TOWN OF FAIRFAX
STAFF REPORT
March 1, 2023

TO: Mayor and Town Council

FROM: Loren Umbertis, Public Works Director

SUBJECT: Receive and Discuss report on Town Pavement Condition Index (PCI) Report, known as PTAP-23, and Authorize Town Manager to execute an amendment in the amount of $66,720 to the contract with Pavement Engineering Inc (PEI) to develop Bid Documents including Plans and Specifications for proposed Roadway Improvements for Fiscal Year 2022- 2023

RECOMMENDATION

Receive and Discuss report on Town Draft Pavement Condition Index (PCI) Report, known as PTAP-23 (Pavement Technical Assistance Program) and Authorize Town Manager to execute an amendment in the amount of $66,720 to the contract with Pavement Engineering Inc (PEI) to develop Bid Documents, including Plans and Specifications, for proposed Roadway Improvements in Fiscal Year 2022-2023 (FY22-23).

BACKGROUND

Every two years, the Town applies for and receives a grant from the State of California to assess the pavement condition of public roads, to project the costs of needed repairs, and to assist the Town in planning how it will maintain public roads. The attached report provides an assessment of each street based on the standardized Pavement Condition Index (PCI) and provides a computer-generated recommendation of the funding needed to achieve a desired PCI rating for the Town. Please note, a Town PCI of 60, for example, leaves some individual roads with a very low PCI and some individual roads with a higher PCI rating.

DISCUSSION

Town Council was provided a draft copy of the PTAP report at their regularly scheduled meeting on February 1, 2023 to allow for the Council's and the public's review pending a larger discussion of its contents at a later meeting and to discuss the Department of Public Works' plans for a road improvement project in FY 22/23.

As noted in the previous staff report, the attached report provides an assessment of individual streets and an overall funding target needed to reach the identified PCI of 60, over the next five years. The PTAP report provides the Town with information on the condition of the street and road surfaces and based upon different construction criteria presents the town with general estimates for costs associated with pavement repair and rehabilitation.

In the February 1, 2023 Staff Report, staff noted that it was working under an agreement with its consultant PEI to identify projects for a 5 Year plan that also included additional services options to assist the Town with the preparation of construction drawings, plans and specifications needed for

a Request for Proposal Bid Package for identified projects. Staff and its consultant have identified three road segments for repair and rehabilitation for the current FY 22/23 based upon observed conditions of the roadways, their utility to the community, and their dispersed locations within the Town.

These roads were also selected because they do not have known significant slope stabilization repair or subsurface requirements that would need to be addressed prior to work, nor do they have known significant storm drainage deficiencies for which the Town is responsible.

Based upon the PTAP report, the estimates for only the surface repair were approximately $330,000, however, this estimate does **not** include ADA improvements to add curb cuts/ramps, replacement of striping and pavement markings or spot areas that may require additional work beyond the average observed surface condition. After additional development of the needed concurrent work, the projected costs are anticipated to be closer to $600,000. These proposed road segments have been forwarded to our partners at PG&E, MMWD and Ross Valley Sanitary Districts and none of those agencies have any planned work in the upcoming years on these streets that would damage the improvements that we intend to place. The proposed road segments are:

- Scenic Road between Azalea Avenue and Manor Road
- Porteous Ave between Bolinas Road and Wood Lane
- Claus Drive from Sir Francis Drake Blvd and Burdette/Taylor Lane

The total length of these segments equal approximately 3800 linear feet (lf) or .72 miles. Please refer to the Attachment C to see a graphical representation of the road segments under consideration.

The next step for Staff and the Council is to authorize PEI to develop the technical Plans and Specifications necessary to complete a Bid Package that can be issued to the marketplace in the Spring of 2023 with anticipated construction start dates for the Summer and Fall of 2023 for the identified segments. Projects that go out for bid of the anticipated scope and cost require detailed construction plans and technical specifications detailing the method of repair, material and unit quantities and other construction details that the PTAP report does not include. PEI has issued a proposal to provide on-site evaluation and inspection of the proposed roadways, prepare the Bid Documents including construction drawings, plans and specifications and provide bidding support during the Bid Period. PEI will provide recommendations on best practices and the most appropriate materials and applications to ensure the best paving product for the Town of Fairfax.

The Town currently has an existing agreement with PEI to assist in the development of a five-year plan for Road Improvement and Rehabilitation. After the current initial focus of this project to develop construction drawings, plans and specifications for the identified road and street segments, Staff's work with PEI will continue to identify future streets and roads utilizing the PTAP report and staff's observations to generate the future plan based upon allocated budgets and available funding. When future groupings of streets and road projects are established, staff will continue to utilize PEI's expertise to generate Bid Document packages or shall obtain the services of other specialized firms to prepare bid packages. As the Town's budgets vary over time, the annual projects can be adjusted accordingly.

FISCAL IMPACT

PEI has submitted a proposal for $66,720 to provide the Town of Fairfax with the initial investigation of existing road conditions, preparation of the Bid Documents and Bid Support. This will provide the Town with the necessary documents and technical support to issue a Request for Proposals for work in this current year. Funds are available in the total amount of $678,000 for Design and Construction within the CIP Street Resurfacing and Repair general ledger fund 53-887 and Selected Streets Repaving/Rehabilitation fund 51-810. As some of the work may trigger improvements to the curbs, gutters and sidewalks, it would be appropriate to access funds from the Town's Sidewalk Improvement fund which currently has an additional $40,000 available, if that is necessary, to complete the projects.

ATTACHMENTS

A. PTAP-23, Pavement Management Program Update Final Report
B. PEI proposal Dated Feb 18, 2023
C. Graphical Representation of Street Repairs for 2023
D. Resolution Authorizing Town Manager to Execute an Amendment to the Existing Agreement with PEI for FY 22/23 Paving Repair Plans and Specifications
E. Existing Agreement PEI

PTAP-23, Pavement Management Program Update

Final Report

NCE Project No. 55.159.55

January 2023

NCE

Richmond, CA
501 Canal Blvd. Suite I
Richmond, CA 94804

Town of Fairfax

142 Bolinas Rd.,
Fairfax, California 94930

Collaboration. Commitment. Confidence.℠

Final Report

PTAP-23, Pavement Management Program Update

Fairfax, CA

January 2023

Prepared for:

Town of Fairfax
142 Bolinas Rd.,
Fairfax, California 94930

Prepared by:

Abu Asib, Ph.D.
Project Engineer

Sharlan Montgomery Dunn, Ph.D., P.E.
Senior Engineer

NCE
501 Canal Blvd. Suite I
Richmond, CA 94804
(510) 215-3620

NCE Project No. 55.159.55

The preparation of this report has been financed in part by grants from the Federal Highway Administration, U.S. Department of Transportation.
The contents of this report do not necessarily reflect the official views or policy of the U.S. Department of Transportation

This Page Intentionally Left Blank

Executive Summary

In 2022, Nichols Consulting Engineers, Chtd. (NCE) was selected by the Metropolitan Transportation Commission (MTC) to update the Town of Fairfax's (Town) the pavement management program (PMP) as part of the Pavement Management Technical Assistance Program, Round 23 (P-TAP 23). This report summarizes the results of the 2022 update and its purpose to help educate policy makers about the current condition of the street network and the impact of various funding scenarios on future network condition.

The Town is responsible for maintaining approximately 27.6 centerline miles of streets, which represents a substantial investment of approximately $48 million. In 2022, NCE collected pavement condition data throughout the network using the Metropolitan Transportation Commission (MTC) modified ASTM survey procedures. The survey data were data were entered into StreetSaver®, which the Town uses as a decision-support tool.

Overall, the Town's maintained pavement network is currently in "Fair" condition with an average pavement condition index (PCI) of 55. Approximately 25.9 percent of the network is in "Good" condition and 37.1 percent is in "Poor" or "Failed" condition.

The budget needs analysis indicated that the Town needs to spend approximately $13.0 million over the next five years to bring the street network to a condition that can be maintained with ongoing preventive maintenance in the most cost-effective way. Three alternative budget scenarios were performed to illustrate the impacts of different funding levels. The following table lists each scenario with its corresponding five-year budget, and the PCI and deferred maintenance at the end of the analysis period.

Scenario	Description	5-Year Budget ($M)	2027 PCI	2027 Deferred Maintenance ($M)
1	Do Nothing	-	44	22.5
2	Existing Funding	2.5	51	19.4
3	Improve PCI to 60	7.2	60	14.3

NCE recommends that the Town pursue Scenario 3, which will increase the overall network PCI to 60, increase the portion of the network in "Good" condition and limit the increase in deferred maintenance. This scenario will require $7.2 million over the next five years.

Table of Contents

List of Figures

List of Tables

List of Appendices

1 Introduction and Background

In 2022, Nichols Consulting Engineers, Chtd. (NCE) was selected by the Metropolitan Transportation Commission (MTC) to update the Town of Fairfax's (Town) pavement management program (PMP) as part of the Pavement Management Technical Assistance Program, Round 23 (P-TAP 23). In general, PMPs are "designed to provide objective information and useful data so that … managers can make more consistent, cost effective and defensible decisions related to the preservation of a pavement network.[1]"

To update the Town's PMP, NCE performed pavement condition surveys for the entire street network using the Metropolitan Transportation Commission (MTC) modified[2] ASTM D6433[3] survey procedures. The surveys did not include non-pavement issues such as traffic, safety and street hazards, geometric issues, shoulders, sidewalks, curb and gutters, drainage issues, or immediate maintenance needs.

