gas development on lands south of Silt, traffic associated with gravel pits located outside the Town limits to the south, rural residential expansion, and existing agricultural and residential traffic make up the composition of traffic on these County roads. No agreement exists between the Town and Garfield County allowing for coordinated review of County developments and subdivision exemptions for any proposed developments beyond two

miles from the Town limits. This is a significant source of the additional traffic growth impacting the Town, for which the Town has no means to control or regulate.

### **3.4 Comprehensive Plan Growth**

Some potential developments that are located outside of Silt but within this study's 25-year planning area and could affect Silt include the Rew-Lyons development, west of Coal Ridge High School, the now-defunct Stillwater development, and possible redevelopment of the gravel pits to the south of the Colorado River. The Stillwater and Rew-Lyons developments could represent a significant amount of additional residential and commercial uses in the long-term.

Based on the surplus of approved residential and commercial development in the Town of Silt's boundaries that have not been constructed, it may take 20 – 25 years to build out the surplus of approved units, unless some other factors influence a much higher growth rate. Buildout of existing approved uses will maintain a conservative growth rate for the Town (between 2 and 3%) and remain consistent with the goals and objectives of community growth as defined in the Comprehensive Plan. Traffic forecasts for future growth rates are found in the appendix.

## **4.0 CAPITAL NEEDS ASSESSMENT**

The 25-year capital needs for the Town's transportation system includes three areas of financial responsibility: major capital improvements, downtown improvements, and deferred maintenance. Major capital improvements include any capacity and safety related improvement to the network. These could be caused by new development or more likely are the result of the cumulative effect of unmanaged growth that has occurred over the past 20 years. Downtown improvements include pedestrian enhancements, Main Street/US 6 improvements, and surface improvements between 6<sup>th</sup> and 9<sup>th</sup> Streets and between Front and Orchard in the downtown area. The deferred maintenance program is the final area where the Public Works Department annually monitors conditions of all streets in Town and schedules routine maintenance as appropriate.

### **4.1 Major Capital Improvements**

Major capital improvements have been identified by the Public Works director. The costs associated with these improvements have been revisited from previous estimates and are provided in detailed cost estimated contained in the appendix. The 25-year capital improvement plan (CIP) includes the following projects:

- I-70 Interchange/Frontage Road Intersection Improvements
- Pedestrian/Vehicle Overpass of I-70
- Right turn lane at US 6 and 1<sup>st</sup> Street
- Roundabout at US 6 and 16<sup>th</sup> Street
- CR 311/River Frontage Road intersection improvements
- US 6 Two-way Left Turn Lane (TWLTL)
- Trail Connections

Field visits were made in 2009 to investigate potential secondary crossings of the interstate to improve local traffic conditions (second improvement above). Due to the proximity that the railroad, interstate, and US 6/River Frontage Road exist with respect to each other, many grade and spacing issues arise when choosing the alignment for a second crossing. The most logical

options for this connection include providing a parallel, adjacent facility to the existing 16<sup>th</sup> Street underpass with a connection for two-way traffic, creating a new interstate flyover south and east of Davis Point with connections to US 6 and River Frontage Road, or to improve the existing interchange at Exit 97 and create more capacity for pedestrians and vehicles alike at this location.

The 16<sup>th</sup> Street underpass is complicated by the at-grade railroad crossing north of the interstate, the close proximity to River Frontage Road, and subsequent offset of the CR 311 intersection to the east. Although this connection would improve vehicular access, it may not be in the most appropriate place for pedestrian trips between the downtown area and the south side of the interstate. An overpass near Davis Point may help realign the dangerous intersection with US 6 and improve access to the future Rew-Lyons parcel and Coal Ridge High School and surrounding County lands, but does little to improve the local access that this connection is intended to serve. A final connection was explored on the west end of town near 2<sup>nd</sup> Street, but this location was ruled out due to the close proximity of the railroad and US 6, creating a costly structure and a difficult realignment for the US 6 connection.

This leads to the conclusion that the most appropriate location for an enhanced pedestrian and vehicle connection over the interstate exists where improvements are already being considered (at the interchange). The US 6 River Frontage ACP and Ferguson Crossing Access Management Plan show that improvements are necessary in the future for the ramp intersections and the 9<sup>th</sup> Street/River Frontage Road intersection, with the buildout of all phases of Ferguson Crossing. Improvement alternatives including signalized intersections, roundabouts, and a single-point urban interchange have been considered. Any of these alternatives includes improvements to the structures over the railroad and interstate and considerable grading and retaining walls to support the “raised intersections”. If only improved pedestrian access is desired, the 16<sup>th</sup> Street underpass could be enhanced and trail connections could be made to it from the primary Town trails.

