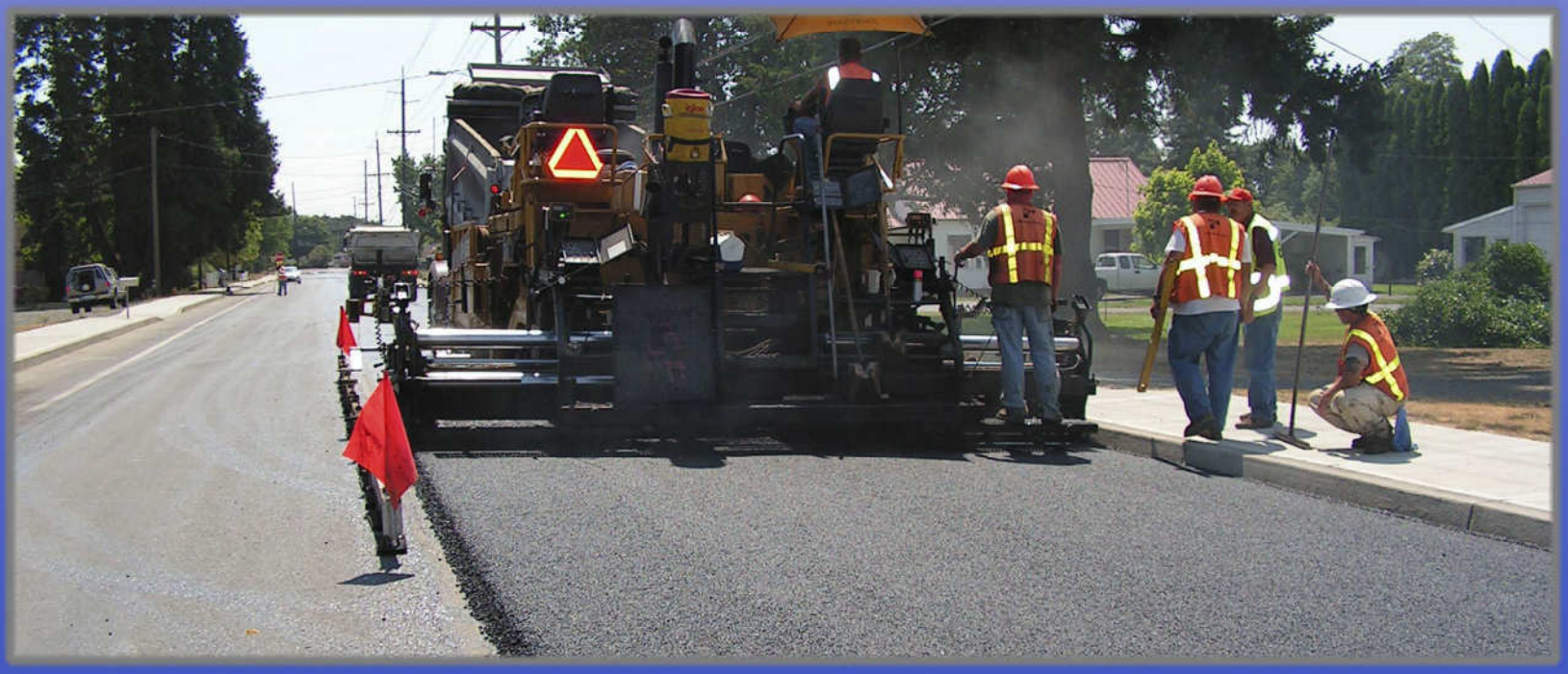
Pavement Management Program
Budget Options Report



Capitol Asset & Pavement Services Inc

November, 2011

City of Cloverdale

Table of Contents

Executive Summary

Capitol Asset & Pavement Services, Inc. was selected as part of the Metropolitan Transportation Commission Pavement Management Technical Assistance Program (P-TAP) to perform visual inspections of all of the streets in the City of Cloverdale. All 31.95 centerline miles of streets were evaluated in accordance with MTC standards, and the Streetsaver Online 9.0 database was updated with the inspection data. Pavement inspections were completed in July, 2011.

The maintenance decision tree treatments and costs were reviewed and updated to reflect current pavement maintenance treatment prices. Maintenance & Rehabilitation history data was updated for street maintenance projects completed in the last two years. Budgetary Needs analysis was performed based on the updated inspections and treatment costs, and four budget scenarios were evaluated to compare the effects of various funding levels.

The City of Cloverdale's street network consists of 31.95 centerline miles of streets. A detailed visual inspection of the City of Cloverdale streets resulted in a calculated average PCI of 67. Using a 0-100 PCI scale, with 100 being the most favorable, a rating of 67 places the City's street network in the upper range of the 'Fair' condition category.

Four Scenarios were analyzed for various street maintenance funding levels. The budget includes preventative maintenance and rehabilitation work for existing paved street surfaces. The City's current strategy of street maintenance, along with current prices for the treatments, was entered into a decision tree matrix. This matrix defines what treatments need to be applied to streets in varying PCI condition. Utilizing this decision matrix, it was determined that the City of Cloverdale will need to spend $15.6 million over the next five years to bring the street network into 'optimal' condition, or an overall street network PCI of 84. At this level, the City should be able to maintain the street network in the future with mostly cost-effective preventative maintenance treatments (crack seals and surface seals). Comparing this with the current funding level of $250,000 over the next five years shows that the average network PCI decreases by eight points, to 59 by 2016. Scenarios were also run to determine the funding level required to maintain the current network PCI of 67, as well as increase the PCI by 5 points over five years. Scenario analyses show that unless funding is increased from current levels, the overall street network condition will continue to decline at a rapid pace. Table 1 summarizes the findings of the scenarios. Additional details can be found on page 7.

Table 1 – Summary of outcome of different funding levels (Scenarios)

Average yearly budget	$3.12 million	$1.5 million	$750,000	$50,000 (Current budget)
Total budget for 5 years	$15.6 million	$7.5 million	$3.75 million	$250,000
Current PCI	67	67	67	67
Current % in 'Good' condition	66.8%	66.8%	66.8%	66.8%
PCI after 5 years (change)	84 (+17)	72 (+5)	67 (0)	59 (-8)
Backlog after 5 years	$0	$9.9 million	$14.3 million	$16.7 million
% 'Good' condition after 5 years	85.7%	83.1%	78.1%	67.1%

Purpose

This report is intended to assist the City of Cloverdale with identifying street maintenance priorities specific to the City.

The report examines the overall condition of the street network and highlights the impacts of various funding levels on the network pavement condition and deferred maintenance funding shortfalls. The Metropolitan Transportation Commission, MTC, Streetsaver Pavement Management Program (PMP) was used for this evaluation. The intent of this program is to develop a maintenance strategy that will improve the overall condition of the street network to an optimal Pavement Condition Index (PCI) in the low to mid 80's and also to maintain it at that level.

The MTC Streetsaver program maximizes the cost-effectiveness of the maintenance treatment plan by recommending a multi-year street maintenance and rehabilitation plan based on the most cost-effective repairs available. A comprehensive preventative maintenance program is a critical component of this plan, as these treatments extend the life of good pavements at a much lower cost than rehabilitation overlay or reconstruction treatments. To this end, various 'what-if' analyses (scenarios) were conducted to determine the most cost-effective plan for maintaining the City of Cloverdale's street network over five years and at various funding levels.

Existing Pavement Condition

The City of Cloverdale is responsible for the repair and maintenance of 31.95 centerline miles of streets. **The City's street network replacement value is estimated at $69.8 million.**[1] This represents a significant asset for City officials to manage. This asset valuation assumes replacement of the entire street network in present day dollars.

The average overall network Pavement Condition Index (PCI) of the City's street network is 67, which indicates that the street network is in 'Fair' condition. The Pavement Condition Index is a measurement of pavement condition that ranges from 0 to 100. A newly constructed or overlaid street would have a PCI of 100, while a failed road (requiring complete reconstruction) would have a PCI under 10. Appendix B contains a report detailing the PCI information for each street.

Table 2 details the network statistics and pavement condition by functional class. Table 3 and Figure 1 present the Percent Network Area by Functional and Condition classes.

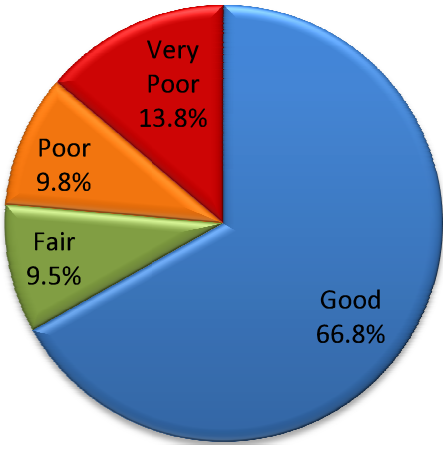
Table 2 – Street Network Statistics and Average PCI by Functional Class

Functional Class	Centerline Miles	Lane Miles	# of Sections	% of Network (by Area)	Average PCI
Arterial	6.59	14.69	37	28.0%	72
Collector	2.28	4.5	18	6.4%	65
Residential[2]	23.09	45.43	188	65.6%	65
Totals	31.95	64.62	243	--	67

Table 2 details the percentage of the street network area by each PCI range or condition category.

Table 3 and Figure 1 – Percent Network Area by Functional Class and Condition Class

Condition Class	PCI Range	Arterial	Collector	Residential	Total
Good (I)	70-100	23.1%	3.7%	40.0%	66.8%
Fair (II/III)	50-69	1.6%	2.3%	5.6%	9.5%
Poor (IV)	25-49	1.5%	0.3%	8.1%	9.8%
Very Poor (V)	0-24	1.8%	0.2%	11.8%	13.8%
Totals		28.0%	6.5%	65.6%	



[1] Replacement value is calculated as the current cost to reconstruct each street in the network
[2] Residential includes those streets marked Residential/Local as well as Other within database

Present Cost to Repair the Street Network

The MTC Pavement Management Program (PMP) is designed to achieve an optimal network PCI somewhere between the low and mid 80's, which is in the middle of the good condition category. In other words, the system will recommend maintenance treatments in an attempt to bring all of the streets in the City of Cloverdale to a 'good' condition, with the majority of the streets falling in the low to mid 80's PCI range. Streets with a PCI in the 80's (as opposed to 70's) will likely remain in the 'good' condition category for a longer period of time if relatively inexpensive preventive maintenance treatments are used. Once the PCI falls below 70, more expensive rehabilitation treatments will be needed.

The Budget Needs module of the PMP estimates a necessary funding level for the City's Pavement Preservation and Rehabilitation Program of $15.6 million[3] over the next five-year period (2012 – 2016) in order to improve and maintain the street network PCI at an optimal level in the lower to mid 80's. Of this total, approximately $11.8 million is needed in the first year alone. The five year costs of $15.6 million exceed the City of Cloverdale's planned 5-year funding level of $250,000 by approximately $15.35 million.

As mentioned earlier, the average PCI for the City of Cloverdale streets is 67, which is in the 'Fair' condition category. Why then, does it cost so much to repair the City of Cloverdale's streets, and why bother improving them?

First, the cost to repair and maintain a pavement depends on its current PCI. In the 'Good' category, it costs very little to apply preventive maintenance treatments such as crack and surface seals, which can extend the life of a pavement by correcting minor faults and reducing further deterioration. Minor treatments are applied before pavement deterioration has become severe and usually costs less than $3.50/sq. yd. Two-thirds (66.8%) of the City of Cloverdale's street network would benefit from these relatively inexpensive, life-extending treatments.

Approximately one-sixth (9.5%) of the City of Cloverdale's street network falls into the 'Fair' condition category. Pavements in this range show some form of distress caused by traffic load related activity or environmental distress that requires more than a life-extending treatment. At this point, a well-designed pavement will have served at least 75 percent of its life with the quality of the pavement dropping approximately 40 percent. The street surface may require a slurry seal application or a thin overlay. These treatments typically range in cost from $3.50 to $30.00/sq. yd.

The remaining 23.6% of the City of Cloverdale street network falls into the 'Poor' or 'Very Poor' PCI ranges. These pavements are near the end of their service lives and often exhibit major forms of distress such as potholes, extensive cracking, etc. At this stage, a street usually requires either a thick overlay or reconstruction. The costs for these treatments range from $35.00 to $110.00/sq. yd.

One of the key elements of a pavement repair strategy is to keep streets that are in the 'Good' or 'Fair' categories from deteriorating. This is particularly true for streets in the 'Fair' range, because they are at the point where pavement deterioration accelerates if left untreated. However, the deterioration rate for pavements in the 'Poor' to 'Very Poor' range is relatively flat and the condition of these streets will not decline significantly if repairs are delayed. As more 'Good'

[3] Treatment costs are based on this year's average costs per square yard, with future years including a 4% inflation adjustment per year after 2011.

streets deteriorate into the 'Fair', 'Poor', and 'Very Poor' categories, the cost of deferred maintenance will continue to increase. The cost of the deferred maintenance backlog will stop increasing only when enough funds are provided to prevent streets from deteriorating into a worse condition category, or the whole network falls into the 'Very Poor' category (i.e. can not deteriorate any further). The deferred maintenance backlog refers to the dollar amount of maintenance and rehabilitation work that should have been completed to maintain the street in "good" condition, but had to be deferred due to funding deficiencies for preventative maintenance and/or pavement rehabilitation programs. The actual repairs that are being deferred are often referred to as a "backlog."

Future Expenditures for Pavement Maintenance

Assuming historic funding is allocated for pavement maintenance, we anticipate that the City of Cloverdale will spend $250,000 on pavement maintenance rehabilitation during the next five years[4] (Fiscal year (FY) 2011-12 through FY 2015-16) as detailed on Table 4.

Table 4. Projected Pavement Budget for FY 2011-12 to FY 2015-16

2011-12	2012-13	2013-14	2014-15	2015-16	Total
$50,000	$50,000	$50,000	$50,000	$50,000	**$250,000**

Budget Needs

Based on the principle that it costs less to maintain streets in good condition than bad, the MTC PMP strives to develop a maintenance strategy that will first improve the overall condition of the network to an optimal PCI somewhere between the low and mid 80's, and then sustain it at that level. The average PCI for the City of Cloverdale is 67, which is in the upper end of the 'Fair' condition category. Current funding strategies demonstrate there is a $11.7 million deferred maintenance backlog[5] in the first year of the scenario. If these issues are not addressed, the quality of the street network will inevitably decline. In order to correct these deficiencies, a cost-effective funding and maintenance and rehabilitation strategy must be implemented.

The first step in developing a cost-effective maintenance and rehabilitation strategy is to determine, assuming unlimited revenues, the maintenance "needs" of the City of Cloverdale street network. Using the PMP Budget Needs module; street maintenance needs are estimated at $15.6 million over the next five years. If the City follows the strategy recommended by the program, the average network PCI will increase to 84. If, however, current pavement maintenance funding is exhausted and little or no maintenance is applied over the next five years, already distressed streets will continue to deteriorate, and the network PCI will drop to 59. The results of the Budget Needs analysis are summarized in Table 5.[6]

4 Projected pavement budget assumes only the City's allocation of Measure M funds
5 Definition of deferred maintenance backlog can be found in Appendix A
6 Actual program outputs are included in Appendixes B through F

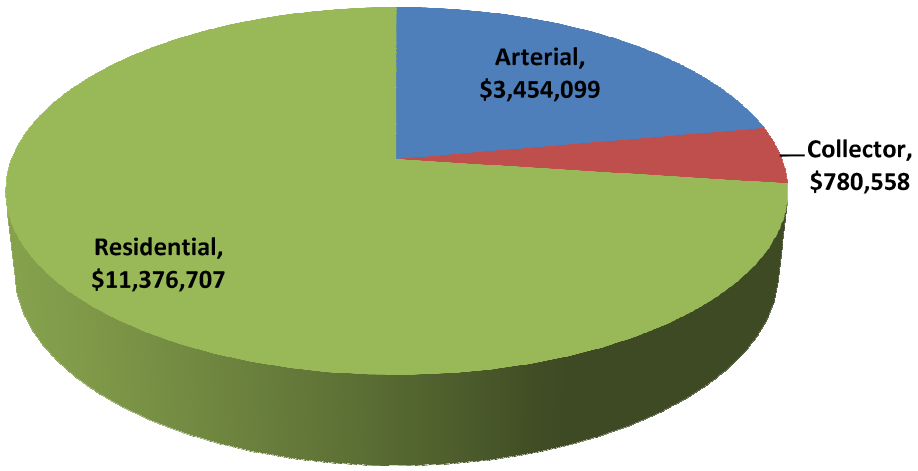
Table 5. Summary of Results from Needs Analysis

Fiscal Years	2011-12	2012-13	2013-14	2014-15	2015-16	Total
PCI with Treatment	85	84	84	83	84	---
PCI, no Treatment	66	64	62	60	59	---
Budget Needs	$11,765,314	$1,581,386	$723,647	$607,420	$933,697	**$15,611,464**
Preventative Maintenance	$846,377	$100,196	$85,410	$165,006	$246,802	**$1,443,791**
Rehabilitation	$10,918,937	$1,481,090	$638,237	$442,414	$686,895	**$14,167,573**

Table 5 shows the level of expenditure required to raise the City of Cloverdale's pavement condition to an optimal network PCI of 84 and eliminate the current maintenance and rehabilitation backlog. The results of the Budget Needs analysis represent the ideal funding strategy recommended by the MTC PMP. Of the $15.6 million in maintenance and rehabilitation needs shown, approximately $1.4 million or 9.2 percent is earmarked for preventive maintenance or life-extending treatments, while $14.2 million or 90.8 percent is allocated for the more costly rehabilitation and reconstruction treatments.

Figure 2 is based on the Budget Needs Predictive Module. The Pavement Management Program is recommending a funding level of $15.6 million over a five-year period. Figure 2 illustrates the funding distribution by street functional classification.

Figure 2. Budget Needs Funding
Distribution by Functional Classification



Budget Scenarios

Having determined the maintenance and rehabilitation needs of the City of Cloverdale's street network, the next step in developing a cost-effective maintenance and rehabilitation strategy is to conduct 'what-if' analyses. Using the PMP budget scenarios module, the impact of various budget scenarios can be evaluated. The program projects the effects of the different scenarios on pavement condition PCI and deferred maintenance (backlog). By examining the effects on these indicators, the advantages and disadvantages of different funding levels and maintenance strategies become clear. For the purpose of this report, the following scenarios were run for a five (5)-year period. The results are summarized in Table 6.