After inspection, all survey data was entered into the Town's StreetSaver® database, and pavement condition index (PCI) calculations were performed. NCE then met with Town staff and reviewed and updated the Town's decision tree including maintenance and rehabilitation (M&R) strategies treatment unit costs. A budget needs was then performed, and three budget scenarios were analyzed for the street network.

This report answers the following questions for Town of Fairfax:

- What does the Town's pavement network include?
- What is the current condition of the pavement network?
- What are the Town's current M&R strategies?
- How much funding is required to perform all needed M&R treatments over the next five years?
- What effect will Town's existing funding and other funding levels have on the network condition and deferred maintenance?

[1] AASHTO "Guidelines for Pavement Management Systems." American Association of State Highway and Transportation Officials, Washington DC, July 1990.

[2] PCI Distress Identification Manuals (AC 4th Edition, PCC 3rd Edition), Metropolitan Transportation Commission, San Francisco, CA March 2016.

[3] ASTM D6433-18 Standard Practice for Roads and Parking Lots Pavement Condition Index Surveys, ASTM International, West Conshohcken, PA 2018, astm.org.

2 Network Summary

The Town is responsible for maintaining approximately 27.6 centerline miles of pavement, or 201 pavement sections. The network is composed primarily of asphalt concrete (AC) pavement with three composite (AC over portland cement concrete) pavement sections. Table 1 summarizes the street network by functional classification.

Table 1. Network Summary Statistics

Functional Class	Number of Sections	Centerline Miles	Lane Miles	Network Area (%)
Arterial	29	4.8	9.6	22.6%
Collector	65	10.1	20.0	35.9%
Residential/Local	107	12.7	25.1	41.5%
Total	**201**	**27.6**	**54.7**	**100.0%**

The street network replacement cost is estimated to be approximately $48 million. This can be viewed as the value of the pavement network and is the amount needed to fund a reconstruction of the entire paved network. It does not include related infrastructure assets such as sidewalks, signals, markings, signs, or storm drains

3 Pavement Condition

Pavement condition is typically quantified using the pavement condition index (PCI), which ranges from 100 (best) to 0 (worst). Pavement condition is affected by the environment, traffic loads and volumes, construction materials, and age. Figure 1 shows example photos of Town streets with varying PCIs.

The PCI scale is divided into four general condition categories. Pavements in "Good" condition have a PCI above 70, pavements in "Fair" condition have a PCI between 50 and 69, pavements in "Poor" condition have a PCI between 25 and 49, and finally pavements in "Failed" condition have a PCI below 25.

Figure 1. Examples of Streets with Different PCIs

A list of all sections in the network along with their attributes, including the PCI at the time of last inspection, is provided in Appendix A. For convenience, there are two listings – one sorted alphabetically by street name and the other sorted by descending PCI.

The current average PCI for the network is 55. This value is an area-weighted calculation performed in StreetSaver® and is based on the condition survey performed in 2022. Figure 2 breaks down the current network PCI by functional classification. As shown, the arterial streets have the highest average PCI at 58, while the residentials and collectors are just a few points lower. The average pavement condition for all functional classes fall in the "Fair" condition category.

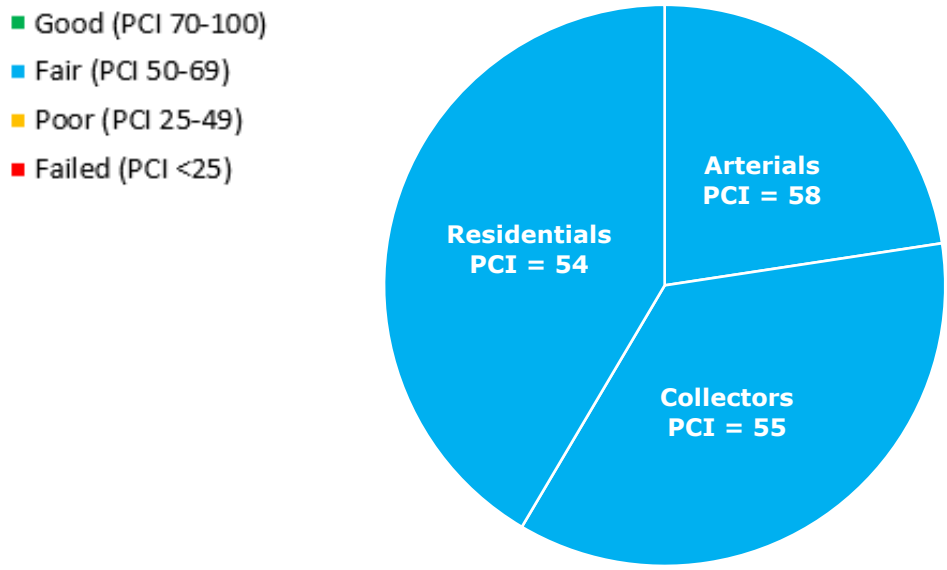


Figure 2. Pavement Network Breakdown by Functional Classification

Table 2 summarizes the network pavement condition by condition category and functional classification. Approximately a quarter of the network is in "Good" condition, a third in "Fair" condition, a quarter in "Poor" condition with 12.3 percent in "Failed" condition.

Table 2. Pavement Condition Breakdown by Functional Classification

Condition Category	PCI Range	Arterial (%)	Collector (%)	Residential (%)	Entire Network (%)
Good	70-100	7.7	8.3	9.9	25.9
Fair	50-69	6.6	15.1	15.3	37.0
Poor	25-49	6.6	7.2	11.0	24.8
Failed	<25	1.7	5.3	5.3	12.3
Total	**-**	**22.6**	**35.9**	**41.5**	**100.0**

4 Maintenance and Rehabilitation Strategies

The Town's current M&R strategies include recyclable and cost-effective treatments. In general, crack seal and microsurfacing will be applied to pavements in "Good" condition; pavements in "Fair" condition will receive microsurfacing or a thin hot mix asphalt (HMA) overlay; pavements in "Poor" condition will receive a double microsurfacing or a cold-in-place recycling (CIR) with an overlay; and finally, pavements in "Failed" condition will receive surface reconstruction. The Town's M&R strategies are formalized into a decision tree[4] (presented in Appendix B), which is instrumental in performing the budget needs analysis and budget scenarios.

Experience and research have shown that it costs much less to maintain pavement in good condition than to repair pavement that has already failed. As shown in Figure 3, by allowing pavements to deteriorate, streets that once cost $10.50/square yard (SY) to seal may soon cost $55/SY to overlay, or $169/SY to reconstruct. In other words, delaying repairs can significantly increase repair costs. Note that surface seal can be placed on approximately 16 times as many lane miles as those requiring reconstruction.

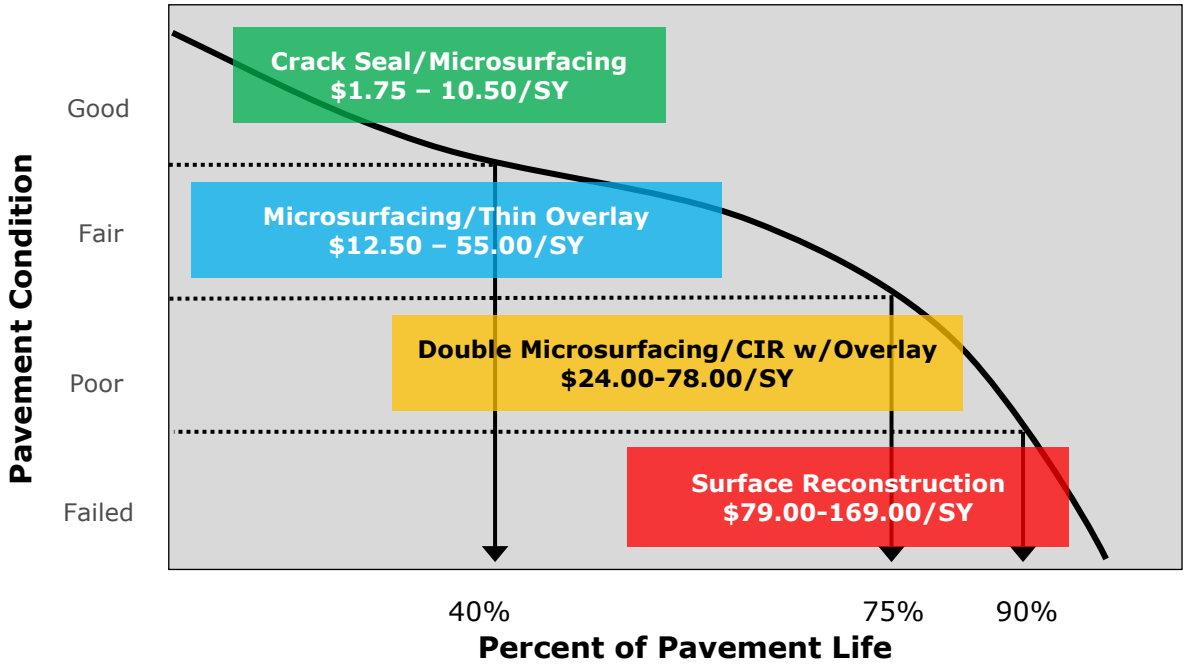


Figure 3. Costs of Maintaining Pavements Over Time

[4] Note: The StreetSaver® Maintenance and Rehabilitation Decision Tree" divides the "Fair" condition category to separate pavements with primarily non-load related distresses (e.g. longitudinal cracking) from those with load-related distresses (alligator cracking).