In general, roundabout intersections will need less driveable surface (fewer turn lanes on the ramps and structures) than a conventional signalized intersection, so roundabouts may be a preferred option to minimize the amount of additional structures needed. The single-point urban interchange (SPUI), which has recently grown popular in cities like Denver and Salt Lake City, may be a smart solution to this space-constrained problem. However, a signal this close to with the 9<sup>th</sup> and Main roundabout will likely create future operational problems. Roundabouts should be considered at the interchange for this fact alone.

If pressures to develop in the County increase faster than the infill of approved parcels in Silt, the Town and County should cooperatively investigate the location of an additional interchange to the interstate to serve this future development demand. With a second interchange to the east of Exit 97, County development could be served and diversion of traffic may occur, potentially lessening the County’s impact on the current interchange.

Improvements to the CR 311/River Frontage Road intersection will be driven by the buildout of Divide Creek Center and Ferguson Crossing and by future County development south of Town. Cooperation with Garfield County and the adjacent developments should be pursued in any improvement to this intersection in the future. Various trail connections are included in the CIP to provide necessary future connections to expand the area trails network. These connections include across Ferguson Crossing and the Scott Parcel, 16<sup>th</sup> Street/I-70 underpass, and from the Camario development to 16<sup>th</sup> Street.

Intersection upgrades along US 6 at 1<sup>st</sup> and 16<sup>th</sup> Streets are discussed in the ACP. A roundabout is suggested at 16<sup>th</sup> Street to assist in creating U-turn movements for some of the minor accesses east and west of 16<sup>th</sup>, that are prescribed to be limited to right-in, right-out access in the future.

The Town should consider the use of an urban-compact or mini roundabout (100' inscribed diameter) at 16<sup>th</sup> Street to minimize encroachment on the adjacent property owners. A roundabout may ultimately be needed at 1<sup>st</sup> Street as well, depending on the level of future development that occurs to the west along US 6. For the time-being, turn lanes are forecast to be needed. Finally, the Davis Point intersection may soon be improved as a part of the proposed LoVa bike trail project. Although the project consists of a new bike trail traversing this section of US 6, the alternative options will improve the sight distance for vehicles at this intersection and the overall safety for motorists and bicyclists with additional signage.

#### **4.2 Downtown Improvements**

The projects on the Public Works Department's list of capital projects planned for the next 25-years within the "Old Silt Townsite" or downtown area include:

- Orchard Avenue Reconstruction
- Grand Avenue Overlay
- Home Avenue Overlay
- Main Street access improvements
- 7<sup>th</sup> Street widening/Pedestrian enhancements
- Downtown pedestrian improvements

The Community Vision in the 2009 Comprehensive Plan for the Town of Silt states,

"The town intends to grow with a focus on local vitality – providing a vibrant downtown core and highly walkable neighborhoods with individual characters..."

The need for enhanced pedestrian facilities in the downtown area has become more important with the additional traffic generation that has occurred from developments north of town. Traditionally, the wide streets have served all modes of traffic, but as volumes grow, the need for dedicated facilities increases as pedestrian safety becomes more paramount. The projects above address this concern over the planning horizon.

All new development should provide trail connections to expand and enhance the multi-modal transportation system by connecting regional links, providing alternate routes, and improving substandard connections. A program similar to the Town of Basalt's "Complete Street Design" should be developed and adopted to establish standards for multi-modal facilities within Town.

#### **4.3 Deferred Maintenance Program**

This program of scheduled maintenance of Town roads is monitored and implemented by the Public Works department based on the PASER rating of the roadway surface. Annual inspections of roadway conditions allow the database to be prioritized by maintenance need; primarily fog coat, chip seal, or resurfacing activities. The deferred maintenance program also prescribes routine maintenance to trails and drainage structures throughout Silt.

#### **4.4 Capital Improvements Plan**

Over the next 25 years as the Town builds out the approved space, the Town has a need for \$14.95M in capital improvements (major and downtown improvements) and \$5.2M in deferred maintenance (in 2010 estimated costs). These costs have been based on input from the Public

Works Director and pricing from similar jobs completed in the area in recent years. A summary of these costs is contained in the appendix.