1. *Unconstrained (zero "deferred" maintenance)* — The annual amounts, as identified in the Budget Needs analysis totaling $15.6 million, were input into the Budget Scenarios module. This scenario shows the effects of implementing the ideal investment strategy (as recommended by the MTC PMP Needs module). Because it is more cost-effective to eliminate the deferred maintenance backlog as quickly as possible, the bulk of the maintenance needs are addressed in the first year of the five-year program raising the overall average network PCI to 84. The preventive maintenance split[7] for each year in the analysis period, as recommended by the Budget Needs module, was used.
2. *Current Investment Level* — An annual budget of $50,000 was evaluated over five years, for a total of $250,000, to determine the effects of continuing pavement maintenance at the current budget level. A 10% preventive maintenance split[6] was used.
3. *Maintain Current PCI* — An annual funding level of $750,000 per year, for a five year total of $3.75 million, was evaluated to determine the effects at this investment level. A 10% preventive maintenance split[6] was used for the purpose of this analysis. This funding level sustains the current overall network average PCI of 67 over the duration of the five-year analysis period.
4. *Increase Current PCI 5 points* — An investment level of $1.5 million in each year, for a total of $7.5 million over five years, was evaluated. This funding level increases the overall average network PCI by 5 points, to 72, by the end of the fifth year. A 10% preventive maintenance split[6] was used for the purpose of this analysis.

Table 6. Scenario Summary

Scenario Name	5 year budget	2016 PCI *(change)*	2016 deferred maintenance	2016 % good	2016 % Very Poor
1 - Unconstrained	$15.6 million	84*(+17)*	$0	97.0%	0.0%
2 - Current Investment	$250,000	59 *(-8)*	$16,745,825	59.7%	17.2%
3 - Maintain Current PCI	$3.75 million	67 *(+0)*	$14,335,696	80.2%	16.8%
4 - Increase PCI by 5 points	$7.5 million	72 *(+5)*	$9,917,865	85.0%	12.0%

[7] The preventative maintenance split is the percentage of the total budget that is dedicated solely for preventative maintenance treatments. (For Scenario 2 – with $50,000 total budget per year, the PM amount = $5,000 per year)

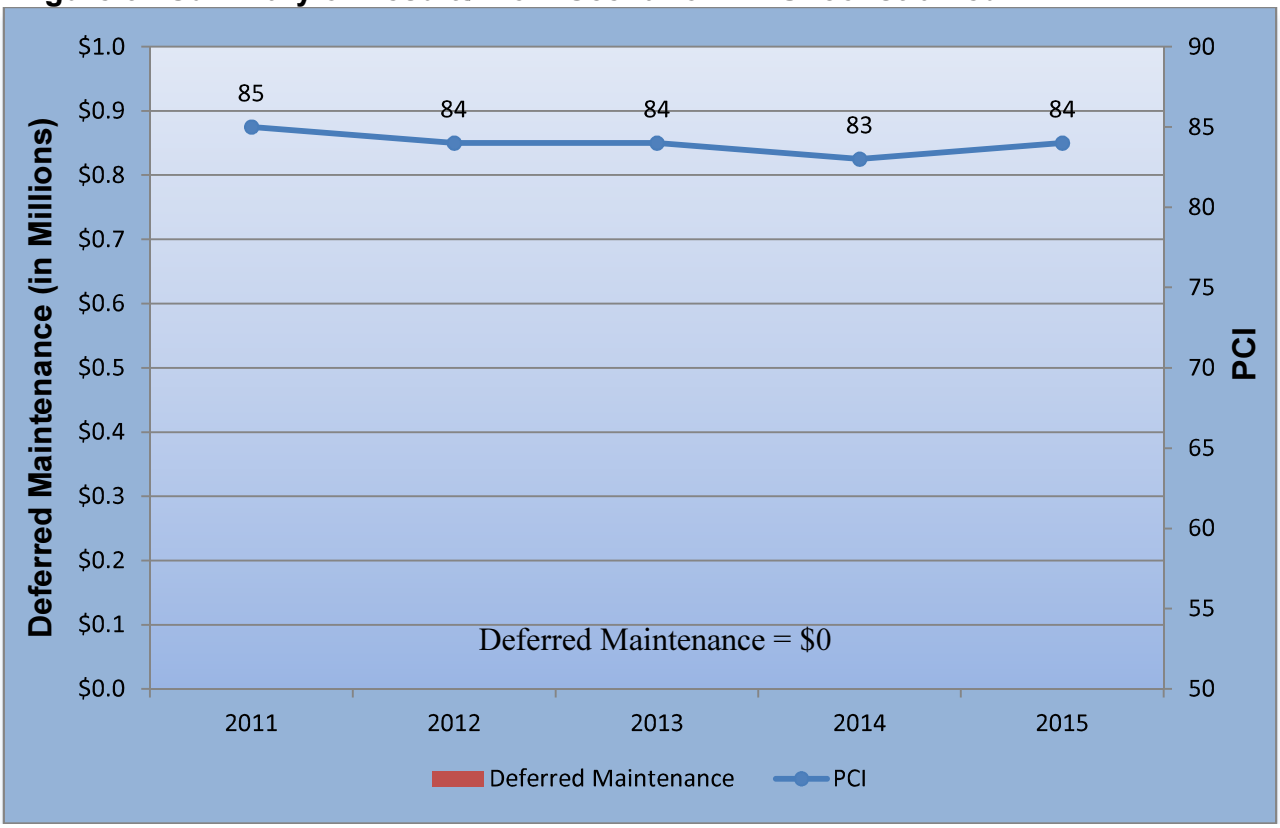
Scenario 1 — Unconstrained *(zero deferred maintenance)*

This scenario shows the effects of implementing the ideal investment strategy (as recommended by the MTC PMP Needs module). Because it is more cost-effective to eliminate the deferred maintenance backlog as quickly as possible, the bulk of the maintenance needs are addressed in the first year of the five-year program, raising the overall average network PCI to 84. The PCI remains at an optimal level over the entire time period. By 2016, 97.0% of the network improves into the 'Good' condition category, a significant increase from the current level of 66.8% in 'Good' condition. These results are shown in both Table 7 and Figure 3.

Table 7. Summary of Results from Scenario 1 — Unconstrained

	2012	2013	2014	2015	2016	Total
Budget	$11,765,314	$1,581,386	$723,647	$607,420	$933,697	**$15,611,464**
Rehabilitation	$10,918,937	$1,481,090	$638,237	$442,414	$686,895	**$14,167,573**
Preventative Maintenance	$846,377	$100,196	$85,410	$165,006	$246,802	**$1,443,791**
Deferred Maintenance	$0	$0	$0	$0	$0	---
PCI	85	84	84	83	84	

Figure 3. Summary of Results from Scenario 1 — Unconstrained



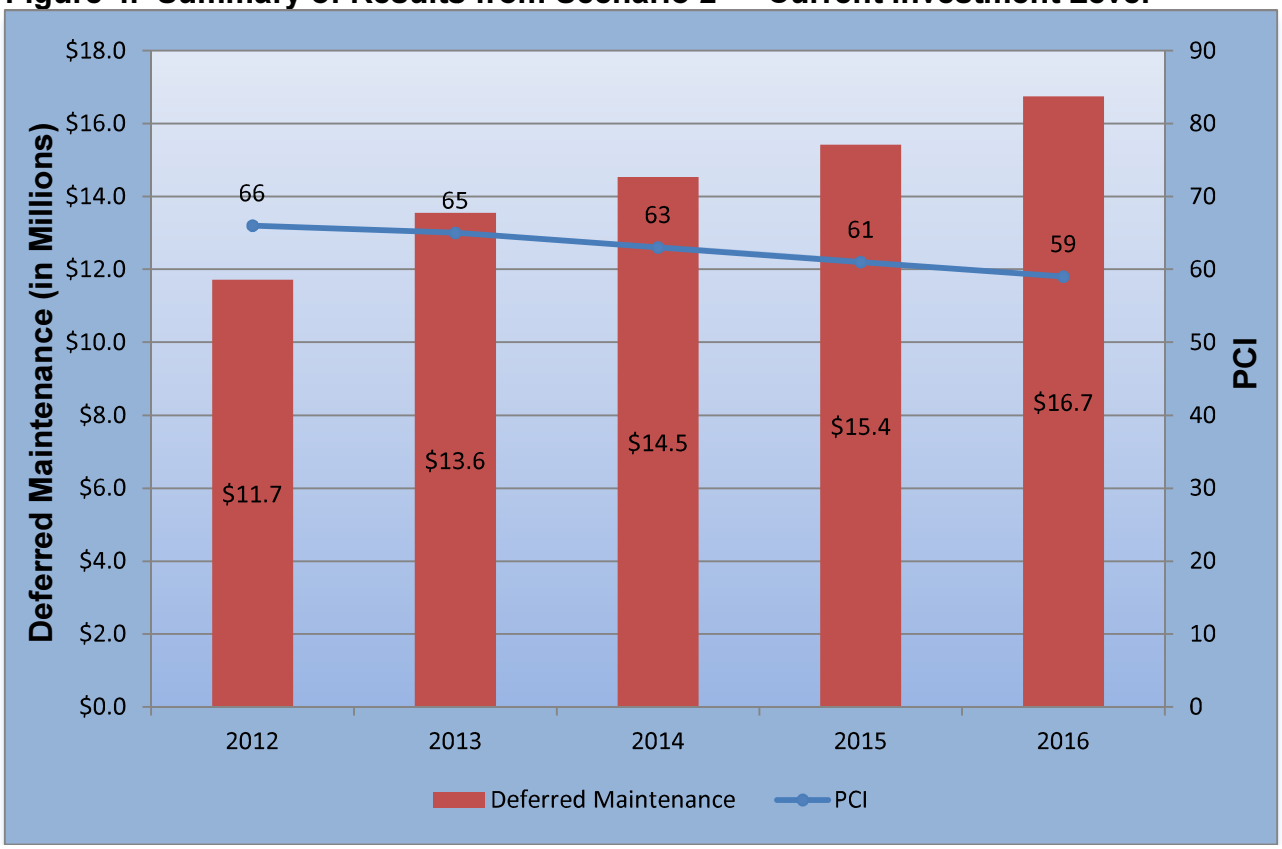
Scenario 2 — Current Investment Level

This scenario shows the effects of the City of Cloverdale's current budget strategy, an investment level of $50,000 per year starting in 2012, totaling $250,000 over five years. The overall network PCI will decrease by 8 points, from 67 currently, to 59 by 2016. Under this investment level, the deferred maintenance backlog increases, from $11.7 million in 2012, to $16.7 million in 2016. This is mainly due to the increase in the number of streets that will require an expensive reconstruction treatment, as the percentage of the street network in the 'Very Poor' condition increases from 13.8% in 2012 to 17.2% in 2016. These results are illustrated in Table 8 and Figure 4.

Table 8. Summary of Results from Scenario 2 — Current Investment Level

	2012	2013	2014	2015	2016	Total
Budget	$50,000	$50,000	$50,000	$50,000	$50,000	**$250,000**
Rehabilitation	$43,015	$44,383	$42,502	$40,746	$41,937	**$212,583**
Preventative Maintenance	$6,529	$5,561	$7,209	$8,617	$7,900	**$35,816**
Deferred Maintenance	$11,715,712	$13,551,342	$14,531,389	$15,421,677	$16,745,825	---
PCI	66	65	63	61	59	

Figure 4. Summary of Results from Scenario 2 — Current Investment Level



Scenario 3 — Maintain Current PCI

This scenario shows the effects of an investment level of $750,000 per year for five years, starting in 2012, and totaling $3.75 million over five years. This investment level maintains the overall average street network PCI at the current level of 67 over the five year scenario. While the PCI is stabilized, the deferred maintenance backlog still increases greatly, from the current level of $11.0 million to $14.3 million in 2016, mainly due to the increase of streets that will need reconstruction. The percentage of the street network in the 'Good' condition category increases from 66.8% to 80.2% in 2016. However, the percentage of roads in 'Very Poor' condition increases to 16.8% from the current level of 13.8%. These results are illustrated in Table 9 and Figure 5.

Table 9. Summary of Results, Scenario 3 — Maintain Current PCI

	2012	2013	2014	2015	2016	Total
Budget	$750,000	$750,000	$750,000	$750,000	$750,000	**$3,750,000**
Rehabilitation	$667,936	$674,916	$663,384	$674,030	$661,426	**$3,341,692**
Preventative Maintenance	$82,076	$74,845	$85,720	$75,512	$88,496	**$406,649**
Deferred Maintenance	$11,015,252	$12,383,479	$12,853,361	$13,323,392	$14,335,696	---
PCI	68	68	67	67	67	

Figure 5. Summary of Results from Scenario 3 — Maintain Current PCI

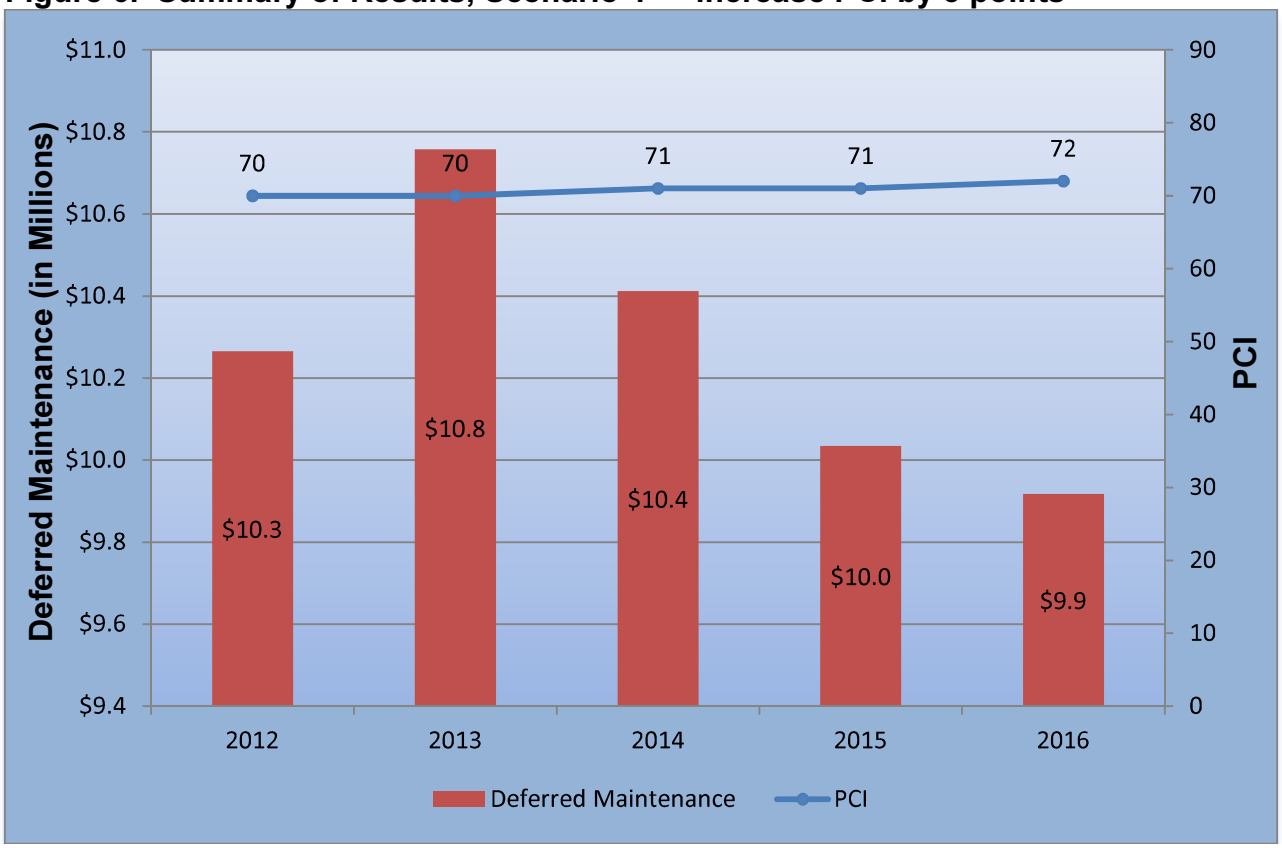
Scenario 4 — Increase PCI by 5 points

This scenario analyses the funding level that would be required to increase the current PCI by 5 points over the next five years. An annual investment level of $1.5 million, for a total of $7.5 million over five years, would be needed. Under this scenario, the PCI increases by five points, from the current level of 67, to 72 in 2016. The price tag to increase the PCI is so high, because this scenario includes the reconstruction of many streets in 'Very Poor' condition, and greatly decreases the deferred maintenance backlog ($3.4 million over 5 years is dedicated to reconstructions). The deferred maintenance backlog decreases from $10.3 million in 2012 to $9.9 million in 2016. The percentage of the street network in the 'Good' condition category increases from 66.8% in 2012 to 85.0% in 2016, and the percentage of roads in 'Very Poor' condition decrease to 12.0% from the current level of 13.8%. These results are illustrated in Table 10 and Figure 6.

Table 10. Summary of Results, Scenario 4 — Increase PCI by 5 points

	2012	2013	2014	2015	2016	Total
Budget	$1,500,000	$1,500,000	$1,500,000	$1,500,000	$1,500,000	**$7,500,000**
Rehabilitation	$1,339,096	$1,349,623	$1,329,598	$1,335,026	$1,348,355	**$6,701,698**
Preventative Maintenance	$160,603	$150,249	$170,008	$164,514	$151,108	**$796,482**
Deferred Maintenance	$10,265,567	$10,757,605	$10,411,959	$10,034,343	$9,917,865	---
PCI	70	70	71	71	72	

Figure 6. Summary of Results, Scenario 4 — Increase PCI by 5 points



A comparison of the four scenarios are summarized in Figures 7 and 8. Figure 7 depicts the deferred maintenance costs as they relate to PCI for the four scenarios evaluated. Figure 8 depicts the percent of the street network in the various condition categories for the four scenarios evaluated.