5 Budget Analyses

Based on the principle that it costs less to maintain streets in good condition than it does to repair those that have failed, cost-effective PMPs employ strategies that eliminate the deferred maintenance[5] and then maintain the network with on-going preventive maintenance. Such strategies bring the network condition to an optimal PCI that can be maintained over time.

The first step in developing such a cost-effective strategy is to determine the total maintenance budget needs of the network. The next step is to conduct alternative budget scenario analyses. In consultation with the Town, three funding scenarios were selected for analysis and performed using StreetSaver®:

- **Scenario 1: Do Nothing** – This scenario assumes the Town will not put any funding toward pavement M&R over the next five years.
- **Scenario 2: Existing Budget** – This scenario assumes that Town will spend approximately $0.5 million per year on pavement M&R over the next five years.
- **Scenario 3: Increase PCI to 60:** This scenario aims to improve the network PCI to 60 over the next five years.

The budget needs analysis and budget scenarios are presented in the following subsections. The detailed results of the budget needs analysis are provided in Appendix C. The detailed results of the budget scenarios are provided in Appendix D. Additionally, maps illustrating the current pavement condition and the projected 2027 pavement condition for each scenario are provided in Appendix E.

[5] Deferred maintenance is M&R not performed due to insufficient funding.

5.1 BUDGET NEEDS ANALYSIS

The total budget needs for the network represents the cost associated with performing M&R treatments at the optimal time – optimal meaning the PCI is maximized and the cost is minimized – over the analysis period. This was done by performing a budget needs analysis in StreetSaver® with an inflation rate of five percent for an analysis period of five years.

The results of the budget needs analysis are presented in Table 3. The total budget needs for the entire network for the next five years are estimated to be $13.0 million. Of the total budget needs, approximately $0.8 million (6.4 percent) is devoted to preventive maintenance, while the rest is allocated for more costly rehabilitation and reconstruction treatments.

Table 3. Summary Results for Budget Needs Analysis

Year	2023	2024	2025	2026	2027	Total
Budget Needs ($M)	12.5	0.3	0.2	0.0	0.0	13.0
Treated PCI	87	83	82	80	78	N/A
Untreated PCI	55	52	49	47	44	N/A

If the Town follows this ideal strategy, the average network PCI will immediately increase, as a large amount of deferred maintenance[6] is addressed in the first year, and then stabilize in the high-70s. This type of budget, that addresses all the deferred maintenance in the first year, is known as front-loaded. Alternatively, if no maintenance is performed over the next five years the network PCI will drop to 44 by 2027.

[6] Note: The budget needs for the first year of the analysis represents the Town's current deferred maintenance value.

5.2 SCENARIO 1: DO NOTHING

This scenario assumes the Town will not put any funds toward pavement M&R over the next five years. As shown in Table 4 and Figure 4, the network PCI will decrease to 44 and the deferred maintenance will increase to $22.5 million by 2027. Additionally, 28.6 percent of the network will be in "Failed" condition and 18.4 percent of the network will be in "Good" condition.

Table 4. Summary Results for Scenario 1

Year	2023	2024	2025	2026	2027	Total
Budget ($M)	0.0	0.0	0.0	0.0	0.0	0.0
Deferred Maintenance($M)	12.5	14.5	16.9	19.0	22.5	N/A
Treated PCI	55	52	49	47	44	N/A

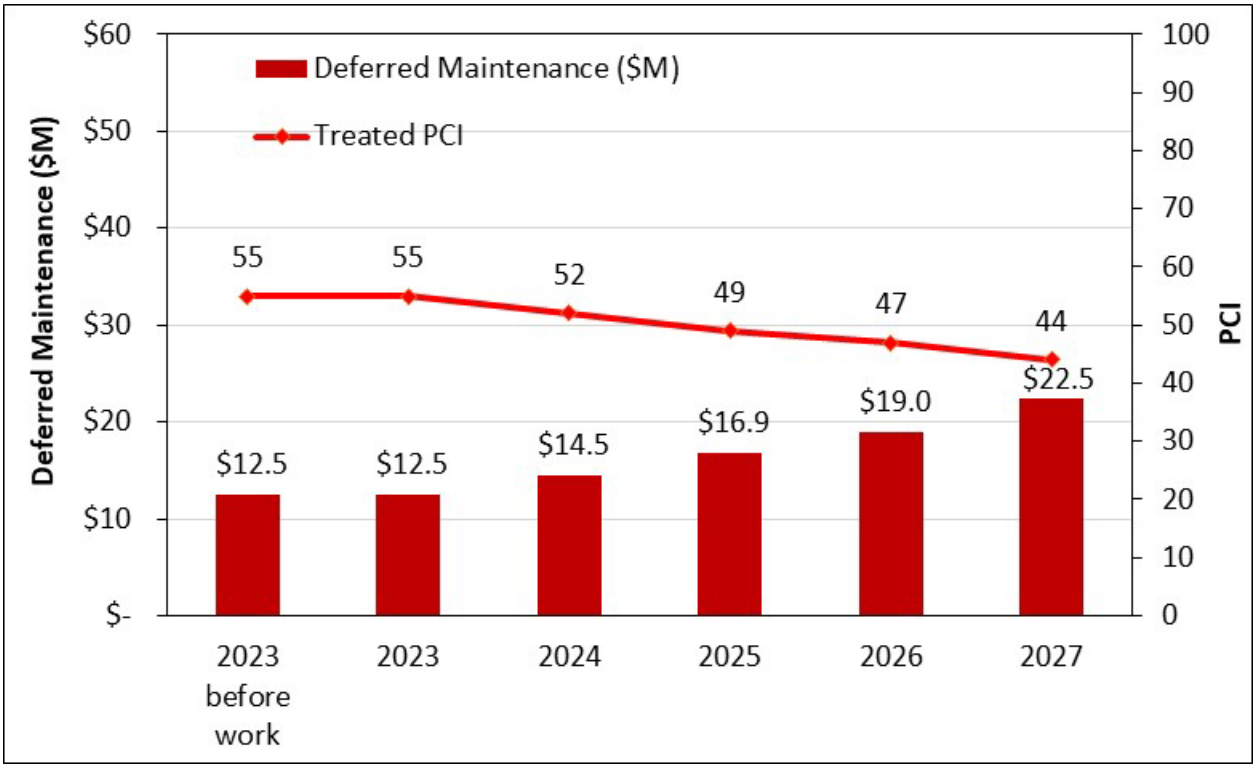


Figure 4. PCI vs Deferred Maintenance for Scenario 1

5.3 SCENARIO 2: EXISTING BUDGET ($2.5 M/5 YEARS)

This scenario assumes the Town will have $0.5 million per year for pavement M&R over the next five years on top of the funds required to complete the proposed rehabilitation project on Scenic Road between Azalea Avenue and Manor Road in 2023. As shown in Table 5 and Figure 5, the network PCI will decrease to 51 and the deferred maintenance will increase to $19.4 million by 2027. Additionally, 40.5 percent of the network will be in "Good" condition with 27.9 percent in "Failed" condition. A list of sections selected for treatment are provided in Appendix F.

Table 5. Summary Results for Scenario 2

Year	2023	2024	2025	2026	2027	Total
Budget ($M)	0.5	0.5	0.5	0.5	0.5	2.5
Deferred Maintenance ($M)	11.9	13.4	15.1	16.6	19.4	NA
Treated PCI	57	56	54	53	51	NA