The unconstructed surplus of approved development may not contribute significantly to any future improvements other than those mentioned earlier related to the Miraloma and Painted Pastures developments, unless impact fees are applied to unconstructed, but approved units. According to agreements for many of these developments, the ability of the Town exists to collect impact fees for unbuilt approved units if the Town determines a fee shall be applied. Therefore, the Town may generate partial funding for these projects through impact fees and other funding mechanisms to pay for these capital needs. Impact fee revenue can only be applied to new improvements and not annual or deferred maintenance, so these costs were separated out above. Figure 6 shows the capital improvements projects and downtown improvement projects scheduled for the next 25-years.

## **5.0 CAPITAL FUNDING PLAN**

The Inter-Governmental Agreement for Development Review (IGA) between Garfield County and the municipalities within the County (May 7, 2001) appears to be the primary source of disconnect between County and Town planners since the agreement only requires concurrent review for projects within a 2-mile radius of a municipality. If a project located in the County is beyond two miles from Silt's town limits, in most cases, this project will not be reviewed by Silt's staff. Therefore, Silt loses any chance for infrastructure improvements on roads within the Town affected by the development in the County. Over time, this cumulative effect of unmanaged growth has degraded intersection operations at the interchange and the primary intersections along US 6 and the River Frontage Road.

The County has historically shrugged responsibility for these improvements, placing the burden on CDOT or the Town, since these are CDOT's highways. In the past, CDOT has been well funded to make improvements over time to aging infrastructure or to improve capacity; but today's fiscal outlook is much different. With the depletion of the federal transportation trust fund as a result of a 17-year unchanged gas tax, better fuel-efficient vehicles, Americans driving less, and lower municipal operating budgets, municipalities need to be creative to find alternative sources for funding large capital improvements. At the same time, the County should be held responsible for their past and future traffic contributions and impacts.

Amending the IGA between the Town and County should be the first step at gaining back review control over County approvals. This would give the Town the ability to review projects beyond the 2-mile radius that still impact the transportation network in and around Silt. Additionally, the Town should collaborate with Garfield County to establish a baseline proportion of existing traffic on the system, from which future development impacts can be measured. Finally, developing a county wide Elected Officials Transportation Commission (EOTC) similar to what is set up in Pitkin County could provide another avenue for local matching transportation funding to occur throughout the County.

Grants can be available from a number of sources, depending on the type of improvement project and the nature of the users. Typically, grants need a matching component from a local source. Following is a list of primary sources for transportation project grants:

- Highway Users Tax/Trust Funds (HUTF),
- Division of Local Affairs (DOLA),

- American Recovery and Reinvestment Act (ARRA),
- Greater Outdoor Colorado (GOCO),
- Colorado Safe Routes to School (SRTS),
- Transportation enhancement funds, and
- Funding Advancements for Surface Transportation and Economic Recovery (FASTER)

The federal and state funding mechanisms require projects to be placed on the regional transportation plan, the statewide transportation plan, the Statewide Transportation Improvement Program (STIP), and the Transportation Improvement Plan (TIP) to be eligible for funding. Other local options for funding may include the formation of Special Improvement Districts (SID) or Public Improvement Fees (PIF) to generate the needed capital. These improvement districts and fees (taxes) have been used with success in nearby communities to fund large-scale transportation projects, e.g. Glenwood Meadows uses a PIF to pay for a share of the interchange improvements at Exit 114 in West Glenwood.

**5.1 Impact Fee Discussion**

With the surplus of approved development in the Town, the Town should consider collecting impact fees from these unbuilt units. Future approved development will be the source of additional future impact fees, but should not be required to pay for previous developments’ impacts. Currently, two developments are required by the Town to pay for improvements in addition to the infrastructure needed to serve the developments. Miraloma is required to repave 1<sup>st</sup> Street from US 6 to the access (with some additional cost sharing from the Spruce Meadows development), and Painted Pastures is required to construct a roundabout at US 6 and North Overo Boulevard (the primary access). The following table breaks down each development by units, traffic generation, and commitments to understand a per unit cost or per ADT impact fee paid (or to be paid) by the project’s developer. Also shown are the findings of the RPI Impact Fee report from 2008.