Figure 7. PCI and Deferred Maintenance Comparison of the Four Scenarios

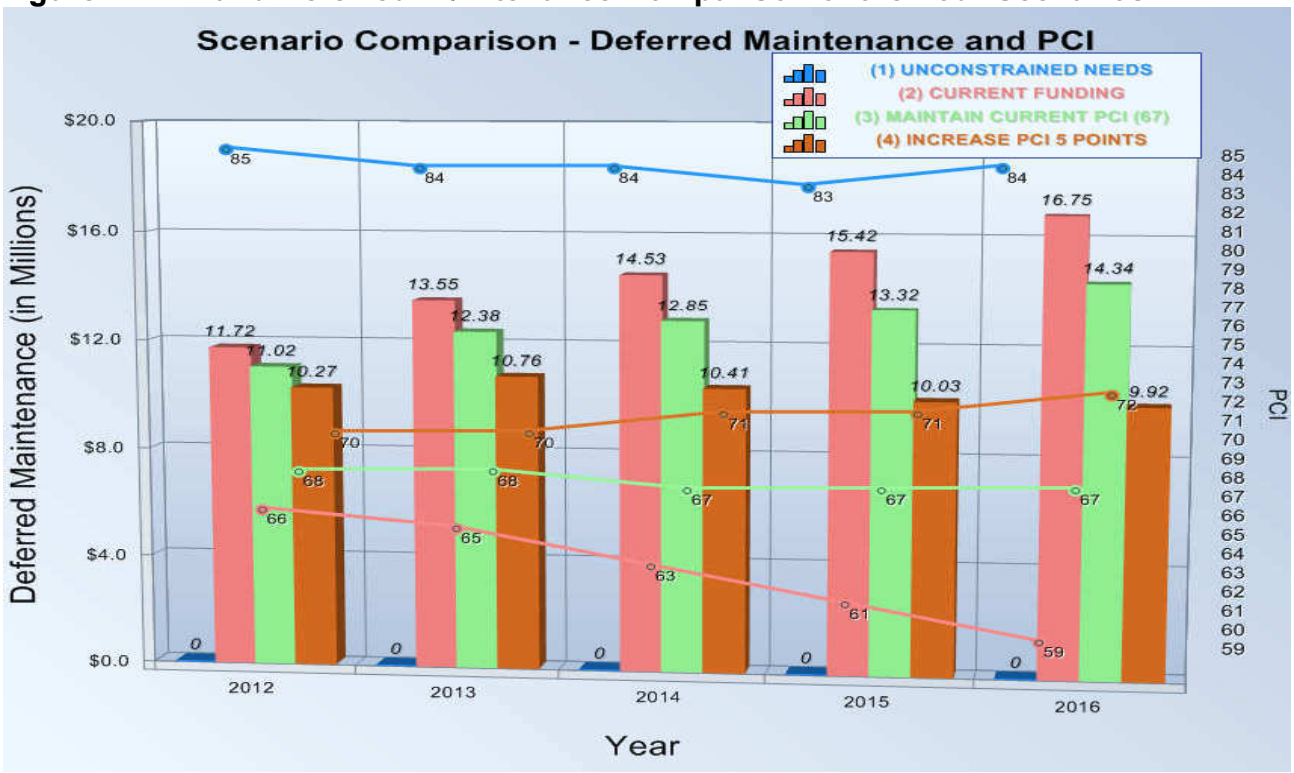
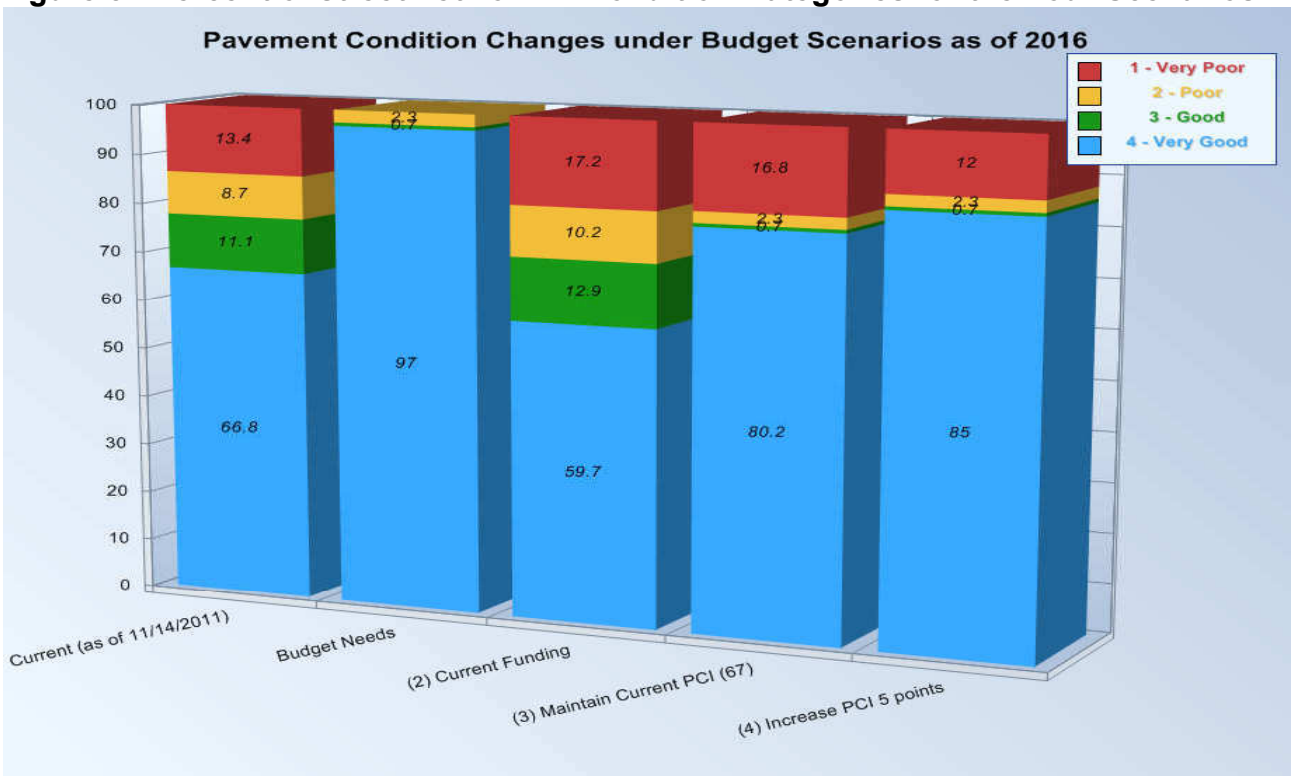


Figure 8 - Percent of street network in Condition Categories for the Four Scenarios



Current Pavement Maintenance Practices

Considering the limited funding for street maintenance, the City of Cloverdale has, in general, done a decent job maintaining the street network. The City has utilized some preventative maintenance in the past, though most funding seems to have been dedicated to overlays in their street maintenance program. It would be beneficial to dedicate more of the street maintenance budget to slurry and crack seals.

It is recommended that the City implement a more aggressive slurry seal program. One thing that really jumped out was the age of a lot of the streets, usually 10-15 year old AC pavements that basically had little to no preventative maintenance applied since the original construction. The city would be well served to apply slurry seals and crack sealing earlier in the pavement maintenance cycle. Structurally these streets are in good shape as we noticed very little fatigue cracking. The common distress was simply weathering & raveling which was mostly attributed to age and oxidation. By applying type II slurries to these streets in the near future, the city could defer re-paving of these streets for many years.

Another observation we made while doing the field inspections was the amount of utility patches on newer overlays. Sometimes the cutting of new pavements cannot be avoided, but better communication between the City's utility coordination and the pavement resurfacing efforts can help minimize the effects of utility patching. Utility patches create weak areas in the pavement surface, and completing utility cuts prior to overlaying a street is preferable to cutting a newer overlay.

Another recommendation we would make at this time is to have the database information with regards to lengths, widths, street names, and begin – end locations reconciled. Many of the segment lengths seem to be scaled off a map and not accurately verified in the field. The widths of at least 25% of the segments are incorrect and there were numerous errors in the street names. Our firm changed the most obvious ones during the inspection process, but a majority of them still need to be corrected. The City of Cloverdale could include that service as one of the deliverables in the next round of PTAP in order to get a more accurate database.

Routine preventative maintenance activities, such as aggressive crack and slurry seal programs, would assist in preserving the integrity of the streets until more funding is available and a more substantial rehabilitation project can be initiated. Surface seal and crack seals are cost effective means of using the City's limited funding because they can maintain the streets in a "Good" condition. It costs less in the long run to maintain a street in 'Good' condition rather than allow it to deteriorate to the point where it needs more expensive rehabilitation treatments such as overlays or reconstruction.

Recommendations

Of the various maintenance and funding options considered, the *ideal* strategy for the City is presented in Scenario 1, with a five-year expenditure total of $15.6 million. Not only does this surface management plan improve the network PCI to an optimal level of 84, it also eliminates the entire deferred maintenance backlog in the first year. As examined scenarios deviate from this strategy, the cost to the City will increase in the long term. However, the amount of funds in the first year of expenditure, approximately $11.8 million, may make this strategy unrealistic for the City. This scenario can, however, be used as a base line for comparing other scenarios.

The current five-year funding level totaling $250,000 (Scenario 2) will result in the current PCI decreasing by 8 points, to an average network PCI of 59 over the course of five years. The deferred maintenance price tag will increase greatly from $11.7 million in 2012, to $16.7 million in 2016. By following this strategy through 2016, 59.7% of the City's street will be in the 'Good' condition category, an decrease from the current level of 66.8% in 'Good' condition. Also, the area of the street network in 'Very Poor' condition increases, from 13.8% in 2012, to 17.2% in 2016. The City's current funding level is clearly insufficient to maintain the whole of the street network in 'Good' condition. Unless funding is increased from current levels, the overall street network condition will continue to decline at a rapid pace.

As demonstrated in the different scenarios, the City needs to invest a significant amount of money on expensive rehabilitation and reconstruction projects. This will reduce the deferred maintenance backlog, increase the network PCI and allow money to be spent for less capital-intensive treatments such as slurry seals, crack sealing, and thin overlays in the future.

The PMP Budget Needs Module recommends $13.3 million for streets in the 'Poor' to 'Very Poor' condition. Because these categories require extensive rehabilitation and reconstruction work, the work will consume approximately 85.0% of the planned costs, as estimated by the PMP. This places the City in a challenging position of trying to avoid increasing future street rehabilitation costs coupled with the risk of a substantial increase in an already significant five year shortfall projection. Currently, 13.8% of the street network is in 'Very Poor' condition. However, this is likely to increase to 17.2% in five years if current funding levels continue. This conclusion is noteworthy to the City Council. Unless funding is allocated to support an increase in the City's street rehabilitation program, the City may lose the opportunity to utilize lower cost preventative maintenance and light overlay treatment options.

The City should seek to increase funding for street maintenance. One strategy may be to implement a local fee dedicated solely to street maintenance and rehabilitation, such as a local gas tax or Transportation Utility Fee. A Transportation Utility Fee (sometimes known as a Street Maintenance Fee, Road User Fee, or Street Utility Fee) is a monthly fee based on use of the transportation system that is collected from residences and businesses within the city limits. The fee is based on the number of trips a particular land use generates and is collected through the City's regular utility bill. Adjustments can also be made for certain business types based on the nature of the traffic they create. For example garbage companies may be charged a higher rate due to the added damage heavy garbage trucks cause to streets. The fee is designated for use in the maintenance and repair of the City's transportation system. Users of the street system share the costs of the rehabilitative and preventive maintenance needed to keep the street system operating at an adequate level.

Preparation of a budget options report is just one step in using the MTC PMP to build an effective street maintenance program. Recommendations for further steps are:

- Link major street repairs with utility maintenance schedules to prevent damage to newly paved street surfaces.

- Obtain detailed subsurface information on selected sections before major rehabilitation projects are contracted. Costs for large rehabilitation projects are extremely variable and estimates can sometimes be reduced following project-level engineering analysis. It is possible that only a portion of a street recommended for reconstruction actually requires such heavy-duty repair.

- Evaluate the specific treatments and costs recommended by the PMP, and modify them to reflect the actual repairs and unit costs that are expected to be used.

- Test other budget options with varying revenues and preventive maintenance and rehabilitation splits.

- Prepare a brief memo to City Officials outlining the recommended five-year maintenance program. The memo should include the amount of revenues available for pavement repair, a list of streets to be repaired, and the type of repair to be completed (listed in order of year of scheduled treatment), as well as any requests for specific budgetary actions.

In addition to performing cyclic pavement condition inspections, unit cost information for the applications of various maintenance and rehabilitation treatments should be updated annually in the PMP 'Decision Tree Module'. If this data is not kept current, the City runs the risk of understating actual funding requirements to adequately maintain the street network. A pavement inspection cycle that would allow for the inspection of Arterial and Collector streets every two years, and residential streets every three to four years is recommended.

The City of Cloverdale has completed the foundation work necessary to execute a successful pavement management plan. The street system is on the upper end of the 'Fair' condition, indicating that the City has not applied sufficient funds to maintain their large capital investment in the street system. At the current investment level, the street condition will continue to deteriorate. To improve the condition of the street system and reduce the maintenance backlog, additional revenues and support from various decision-making bodies are required.

As more 'Good' streets deteriorate into the 'Poor' and 'Very Poor' categories, the cost of deferred maintenance will continue to increase. The cost of the deferred maintenance backlog will stop increasing only when enough funds are provided to prevent streets from deteriorating into a worse condition category, or when the whole network falls into the 'Very Poor' category (i.e. can not deteriorate any further). At that time, the network would have to be replaced at a cost of $69.8 million.

Appendix A - Definitions

The *pavement condition index*, or PCI, is a measurement of the health of the pavement network or condition and ranges from 0 to 100. A newly constructed street would have a PCI of 100, while a failed street would have a PCI of 10 or less. The PCI is calculated based on pavement distresses identified in the field.

Network is defined as a complete inventory of all streets and other pavement facilities in which the City has jurisdiction and maintenance responsibilities. To facilitate the management of streets, they are subdivided into management sections identified as a segment of street, which has the same characteristics.

Urban Arterial street system carries the major portion of trips entering and leaving the urban area, as well as the majority of through movements desiring to bypass the central City. In addition, significant intra-area-travel such as between central business districts and outlying residential areas exists.

Urban Collector Street provides land access service and traffic circulation within residential neighborhoods, commercial, and industrial areas. It differs from the arterial system in that facilities on a collector system may penetrate residential neighborhoods.

Urban Local Street system comprises all facilities not one of the higher systems. It serves primarily to provide direct access to abutting land and access to the higher systems.

Preventive Maintenance refers to repairs applied while the pavement is in "good" condition. Such repairs extend the life of the pavement at relatively low costs, and prevent the pavement from deteriorating into conditions requiring more expensive treatments. Preventive maintenance treatments include slurry seals, crack sealing, and deep patching. Treatments of this sort are applied before pavement deterioration has become severe and usually cost less than $2.00/sq. yd.

Deferred Maintenance refers to the dollar amount of maintenance and rehabilitation work that should have been completed to maintain the street in "good" condition, but had to be deferred due to funding deficiencies for preventative maintenance and/or pavement rehabilitation programs. The actual repairs that are being deferred are often referred to as a "backlog."

Stop Gap refers to the dollar amount of repairs applied to maintain the pavement in a serviceable condition (e.g. pothole patching). These repairs are a temporary measure to stop resident complaints, and do not extend the pavement life. Stopgap repairs are directly proportional to the amount of deferred maintenance.

Surface Types – AC is an Asphalt Concrete street that has one year's asphalt, for example a street that has been newly constructed reconstructed. In contrast AC/AC (in reports marked as O – AC/AC) is a street that has an overlay treatment over the original asphalt construction.

Appendix B

Network Summary Statistics

Network Replacement Cost

City of Cloverdale
126 North Cloverdale Blvd.
Cloverdale, CA 95425
(707) 894-1701

Network Summary Statistics

Printed: 10/25/2011

	Total Sections	Total Center Miles	Total Lane Miles	PCI
Arterial	12	3.27	8.05	77
Collector	18	2.28	4.50	65
Residential/Local	188	23.09	45.43	65
Urban Minor Arterial (16)	25	3.32	6.64	66
Total	**243**	**31.95**	**64.62**	

Overall Network PCI as of 10/25/2011: 67

City of Cloverdale
126 North Cloverdale Blvd.
Cloverdale, CA 95425
(707) 894-1701

Network Replacement Cost

Printed: 10/25/2011

Functional Class	Surface Type	Lane Miles	Unit Cost/ Square Foot	Pavement Area/ Square Feet	Cost To Replace (in thousands)
Arterial	AC	1.8	$12.2	154,093	$1,883
	AC/AC	6.3	$12.2	805,800	$9,849
Collector	AC	3.1	$12.2	261,034	$3,190
	AC/AC	1.3	$12.2	114,230	$1,396
	AC/PCC	0.1	$12.2	7,500	$92
Residential/Local	AC	35.1	$11.1	3,039,109	$33,768
	AC/AC	9.9	$11.1	907,495	$10,083
	AC/PCC	0.1	$11.1	11,320	$126
	PCC	0.0	$11.1	3,410	$38
	ST	0.3	$11.1	17,530	$195
Urban Minor Arterial (16)	AC	5.2	$12.2	607,266	$7,422
	AC/AC	1.3	$12.2	132,210	$1,616
	AC/PCC	0.1	$12.2	10,260	$125
	Grand Total:	64.6		6,071,257	$69,783

Appendix C

Needs Analysis Reports

City of Cloverdale
126 North Cloverdale Blvd.
Cloverdale, CA 95425
(707) 894-1701

Needs - Projected PCI/Cost Summary

Inflation Rate = **4.00** **%** Printed: 10/25/2011

Year	PCI Treated	PCI Untreated	PM Cost	Rehab Cost	Cost
2012	85	66	$846,377	$10,918,937	$11,765,314
2013	84	64	$100,196	$1,481,090	$1,581,286
2014	84	62	$85,410	$638,237	$723,647
2015	83	60	$165,006	$442,414	$607,420
2016	84	59	$246,802	$686,895	$933,697

% PM	PM Total Cost	Rehab Total Cost	Total Cost
9.25%	**$1,443,791**	**$14,167,573**	**$15,611,364**

City of Cloverdale
126 North Cloverdale Blvd.
Cloverdale, CA 95425
(707) 894-1701

Needs - Preventive Maintenance Treatment/Cost Summary

Inflation Rate = **4.00 %** Printed: 10/25/2011

Treatment	Year		Area Treated	Cost
SEAL CRACKS				
	2012		1,198.78 ft.	$1,959
	2013		1,754.19 ft.	$3,157
	2014		247.36 ft.	$429
	2015		20.26 ft.	$37
	2016		7,839.62 ft.	$15,025
		Total	11,060.21	$20,607
SINGLE CHIP SEAL				
	2016		833.33 sq.yd.	$7,946
		Total	833.33	$7,946
SLURRY SEAL				
	2012		246,752.22 sq.yd.	$844,418
	2013		27,123.33 sq.yd.	$97,039
	2014		22,963.89 sq.yd.	$84,981
	2015		43,007 sq.yd.	$164,969
	2016		54,883.33 sq.yd.	$223,831
		Total	394,729.78	$1,415,238
		Total Quantity	406,623.32	$1,443,791

City of Cloverdale
126 North Cloverdale Blvd.
Cloverdale, CA 95425
(707) 894-1701

Needs - Rehabilitation Treatment/Cost Summary

Inflation Rate = **4.00 %** Printed: 10/25/2011

Treatment	Year		Area Treated		Cost
RECONSTRUCT STRUCTURE (AC)	2012		91,076.33	sq.yd.	$9,238,441
	2013		11,917.78	sq.yd.	$1,339,822
	2015		3,128.89	sq.yd.	$351,958
	2016		1,361.11	sq.yd.	$159,231
		Total	107,484.11	sq.yd.	$11,089,452
THICK AC OVERLAY(2.5 INCHES)	2012		172.22	sq.yd.	$6,200
		Total	172.22	sq.yd.	$6,200
TYPE III SLURRY SEAL	2012		31,037.44	sq.yd.	$252,962
	2013		16,666.67	sq.yd.	$141,268
	2014		18,008.89	sq.yd.	$158,751
	2015		9,866.67	sq.yd.	$90,456
	2016		4,570.22	sq.yd.	$43,575
		Total	80,149.89	sq.yd.	$687,012
Edge Grind 2" OL w/Fab	2012		2,631.11	sq.yd.	$63,147
		Total	2,631.11	sq.yd.	$63,147
Patch Edge Grind 2"OL w/Fab	2012		35,980	sq.yd.	$1,265,787
	2014		6,400	sq.yd.	$249,201
	2016		5,688.89	sq.yd.	$239,588
		Total	48,068.89	sq.yd.	$1,754,576
Patch Edge Grind 3"OL w/Fab	2012		1,680	sq.yd.	$92,400
	2014		3,871.11	sq.yd.	$230,285
	2016		3,800	sq.yd.	$244,501
		Total	9,351.11	sq.yd.	$567,186
				Total Cost	$14,167,573

Appendix D

Scenario Analysis Reports

City of Cloverdale
126 North Cloverdale Blvd.
Cloverdale, CA 95425
(707) 894-1701

Scenarios - Network Condition Summary

Interest: 2% **Inflation: 4%** Printed: 10/25/2011

Scenario: (1) Unconstrained Needs

Year	Budget	PM Amt	Year	Budget	PM Amt	Year	Budget	PM Amt
2012	$11,765,315	0%	**2013**	$1,581,387	0%	**2014**	$723,648	0%
2015	$607,421	0%	**2016**	$933,698	0%			

Projected Network Average PCI by year

Year	Never Treated	With Selected Treatment
2012	66	85
2013	64	84
2014	62	84
2015	60	83
2016	59	84

Percent Network Area by Functional Classification and Condition Class
Condition in base year 2012, prior to applying treatments.