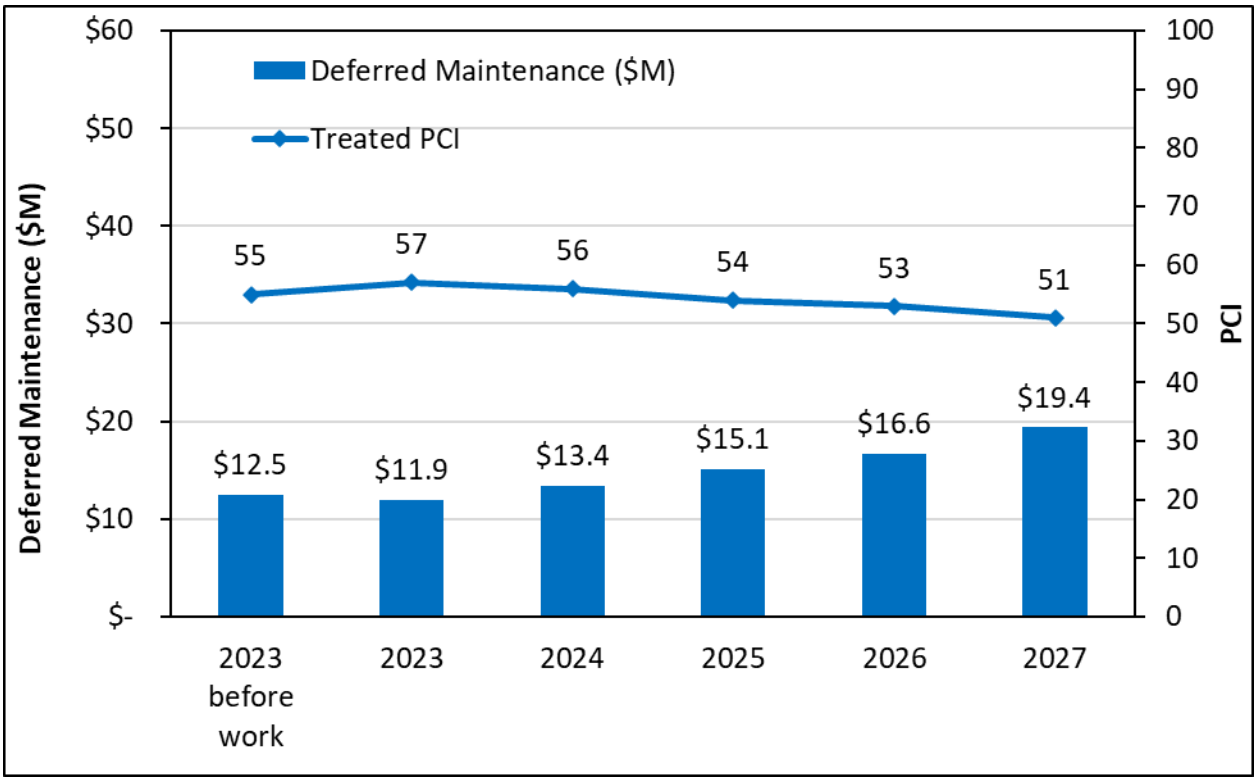


Figure 5. PCI vs Deferred Maintenance for Scenario 2

5.4 SCENARIO 3: INCREASE PCI TO 60 ($7.2 M/5 YEARS)

This scenario aims to improve the network to 60 by 2027. As shown in Table 6 and Figure 6, the estimated financial commitment required to accomplish this goal is $7.2 million over five years. Note that the 2023 budget is on top of the funds required to complete the proposed rehabilitation project on Scenic Road between Azalea Avenue and Manor Road. This scenario will result in in 55.3 percent of the network will being in "Good" condition and the deferred maintenance increasing slightly to $14.3 million.

Table 6. Summary Results for Scenario 3

Year	2023	2024	2025	2026	2027	Total
Budget ($M)	0.7	1.0	1.5	1.8	2.2	7.2
Deferred Maintenance ($M)	11.7	12.7	13.3	13.5	14.3	NA
Treated PCI	57	57	58	59	60	NA

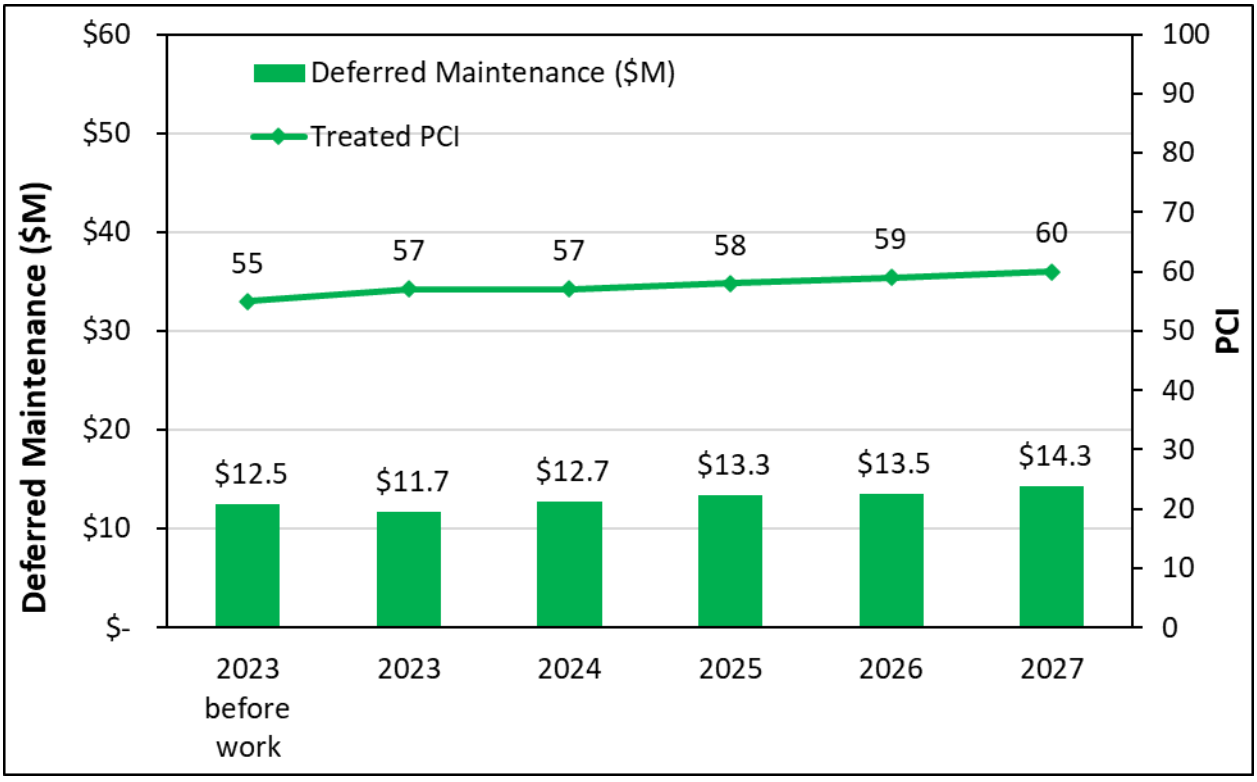


Figure 6. PCI vs Deferred Maintenance for Scenario 3

5.5 SCENARIOS COMPARISON

Figure 7 graphically compares the annual changes in PCI for each of the scenarios. As mentioned before, the PCI will decrease to 44 and 51 for Scenarios 1 and 2, respectively, and increase to 60 for Scenario 3.

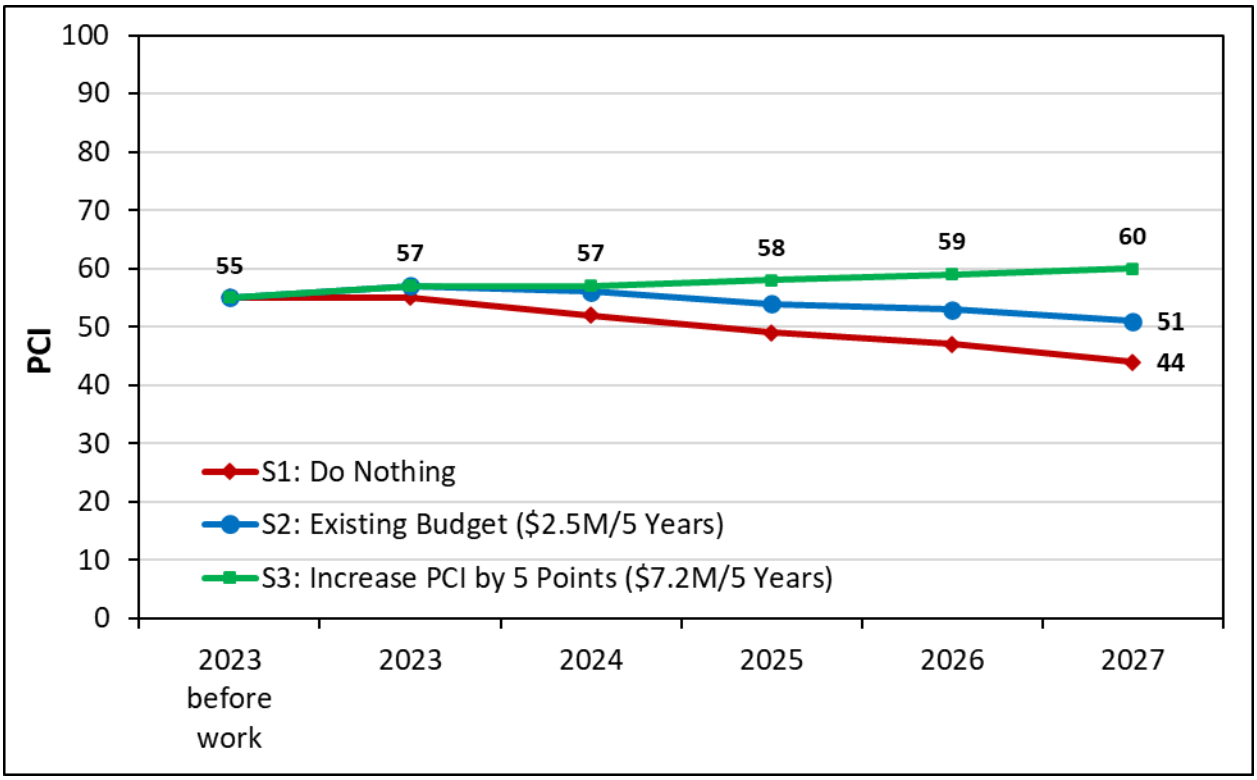


Figure 7. Comparison of Annual PCI by Scenario

Figure 8 illustrates the changes in deferred maintenance over time for each scenario. For Scenario 1, the deferred maintenance will increase by 80 percent. In Scenario 2, the deferred maintenance will increase by 50 percent, and for Scenario 3 the deferred maintenance will slightly increase to $14.3 million by 2027.