**Table 5  
Traffic Impact Fee Estimates**

<u>Development</u>	Committed Improvements	# of UNITS	UNIT RATE	ADT	ADT RATE
Miraloma <sup>1</sup>	\$306,400	242 du	\$1,266/du	2,300	\$133/ADT
Painted Pastures <sup>2</sup>	\$614,570	153 du	\$4,017/du	1,294	\$475/ADT
RPI Report <sup>3</sup>			\$2,686/du		\$281/ADT

<sup>1</sup> – 210 Single-family Detached Homes, 32 MF Units  
<sup>2</sup> – 107 Single-family Detached Homes and 46 MF Units  
<sup>3</sup> – ADT Rate is based on ½ of ADT generated per single-family unit, per RPI report

As the table shows, the Miraloma and Painted Pastures development commitments represent both ends of Silt’s present “impact fee” spectrum. The RPI report presents a reasonable estimate of single-family impact fees for this area, although the report assumes higher growth rates for the future than have been realized since the economy has slowed (summer 2008). Pitkin County’s impact fee for single-family residences ranges from \$3,505 – \$7,818 per unit, depending on the size of the house.

A small portion of the Miraloma development includes 14,000 square feet of commercial space (not included in ADT or unit count), but in general, the numbers above represent rates for single- and multi-family unit impacts. The RPI report gives a range of residential and commercial, office, and industrial uses and associated rates to calculate a base fee for impacts. These are all



based on the ADT as determined by the Institute of Transportation Engineers *Trip Generation Manual*.

Using the RPI impact fee and applying this to the unbuilt approved residential units in town (approximately 682) will net about \$1.83 M. This represents about a twelfth of the transportation fiscal needs over the next 25 years to complete the Capital Improvements Plan, including major capital improvements and downtown improvements. Additional impact fee revenue could be generated by new industrial and commercial uses as well. Deferred maintenance needs were not included in this calculation because impact fees may not be applied in this manner.

## **6.0 CONCLUSIONS AND RECOMMENDATIONS**

The Town of Silt can accommodate a modest growth rate of 2 – 3% over the next 25 years by building out the existing approved development within the Town’s boundaries. This would be consistent with the goals and objectives of the Comprehensive Plan adopted last year and represents an average sustainable rate over the current planning horizon. Some years may experience higher growth rates, while others (like 2009) may represent flat or no growth. Town roadways and intersections will operate acceptably as long as improvements consistent with the Capital Improvements Plan are constructed within this planning time period.

The impact of this additional Town traffic growth could be mitigated by applying traffic impact fees to all new residential, industrial, and commercial development. RPI’s impact fee analysis presents a common method for collecting impact fees that should be applied to all new development. The actual fees for each type of development should be revisited, since it is not uncommon in some towns to charge twice the RPI rate for construction of a single-family home. Increasing the fee may generate more revenue for capital improvements, but it may also limit or restrict the rate of development.

Since Garfield County surrounds the Town of Silt and continues to face pressures for development, the Town needs to pursue a more active role in the County’s review process. Coordination with Garfield County is paramount in rectifying the historical challenges of County traffic generation impacting the Town’s infrastructure. The review agreement (IGA) between the Town and County needs to be revisited, since traffic impacts in the County affect Silt’s roadways if they are two miles from town or ten miles from town. The Town should request mitigation of these past, present, and future County impacts at no cost to the Town.

Finally, other sources of funding for the Town’s capital improvement projects should be pursued, including at the local, state, and federal levels. A priority list of the capital improvements should be generated so the Town can address the most critical needs first, primarily the interchange and intersections along US 6, although development plans or schedules may dictate other improvements be constructed earlier. The Town could also form a local transportation committee made up of local city, town and county officials which could provide another avenue for local matching transportation funding to occur within Garfield County.