Condition Class	Arterial	Collector	Res/Loc	Other	Total
I	23.1%	3.7%	40.0%	0.0%	66.8%
II / III	1.6%	2.3%	5.6%	0.0%	9.5%
IV	1.5%	0.3%	8.1%	0.0%	9.8%
V	1.8%	0.2%	11.8%	0.0%	13.8%
Total	**28.0%**	**6.5%**	**65.6%**	**0.0%**	**100.0%**

Percent Network Area by Functional Classification and Condition Class
Condition in year 2012 after schedulable treatments applied.

Condition Class	Arterial	Collector	Res/Loc	Other	Total
I	25.9%	5.9%	59.7%	0.0%	91.5%
II / III	0.6%	0.6%	2.5%	0.0%	3.7%
IV	1.5%	0.0%	3.4%	0.0%	4.8%
Total	**28.0%**	**6.5%**	**65.6%**	**0.0%**	**100.0%**

Percent Network Area by Functional Classification and Condition Class
Condition in year 2016 after schedulable treatments applied.

Condition Class	Arterial	Collector	Res/Loc	Other	Total
I	28.0%	6.5%	62.6%	0.0%	97.0%
II / III	0.0%	0.0%	0.7%	0.0%	0.7%
IV	0.0%	0.0%	2.3%	0.0%	2.3%
Total	**28.0%**	**6.5%**	**65.6%**	**0.0%**	**100.0%**

City of Cloverdale
126 North Cloverdale Blvd.
Cloverdale, CA 95425
(707) 894-1701

Scenarios - Cost Summary

Interest: 2.00% **Inflation: 4.00%** Printed: 10/25/2011

Scenario: (1) Unconstrained Needs

Year	PM Amt	Budget	Rehabilitation			Preventative Maintenance	Surplus PM	Deferred		Stop Gap
2012	0%	$11,765,315	**II**	$252,962	**Non-Project**	$846,377	$0	$0	**Funded**	$0
			III	$210,614					**Unmet**	$0
			IV	$1,216,920	**Project**	$0				
			V	$9,238,441						
			Total	**$10,918,937**						
			Project	$0						
2013	0%	$1,581,387	**II**	$141,268	**Non-Project**	$100,196	$0	$0	**Funded**	$0
			III	$0					**Unmet**	$0
			IV	$0	**Project**	$0				
			V	$1,339,822						
			Total	**$1,481,090**						
			Project	$0						
2014	0%	$723,648	**II**	$158,751	**Non-Project**	$85,410	$0	$0	**Funded**	$0
			III	$0					**Unmet**	$0
			IV	$479,486	**Project**	$0				
			V	$0						
			Total	**$638,237**						
			Project	$0						
2015	0%	$607,421	**II**	$90,456	**Non-Project**	$165,006	$0	$0	**Funded**	$0
			III	$0					**Unmet**	$0
			IV	$0	**Project**	$0				
			V	$351,958						
			Total	**$442,414**						
			Project	$0						
2016	0%	$933,698	**II**	$43,575	**Non-Project**	$246,802	$0	$0	**Funded**	$0
			III	$0					**Unmet**	$0
			IV	$484,089	**Project**	$0				
			V	$159,231						
			Total	**$686,895**						
			Project	$0						

Summary

Functional Class	Rehabilitation	Prev. Maint.	Funded Stop Gap	Unmet Stop Gap
Arterial	$2,977,160	$476,939	$0	$0
Collector	$692,794	$87,764	$0	$0
Residential/Local	$10,497,619	$879,088	$0	$0
Grand Total:	$14,167,573	$1,443,791	$0	$0

City of Cloverdale
126 North Cloverdale Blvd.
Cloverdale, CA 95425
(707) 894-1701

Scenarios - Network Condition Summary

Interest: 2% **Inflation: 4%** Printed: 10/25/2011

Scenario: (2) Current Funding

Year	Budget	PM Amt	Year	Budget	PM Amt	Year	Budget	PM Amt
2012	$50,000	10%	**2013**	$50,000	10%	**2014**	$50,000	10%
2015	$50,000	10%	**2016**	$50,000	10%			

Projected Network Average PCI by year

Year	Never Treated	With Selected Treatment
2012	66	66
2013	64	65
2014	62	63
2015	60	61
2016	59	59

Percent Network Area by Functional Classification and Condition Class
Condition in base year 2012, prior to applying treatments.

Condition Class	Arterial	Collector	Res/Loc	Other	Total
I	23.1%	3.7%	40.0%	0.0%	66.8%
II / III	1.6%	2.3%	5.6%	0.0%	9.5%
IV	1.5%	0.3%	8.1%	0.0%	9.8%
V	1.8%	0.2%	11.8%	0.0%	13.8%
Total	**28.0%**	**6.5%**	**65.6%**	**0.0%**	**100.0%**

Percent Network Area by Functional Classification and Condition Class
Condition in year 2012 after schedulable treatments applied.

Condition Class	Arterial	Collector	Res/Loc	Other	Total
I	23.4%	4.1%	40.1%	0.0%	67.6%
II / III	1.3%	1.9%	5.5%	0.0%	8.7%
IV	1.5%	0.3%	8.1%	0.0%	9.8%
V	1.8%	0.2%	11.8%	0.0%	13.8%
Total	**28.0%**	**6.5%**	**65.6%**	**0.0%**	**100.0%**

Percent Network Area by Functional Classification and Condition Class
Condition in year 2016 after schedulable treatments applied.

Condition Class	Arterial	Collector	Res/Loc	Other	Total
I	17.3%	3.9%	38.5%	0.0%	59.7%
II / III	6.8%	0.8%	5.3%	0.0%	12.9%
IV	0.6%	0.7%	8.9%	0.0%	10.2%
V	3.3%	1.0%	12.9%	0.0%	17.2%
Total	**28.0%**	**6.5%**	**65.6%**	**0.0%**	**100.0%**

City of Cloverdale
126 North Cloverdale Blvd.
Cloverdale, CA 95425
(707) 894-1701

Scenarios - Cost Summary

Interest: 2.00% **Inflation: 4.00%** Printed: 10/25/2011

Scenario: (2) Current Funding

Year	PM Amt	Budget		Rehabilitation		Preventative Maintenance	Surplus PM	Deferred		Stop Gap
2012	10%	$50,000	II	$43,015	Non-Project	$6,529	$0	$11,715,712	Funded	$0
			III	$0					Unmet	$81,953
			IV	$0	Project	$0				
			V	$0						
			Total	**$43,015**						
			Project	$0						
2013	10%	$50,000	II	$44,383	Non-Project	$5,561	$0	$13,551,342	Funded	$0
			III	$0					Unmet	$11,921
			IV	$0	Project	$0				
			V	$0						
			Total	**$44,383**						
			Project	$0						
2014	10%	$50,000	II	$42,502	Non-Project	$7,209	$0	$14,531,389	Funded	$0
			III	$0					Unmet	$3,994
			IV	$0	Project	$0				
			V	$0						
			Total	**$42,502**						
			Project	$0						
2015	10%	$50,000	II	$40,746	Non-Project	$8,617	$0	$15,421,677	Funded	$0
			III	$0					Unmet	$3,508
			IV	$0	Project	$0				
			V	$0						
			Total	**$40,746**						
			Project	$0						
2016	10%	$50,000	II	$41,937	Non-Project	$7,900	$0	$16,745,825	Funded	$0
			III	$0					Unmet	$7,807
			IV	$0	Project	$0				
			V	$0						
			Total	**$41,937**						
			Project	$0						

Summary

Functional Class	Rehabilitation	Prev. Maint.	Funded Stop Gap	Unmet Stop Gap
Arterial	$98,341	$8,139	$0	$24,956
Collector	$67,811	$438	$0	$4,050
Residential/Local	$46,431	$27,239	$0	$80,176
Grand Total:	$212,583	$35,816	$0	$109,182

City of Cloverdale
126 North Cloverdale Blvd.
Cloverdale, CA 95425
(707) 894-1701

Scenarios - Network Condition Summary

Interest: 2% **Inflation: 4%** Printed: 10/25/2011

Scenario: (3) Maintain Current PCI (67)

Year	Budget	PM Amt	Year	Budget	PM Amt	Year	Budget	PM Amt
2012	$750,000	10%	**2013**	$750,000	10%	**2014**	$750,000	10%
2015	$750,000	10%	**2016**	$750,000	10%			

Projected Network Average PCI by year

Year	Never Treated	With Selected Treatment
2012	66	68
2013	64	68
2014	62	67
2015	60	67
2016	59	67

Percent Network Area by Functional Classification and Condition Class
Condition in base year 2012, prior to applying treatments.

Condition Class	Arterial	Collector	Res/Loc	Other	Total
I	23.1%	3.7%	40.0%	0.0%	66.8%
II / III	1.6%	2.3%	5.6%	0.0%	9.5%
IV	1.5%	0.3%	8.1%	0.0%	9.8%
V	1.8%	0.2%	11.8%	0.0%	13.8%
Total	**28.0%**	**6.5%**	**65.6%**	**0.0%**	**100.0%**

Percent Network Area by Functional Classification and Condition Class
Condition in year 2012 after schedulable treatments applied.

Condition Class	Arterial	Collector	Res/Loc	Other	Total
I	24.1%	5.4%	44.0%	0.0%	73.5%
II / III	0.6%	0.6%	2.5%	0.0%	3.7%
IV	1.5%	0.3%	7.2%	0.0%	9.0%
V	1.8%	0.2%	11.8%	0.0%	13.8%
Total	**28.0%**	**6.5%**	**65.6%**	**0.0%**	**100.0%**

Percent Network Area by Functional Classification and Condition Class
Condition in year 2016 after schedulable treatments applied.

Condition Class	Arterial	Collector	Res/Loc	Other	Total
I	24.9%	5.5%	49.9%	0.0%	80.2%
II / III	0.0%	0.0%	0.7%	0.0%	0.7%
IV	0.0%	0.0%	2.3%	0.0%	2.3%
V	3.1%	1.0%	12.7%	0.0%	16.8%
Total	**28.0%**	**6.5%**	**65.6%**	**0.0%**	**100.0%**

City of Cloverdale
126 North Cloverdale Blvd.
Cloverdale, CA 95425
(707) 894-1701

Scenarios - Cost Summary

Interest: 2.00% **Inflation: 4.00%** Printed: 10/25/2011

Scenario: (3) Maintain Current PCI (67)

Year	PM Amt	Budget	Rehabilitation			Preventative Maintenance	Surplus PM	Deferred		Stop Gap
2012	10%	$750,000	**II**	$252,962	**Non-Project**	$82,076	$0	$11,015,252	**Funded**	$0
			III	$210,614					**Unmet**	$76,488
			IV	$204,360	**Project**	$0				
			V	$0						
			Total	**$667,936**						
			Project	$0						
2013	10%	$750,000	**II**	$141,268	**Non-Project**	$74,845	$155	$12,383,479	**Funded**	$0
			III	$0					**Unmet**	$9,668
			IV	$471,744	**Project**	$0				
			V	$61,904						
			Total	**$674,916**						
			Project	$0						
2014	10%	$750,000	**II**	$158,751	**Non-Project**	$85,720	$0	$12,853,361	**Funded**	$0
			III	$0					**Unmet**	$2,222
			IV	$504,633	**Project**	$0				
			V	$0						
			Total	**$663,384**						
			Project	$0						
2015	10%	$750,000	**II**	$111,970	**Non-Project**	$75,512	$0	$13,323,392	**Funded**	$0
			III	$96,739					**Unmet**	$2,745
			IV	$259,170	**Project**	$0				
			V	$206,151						
			Total	**$674,030**						
			Project	$0						
2016	10%	$750,000	**II**	$144,450	**Non-Project**	$88,496	$0	$14,335,696	**Funded**	$0
			III	$0					**Unmet**	$1,242
			IV	$484,089	**Project**	$0				
			V	$32,887						
			Total	**$661,426**						
			Project	$0						

Summary

Functional Class	Rehabilitation	Prev. Maint.	Funded Stop Gap	Unmet Stop Gap
Arterial	$730,245	$260,570	$0	$17,038
Collector	$361,223	$806	$0	$2,166
Residential/Local	$2,250,224	$145,273	$0	$73,160
Grand Total:	$3,341,692	$406,649	$0	$92,364

City of Cloverdale
126 North Cloverdale Blvd.
Cloverdale, CA 95425
(707) 894-1701

Scenarios - Network Condition Summary

Interest: 2% **Inflation: 4%** Printed: 10/25/2011

Scenario: (4) Increase PCI 5 points

Year	Budget	PM Amt	Year	Budget	PM Amt	Year	Budget	PM Amt
2012	$1,500,000	10%	**2013**	$1,500,000	10%	**2014**	$1,500,000	10%
2015	$1,500,000	10%	**2016**	$1,500,000	10%			

Projected Network Average PCI by year

Year	Never Treated	With Selected Treatment
2012	66	70
2013	64	70
2014	62	71
2015	60	71
2016	59	72

Percent Network Area by Functional Classification and Condition Class
Condition in base year 2012, prior to applying treatments.

Condition Class	Arterial	Collector	Res/Loc	Other	Total
I	23.1%	3.7%	40.0%	0.0%	66.8%
II / III	1.6%	2.3%	5.6%	0.0%	9.5%
IV	1.5%	0.3%	8.1%	0.0%	9.8%
V	1.8%	0.2%	11.8%	0.0%	13.8%
Total	**28.0%**	**6.5%**	**65.6%**	**0.0%**	**100.0%**

Percent Network Area by Functional Classification and Condition Class
Condition in year 2012 after schedulable treatments applied.

Condition Class	Arterial	Collector	Res/Loc	Other	Total
I	24.1%	5.7%	46.3%	0.0%	76.2%
II / III	0.6%	0.6%	2.5%	0.0%	3.7%
IV	1.5%	0.0%	4.9%	0.0%	6.4%
V	1.8%	0.1%	11.8%	0.0%	13.8%
Total	**28.0%**	**6.5%**	**65.6%**	**0.0%**	**100.0%**

Percent Network Area by Functional Classification and Condition Class
Condition in year 2016 after schedulable treatments applied.