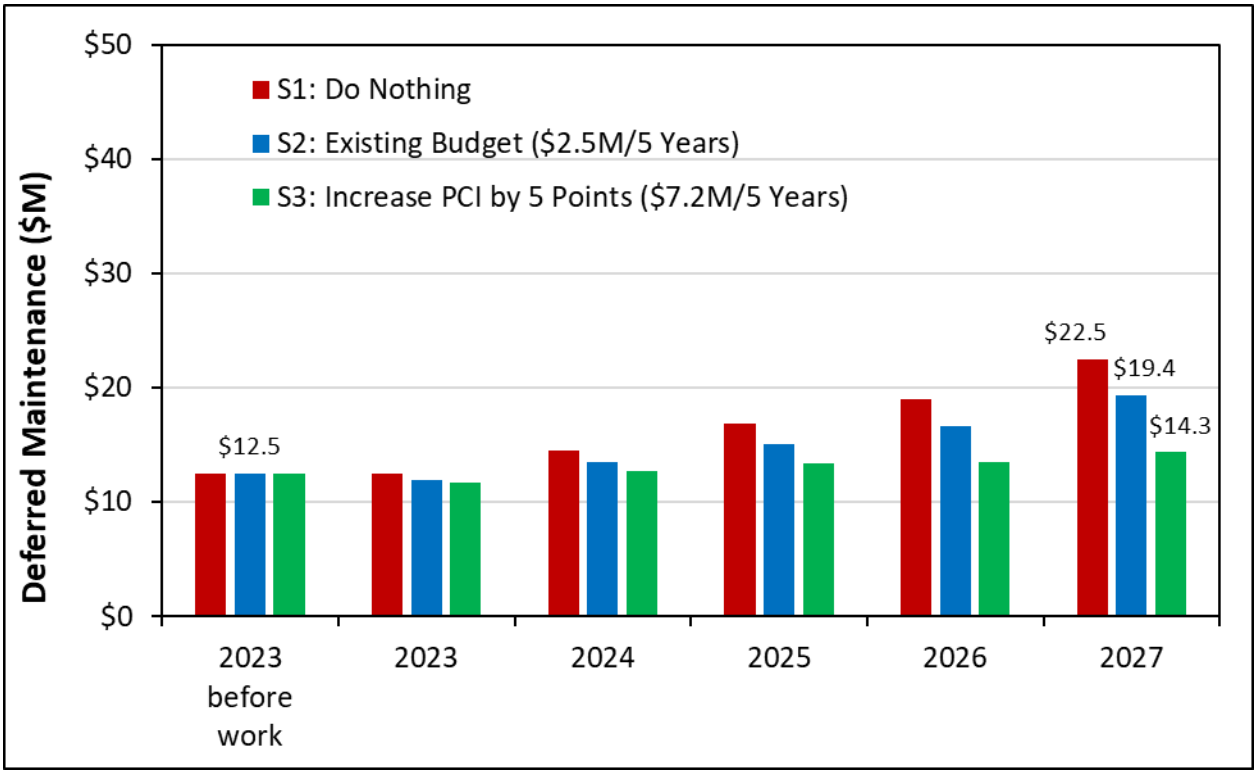


Figure 8. Comparison of Annual Deferred Maintenance by Scenario

Figure 9 illustrates the percent change in pavement condition for each scenario. As noted previously, currently, one quarter of the network is in "Good" condition, with 12.3 percent in "Failed" condition. For Scenario 1, the portion of the network in "Good" condition will decrease to 18.4 percent while the portion in "Failed" conditions will increase to 28.6 percent. For Scenarios 2 and 3, the portion of the network in "Good" condition will increase to 40.5 percent and 55.3 percent, respectively, while the portion in "Poor" condition will also increase to over a quarter.

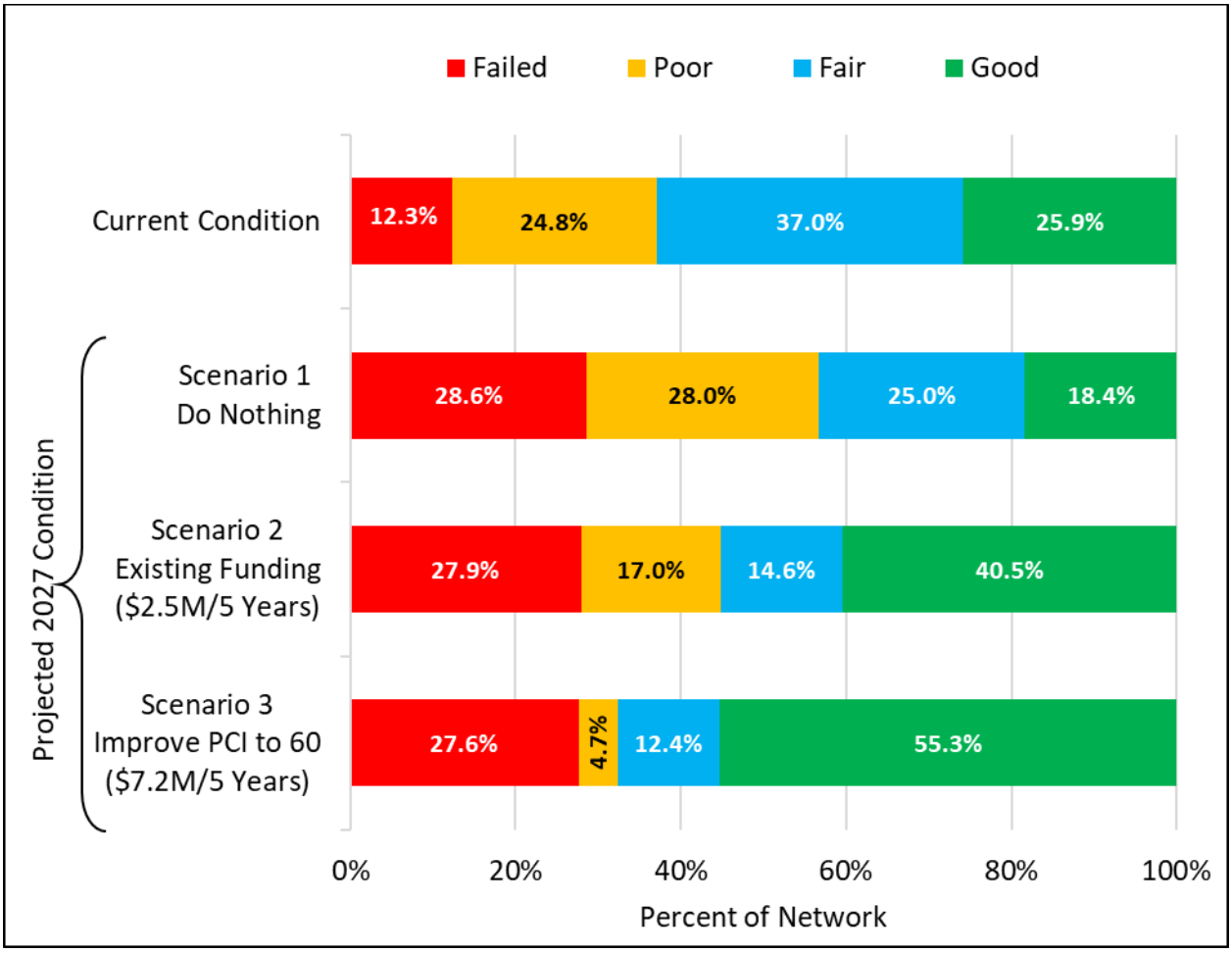


Figure 9. Comparison of Pavement Condition Breakdown by Scenario

6 Conclusions and Recommendations

In summary, the Town of Fairfax has a substantial investment of $48 million in the pavement network. Overall, the pavement network is in "Fair" condition with a PCI of 55. Approximately 25.9 percent of the network is in "Good" condition and 37.1 percent is in "Poor" or "Failed" condition.

The analyses indicate that the Town needs to spend approximately $13.0 million on maintenance and rehabilitation over the next five years to essentially repair all pavement sections, thus bringing the network into a condition that can be maintained with ongoing preventive maintenance. In the long run, this strategy will save the Town money by preventing future pavement deterioration to levels requiring rehabilitation or reconstruction.

Based on the data collected and the scenarios analyzed and presented in this report, NCE offers the following recommendations.

1. **Funding** - The primary goal of PMPs should be to offer users a safe and functional pavement network without unduly increasing the maintenance burden in the future. With that in mind, NCE recommends the Town pursue Scenario 3, which will increase the overall network PCI to 60, increase the portion of the network in "Good" condition, and limit the increase in deferred maintenance. This scenario will require $7.2 million over the next five years.