## **7.0 REFERENCES**

*Complete Street Design* (Town of Basalt, 2005)

*Comprehensive Plan for the Town of Silt* (McCool Development Solution, 2009)

*Development and Operation Impacts of Gas Wells: Town of Silt Road System* (RPI Consulting, January 2008)

*Guide for the Development of Bicycle Facilities* (American Association of Highway and Transportation Officials, 1999)

*Highway Capacity Manual* (Transportation Research Board, 4<sup>th</sup> Edition, 2000)

*Manual on Uniform Traffic Control Devices* (US Department of Transportation, 2001)

*State of Colorado State Highway Access Code* (Colorado Department of Transportation, August 1998)

*Support Study for Town of Silt Transportation Impact Fee* (RPI Consulting, April 2008)

*Town of Silt Public Works Manual* (SGM, February 2003)

*Trip Generation* (Institute of Transportation Engineers, 8<sup>th</sup> Edition, 2008)

*US 6/River Frontage Road Access Control Plan* (PBS&J Final Draft, December 2009)

**APPENDIX**

## Town of Silt Traffic Volumes and Growth Factors

<u>STREET</u>	<b>2,009</b> <u>TRAFFIC</u> <u>COUNTS</u>	<b>25-Year</b>			
		<b>2.3% *</b>	<b>3%</b>	<b>4%</b>	<b>5%</b>
1st, N/O Harness	641	1,132	1,342	1,709	2,171
1st, N/O US 6	1,720	3,037	3,601	4,585	5,825
2nd, N/O US 6	214	378	448	570	725
3rd, N/O US 6	178	314	373	475	603
4th, N/O US 6	265	468	555	706	897
5th, N/O US 6	85	150	178	227	288
6th, N/O US 6	183	323	383	488	620
7th, N/O US 6	1,506	2,659	3,153	4,015	5,100
8th, N/O US 6	273	482	572	728	924
9th, N/O US 6	1,940	3,425	4,062	5,172	6,570
Domelby, N/O US 6	435	768	911	1,160	1,473
16th, N/O US 6	1,794	3,167	3,756	4,783	6,075
Lyons, S/O US 6	2,655	4,688	5,559	7,078	8,991
Lyons, N/O US 6	763	1,347	1,598	2,034	2,584
Frontage Road, E/O 9th	3,728	6,582	7,806	9,938	12,624
I-70 EB Off Ramp	2,383	4,207	4,989	6,353	8,070
I-70 EB On Ramp	2,459	4,342	5,149	6,555	8,327
I-70 WB Off Ramp	2,460	4,343	5,151	6,558	8,330
I-70 WB On Ramp	2,330	4,114	4,879	6,211	7,890
US 6, W/O Ukele Lane	4,133	7,297	8,654	11,018	13,996
US 6, E/O Ukele Lane	4,393	7,756	9,198	11,711	14,876
US 6, W/O 1st Street	4,696	8,291	9,832	12,519	15,902
US 6, E/O 1st Street	5,666	10,004	11,863	15,105	19,187
US 6, W/O 8th Street	7,185	12,686	15,044	19,154	24,331
US 6, W/O 9th Street	9,202	16,247	19,267	24,531	31,161
US 6, E/O 9th Street	6,012	10,615	12,588	16,027	20,359
US 6, W/O 16th Street	5,785	10,214	12,113	15,422	19,590
US 6, E/O 16th Street	5,365	9,472	11,233	14,302	18,168
US 6, W/O Davis Point	2,839	5,013	5,944	7,568	9,614
US 6, E/O Davis Point	2,718	4,799	5,691	7,246	9,204
Ukele, N/O US 6	532	939	1,114	1,418	1,802
7th, N/O Eagles View	886	1,564	1,855	2,362	3,000
9th, S/O US 6	6,888	12,161	14,422	18,362	23,325
9th, @ I-70	10,481	18,505	21,945	27,941	35,492
16th, S/O US 6	227	401	475	605	769
Davis Point, CR 235	285	503	597	760	965
Divide Creek Rd, CR 311	3,229	5,701	6,761	8,608	10,935