Condition Class	Arterial	Collector	Res/Loc	Other	Total
I	28.0%	6.5%	50.6%	0.0%	85.0%
II / III	0.0%	0.0%	0.7%	0.0%	0.7%
IV	0.0%	0.0%	2.3%	0.0%	2.3%
V	0.0%	0.0%	12.0%	0.0%	12.0%
Total	**28.0%**	**6.5%**	**65.6%**	**0.0%**	**100.0%**

City of Cloverdale
126 North Cloverdale Blvd.
Cloverdale, CA 95425
(707) 894-1701

Scenarios - Cost Summary

Interest: 2.00% **Inflation: 4.00%** Printed: 10/25/2011

Scenario: (4) Increase PCI 5 points

Year	PM Amt	Budget	Rehabilitation			Preventative Maintenance	Surplus PM	Deferred		Stop Gap
2012	10%	$1,500,000	**II**	$252,962	**Non-Project**	$160,603	$0	$10,265,567	**Funded**	$0
			III	$210,614					**Unmet**	$72,886
			IV	$842,520	**Project**	$0				
			V	$33,000						
			Total	**$1,339,096**						
			Project	$0						
2013	10%	$1,500,000	**II**	$141,268	**Non-Project**	$150,249	$0	$10,757,605	**Funded**	$0
			III	$0					**Unmet**	$6,901
			IV	$389,376	**Project**	$0				
			V	$818,979						
			Total	**$1,349,623**						
			Project	$0						
2014	10%	$1,500,000	**II**	$158,751	**Non-Project**	$170,008	$0	$10,411,959	**Funded**	$0
			III	$0					**Unmet**	$0
			IV	$479,486	**Project**	$0				
			V	$691,361						
			Total	**$1,329,598**						
			Project	$0						
2015	10%	$1,500,000	**II**	$111,970	**Non-Project**	$164,514	$0	$10,034,343	**Funded**	$0
			III	$96,739					**Unmet**	$2,745
			IV	$0	**Project**	$0				
			V	$1,126,317						
			Total	**$1,335,026**						
			Project	$0						
2016	10%	$1,500,000	**II**	$144,450	**Non-Project**	$151,108	$0	$9,917,865	**Funded**	$0
			III	$0					**Unmet**	$1,242
			IV	$484,089	**Project**	$0				
			V	$719,816						
			Total	**$1,348,355**						
			Project	$0						

Summary

Functional Class	Rehabilitation	Prev. Maint.	Funded Stop Gap	Unmet Stop Gap
Arterial	$3,172,582	$343,596	$0	$14,271
Collector	$793,811	$866	$0	$758
Residential/Local	$2,735,305	$452,020	$0	$68,744
Grand Total:	$6,701,698	$796,482	$0	$83,773

Appendix E

Section PCI/RSL Listing

Map – Current PCI Condition

City of Cloverdale
126 North Cloverdale Blvd.
Cloverdale, CA 95425
(707) 894-1701

Section PCI/RSL Listing

Printed: 09/19/2011

Street ID	Section ID	Street Name	From	To	Length	Width	Area	Functional Class	Surface Type	Current PCI	Remaining Life
ALBANY	10	ALBANY STREET	CLOVER SPRINGS	RED MOUNTAIN	570	32	18,240	R - Residential/Local	A - AC	87	30.37
ALBRTZ	10	ALBERTZ STREET	CLOVER SPRINGS	RED MOUNTAIN	490	32	15,680	R - Residential/Local	A - AC	82	31.65
ALLEN	01	ALLEN AVE	CLARK AVE	HILLVIEW DRIVE	1,000	32	32,000	R - Residential/Local	A - AC	1	0
ALTER	01	ALTER STREET	CLARK AVE	TARMAN DRIVE	800	33	26,400	R - Residential/Local	A - AC	64	17.5
ANTONI	01	ANTONIO	HARDISTER	DEAD END	520	33	17,160	R - Residential/Local	A - AC	4	0
ASTI	01	ASTI ROAD	FIRST	CITRUS FAIR DR	2,600	36	93,600	C - Collector	A - AC	48	4.95
ASTI	02	ASTI ROAD	CITRUS FAIR DR	400ft S OF RR XING	2,600	36	93,600	C - Collector	A - AC	50	5.49
ASTI	30	ASTI ROAD	Santana Dr	150ft S of Overcrossing	1,000	40	40,000	C - Collector	A - AC	54	6.37
BANDIE	01	BANDIERA WAY	CHABLIS WAY	DEAD END	330	32	10,560	R - Residential/Local	O - AC/AC	87	39.62
BLAIR	01	BLAIR STREET	CLARK AVE	TARMAN DRIVE	700	33	23,100	R - Residential/Local	A - AC	65	18.2
BLOCK	10	BLOCK DRIVE	OAK LANE	CLOVERCREST	335	12	4,020	R - Residential/Local	A - AC	18	0
BROAD	01	BROAD STREET	EAST STREET	TO PLAZA	250	64	16,000	R - Residential/Local	O - AC/AC	92	47.79
BROOKC	10	BROOK COURT	BROOKSIDE DRIVE	END CULDESEC	200	32	6,400	R - Residential/Local	A - AC	84	35.33
BROOKS	01	BROOKSIDE DRIVE	CLARK AVE	CLOVERDALE BLVD	1,600	32	51,200	R - Residential/Local	O - AC/AC	57	15.6
BROOKS	20	BROOKSIDE DRIVE	FOOTHILLL BLVD	CLOVERDALE BLVD	750	32	24,000	R - Residential/Local	A - AC	82	32.48
BROOKS	30	BROOKSIDE DRIVE	PORTERFIELD CREEK DRIVE	FOOTHILL BLVE	1,255	26	32,630	R - Residential/Local	A - AC	83	33.87
BUCKEY	10	BUCKEYE CIRCLE	PEPPERWOOD	PEPPERWOOD	1,130	33	37,290	R - Residential/Local	A - AC	89	40.17
BURGUN	01	BURGUNDY COURT	CHABLIS WAY	DEAD END	230	26	5,980	R - Residential/Local	O - AC/AC	85	35.49
BUTLER	10	BUTLER COURT	JEFFERSON	CDS	300	31	9,300	R - Residential/Local	A - AC	82	26.59
CABERC	10	CABERNET COURT	HEALDSBURG	CDS	250	33	8,250	R - Residential/Local	A - AC	90	40.62
CABERN	10	CABERNET STREET	MERLOT DRIVE	HEALDSBURG AVE	220	32	7,040	R - Residential/Local	A - AC	83	31.96
CALDWE	01	CALDWELL STREET	CLARK AVE	TARMAN DRIVE	680	30	20,400	R - Residential/Local	A - AC	29	1.11
CHABLI	01	CHABLIS WAY	FOOTHILL DRIVE	ROSE COURT	370	32	11,840	R - Residential/Local	O - AC/AC	87	39.62
CHABLI	02	CHABLIS WAY	ROSE COURT	CHARDONAY COURT	1,350	32	43,200	R - Residential/Local	O - AC/AC	86	37.48
CHABLI	03	CHABLIS WAY	CHARDONAY COURT	CUL-DE-SAC	700	32	22,400	R - Residential/Local	A - AC	64	16.97
CHAMPL	01	CHAMPLAIN AVENUE	CLOVERDALE BLVD	ALLEY/NORTH STREET	630	24	15,120	R - Residential/Local	O - AC/AC	67	22.62
CHAMPL	02	CHAMPLAIN AVENUE	ALLEY/NORTH STREET	JEFFERSON STREET	420	34	14,280	R - Residential/Local	A - AC	16	0
CHARDO	01	CHARDONAY COURT	CHABLIS WAY	DEAD END	200	26	5,200	R - Residential/Local	A - AC	70	21.47
CHARLE	01	CHARLES STREET	SCHOOL STREET	DEAD END	240	20	4,800	R - Residential/Local	A - AC	19	0
CHERRY	01	CHERRY CREEK ROAD	CLOVERDALE BLVD	FOOTHILL DR	770	31	23,870	C - Collector	O - AC/AC	69	16.55
CHERRY	02	CHERRY CREEK ROAD	FOOTHILL DRIVE	TOWN LIMITS	1,340	26	34,840	C - Collector	A - AC	38	2.68

City of Cloverdale
126 North Cloverdale Blvd.
Cloverdale, CA 95425
(707) 894-1701

Section PCI/RSL Listing

Printed: 09/19/2011

Street ID	Section ID	Street Name	From	To	Length	Width	Area	Functional Class	Surface Type	Current PCI	Remaining Life
CITRUS	10	CITRUS FAIR DRIVE	CLOVERDALE BLVD	HWY 101 ON RAMP	500	80	40,000	A - Arterial	A - AC	65	13.54
CLARK	01	CLARK AVENUE	SOUTH STREET	BLAIR STREET	1,100	33	36,300	R - Residential/Local	O - AC/AC	15	0
CLARK	02	CLARK AVENUE	BLAIR STREET	ALLEN AVE	1,050	33	34,650	R - Residential/Local	O - AC/AC	40	5.76
CLARK	03	CLARK AVENUE	ALLEN AVE	BROOKSIDE DRIVE	850	33	28,050	R - Residential/Local	O - AC/AC	59	14.74
CLOVSP	10	CLOVER SPRINGS DRIVE	DEL WEBB DRIVE	GENTLE BREEZE WAY	790	32	25,280	R - Residential/Local	A - AC	83	33.87
CLOVSP	20	CLOVER SPRINGS DRIVE	GENTLE BREEZE WAY	FOOTHILL BLVD	950	32	30,400	R - Residential/Local	A - AC	80	29.9
CLOVSP	30	CLOVER SPRINGS DRIVE	FOOTHILL	ALBANY	1,110	32	35,520	R - Residential/Local	A - AC	84	34.54
CLOVSP	40	CLOVER SPRINGS DRIVE	ALBANY	END	1,235	32	39,520	R - Residential/Local	A - AC	84	34.54
CLOVER	01	CLOVERCREST DRIVE	CLOVERDALE BLVD	END	770	20	15,400	R - Residential/Local	A - AC	6	0
CLVRDL	10	CLOVERDALE BLVD	NORTHERN TOWN BOUNDARY	NORTH STREET	2,100	40	84,000	A - Arterial	O - AC/AC	72	17.43
CLVRDL	100	CLOVERDALE BLVD	ELBRIDGE AVENUE	TREADWAY DRIVE	1,100	60	66,000	A - Arterial	O - AC/AC	73	18.03
CLVRDL	110	CLOVERDALE BLVD	TREADWAY DRIVE	SOUTHERN TOWN BOUNDARY	1,800	52	93,600	A - Arterial	O - AC/AC	74	18.65
CLVRDL	20	CLOVERDALE BLVD	NORTH STREET	THIRD STREET	2,100	53	111,300	A - Arterial	O - AC/AC	76	19.95
CLVRDL	30	CLOVERDALE BLVD	THIRD STREET	12O ft S OF LAKE ST	1,500	63	94,500	A - Arterial	A - AC	89	23.27
CLVRDL	40	CLOVERDALE BLVD	LAKE ST	120' N OF CITRUS FAIR DR	350	63	22,050	A - Arterial	O - AC/AC	90	31.95
CLVRDL	50	CLOVERDALE BLVD	120' SOUTH OF LAKE STREET	300' SOUTH OF CITRUS FAIR DR	800	70	56,000	A - Arterial	O - AC/AC	76	19.95
CLVRDL	60	CLOVERDALE BLVD	300' SOUTH OF CITRUS FAIR DR	FRANKLIN STREET	1,900	70	133,000	A - Arterial	O - AC/AC	75	19.29
CLVRDL	70	CLOVERDALE BLVD	FRANKLIN STREET	BROOKSIDE DRIVE	1,900	50	95,000	A - Arterial	O - AC/AC	79	22.02
CLVRDL	80	CLOVERDALE BLVD	BROOKSIDE DRIVE	SHADY LANE	1,000	72	72,000	A - Arterial	O - AC/AC	78	21.31
CLVRDL	90	CLOVERDALE BLVD	SHADY LANE	ELBRIDGE AVENUE	1,050	50	52,500	A - Arterial	O - AC/AC	80	22.75
COMMER	01	COMMERCIAL STREET	THIRD	FIRST	1,120	55	61,600	R - Residential/Local	O - AC/AC	92	47.79
COTTAG	10	COTTAGE COURT	RANCH HOUSE DRIVE	CUL-DE-SAC	480	32	15,360	R - Residential/Local	A - AC	81	29.21
CKSDST	10	CREEKSIDE STREET	CLOVER SPRINGS	RED MOUNTAIN	610	32	19,520	R - Residential/Local	A - AC	83	33.06
DEBMAR	01	DEBMAR LANE	ALLEN AVE	HILLVIEW DRIVE	370	32	11,840	R - Residential/Local	A - AC	2	0
DELWEB	10	DEL WEBB DRIVE	CLOVERDALE BLVD	FOOTHILL BLVD	768	33	25,344	C - Collector	A - AC	80	17.53

City of Cloverdale
126 North Cloverdale Blvd.
Cloverdale, CA 95425
(707) 894-1701

Section PCI/RSL Listing

Printed: 09/19/2011

Street ID	Section ID	Street Name	From	To	Length	Width	Area	Functional Class	Surface Type	Current PCI	Remaining Life
DINA	01	DINA STREET	CLARK AVE	TARMAN DRIVE	660	30	19,800	R - Residential/Local	A - AC	48	8.47
DOUG	10	DOUGLAS FIR CIRCLE	FOOTHILL	GRAPE GABLES	1,100	33	36,300	R - Residential/Local	A - AC	85	31.94
EAST	01	EAST STREET	SECOND	FIRST	680	50	34,000	R - Residential/Local	O - AC/AC	92	47.79
EAST	05	EAST STREET	FIRST ST	LAKE ST	450	50	22,500	R - Residential/Local	O - AC/AC	95	38.24
EAST	10	EAST STREET	LAKE ST	RAILROAD AVE	560	50	28,000	R - Residential/Local	O - AC/AC	78	32.46
ELBRDG	01	ELBRIDGE AVENUE	CLOVERDALE BLVD.	MARGERETTE LN	360	42	15,120	C - Collector	A - AC	25	0.05
ELBRDG	02	ELBRIDGE AVENUE	MARGERETTE LN	FOOTHILL BLVD	1,580	28	44,240	C - Collector	A - AC	42	3.68
ELBRDG	30	ELBRIDGE AVENUE	FOOTHILL BOULEVARD	230 ft NORTH OF RANCH HOUSE DR	530	32	16,960	R - Residential/Local	A - AC	87	38.52
ELBRDG	40	ELBRIDGE AVENUE	230 ft NORTH OF RANCH HOUSE DR	CUL-DE-SAC	530	28	14,840	R - Residential/Local	A - AC	87	38.52
ELM	01	ELM STREET	CLARK AVE	TARMAN DRIVE	680	30	20,400	R - Residential/Local	A - AC	78	24.72
FIRST	01-A	FIRST STREET	MULBERRY	WEST SIDE OF HWY 101	450	38	17,100	UMiA - Urban Minor Arterial (16)	O - AC/AC	92	28.62
FIRST	01-B	FIRST STREET	WEST SIDE OF HWY 101	LAKE STREET	405	38	15,390	UMiA - Urban Minor Arterial (16)	A - AC	94	25.05
FIRST	01-C	FIRST STREET	LAKE STREET	BRIDGE-TOWN LIMIT	545	38	20,710	UMiA - Urban Minor Arterial (16)	A - AC	27	0.61
FIRST	02A	FIRST STREET	CLOVERDALE BLVD	MAIN ST	250	39	9,750	UMiA - Urban Minor Arterial (16)	O - AC/AC	92	28.62
FIRST	02B	FIRST STREET	MAIN ST	MULBERRY	440	39	17,160	UMiA - Urban Minor Arterial (16)	O - AC/AC	94	29.17
FIRST	03	FIRST STREET	CLOVERDALE BLVD	COMERCIAL	270	38	10,260	UMiA - Urban Minor Arterial (16)	C - AC/PCC	94	29.17
FIRST	04	FIRST STREET	COMMERCIAL	WASHINGTON STREET	270	42	11,340	UMiA - Urban Minor Arterial (16)	O - AC/AC	10	0
FIRST	05	FIRST STREET	WASHINGTON STREET	JEFFERSON STREET	270	37	9,990	UMiA - Urban Minor Arterial (16)	O - AC/AC	29	1.07
FIRST	06	FIRST STREET	JEFFERSON STREET	FRANKLIN STREET	270	42	11,340	UMiA - Urban Minor Arterial (16)	O - AC/AC	7	0
FIRST	07	FIRST STREET	FRANKLIN STREET	DEAD END	300	42	12,600	UMiA - Urban Minor Arterial (16)	A - AC	10	0
FOOTHI	01	FOOTHILL BLVD	CHERRY CREEK ROAD	90' NORTH OF PORTERFIELD CR DR	880	36	31,680	UMiA - Urban Minor Arterial (16)	A - AC	29	1.12
FOOTHI	02	FOOTHILL BLVD	SECOND	DEAD END	375	19	7,125	R - Residential/Local	A - AC	70	19.79

City of Cloverdale
126 North Cloverdale Blvd.
Cloverdale, CA 95425
(707) 894-1701

Section PCI/RSL Listing

Printed: 09/19/2011

Street ID	Section ID	Street Name	From	To	Length	Width	Area	Functional Class	Surface Type	Current PCI	Remaining Life
FOOTHI	03	FOOTHILL BLVD	SCHOOL STREET	DEAD END	680	36	24,480	UMiA - Urban Minor Arterial (16)	A - AC	27	0.61
FOOTHI	20	FOOTHILL BLVD	90' N. OF PORTERFIELD CK DR	DEL WEBB DR	635	46	29,210	UMiA - Urban Minor Arterial (16)	A - AC	78	21.69
FOOTHI	30	FOOTHILL BLVD	DEL WEBB DRIVE	UTILITY ACCESS RD	1,236	46	56,856	UMiA - Urban Minor Arterial (16)	A - AC	79	22.55
FOOTHI	40	FOOTHILL BLVD	COMAZZI LN	150ft N OF ELBRIDGE	1,225	46	56,350	UMiA - Urban Minor Arterial (16)	A - AC	85	26.35
FOOTHI	50	FOOTHILL BLVD	ELBRIDGE AVENUE	500 ft SOUTH OF TREADWAY DRIVE	1,700	46	78,200	UMiA - Urban Minor Arterial (16)	A - AC	79	21.26
FOOTHI	55	FOOTHILL BLVD	SANDHOLM	MT DIABLO	1,050	46	48,300	UMiA - Urban Minor Arterial (16)	A - AC	87	23.48
FOOTHI	60	FOOTHILL BLVD	CHERRY CREEK ROAD	340 ft NORTH OF ST JOHN PLACE	1,100	46	50,600	UMiA - Urban Minor Arterial (16)	A - AC	77	19.55
FOOTHI	70	FOOTHILL BLVD	400ft N OF ST JOHN	MERLOT	1,000	46	46,000	UMiA - Urban Minor Arterial (16)	A - AC	85	23.38
FOOTHI	80	FOOTHILL BLVD	MERLOT	700ft N OF MERLOT	700	46	32,200	UMiA - Urban Minor Arterial (16)	A - AC	92	24.35
FOSTER	01	FOSTER COURT	FOOTHILL DR	DEAD END	350	26	9,100	R - Residential/Local	A - AC	20	0
FOURTH	01	FOURTH STREET	MAIN STREET	50' E. OF CLOVERDALE BLVD	290	34	9,860	R - Residential/Local	O - AC/AC	92	37.03
FOURTH	02	FOURTH STREET	50' E. OF CLOVERDALE BLVD	CLOVERDALE BLVD	50	34	1,700	R - Residential/Local	P - PCC	42	11.17
FOURTH	03	FOURTH STREET	WASHINGTON STREET	JEFFERSON STREET	230	32	7,360	R - Residential/Local	A - AC	94	33.76
FOURTH	04	FOURTH STREET	JEFFERSON STREET	DEAD END	750	37	27,750	R - Residential/Local	A - AC	12	0
FRANKL	0.5	FRANKLIN STREET	SECOND	FIRST	250	35	8,750	C - Collector	A - AC	5	0
FRANKL	02	FRANKLIN STREET	LOS COLINAS DRIVE	MERLOT DRIVE	580	35	20,300	C - Collector	O - AC/AC	70	17.25
FRANKL	03	FRANKLIN STREET	MERLOT DRIVE	HEALDSBURG AVE	320	37	11,840	C - Collector	O - AC/AC	67	15.48
FRANKL	04	FRANKLIN STREET	HEALDSBURG AVE	422 FRANKLIN STREET	370	35	12,950	C - Collector	O - AC/AC	92	29.26
FRANKL	05	FRANKLIN STREET	442 FRANKLIN STREET	BEGINNING CHURCHYARD	300	25	7,500	C - Collector	P - PCC	2	0
FRANKL	06	FRANKLIN STREET	BEGINNING CHURCHYARD	CLOVERDALE BLVD	450	25	11,250	C - Collector	A - AC	81	15.54
FRANKL	1.5	FRANKLIN STREET	FIRST	LOS COLINAS DRIVE	560	35	19,600	C - Collector	A - AC	81	15.54
FURBER	01	FURBER LANE	ELBRIDGE AVE.	DEAD END	1,200	32	38,400	R - Residential/Local	A - AC	63	16.59
GAMAY	01	GAMAY DRIVE	END	MUSCAT DRIVE	450	32	14,400	R - Residential/Local	A - AC	83	27.92