   To address the gap between the Town's existing funding and the recommended scenario, NCE recommends the Town pursue additional funding sources. Potential funding sources:

<u>Federal Funding Sources</u>

- American Rescue Plan Act (ARPA)
- Community Development Block Grants (CDBG)
- Congestion Mitigation and Air Quality Improvement Program (CMAQ)
- Federal Emergency Management Agency (FEMA)
- Highway Safety Improvement Program (HSIP)
- Bipartisan Infrastructure Investment and Jobs Act (IIJA)
- Regional Surface Transportation Program (RSTP)
- Surface Transportation Program (STP)
- Secure Rural Schools and Community Self-Determination Act

<u>State Funding Sources</u>

- Active Transportation Program (ATP), which now includes the Bicycle Transportation Account (BTA) and Safe Routes to Schools (SR2S)
- AB 2766 (vehicle surcharge)
- CalRecycle grants

- State Transportation Improvement Program (STIP)
- State Water Resource Control Board
- Transportation Development Act (TDA)
- Traffic Safety Fund
- Transportation Uniform Mitigation Fee (TUMF)
- Vehicle License Fees (VLF)

Local/Regional Funding Sources

- Development impact fees
- Enterprise Funds (solid waste and water) MTC PTAP (Pavement Management Technical Assistance Program)
- Flood Control Districts
- General funds
- Local sales tax measures
- MTC PTAP (Pavement Management Technical Assistance Program)
- OBAG (One Bay Area Grant Program)
- Parcel/property taxes
- Solid waste funds
- Traffic impact fees
- Traffic safety/circulation fees
- Transportation mitigation fees
- Transient Occupancy Taxes (TOT)
- Underground impact fees
- Utilities (e.g., stormwater, water, wastewater enterprise funds)
- Various assessment districts (lighting, maintenance, flood control, community facilities)
- Vehicle registration fees
- Vehicle code fines

2. **Pavement Management Strategies –** Since a significant portion of the Town's streets are currently in "Good" condition, it is important to maintain that condition to the extent possible. Preservation occurs when streets with PCIs higher than 70 receive treatments such as surface seals (slurry, chip, microsurfacing, etc.). Seals are relatively inexpensive treatments that prevent moisture ingress and thus preserve the integrity of the underlying base material. NCE recommends that the Town balance preventive maintenance with rehabilitation and reconstruction projects to preserve pavements in "Good" condition, improve pavements in "Poor" condition, and avoid increasing the deferred maintenance.
3. **Reinspection Strategies –** In order to make appropriate management decisions based on current data, NCE recommends that the Town perform pavement condition inspections on arterials and collectors every 2 years and

on residentials at least every 4 to 5 years. This also ensures that the Town remains compliant with MTC requirements for certification and funding. Additionally, since StreetSaver® and other prediction models do not yet consider the effect of specialized materials such as asphalt-binders with rubber or polymers, the actual performance of Town pavements may not be fully modeled in the analysis. For this additional reason, NCE recommends regular pavement condition surveys to ensure model accuracy and relevance.

4. **M&R Decision Tree –** Considering the recent volatility in oil prices and curb ramp requirements, the future cost of construction is unknown and unpredictable. NCE therefore recommends that the Town annually review and update the M&R treatment strategies and associated unit costs to reflect current construction techniques and changing costs. This will ensure that the results for the budget analyses are reliable and as accurate as possible.

Appendix A

Section Description Inventory

Section Description Inventory Report

This report lists a variety of section description information for each of the City's pavement sections. It lists the street and section identifiers, limits, functional class, surface type, number of lanes, length, width, area, Inspected PCI, and PCI date.

All of the City's pavement sections are included in the report. Two versions of the report are provided. The first is sorted alphabetically by Street Name and Section ID and the second report is sorted by descending PCI. The field descriptions in this report are listed below:

COLUMN	DESCRIPTION
Street ID	Street Identification - A code up to ten characters/digits to identify the street. Generally, the street name is truncated to six characters. The Street ID should be unique for each street.
Section ID	Section Identification - A code up to ten characters/digits to identify the section number. The Section ID must be unique for each section of one street.
Street Name	Street Name - The name of the street as indicated by street signs in the field.
Begin Location	Beginning limit of the section.
End Location	Ending limit of the section.
No. of Lanes	Number of travel lanes.
Functional Class (FC)	Functional Classification: A = Arterial, C = Collector, R = Residential, O = Other, NCR = Non City Road
Length (ft)	Length of the section in feet.
Width (ft)	Average width of the section in feet.
Area (sf)	Area of section in square feet.
Surface Type (ST)	Surface Type (AC = Asphalt Concrete), AC/AC = Asphalt Concrete Overlay, PCC = Portland Cement Concrete, GRAVEL = Gravel).
PCI Date	The last inspection date or rehabilitation date.
PCI	Average PCI for the section. The value is based on the last inspection.

Section Description Inventory – Sorted by Street Name

City of Fairfax - PTAP 23 PMP Update
Section Description Inventory
Sorted by Street Name

Street ID	Section ID	Street Name	Begin Location	End Location	# of Lanes	FC	ST	Length (ft)	Width (ft)	Area (sf)	PCI Date	PCI
ACACIA	10	ACACIA ROAD	SCENIC RD	DEAD END	2	R	AC	980	12	11,760	9/10/2022	89
ALDERC	10	ALDER COURT	LANDSDALE AVE	DEAD END	2	R	AC/AC	195	12	2,340	9/10/2022	70
ARROYO	10	ARROYO ROAD	LOWER SCENIC ROAD	SPRUCE ROAD	2	R	AC/AC	646	12	7,752	9/9/2022	84
AZALEA	10	AZALEA AVENUE	SIR FRANCIS DRAKE BLVD	SEQUOIA RD	2	R	AC/AC	789	20	15,780	9/9/2022	77
BANKST	10	BANK STREET	BROADWAY	ELSIE LANE	2	R	AC	280	32	8,960	9/10/2022	37
BARKER	10	BARKER AVENUE	PORTEOUS AVENUE	DEAD END	2	R	AC/AC	345	18	6,210	8/30/2022	45
BAYROA	10	BAY ROAD	SCENIC ROAD	DEAD END	2	R	AC	1,014	14	14,196	9/10/2022	35
BAYWOO	10	BAYWOOD COURT	LANDSDALE AVENUE	DEAD END	2	R	AC/AC	470	18	8,460	9/9/2022	95
BELLEA	10	BELLE AVENUE	PASTORI AVENUE	KENT AVENUE	2	R	AC/AC	295	18	5,310	9/9/2022	79
BELLEA	20	BELLE AVENUE	KENT AVENUE	TOWN LIMITS	2	R	AC/AC	515	18	9,270	9/9/2022	82
BELMON	10	BELMONT AVENUE	PASTORI AVENUE	KENT AVENUE	2	R	AC/AC	271	24	6,504	9/9/2022	55
BELMON	20	BELMONT AVENUE	KENT AVENUE	TOWN LIMITS	2	R	AC/AC	543	14	7,602	9/9/2022	95
BLACKB	10	BLACKBERRY LANE	CREEK ROAD	FORREST AVE	2	R	AC/AC	190	18	3,420	8/29/2022	54
BOLINA	10	BOLINAS ROAD	BROADWAY	PARK ROAD	2	A	AC	962	34	32,708	8/30/2022	53
BOLINA	20	BOLINAS ROAD	PARK ROAD	CASCADE DRIVE	2	A	AC	1,227	36	44,172	8/30/2022	54
BOLINA	30	BOLINAS ROAD	CASCADE DRIVE	1120' SO. OF CASCADE DRIVE	2	A	AC	1,120	20	22,400	8/30/2022	39
BOLINA	40	BOLINAS ROAD	1120' SO. OF CASCADE DRIVE	2200' SO OF CASCADE DRIVE	2	A	AC	1,080	20	21,600	8/30/2022	25
BOLINA	50	BOLINAS ROAD	2200' SO OF CASCADE DRIVE	TOWN LIMITS	2	A	AC	1,048	20	20,960	8/30/2022	26
BOTHIN	10	BOTHIN ROAD	MARIN AVENUE	OLEMA ROAD	2	C	AC/AC	460	26	11,960	8/29/2022	74
BOTHIN	20	BOTHIN ROAD	OLEMA ROAD	1041' WEST OF OLEMA ROAD	2	C	AC/AC	1,041	26	27,066	8/29/2022	61
BOTHIN	30	BOTHIN ROAD	1041' WEST OF OLEMA ROAD	TOWN LIMITS	2	C	AC/AC	1,031	25	25,775	8/29/2022	68
BRIDGE	10	BRIDGE COURT	DOMINGA AVENUE	DEAD END	2	R	AC/AC	97	16	1,552	9/10/2022	95
BROADW	20	BROADWAY	BANK ST	MERWIN AVENUE	2	C	AC	472	22	10,384	8/29/2022	25
BROADW	25	BROADWAY	MERWIN AVENUE	AZALEA AVENUE	2	C	AC/AC	402	22	8,844	8/29/2022	38
BROADW	10a	BROADWAY	PACHECO AVE	CLAUS DR	3	C	AC	828	60	49,680	9/9/2022	63
BROADW	10b	BROADWAY	CLAUS DR	BANK ST	3	C	AC/AC	155	60	9,300	8/29/2022	71
BROADW	35A	BROADWAY	AZALEA AVENUE	50 FT. NW AZALEA AVE.	2	C	AC/AC	50	22	1,100	8/29/2022	70
BROADW	35B	BROADWAY	50 FT NW AZALEA AVE.	SIR FRANCIS DRAKE BLVD.	2	C	AC	340	22	7,480	8/29/2022	51
CANYON	10	CANYON ROAD	CASCADE DRIVE	1017' WEST OF CASCADE DRIVE	2	C	AC/AC	1,017	14	14,238	8/30/2022	76
CANYON	20	CANYON ROAD	1017' WEST OF CASCADE DRIVE	2454' WEST OF CASCADE DRIVE	2	C	AC/AC	1,437	17	24,429	8/30/2022	55
CANYON	30	CANYON ROAD	2428' WEST OF CASCADE DRIVE	DEAD END	2	C	AC/AC	672	14	9,408	8/30/2022	50
CASCAD	10	CASCADE DRIVE	BOLINAS DRIVE	1285' WEST OF BOLINAS DRIVE	2	C	AC/AC	1,285	32	41,120	8/30/2022	76
CASCAD	20	CASCADE DRIVE	1285' WEST OF BOLINAS DR	LAUREL DRIVE	2	C	AC/AC	853	21	17,913	8/30/2022	78
CASCAD	30	CASCADE DRIVE	LAUREL DRIVE	MEADOW WAY	2	R	AC/AC	1,295	20	25,900	8/30/2022	63
CASCAD	40	CASCADE DRIVE	MEADOW WAY	690' WEST OF MEADOW WAY	2	R	AC/AC	690	24	16,560	8/30/2022	61
CASCAD	50	CASCADE DRIVE	690' WEST OF MEADOW WAY	CANYON ROAD	2	R	AC/AC	933	21	19,593	8/30/2022	70
CASCAD	60	CASCADE DRIVE	CANYON ROAD	890' WEST OF CANYON ROAD	2	R	AC/AC	890	18	16,020	8/30/2022	53
CASCAD	70	CASCADE DRIVE	890' WEST OF CANYON ROAD	1770' WEST OF CANYON ROAD	2	R	AC/AC	880	15	13,200	8/30/2022	64