**2008**  
**population**  
**3,500**

**2.3% for 25 years**  
**6,180**

**\* 2.3% is CDOT growth rate**



**Town of Silt  
Public Works Department  
Deferred Maintenance Program**

Town of Silt Streets																								
NAME	TYPE	LENGTH	WIDTH	SQ. FT.	Date	CONDITION	TREATMENT	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Water plant Road	Gravel			easement		gravel																		
alley at senior housing	Asphalt																							
<b>Stevens sub</b>																								
Ballard 14th to end	Asphalt	580	24	13,920	1998	6					\$4,594													
Orchard 14th to 16th	Asphalt	492	28	13,776	2003	8	chip				\$4,546													
Em 14th to 16th	Asphalt	492	28	13,776	2003	8	chip				\$4,546													
<b>Tara sub</b>																								
Home Dogwood to 1st	Asphalt	1,056	44	46,464	1996	4	overlay		\$67,373															
Dogwood	Asphalt	580	36	20,880	1982	4	overlay			\$30,276														
Cottonwood	Asphalt	792	36	28,512	1982	4	overlay			\$41,342														
Birch	Asphalt	475	36	17,100	1982	4	overlay			\$24,795														
<b>Center sub</b>																								
Domelby Ct	Asphalt	1,320	23	30,360	2000	6	chp				\$10,019													
<b>Flying Eagle</b>																								
16TH Grand Ave north to Orchard	Asphalt	634	36	22,810	2003	10	chip with fog										\$11,405							
Orchard 16th to Kim	Asphalt	528	28	14,784	2003	10	chip with fog										\$7,392							
Orchard Cir Orchard to CDS	Asphalt	264	28	7,392	2003	10	chip with fog										\$3,696							
Kim St Grand to Orchard	Asphalt	633	32	20,256	2003	10	chip with fog										\$10,128							
Ballard 16th to Kim	Asphalt	520	28	14,560	2003	10	chip with fog										\$7,280							
Ballard Cir Ballard to CDS	Asphalt	158	28	4,424	2003	10	chip with fog										\$2,212							
Grand 16th to Kim	Asphalt	528	34	17,952	2003	10	chip with fog										\$8,976							
<b>Lyons</b>																								
Grand Kim to Pickett	Asphalt	475	32	15,200	1996	7	chip																	
Grand Pickett to ECL	Asphalt	898	36	32,328	1996	gravel	gravel							\$16,164										
Pioneer Dr to end	Asphalt	211	40	8,440	1996	7	chip with fog							\$4,220										
Pickett Chickadee to Pheasant	Asphalt	422	31	13,082	1996	7	chip with fog							\$6,541										
Pickett Pheasant to Grand	Asphalt	158	31	4,898	1996	7	chip with fog							\$2,449										
Pickett Chickadee to Pioneer	Asphalt	211	40	8,440										\$4,220										
Pioneer Main to width change	Asphalt	370	40	14,800	1996	8	chip with fog							\$7,400										
Pioneer width change to CDS	Asphalt	370	30	11,100	1996	8	chip with fog							\$5,550										
Pheasant Cove	Asphalt	265	31	8,215	1998	8	chip with fog							\$4,108										
Chickadee	Asphalt	424	31	13,144	1996	8	chip with fog							\$6,572										
Fawn Ct.	Asphalt	475	31	14,725	1995	8	chip with fog							\$7,363										
Silver Spur	Asphalt	425	28	11,900	2007	10																		
<b>Mesa View</b>																								
16TH Orchard N. to Morning Star	Asphalt	3,379	28	94,618	1998	7	chip with fog									\$47,309								
Morning Star to Standing Deer (east)	Asphalt	486	32	15,552	1998	8	chip with fog									\$7,776								
Morning Star to Standing Deer (west)	Asphalt	1,248	32	39,936	1998	8	chip with fog									\$19,968								
Standing Deer 16th to Morning Star	Asphalt	1,964	32	62,848	1998	8	chip with fog									\$31,424								
Redtail Lane CDS	Asphalt	317	28	8,870	1998	8	chip with fog									\$4,435								
Antler Point Lane CDS	Asphalt	422	28	11,827	1998	7	chip with fog									\$5,914								
<b>Eagles View</b>																								
First Mesa 7th to S.Golden	Asphalt	422	44	18,568	1997	7	chip with fog							\$9,284										
First Mesa S.Golden to Stoney	Asphalt	950	28	26,600	1997	7	chip with fog							\$13,300										
Eagles Nest First Mesa to Stoney	Asphalt	1,214	27	32,778	1997	7	chip with fog							\$16,389										
S. Golden	Asphalt	1,900	24	45,600	1998	8	chip with fog							\$22,800										
N Golden	Asphalt	792	25	19,800	1998	7	chip with fog							\$9,900										
Eagles View Ct	Asphalt	264	25	6,600	1997	6	chip with fog							\$3,300										
<b>Lyon Commercial</b>																								
Lyon Bldv	Asphalt	422	68	28,696	1998	8	chip						\$14,348											
Horseshoe Trail	Asphalt	2,534	34	86,156	1998	9	chip						\$43,078											
Medicine Bow Ct.	Asphalt	369	35	12,915	1998	8	chip						\$6,458											
Red Feather Trail	Asphalt	264	34	8,976	1998	8	chip						\$4,488											
Mustang Way	Asphalt	450	24	10,800	2003	2nd lift											\$5,400							
Branding Iron Ct	Asphalt	620	24	14,880	2003	2nd lift											\$7,440							
<b>Spruce Meadows</b>																								