City of Cloverdale
126 North Cloverdale Blvd.
Cloverdale, CA 95425
(707) 894-1701

Section PCI/RSL Listing

Printed: 09/19/2011

Street ID	Section ID	Street Name	From	To	Length	Width	Area	Functional Class	Surface Type	Current PCI	Remaining Life
GAMAY	20	GAMAY DRIVE	240 ft NORTH OF GRENACHE ST	CUL-DE-SAC	700	32	22,400	R - Residential/Local	A - AC	86	36.72
GARDEN	10	GARDEN CIRCLE	CLOVERDALE BLVD	CLOVERDALE BLVD	920	32	29,440	R - Residential/Local	A - AC	79	28.31
GENTBZ	10	GENTLE BREEZE WAY	WISTERIA CIRCLE	CLOVER SPRINGS DRIVE	400	32	12,800	R - Residential/Local	A - AC	86	29.77
GRACE	10	GRACE COURT	SHAHAN DR	END	230	26	5,980	R - Residential/Local	A - AC	5	0
GRAPE	10	GRAPE GABLES WAY	100ft E OF DOUG FIR	FOOTHILL	780	33	25,740	R - Residential/Local	A - AC	87	35.47
GRAPE	20	GRAPE GABLES WAY	100ft E OF DOUG FIR	CDS	430	33	14,190	R - Residential/Local	A - AC	89	39.43
GRENAC	10	GRENACHE STREET	MUSCAT DRIVE	CITY LIMITS	350	32	11,200	R - Residential/Local	A - AC	90	31.99
HAEHL	01	HAEHL STREET	JEFFERSON STREET	CHARLES STREET	260	28	7,280	R - Residential/Local	A - AC	16	0
HAEHL	02	HAEHL STREET	CHARLES STREET	SILVA DRIVE	300	28	8,400	R - Residential/Local	A - AC	42	6.19
HAEHL	03	HAEHL STREET	SILVA DRIVE	DEAD END	400	28	11,200	R - Residential/Local	A - AC	3	0
HARDIS	01	HARDISTER	FOURTH	ANTONIO	400	33	13,200	R - Residential/Local	A - AC	26	0.19
HEALDS	01	HEALDSBURG AVE	CLOVERDALE BLVD	FRANKLIN STREET	870	36	31,320	C - Collector	O - AC/AC	82	22.58
HEALDS	05	HEALDSBURG AVE	CLOV BLVD	FRANKLIN	300	9	2,700	C - Collector	O - AC/AC	25	0.12
HEALDS	10	HEALDSBURG AVE	FRANKLIN	FOOTHILL	1,500	33	49,500	C - Collector	A - AC	88	20.83
HEIDI	01	HEIDI LANE	DEAD END	SHAHAN DRIVE	530	26	13,780	R - Residential/Local	A - AC	38	4.45
HILLCT	010	HILLSIDE COURT	HILLSIDE DRIVE	PRIVATE GATE	258	24	6,192	R - Residential/Local	A - AC	67	17.61
HILLSI	01	HILLSIDE DRIVE	38' SOUTH OF HILLSIDE CT	SCHOOL STREET	970	24	23,280	R - Residential/Local	O - AC/AC	15	0
HILLSI	20	HILLSIDE DRIVE	38' SOUTH OF HILLSIDE CT	END CULDESEC	660	32	21,120	R - Residential/Local	A - AC	74	23.43
HILLVI	01	HILLVIEW DRIVE	CLARK AVE	TARMAN DRIVE	670	32	21,440	R - Residential/Local	A - AC	1	0
HILLVI	02	HILLVIEW DRIVE	TARMAN DRIVE	CLOVERDALE BLVD	720	32	23,040	R - Residential/Local	A - AC	49	8.97
HOMEWO	10	HOMEWOOD COURT	RANCH HOUSE DRIVE	CUL-DE-SAC	320	32	10,240	R - Residential/Local	A - AC	81	29.21
HONEY	10	HONEYSUCKLE COURT	DOUGLAS FIR	CDS	300	33	9,900	R - Residential/Local	A - AC	90	41.89
HOTSPR	05	HOT SPRINGS ROAD	FOOTHILL BLVD	400ft SOUTH OF FOOTHILL	380	36	13,680	R - Residential/Local	A - AC	81	28.03
HOTSPR	10	HOT SPRINGS ROAD	400ft S OF FOOTHILL	WEST LANE TO CITY LIMIT	1,500	10	15,000	R - Residential/Local	S - ST	62	11.56
HOTSPR	15	HOT SPRINGS ROAD	400ft S OF FOOTHILL	EAST LANE TO CITY LIMIT	1,500	10	15,000	R - Residential/Local	A - AC	13	0
ICARIA	10	ICARIA STREET	SKYVIEW	CUL-DE-SAC	260	32	8,320	R - Residential/Local	A - AC	83	33.06
JEFFER	01	JEFFERSON STREET	PORTOFINO WAY	535 JEFFERSON STREET	950	36	34,200	UMiA - Urban Minor Arterial (16)	O - AC/AC	60	10.88

City of Cloverdale
126 North Cloverdale Blvd.
Cloverdale, CA 95425
(707) 894-1701

Section PCI/RSL Listing

Printed: 09/19/2011

Street ID	Section ID	Street Name	From	To	Length	Width	Area	Functional Class	Surface Type	Current PCI	Remaining Life
JEFFER	02	JEFFERSON STREET	535 JEFFERSON STREET	SCHOOL STREET	840	37	31,080	UMiA - Urban Minor Arterial (16)	O - AC/AC	25	0.1
JEFFER	03	JEFFERSON STREET	SCHOOL STREET	FOURTH	950	42	39,900	UMiA - Urban Minor Arterial (16)	A - AC	13	0
JEFFER	04-A	JEFFERSON STREET	THIRD STREET	FOURTH STREET	980	50	49,000	UMiA - Urban Minor Arterial (16)	A - AC	69	15.66
JEFFER	04-B	JEFFERSON STREET	FIRST STREET	THIRD STREET	440	50	22,000	UMiA - Urban Minor Arterial (16)	S - ST	82	19.12
JEFFER	05	JEFFERSON STREET	FIRST STREET	DEAD END	430	37	15,910	R - Residential/Local	A - AC	16	0
JOSEPH	01	JOSEPHINE DRIVE	DEAD END	FOOTHILL DRIVE	650	25	16,250	R - Residential/Local	A - AC	39	4.96
JOSEPH	02	JOSEPHINE DRIVE	FOOTHILL DR	FOURTH	950	32	30,400	R - Residential/Local	A - AC	39	4.96
JOSEPH	03	JOSEPHINE DRIVE	FOURTH	ANTONIO	350	33	11,550	R - Residential/Local	A - AC	0	0
KAY	01	KAY COURT	DEAD END	HEDI LN	250	26	6,500	R - Residential/Local	A - AC	18	0
KERRY	01	KERRY LANE	HILLSIDE DRIVE	CUL-DE-SAC	350	24	8,400	R - Residential/Local	A - AC	19	0
LAKE	01	LAKE STREET	DEAD END	ASTI ROAD	900	22	19,800	R - Residential/Local	A - AC	11	0
LAKE	02	LAKE STREET	DEAD END	EAST STREET	450	45	20,250	R - Residential/Local	O - AC/AC	80	35.22
LAKE	03	LAKE STREET	EAST STREET	CLOVERDALE BLVD	600	44	26,400	R - Residential/Local	O - AC/AC	94	38.06
LAUREL	10	LAUREL COURT	BUCKEYE	CDS	180	33	5,940	R - Residential/Local	A - AC	92	32.88
LAVEND	10	LAVENDER COURT	RIESLING	CDS	150	33	4,950	R - Residential/Local	A - AC	90	40.62
LIVEOA	01	LIVEOAK DRIVE	LAKE STREET	DEAD END	230	11	2,530	R - Residential/Local	S - ST	12	0
LOSCOL	01	LOS COLINAS DRIVE	FIRST	FRANKLIN	550	32	17,600	R - Residential/Local	A - AC	21	0
MAIN	10	MAIN STREET	VISTA VIEW	BROAD	1,220	52	63,440	R - Residential/Local	A - AC	88	33.09
MAIN	20	MAIN STREET	BROAD	LAKE	670	52	35,880	R - Residential/Local	A - AC	84	30.68
MARGUE	01	MARGUERTE LANE	ELBRIDGE AVE.	EAST & WEST CUL-DE-SAC	580	32	18,560	R - Residential/Local	A - AC	35	3.18
MAYOR	01	MAYOR WAY	HILLVIEW DRIVE	BROOKSIDE DRIVE	450	32	14,400	R - Residential/Local	A - AC	3	0
MERLOT	01	MERLOT DRIVE	FRANKLIN STREET	PINOT DRIVE	520	32	16,640	R - Residential/Local	A - AC	83	27.92
MERLOT	20	MERLOT DRIVE	PINOT WAY	FOOTHILL BOULEVARD	820	32	26,240	R - Residential/Local	A - AC	84	33.45
MILAN	10	MILAN COURT	TOSCANA CIRCLE	END CULDESEC	236	26	6,136	R - Residential/Local	A - AC	81	30.77
MONACO	01	MONACO CIRCLE	BARCALONA	VENESIA	1,000	32	32,000	R - Residential/Local	O - AC/AC	79	34.71
MOONCI	10	MOONLIGHT CIRCLE	FOOTHILL	SUNRISE	1,050	33	34,650	R - Residential/Local	A - AC	86	27.9
MOULTN	10	MOULTON COURT	CLOVER SPRINGS	CUL-DE-SAC	370	32	11,840	R - Residential/Local	A - AC	83	33.06
MTDIAB	10	MOUNT DIABLO WAY	FOOTHILL	TIMBER RIDGE	375	33	12,375	R - Residential/Local	A - AC	90	40.12
MULLBE	01	MULLBERRY STREET	FIRST	LAKE STREET	350	35	12,250	R - Residential/Local	A - AC	36	3.69

City of Cloverdale
126 North Cloverdale Blvd.
Cloverdale, CA 95425
(707) 894-1701

Section PCI/RSL Listing

Printed: 09/19/2011

Street ID	Section ID	Street Name	From	To	Length	Width	Area	Functional Class	Surface Type	Current PCI	Remaining Life
MULLBE	02	MULLBERRY STREET	LAKE STREET	DEAD END	155	25	3,875	R - Residential/Local	O - AC/AC	75	28.75
MUSCAT	01	MUSCAT DRIVE	FRANKLIN STREET	END	500	32	16,000	R - Residential/Local	A - AC	79	30.16
MUSCAT	20	MUSCAT DRIVE	250 ft EAST OF GRENACHE ST	CUL-DE-SAC	760	32	24,320	R - Residential/Local	A - AC	87	38.52
NORTH	01	NORTH STREET	CLOVERDALE BLVD	201 NORTH STREET	660	25	16,500	R - Residential/Local	A - AC	24	0
NORTH	02	NORTH STREET	201 NORTH STREET	CHAMPLAIN	120	9	1,080	R - Residential/Local	A - AC	78	24.72
NORSTR	10	NORTHSTAR LANE	MOONLIGHT	MT DIABLO	250	31	7,750	R - Residential/Local	A - AC	90	36.12
OAK	10	OAK LANE	CLOVERCREST	END	250	16	4,000	R - Residential/Local	A - AC	0	0
ORION	10	ORION WAY	MOONLIGHT	CDS	270	25	6,750	R - Residential/Local	A - AC	92	44.83
PEPPER	10	PEPPERWOOD DRIVE	FOOTHILL	CDS	1,230	33	40,590	R - Residential/Local	A - AC	90	42.48
PINOT	01	PINOT DRIVE	MERLOT DRIVE	DEAD END	220	32	7,040	R - Residential/Local	A - AC	73	24.06
PLUMER	10	PLUMERIA CIRCLE	WISTERIA CIRCLE	END CULDESEC	290	32	9,280	R - Residential/Local	A - AC	83	33.87
POLAR	10	POLARIS COURT	MOONLIGHT	CDS	370	25	9,250	R - Residential/Local	A - AC	92	44.83
PORTCI	10	PORT CIRCLE	FOOTHILL	FOOTHILL	2,100	33	69,300	R - Residential/Local	A - AC	90	39.42
PORTCK	10	PORTERFIELD CREEK DRIVE	FOOTHILL BLVD	END CULDESEC	1,253	32	40,096	R - Residential/Local	A - AC	83	33.87
PORTOF	01	PORTOFINO WAY	VENEZIA WAY	JEFFERSON STREET	620	32	19,840	C - Collector	A - AC	58	7.86
PORTOF	20	PORTOFINO WAY	VENEZIA WAY	END CULDESEC	900	32	28,800	R - Residential/Local	A - AC	81	30.77
PRIMRO	10	PRIMROSE LANE	GRAPE GABLES	DOUG FIR	600	33	19,800	R - Residential/Local	A - AC	89	39.57
RAILRO	01	RAILROAD AVENUE	EAST STREET	CLOVERDALE BLVD	800	53	42,400	R - Residential/Local	O - AC/AC	78	32.46
RANCHH	10	RANCH HOUSE DRIVE	FOOTHILL BOULEVARD	450 ft SOUTH OF FOOTHILL	490	32	15,680	R - Residential/Local	A - AC	82	30.55
RANCHH	20	RANCH HOUSE DRIVE	450 ft SOUTH OF FOOTHILL	ELBRIDGE AVENUE	950	28	26,600	R - Residential/Local	A - AC	83	31.96
REDMTN	10	RED MOUNTAIN DRIVE	FOOTHILL BLVD	CLOVER SPRINGS DRIVE	750	32	24,000	R - Residential/Local	A - AC	81	31.16
REDMTN	20	RED MOUNTAIN DRIVE	CLOVER SPRINGS	ALBANY	1,170	32	37,440	R - Residential/Local	A - AC	83	33.06
REDMTN	30	RED MOUNTAIN DRIVE	ALBANY	CLOVER SPRINGS	1,010	32	32,320	R - Residential/Local	A - AC	80	29.06
RIESLI	10	RIESLING STREET	MUSCAT DRIVE	HEALDSBURG AVE	650	32	20,800	R - Residential/Local	A - AC	83	31.96
RIESLI	20	RIESLING STREET	HEALDSBURG	FRANKLIN	1,250	33	41,250	R - Residential/Local	A - AC	85	30.64
ROANCT	01	ROAN COURT	FOOTHILL DRIVE	DEAD END	350	26	9,100	R - Residential/Local	A - AC	60	15.29
ROLLHL	10	ROLLINGHILL COURT	SKYVIEW	CUL-DE-SAC	510	32	16,320	R - Residential/Local	A - AC	83	33.06
ROSECT	01	ROSE COURT	CHABLIS WAY	DEAD END	230	26	5,980	R - Residential/Local	O - AC/AC	88	41.94

City of Cloverdale
126 North Cloverdale Blvd.
Cloverdale, CA 95425
(707) 894-1701

Section PCI/RSL Listing

Printed: 09/19/2011

Street ID	Section ID	Street Name	From	To	Length	Width	Area	Functional Class	Surface Type	Current PCI	Remaining Life
ROSEWO	01	ROSEWOOD DRIVE	CLARK AVE	TARMAN DRIVE	780	33	25,740	R - Residential/Local	A - AC	1	0
SANDHO	10	SANDHOLM ROAD	SO CLOV BLVD	FOOTHILL	1,300	31	40,300	R - Residential/Local	A - AC	83	27.93
SANTAN	10	SANTANA DRIVE	CLOVERDALE BOULEVARD	CUL-DE-SAC	400	40	16,000	R - Residential/Local	A - AC	81	31.16
SANTAN	20	SANTANA DRIVE	ASTI ROAD	CUL-DE-SAC	2,140	40	85,600	R - Residential/Local	A - AC	76	23.47
SCHOOL	01	SCHOOL STREET	CLOVERDALE BLVD	JEFFERSON STREET	900	29	26,100	R - Residential/Local	O - AC/AC	45	8.31
SCHOOL	02	SCHOOL STREET	JEFFERSON STREET	CHARLES STREET	240	27	6,480	R - Residential/Local	O - AC/AC	5	0
SCHOOL	03	SCHOOL STREET	CHARLES STREET	FOOTHILL DR	950	32	30,400	R - Residential/Local	O - AC/AC	22	0
SECOND	03	SECOND STREET	CLOVERDALE BLVD	COMMERCIAL	260	37	9,620	R - Residential/Local	C - AC/PCC	92	47.79
SECOND	04	SECOND STREET	COMMERCIAL	WASHINGTON STREET	270	38	10,260	R - Residential/Local	O - AC/AC	94	38.06
SECOND	05	SECOND STREET	WASHINGTON STREET	JEFFERSON STREET	270	36	9,720	R - Residential/Local	O - AC/AC	95	38.23
SECOND	06	SECOND STREET	JEFFERSON STREET	443 SECOND	550	32	17,600	R - Residential/Local	O - AC/AC	54	13.39
SECOND	07	SECOND STREET	443 SECOND	FOOTHILL DRIVE	1,030	32	32,960	R - Residential/Local	A - AC	38	4.45
SECOND	10	SECOND STREET	EAST ST	CLOV BLVD	588	56	32,928	R - Residential/Local	A - AC	92	43.06
SHADY	10	SHADY LANE	CLOVERDALE BLVD	END	900	20	18,000	R - Residential/Local	O - AC/AC	40	6.03
SHAHAN	01	SHAHAN DRIVE	DEAD END	CLOVERDALE BLVD	780	26	20,280	R - Residential/Local	A - AC	8	0
SHORT	10	SHORT STREET	RIELSING	END	100	33	3,300	R - Residential/Local	A - AC	94	33.76
SIERRA	10	SIERRA COURT	MT DIABLO	CDS	300	33	9,900	R - Residential/Local	A - AC	89	37.78
SILVA	01	SILVA STREET	SCHOOL STREET	HAEHL STREET	240	24	5,760	R - Residential/Local	A - AC	25	0
SKYVWD	10	SKYVIEW DRIVE	CLOVER SPRINGS	END	640	32	20,480	R - Residential/Local	A - AC	81	30.32
SONOMA	10	SONOMA DRIVE	CLOVER SPRINGS	CUL-DE-SAC	925	32	29,600	R - Residential/Local	A - AC	82	31.65
SOUTH	01	SOUTH STREET	DEAD END	CLARK AVE	150	19	2,850	R - Residential/Local	O - AC/AC	77	31.17
SOUTH	02	SOUTH STREET	CLARK AVE	112 SOUTH STREET	280	31	8,680	R - Residential/Local	O - AC/AC	61	16.11
SOUTH	03	SOUTH STREET	112 SOUTH STREET	TO PCC SECTION	77	31	2,387	R - Residential/Local	A - AC	3	0
SOUTH	04	SOUTH STREET	60' E. OF CLOVERDALE BLVD	CLOVERDALE BLVD	60	31	1,860	R - Residential/Local	P - PCC	70	37.06
SPRGCT	10	SPRING COURT	CRYSTAL SPRINGS DRIVE	END CULDESEC	230	32	7,360	R - Residential/Local	A - AC	84	35.33
STJOHN	10	ST JOHN PLACE	FOOTHILL BOULEVARD	CUL-DE-SAC	240	32	7,680	R - Residential/Local	A - AC	81	29.21
STMICH	10	ST MICHAEL COURT	ST JOHN PLACE	CUL-DE-SAC	540	32	17,280	R - Residential/Local	A - AC	83	31.96
SUNRIS	10	SUNRISE DRIVE	FOOTHILL	MOONLIGHT	600	31	18,600	R - Residential/Local	A - AC	90	36.12
SYRAH	10	SYRAH COURT	RIESLING	CDS	300	33	9,900	R - Residential/Local	A - AC	90	40.62
TARMAN	01	TARMAN DRIVE	CLOVERDALE BLVD	DEAD END	1,250	30	37,500	R - Residential/Local	A - AC	13	0
TARMAN	02	TARMAN DRIVE	DEAD END	DEAD END	800	32	25,600	R - Residential/Local	A - AC	0	0