FC (Functional Class): A (Arterial), C (Collector), NCR (Non-City Road), O (Other), R (Residential)
ST (Surface Type): AC (Asphalt Concrete), AC/AC (Asphalt Concrete Overlay), GRAVEL, PCC (Portland Cement Concrete)

City of Fairfax - PTAP 23 PMP Update
Section Description Inventory
Sorted by Street Name

Street ID	Section ID	Street Name	Begin Location	End Location	# of Lanes	FC	ST	Length (ft)	Width (ft)	Area (sf)	PCI Date	PCI
CASCAD	80	CASCADE DRIVE	1770' WEST OF CANYON ROAD	DEAD END	2	R	AC/AC	833	15	12,495	8/30/2022	68
CENTER	10	CENTER BOULEVARD	TOWN LIMITS	PASTORI AVENUE	2	R	AC	808	40	32,320	8/30/2022	91
CENTER	20	CENTER BOULEVARD	PASTORI AVENUE	727' NORTH OF PASTORI AVENUE	2	R	AC	727	51	37,077	8/30/2022	52
CENTER	30	CENTER BOULEVARD	727' NORTH OF PASTORI AVENUE	PACHECO AVENUE	2	R	AC/AC	599	54	32,346	8/30/2022	31
CHESTE	10	CHESTER AVENUE	WILLOW AVENUE	402' WEST OF WILLOW AVENUE	2	R	AC/AC	402	14	5,628	9/10/2022	63
CHESTE	20	CHESTER AVENUE	LIVE OAK AVENUE	556' NORTH OF LIVE OAK AVENUE	2	R	AC/AC	556	14	7,784	9/10/2022	39
CLAUSC	10	CLAUS CIRCLE	CLAUS DRIVE	CLAUS DRIVE	2	R	AC	321	26	8,346	9/9/2022	20
CLAUSD	10	CLAUS DRIVE	SIR FRANCIS DRAKE BOULEVARD	TAYLOR DRIVE	2	R	AC	494	26	12,844	9/9/2022	43
COOLID	10	COOLIDGE AVENUE	BELMONT AVENUE	BELLE AVENUE	2	R	AC/AC	227	14	3,178	9/9/2022	95
COREEL	10	COREE LANE	FRUSTUCK AVENUE	DEAD END	2	R	AC	267	14	3,738	9/9/2022	81
COURTL	10	COURT LANE	DOMINGA AVENUE	DEAD END	1	R	AC/AC	141	14	1,974	8/29/2022	95
CREEKR	10	CREEK ROAD	PORTEOUS AVENUE	BLACKBERRY LANE	2	C	AC/AC	752	18	13,536	8/29/2022	26
CREEKR	20	CREEK ROAD	BLACKBERRY LANE	BOLINAS ROAD	2	C	AC/AC	475	20	9,500	8/29/2022	14
CRESCE	10	CRESCENT CIRCLE	OAK TREE LANE	DEAD END	2	R	AC/AC	331	29	9,599	9/10/2022	57
CRESTR	10	CREST ROAD	HILLSIDE DRIVE	1422' SO.EAST OF HILLSIDE DR.	2	R	AC	1,422	14	19,908	8/30/2022	36
CYPRES	10	CYPRESS DRIVE	CASCADE DRIVE	760' WEST OF HICKORY ROAD	2	C	AC/AC	1,264	34	42,976	9/9/2022	67
CYPRES	40	CYPRESS DRIVE	1700' NORTH OF LAUREL DRIVE	935' NORTH OF LAUREL DRIVE	2	C	AC/AC	765	16	12,240	9/9/2022	51
CYPRES	50	CYPRESS DRIVE	935' NORTH OF LAUREL	LAUREL DRIVE	2	C	AC/AC	1,700	16	27,200	9/9/2022	69
DEERP	10	DEER PARK DR	HILLSIDE DR	END (E)	2	R	AC	565	16	9,040	8/30/2022	61
DOMING	10	DOMINGA AVENUE	CREEK ROAD	BRIDGE COURT	2	C	AC/AC	847	20	16,940	8/29/2022	29
DOMING	20	DOMINGA AVENUE	BRIDGE COURT	NAPA AVENUE	2	C	AC/AC	472	20	9,440	8/29/2022	47
ELSIEL	10	ELSIE LANE	BOLINAS ROAD	BANK ST	2	R	AC/AC	595	36	21,420	9/10/2022	16
FORREA	10	FORREST AVENUE	MEERNAA AVENUE	SUMMER AVENUE	2	C	AC/AC	1,080	14	15,120	8/30/2022	73
FORREA	20	FORREST AVENUE	SUMMER AVENUE	1230' EAST OF SUMMER AVENUE	2	C	AC/PCC	1,230	14	17,220	8/30/2022	53
FORREA	30	FORREST AVENUE	1230' EAST OF SUMMER AVENUE	2230' EAST OF SUMMER AVENUE	2	C	AC/PCC	1,000	14	14,000	8/30/2022	65
FORREA	40	FORREST AVENUE	2230' EAST OF SUMMER AVENUE	TOWN LIMITS	2	C	AC/PCC	850	14	11,900	8/30/2022	55
FORRES	50	FORREST TERRACE	MEERNA AVENUE	FORREST AVENUE	2	R	AC	957	14	13,398	8/30/2022	24
FRUSTU	10	FRUSTUCK AVENUE	PARK ROAD	WRENDEN AVENUE	2	C	AC/AC	839	15	12,585	9/9/2022	56
FRUSTU	20	FRUSTUCK AVENUE	WRENDEN AVENUE	MANZANITA ROAD	2	C	AC	1,278	14	17,892	9/9/2022	35
FRUSTU	30	FRUSTUCK AVENUE	MANZANITA ROAD	WILLIS LANE	2	C	AC	1,029	14	14,406	9/9/2022	63
FRUSTU	40	FRUSTUCK AVENUE	WILLIS LANE	500' WEST OF BOLINAS ROAD	2	C	AC	396	14	5,544	9/9/2022	32
FRUSTU	50	FRUSTUCK AVENUE	500' WEST OF BOLINAS ROAD	BOLINAS ROAD	2	C	AC	500	14	7,000	9/9/2022	59

FC (Functional Class): A (Arterial), C (Collector), NCR (Non-City Road), O (Other), R (Residential)
ST (Surface Type): AC (Asphalt Concrete), AC/AC (Asphalt Concrete Overlay), GRAVEL, PCC (Portland Cement Concrete)

City of Fairfax - PTAP 23 PMP Update
Section Description Inventory
Sorted by Street Name