**Town of Silt  
Public Works Department  
Deferred Maintenance Program**

Town of Silt Streets								2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
NAME	TYPE	LENGTH	WIDTH	SQ. FT.	Date	CONDITION	TREATMENT																	
Harness Ln. 1st to ecl	Asphalt	1,300	36	46,800	2003	10	chip								\$23,400									
W Richards	Asphalt	811	24	19,464	2003	10	chip with fog								\$9,732									
W Orchard Ave	Asphalt	758	24	18,192	2003	10	chip with fog								\$9,096									
Ponderosa Dr	Asphalt	449	24	10,776	2003	10	chip with fog								\$5,388									
Bristlecone Way	Asphalt	578	24	13,872	2003	10	chip with fog								\$6,936									
Evergreen Rd	Asphalt	782	24	18,768	2003	10	chip with fog								\$9,384									
<b>Stoney Ridge</b>																								
Stoney Ridge Dr	Asphalt	1,848	24	44,352	2006	10																		
Rimrock Dr.	Asphalt	792	33	26,136	2006	10																		
Fieldstone Ct	Asphalt	369	33	12,177	2006	10																		
First Mesa	Asphalt	580	33	19,140	2006	10																		
Bedrock Cir	Asphalt	739	33	24,387	2006	10																		
East Vista	Asphalt	528	33	17,424	2006																			
<b>Mira Loma</b>																								
Belgian Loop	Asphalt	1,320	28	36,960	2008	10																		
Iron Horse Dr.	Asphalt	1,056	38	40,128																				
Belgian Ct.	Asphalt	165	28	4,620																				
<b>Camario</b>																								
East Ballard	Asphalt	600	29	17,400	2008																			
Camario	Asphalt	200	36	7,200	2008																			
<b>Painted Pastures</b>																								
Grand Ave Heavly View to Overo	Asphalt	1,188	37	43,956	2008																			
Overo	Asphalt	915	29	26,535	2008																			
W Sabino	Asphalt	1,367	26	35,542	2008																			
Tobiona	Asphalt	548	26	14,248	2008																			
Grullo	Asphalt	605	26	15,730	2008																			
Sorrel	Asphalt	379	26	9,854	2008																			
Roan	Asphalt	564	26	14,664	2008																			
<b>Stillwater</b>																								
Co Road 311 frontage rd to bridge	Asphalt	395	24	9,480	1984																			
Co Road 311 stop to ecl	Asphalt	0	24		1984	deannex																		
Co Road 346 ecl to 331	Asphalt	0	23		1984	deannex																		
Co Road 331 311 to ecl	Asphalt	0	23		1984	deannex																		
<b>TOTAL 2003 dollars</b>								\$134,702	\$134,620	\$164,285	\$162,621	\$141,000	\$159,135	\$232,268	\$132,704	\$116,826	\$63,929							
		91,537		2,644,835																				
		17.34	miles	293,871			sq. yds																	
crack fill								\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	
sub total								\$149,702	\$149,620	\$179,285	\$177,621	\$156,000	\$174,135	\$247,268	\$147,704	\$131,826	\$78,929							
Factor								1.05	1.1	1.136	1.181	1.228	1.277	1.329	1.382	1.437	1.494							
								\$157,187	\$163,385	\$203,611	\$209,790	\$191,623	\$222,455	\$328,516	\$204,086	\$189,433	\$117,957							
<b>Factors per square foot</b>																								
chip and seal factor	0.33	0.33																						
overlay factor	1.45	1.45																						
chip seal & Fog factor	0.5	0.5																						
inflation factor	1.05	1.04																						
curb gutter sidewalk one side	50																							
38 foot wide with curb and sidewalk	176																							
<b>** THIS SPREADSHEET WAS CREATED BY THE PUBLIC WORKS DEPARTMENT AND HAS ONLY BEEN PROJECTED TO 2023 **</b>																								
		- Streets with PASER ratings between 1 - 3																						
		- Streets with PASER ratings between 4 - 7																						
		- Streets with PASER ratings between 8 - 10																						