City of Cloverdale
126 North Cloverdale Blvd.
Cloverdale, CA 95425
(707) 894-1701

Section PCI/RSL Listing

Printed: 09/19/2011

Street ID	Section ID	Street Name	From	To	Length	Width	Area	Functional Class	Surface Type	Current PCI	Remaining Life
THIRD	01	THIRD STREET	DEAD END	MAIN STREET	470	32	15,040	R - Residential/Local	O - AC/AC	48	8.82
THIRD	10	THIRD STREET	COMMERCIAL	MAIN	675	33	22,275	R - Residential/Local	A - AC	94	33.76
THIRD	20	THIRD STREET	COMMERCIAL	JEFFERSON	600	32	19,200	R - Residential/Local	A - AC	95	33.91
TIMBER	10	TIMBER RIDGE COURT	MT DIABLO	CDS	375	33	12,375	R - Residential/Local	A - AC	90	40.12
TOSCA	10	TOSCANA CIRCLE	PORTOFINO WAY	WEST SIDE OF MILAN CT	370	26	9,620	R - Residential/Local	A - AC	76	25.01
TOSCA	20	TOSCANA CIRCLE	MILAN COURT	WEST SIDE OF MILAN CT	600	32	19,200	R - Residential/Local	A - AC	80	29.51
TREAD	01	TREADWAY DRIVE	CLOVERDALE BLVD	HATTERAS WY	645	40	25,800	C - Collector	A - AC	61	8.93
TREAD	02	TREADWAY DRIVE	TREADWAY CT	FOOTHILL BLVD	830	40	33,200	C - Collector	A - AC	74	13.03
TRIPLE	01	TRIPLETT DRIVE	DEAD END	216 TRIPLETT DRIVE	270	25	6,750	R - Residential/Local	O - AC/AC	3	0
TRIPLE	02	TRIPLETT DRIVE	216 TRIPLETT DRIVE	MAIN STREET	350	25	8,750	R - Residential/Local	O - AC/AC	9	0
UNIVER	01	UNIVERSITY	DEAD END	53' E. OF CLOVERDALE BLVD	450	31	13,950	R - Residential/Local	A - AC	17	0
UNIVER	02	UNIVERSITY	53' E. OF CLOVERDALE BLVD	CLOVERDALE BLVD	50	31	1,550	R - Residential/Local	P - PCC	42	10.68
VENESI	01	VENESIA WAY	KNUCKLE	NORTH STREET	1,200	35	42,000	R - Residential/Local	O - AC/AC	78	33.6
VENESI	02	VENESIA WAY	KNUCKLE	PORTOFINO WAY	350	32	11,200	R - Residential/Local	A - AC	79	25.36
VINEDR	01	VINE DRIVE	CHABLIS WAY	BANDIERA WAY	800	32	25,600	R - Residential/Local	O - AC/AC	89	44.46
VISTAV	01	VISTA VIEW DRIVE	DEAD END	CLOVER CREEK BOX CULVERT	2,550	33	84,150	R - Residential/Local	O - AC/AC	25	0
VISTAV	02	VISTA VIEW DRIVE	CLOVER CREEK BOX CULVERT	MAIN STREET	340	33	11,220	R - Residential/Local	O - AC/AC	26	0.21
WALLAC	01	WALLACE LANE	FURBER LN	FOOTHILL DR	310	32	9,920	R - Residential/Local	A - AC	80	26
WASHIN	01	WASHINGTON STREET	SCHOOL STREET	FOURTH	900	35	31,500	R - Residential/Local	O - AC/AC	16	0
WASHIN	02	WASHINGTON STREET	FOURTH	SECOND	1,000	51	51,000	R - Residential/Local	O - AC/AC	94	38.06
WASHIN	03	WASHINGTON STREET	SECOND	FIRST	480	53	25,440	R - Residential/Local	O - AC/AC	94	38.06
WASHIN	04	WASHINGTON STREET	FIRST	TO THE SCHOOL	470	37	17,390	R - Residential/Local	O - AC/AC	68	21.17
WASHIN	05	WASHINGTON STREET	CHAMPLAIN	DEAD END	130	33	4,290	R - Residential/Local	A - AC	3	0
WILLIA	01	WILLIAM CIRCLE	FURBER LN	FURBER LN	1,030	32	32,960	R - Residential/Local	A - AC	83	27.91

City of Cloverdale
126 North Cloverdale Blvd.
Cloverdale, CA 95425
(707) 894-1701

Section PCI/RSL Listing

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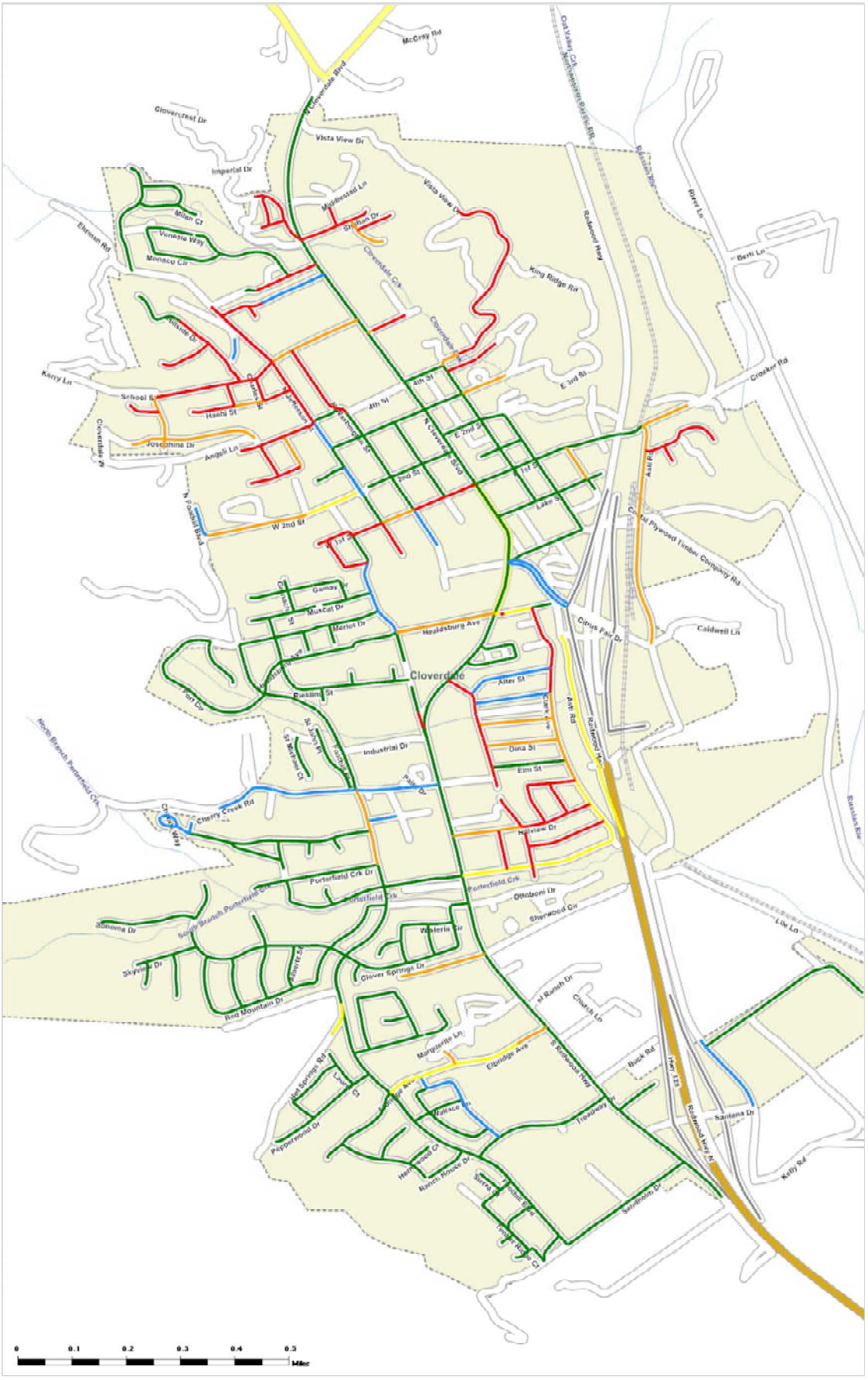
WISTER	10	WISTERIA CIRCLE	CLOVER SPRINGS DRIVE	CLOVER SPRINGS DRIVE	975	32	31,200	R - Residential/Local	A - AC	80	29.9
ZINFAN	10	ZINFANDEL COURT	PORT CIR	CDS	625	33	20,625	R - Residential/Local	A - AC	87	32.95

City of Cloverdale
126 North Cloverdale Blvd.
Cloverdale, CA 95425
(707) 894-1701

Current PCI Condition

- I - Very Good
- II - Good (non-load)
- III - Good (load-related)
- IV - Poor
- V - Very Poor



Appendix F

Sections Selected for Treatment
Current Budget Scenario

Maps – Scenario Treatments

City of Cloverdale
126 North Cloverdale Blvd.
Cloverdale, CA 95425
(707) 894-1701

Scenarios - Sections Selected for Treatment

Interest: 2.00% **Inflation: 4.00%** Printed: 10/25/2011

Scenario: (2) Current Funding

Year	Budget	PM Amt	Year	Budget	PM Amt	Year	Budget	PM Amt
2012	$50,000	10%	**2013**	$50,000	10%	**2014**	$50,000	10%
2015	$50,000	10%	**2016**	$50,000	10%			

Street Name	Begin Location	End Location	Street ID	Section ID	FC	Surface	PCI	Cost	Rating	Treatment
Year: 2012										
CHARDONAY COURT	CHABLIS WAY	DEAD END	CHARDO	01	R	AC	78	$4,709	17,442	TYPE III SLURRY SEAL
FRANKLIN STREET	LOS COLINAS DRIVE	MERLOT DRIVE	FRANKL	02	C	AC/AC	78	$18,383	22,524	TYPE III SLURRY SEAL
JEFFERSON STREET	THIRD STREET	FOURTH STREET	JEFFER	04-A	UMiA	AC	77	$19,923	24,955	TYPE III SLURRY SEAL
						Treatment Total		$43,015		
BROOK COURT	BROOKSIDE DRIVE	END CULDESEC	BROOKC	10	R	AC	90	$2,411	55,497	SLURRY SEAL
NORTH STREET	201 NORTH STREET	CHAMPLAIN	NORTH	02	R	AC	85	$407	35,048	SLURRY SEAL
SOUTH STREET	DEAD END	CLARK AVE	SOUTH	01	R	AC/AC	84	$1,752	50,573	SLURRY SEAL
						Treatment Total		$4,570		
BUTLER COURT	JEFFERSON	CDS	BUTLER	10	R	AC	82	$45	562,716	SEAL CRACKS
CABERNET COURT	HEALDSBURG	CDS	CABERC	10	R	AC	89	$21	883,997	SEAL CRACKS
EAST STREET	LAKE ST	RAILROAD AVE	EAST	10	R	AC/AC	79	$162	816,178	SEAL CRACKS
FOOTHILL BLVD	SANDHOLM	MT DIABLO	FOOTHI	55	UMiA	AC	86	$176	839,808	SEAL CRACKS
FOOTHILL BLVD	400ft N OF ST JOHN	MERLOT	FOOTHI	70	UMiA	AC	84	$204	920,081	SEAL CRACKS
FOOTHILL BLVD	MERLOT	700ft N OF MERLOT	FOOTHI	80	UMiA	AC	89	$85	609,913	SEAL CRACKS
HEALDSBURG AVE	CLOVERDALE BLVD	FRANKLIN STREET	HEALDS	01	C	AC/AC	81	$169	584,223	SEAL CRACKS
LAVENDER COURT	RIESLING	CDS	LAVEND	10	R	AC	89	$13	883,997	SEAL CRACKS
MAIN STREET	VISTA VIEW	BROAD	MAIN	10	R	AC	87	$196	637,122	SEAL CRACKS
MOONLIGHT CIRCLE	FOOTHILL	SUNRISE	MOONCI	10	R	AC	85	$125	497,584	SEAL CRACKS
MOUNT DIABLO WAY	FOOTHILL	TIMBER RIDGE	MTDIAB	10	R	AC	90	$29	827,816	SEAL CRACKS
NORTHSTAR LANE	MOONLIGHT	MT DIABLO	NORSTR	10	R	AC	89	$19	628,145	SEAL CRACKS
PORT CIRCLE	FOOTHILL	FOOTHILL	PORTCI	10	R	AC	89	$171	807,818	SEAL CRACKS
RIESLING STREET	HEALDSBURG	FRANKLIN	RIESLI	20	R	AC	84	$166	656,476	SEAL CRACKS

** - Treatment from Project Selection

Scenarios Criteria:

Street Name	Begin Location	End Location	Street ID	Section ID	FC	Surface	PCI	Cost	Rating	Treatment
SANDHOLM ROAD	SO CLOV BLVD	FOOTHILL	SANDHO	10	R	AC	83	$183	595,443	SEAL CRACKS
SIERRA COURT	MT DIABLO	CDS	SIERRA	10	R	AC	89	$26	785,680	SEAL CRACKS
SUNRISE DRIVE	FOOTHILL	MOONLIGHT	SUNRIS	10	R	AC	89	$46	628,145	SEAL CRACKS
SYRAH COURT	RIESLING	CDS	SYRAH	10	R	AC	89	$25	883,997	SEAL CRACKS
TIMBER RIDGE COURT	MT DIABLO	CDS	TIMBER	10	R	AC	90	$29	827,816	SEAL CRACKS
ZINFANDEL COURT	PORT CIR	CDS	ZINFAN	10	R	AC	86	$69	680,805	SEAL CRACKS
						Treatment Total		$1,959		
						Year 2012 Total		**$49,544**		

Year: 2013

CITRUS FAIR DRIVE	CLOVERDALE BLVD	HWY 101 ON RAMP	CITRUS	10	A	AC	72	$37,672	21,134	TYPE III SLURRY SEAL
FOOTHILL BLVD	SECOND	DEAD END	FOOTHI	02	R	AC	76	$6,711	13,774	TYPE III SLURRY SEAL
						Treatment Total		$44,383		
MILAN COURT	TOSCANA CIRCLE	END CULDESEC	MILAN	10	R	AC	87	$2,404	46,694	SLURRY SEAL
						Treatment Total		$2,404		
CLOVERDALE BLVD	RAILROAD AVE	300' SOUTH OF CITRUS FAIR DR	CLVRDL	50	A	AC/AC	75	$347	961,516	SEAL CRACKS
CLOVERDALE BLVD	300' SOUTH OF CITRUS FAIR DR	FRANKLIN STREET	CLVRDL	60	A	AC/AC	74	$1,060	921,092	SEAL CRACKS
CLOVERDALE BLVD	FRANKLIN STREET	BROOKSIDE DRIVE	CLVRDL	70	A	AC/AC	78	$653	1,120,748	SEAL CRACKS
CLOVERDALE BLVD	BROOKSIDE DRIVE	SHADY LANE	CLVRDL	80	A	AC/AC	77	$519	1,063,673	SEAL CRACKS
CLOVERDALE BLVD	SHADY LANE	ELBRIDGE AVENUE	CLVRDL	90	A	AC/AC	79	$341	1,205,373	SEAL CRACKS
FIRST STREET	CLOVERDALE BLVD	MAIN ST	FIRST	02A	UMiA	AC	90	$26	992,349	SEAL CRACKS
FIRST STREET	MAIN ST	MULBERRY	FIRST	02B	UMiA	AC/AC	89	$5	7,709,185	SEAL CRACKS
FIRST STREET	CLOVERDALE BLVD	COMERCIAL	FIRST	03	UMiA	AC/PCC	89	$3	7,709,185	SEAL CRACKS
FRANKLIN STREET	442 FRANKLIN STREET	BEGINNING CHURCHYARD	FRANKL	05	C	AC/PCC	88	$5	2,609,233	SEAL CRACKS
FRANKLIN STREET	BEGINNING CHURCHYARD	CLOVERDALE BLVD	FRANKL	06	C	AC/AC	79	$75	639,615	SEAL CRACKS
JEFFERSON STREET	FIRST STREET	THIRD STREET	JEFFER	04-B	UMiA	AC	88	$69	666,910	SEAL CRACKS
THIRD STREET	MAIN STREET	COMMERCIAL	THIRD	10	R	AC	90	$54	423,143	SEAL CRACKS
						Treatment Total		$3,157		
						Year 2013 Total		**$49,944**		

Street Name	Begin Location	End Location	Street ID	Section ID	FC	Surface	PCI	Cost	Rating	Treatment
Year: 2014										
CHAMPLAIN AVENUE	CLOVERDALE BLVD	ALLEY/NORTH STREET	CHAMPL	01	R	AC/AC	73	$14,810	16,442	TYPE III SLURRY SEAL
FRANKLIN STREET	MERLOT DRIVE	HEALDSBURG AVE	FRANKL	03	C	AC/AC	72	$11,597	15,699	TYPE III SLURRY SEAL
HILLSIDE COURT	HILLSIDE DRIVE	PRIVATE GATE	HILLCT	010	R	AC	72	$6,065	12,101	TYPE III SLURRY SEAL
PINOT DRIVE	MERLOT DRIVE	HEALDSBURG AVENUE	PINOT	01	R	AC	78	$10,030	16,972	TYPE III SLURRY SEAL
						Treatment Total		$42,502		
PLUMERIA CIRCLE	WISTERIA CIRCLE	END CULDESEC	PLUMER	10	R	AC	88	$3,781	50,077	SLURRY SEAL
SPRING COURT	CRYSTAL SPRINGS DRIVE	END CULDESEC	SPRGCT	10	R	AC	89	$2,999	52,006	SLURRY SEAL
						Treatment Total		$6,780		
EAST STREET	FIRST ST	LAKE ST	EAST	05	R	AC/AC	89	$3	14,055,180	SEAL CRACKS
FRANKLIN STREET	HEALDSBURG AVE	422 FRANKLIN STREET	FRANKL	04	C	AC/AC	88	$11	3,379,350	SEAL CRACKS
LAKE STREET	EAST STREET	CLOVERDALE BLVD	LAKE	03	R	AC/AC	89	$9	4,223,732	SEAL CRACKS
SECOND STREET	COMMERCIAL	WASHINGTON STREET	SECOND	04	R	AC	89	$29	442,775	SEAL CRACKS
SECOND STREET	WASHINGTON STREET	JEFFERSON STREET	SECOND	05	R	AC	89	$27	429,473	SEAL CRACKS
SECOND STREET	EAST ST	CLOV BLVD	SECOND	10	R	AC	89	$86	823,114	SEAL CRACKS
THIRD STREET	COMMERCIAL	JEFFERSON	THIRD	20	R	AC	89	$52	429,473	SEAL CRACKS
WASHINGTON STREET	FOURTH	SECOND	WASHIN	02	R	AC	89	$141	442,775	SEAL CRACKS
WASHINGTON STREET	SECOND	FIRST	WASHIN	03	R	AC	89	$71	442,775	SEAL CRACKS
						Treatment Total		$429		
						Year 2014 Total		**$49,711**		
Year: 2015										
CITRUS FAIR DRIVE	CLOVERDALE BLVD	HWY 101 ON RAMP	CITRUS	10	A	AC	77	$40,746	21,673	TYPE III SLURRY SEAL
						Treatment Total		$40,746		
LAKE STREET	DEAD END	EAST STREET	LAKE	02	R	AC/AC	84	$8,580	48,693	SLURRY SEAL
						Treatment Total		$8,580		
FOURTH STREET	MAIN STREET	50' E. OF CLOVERDALE BLVD	FOURTH	01	R	AC	87	$35	490,413	SEAL CRACKS
FOURTH STREET	50' E. OF CLOVERDALE BLVD	CLOVERDALE BLVD	FOURTH	02	R	AC/PCC	88	$2	2,962,648	SEAL CRACKS
						Treatment Total		$37		

Street Name	Begin Location	End Location	Street ID	Section ID	FC	Surface	PCI	Cost	Rating	Treatment
						Year 2015 Total		**$49,363**		
Year: 2016										
CHERRY CREEK ROAD	CLOVERDALE BLVD	FOOTHILL DR	CHERRY	01	C	AC/AC	70	$25,288	14,128	TYPE III SLURRY SEAL
FRANKLIN STREET	MERLOT DRIVE	HEALDSBURG AVE	FRANKL	03	C	AC/AC	78	$12,543	15,756	TYPE III SLURRY SEAL
MULLBERRY STREET	LAKE STREET	DEAD END	MULLBE	02	R	AC/AC	78	$4,106	16,053	TYPE III SLURRY SEAL
						Treatment Total		$41,937		
FIRST STREET	CLOVERDALE BLVD	MAIN ST	FIRST	02A	UMiA	AC	92	$4,436	51,111	SLURRY SEAL
ORION WAY	MOONLIGHT	CDS	ORION	10	R	AC	93	$2,975	41,062	SLURRY SEAL
						Treatment Total		$7,411		
BROOK COURT	BROOKSIDE DRIVE	END CULDESEC	BROOKC	10	R	AC	88	$22	888,954	SEAL CRACKS
CHARDONAY COURT	CHABLIS WAY	DEAD END	CHARDO	01	R	AC	75	$42	544,201	SEAL CRACKS
FRANKLIN STREET	LOS COLINAS DRIVE	MERLOT DRIVE	FRANKL	02	C	AC/AC	75	$178	647,075	SEAL CRACKS
JEFFERSON STREET	THIRD STREET	FOURTH STREET	JEFFER	04-A	UMiA	AC	73	$215	649,567	SEAL CRACKS
NORTH STREET	201 NORTH STREET	CHAMPLAIN	NORTH	02	R	AC	80	$7	499,020	SEAL CRACKS
SOUTH STREET	DEAD END	CLARK AVE	SOUTH	01	R	AC/AC	82	$25	771,110	SEAL CRACKS
						Treatment Total		$489		
						Year 2016 Total		**$49,837**		
						Grand Total		**$248,399**		

City of Cloverdale
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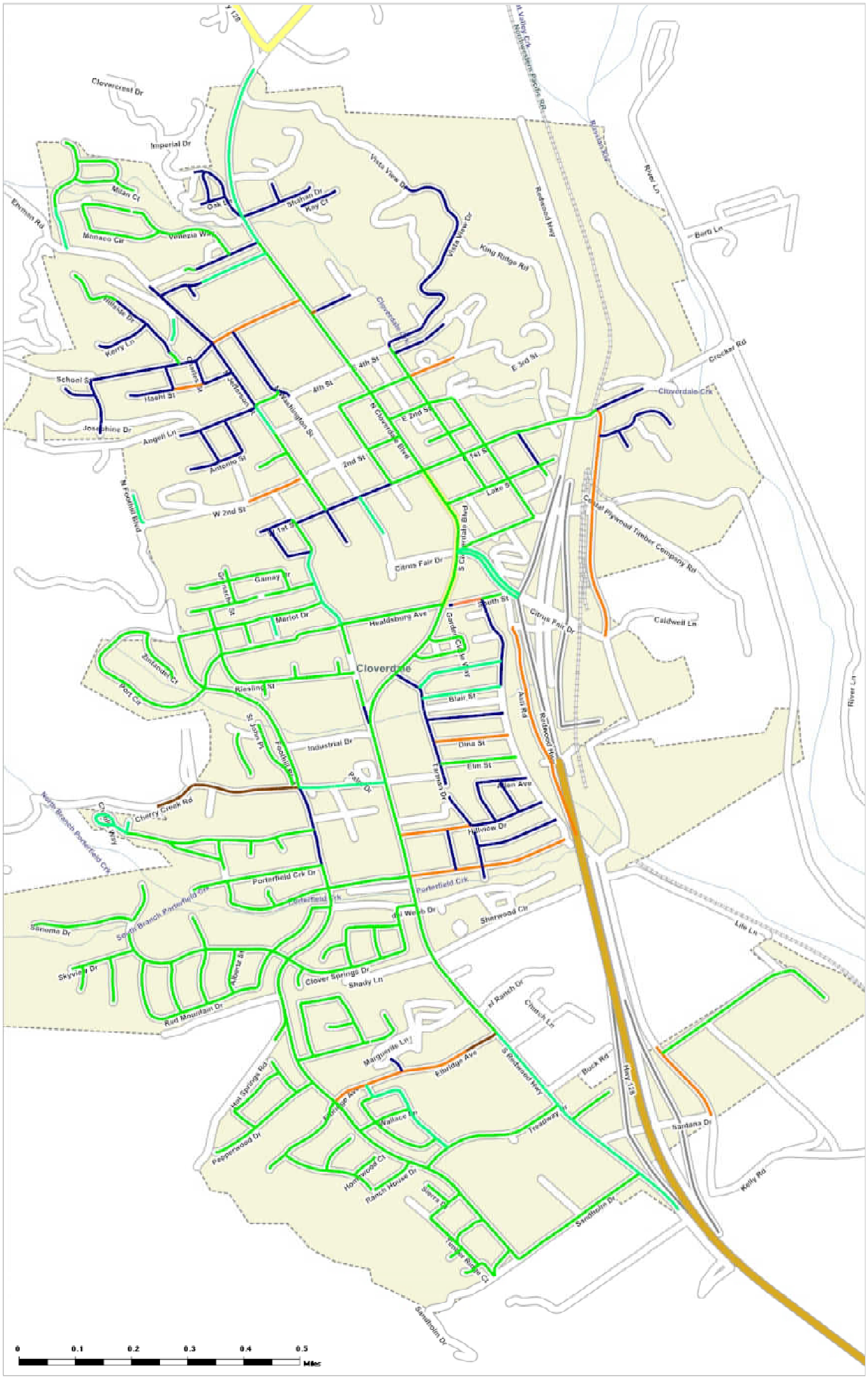
Scenario Treatments

(1) Unconstrained Needs - All Project Periods

- **Edge Grind 2" OL w/Fab**
- **Patch Edge Grind 2"OL w/Fab**
- **Patch Edge Grind 3"OL w/Fab**
- **RECONSTRUCT STRUCTURE (AC)**
- **SLURRY SEAL**
- **THICK AC OVERLAY(2.5 INCHES)**
- **TYPE III SLURRY SEAL**



Treatment <> SEAL CRACKS AND Treatment <> SINGLE CHIP SEAL

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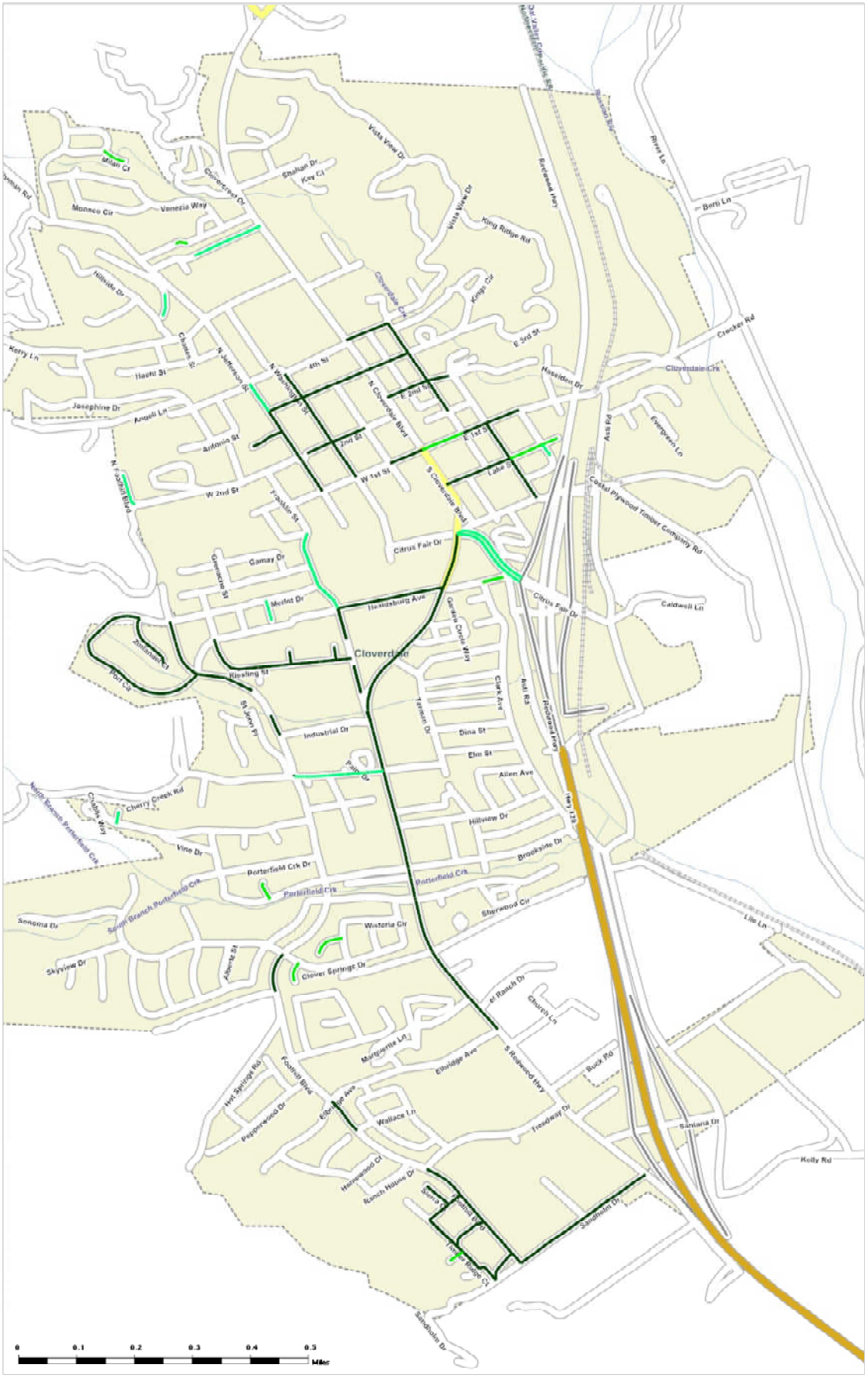
Scenario Treatments

(2) Current Funding - All Project Periods

- SEAL CRACKS
- SLURRY SEAL
- TYPE III SLURRY SEAL



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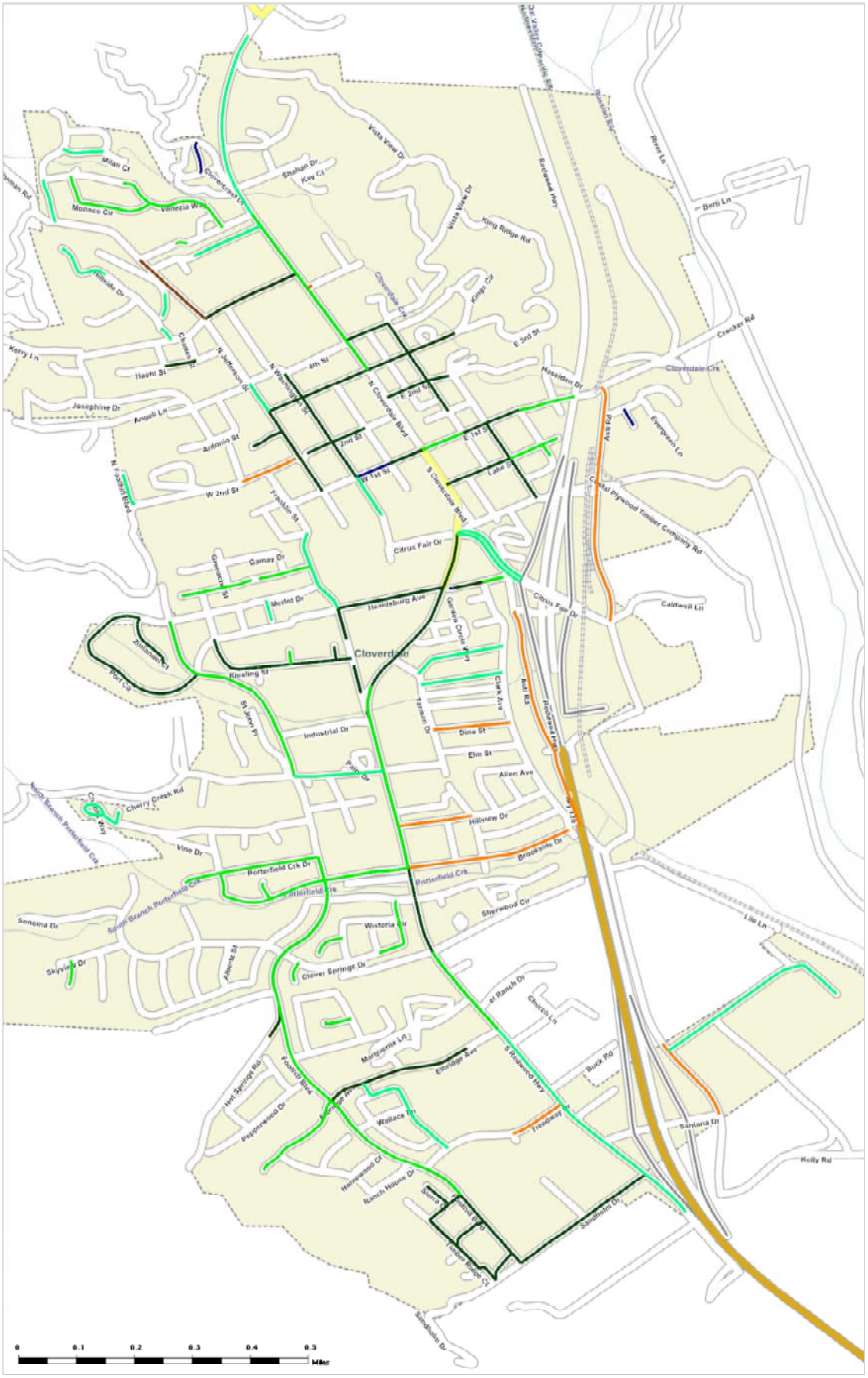
Scenario Treatments

(3) Maintain Current PCI (67) - All Project Periods

- Edge Grind 2" OL w/Fab
- Patch Edge Grind 2"OL w/Fab
- Patch Edge Grind 3"OL w/Fab
- RECONSTRUCT STRUCTURE (AC)
- SEAL CRACKS
- SLURRY SEAL
- THICK AC OVERLAY(2.5 INCHES)
- TYPE III SLURRY SEAL



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Scenario Treatments

(4) Increase PCI 5 points - All Project Periods

- Edge Grind 2" OL w/Fab
- Patch Edge Grind 2"OL w/Fab
- Patch Edge Grind 3"OL w/Fab
- RECONSTRUCT STRUCTURE (AC)
- SEAL CRACKS
- SLURRY SEAL
- THICK AC OVERLAY(2.5 INCHES)
- TYPE III SLURRY SEAL