Street ID	Section ID	Street Name	Begin Location	End Location	# of Lanes	FC	ST	Length (ft)	Width (ft)	Area (sf)	PCI Date	PCI
GEARYA	10	GEARY AVENUE	TAYLOR DRIVE	TAYLOR DRIVE	2	R	AC/AC	666	13	8,658	9/9/2022	36
GLENDR	10	GLEN DRIVE	SIR FRANCIS DRAKE BOULEVARD	1260' NORTH OF SFD BLVD	2	C	AC/AC	1,260	35	44,100	8/29/2022	64
GLENDR	20	GLEN DRIVE	1260' NORTH OF SFD BLVD	TOWN LIMIT	2	C	AC/AC	1,200	40	48,000	8/29/2022	75
HAWTHORNE	10	HAWTHORNE CT	OLEMA RD	END	2	R	AC	210	20	4,200	8/29/2022	17
HICKOR	05	HICKORY ROAD	CASADE DR	CYPRESS DR	2	R	AC	178	20	3,560	9/9/2022	74
HICKOR	10	HICKORY ROAD	CYPRESS DRIVE	DEAD END	2	R	AC	1,132	20	22,640	9/9/2022	7
HILLAV	10	HILL AVENUE	BELLE AVENUE	TOWN LIMITS	2	R	AC/AC	475	18	8,550	9/9/2022	30
HILLSI	20	HILLSIDE DRIVE	MEERNA AVENUE	770' NORTH OF MEERNA AVENUE	2	C	AC	770	12	9,240	8/30/2022	23
HILLSI	30	HILLSIDE DRIVE	770' NORTH OF MEERNA AVENUE	1275' NORTH OF MEERNA AVENUE	2	C	AC	505	12	6,060	8/30/2022	25
HILLSI	40	HILLSIDE DRIVE	1275' NORTH OF MEERNA AVENUE	CREST ROAD	2	C	AC	625	12	7,500	8/30/2022	20
HILLSI	50	HILLSIDE DRIVE	CREST ROAD	DEAD END	2	C	AC/AC	850	14	11,900	8/30/2022	40
INYOAV	10	INYO AVENUE	PACHECO AVENUE	END	2	R	AC/AC	498	20	9,960	8/29/2022	15
IRONSP	10	IRON SPRINGS ROAD	ROCK RIDGE ROAD	DEAD END	2	R	AC/AC	886	12	10,632	8/29/2022	69
IVYLAN	10	IVY LANE	PORTEOUS AVENUE	MEERNA AVENUE	2	R	AC/AC	118	18	2,124	8/29/2022	54
JUNECO	10	JUNE COURT	SIR FRANCIS DRAKE BOULEVARD	DEAD END	2	R	AC	309	16	4,944	8/29/2022	34
KENTAV	10	KENT AVENUE	BELMONT AVENUE	SIR FRANCIS DRAKE BLVD	2	R	AC	481	24	11,544	9/9/2022	66
LANSDA	10	LANSDALE AVENUE	PASTORI AVENUE	TOWN LIMITS	2	R	AC/AC	794	18	14,292	9/9/2022	84
LAUREL	10	LAUREL DRIVE	CASCADE DRIVE	PINE ROAD	2	C	AC	950	14	13,300	8/30/2022	71
LAUREL	20	LAUREL DRIVE	PINE ROAD	WOODLAND ROAD	2	C	AC/AC	1,382	18	24,876	8/30/2022	58
LIVEOA	10	LIVE OAK AVENUE	MAPLE AVENU	1027' WEST OF MAPLE AVENUE	2	R	AC/AC	1,027	18	18,486	9/10/2022	52
LIVEOA	20	LIVE OAK AVENUE	1027' WEST OF MAPLE AVENUE	DEAD END	2	R	AC/AC	858	18	15,444	9/10/2022	51
MADROC	10	MADRONE COURT	LAUREL DRIVE	DEAD END	2	R	AC	343	18	6,174	9/9/2022	32
MADROR	10	MADRONE ROAD	LAUREL DRIVE	895' NORTH OF LAUREL DRIVE	2	R	AC	895	14	12,530	9/9/2022	35
MADROR	20	MADRONE ROAD	895' NORTH OF LAUREL DRIVE	1625' NORTH OF LAUREL DRIVE	2	R	AC	730	14	10,220	9/9/2022	36
MAINC	10	MAIN COURT	PACHECO AVENUE	DEAD END	2	R	AC/AC	208	20	4,160	8/29/2022	68
MANORR	10	MANOR ROAD	MARIN AVENUE	OLEMA ROAD	2	R	AC/AC	393	26	10,218	8/29/2022	76
MANORR	15	MANOR ROAD	OLEMA ROAD	LOWER SCENIC ROAD	2	C	AC	670	23	15,410	8/29/2022	26
MANORR	25	MANOR ROAD	LOWER SCENIC ROAD	TAMALPIAS ROAD	2	C	AC	500	23	11,500	8/29/2022	84
MANZAC	10	MANZANITA COURT	MANZANITA ROAD	DEAD END	2	R	AC	123	10	1,230	9/9/2022	85
MANZAR	10	MANZANITA ROAD	543 FROM WRENDEN FRUSTRUCK INT	991 FRM WRENDEN FRUSTRUCK INT	2	R	AC/AC	448	14	6,272	9/9/2022	62
MANZAR	20	MANZANITA ROAD	991 FRM WRENDEN FRUSTRUCK INT	FRUSTUCK AVENUE	2	R	AC/AC	594	14	8,316	9/9/2022	63
MAPLEA	10	MAPLE AVENUE	WILLOW AVENUE	LIVE OAK AVENUE	2	R	AC/AC	387	15	5,805	9/10/2022	35

FC (Functional Class): A (Arterial), C (Collector), NCR (Non-City Road), O (Other), R (Residential)
ST (Surface Type): AC (Asphalt Concrete), AC/AC (Asphalt Concrete Overlay), GRAVEL, PCC (Portland Cement Concrete)

City of Fairfax - PTAP 23 PMP Update
Section Description Inventory
Sorted by Street Name

Street ID	Section ID	Street Name	Begin Location	End Location	# of Lanes	FC	ST	Length (ft)	Width (ft)	Area (sf)	PCI Date	PCI
MAPLEA	20	MAPLE AVENUE	LIVE OAK AVENUE	DEAD END	2	R	AC/AC	685	15	10,275	9/10/2022	27
MARINC	10	MARINDA COURT	MARINDA DRIVE	DEAD END	2	R	AC	186	29	5,394	9/10/2022	44
MARIND	10	MARINDA DRIVE	SIR FRANCIS DRAKE BOULEVARD	SAN GABRIEL DRIVE	2	C	AC	685	30	20,550	9/10/2022	37
MARIND	20	MARINDA DRIVE	SAN GABRIEL DRIVE	DEAD END	2	C	AC	1,398	30	41,940	9/10/2022	62
MARINR	10	MARIN ROAD	OLEMA ROAD	MANOR ROAD (AROUND CIRCLE)	2	C	AC/AC	398	25	9,950	8/29/2022	83
MARINR	20	MARIN ROAD	MANOR ROAD (TOP OF CIRCLE)	SIR FRANCIS DRAKE BLVD	2	C	AC	140	48	6,720	8/29/2022	88
MEADOW	10	MEADOW WAY (1)	CASCADE DR	MEADOW WAY (2) "T"	2	R	AC	380	20	7,600	8/30/2022	36
MEADOW	20	MEADOW WAY (2)	N E END	GATE (SW END)	2	R	AC/AC	805	20	16,100	8/30/2022	82
MEADOW	30	MEADOW WAY (3)	MEADOW WAY (2)	E END	2	R	AC	642	18	11,556	8/30/2022	68
MEERNA	10	MEERNA AVENUE	CREEK ROAD	IVY LANE	2	C	AC/AC	870	18	15,660	8/29/2022	42
MEERNA	20	MEERNA AVENUE	IVY LANE	HILLSIDE DRIVE	2	C	AC/AC	942	18	16,956	8/30/2022	76
MEERNA	30	MEERNA AVENUE	HILLSIDE DR	PORTEOUS AV	2	R	AC	995	19	18,905	8/30/2022	76
MERWIN	10	MERWIN AVENUE	BROADWAY	PARK ROAD	2	R	AC	651	21	13,671	8/29/2022	40
MONOAV	05	MONO AVENUE	BOLINAS RD	BANK ST	2	R	AC	230	11	2,530	8/29/2022	95
MONOAV	10	MONO AVENUE	BOLINAS RD	PACHECO AV	2	R	AC/AC	525	16	8,400	8/29/2022	95
MONOAV	20	MONO AVENUE	PACHECO AVE	INYO AVE	2	R	AC/AC	638	20	12,760	8/29/2022	38
MOUNTA	10	MOUNTAIN VIEW ROAD	MANZANITA ROAD	TAMALPIAS ROAD	2	R	AC/AC	1,035	14	14,490	9/9/2022	89
MURIEL	10	MURIEL PLACE	LOWER SCENIC ROAD	DEAD END	2	R	AC/AC	485	21	10,185	8/29/2022	52
NAPAAV	10	NAPA AVENUE	PACHECO AVENUE	DOMINGA AVENUE	2	R	AC/AC	300	20	6,000	8/29/2022	48
OAKROA	10	OAK ROAD	LAUREL DRIVE	TOYON DRIVE	2	R	AC	1,249	15	18,735	9/9/2022	11
OAKTRE	10	OAK TREE LANE	SIR FRANCIS DRAKE BOULEVARD	DEAD END	2	R	AC/AC	494	29	14,326	9/10/2022	55
OLEMAR	10	OLEMA ROAD	SIR FRANCIS DRAKE BOULEVARD	MARIN ROAD	2	C	AC	1,050	24	25,200	8/29/2022	63
OLEMAR	20	OLEMA ROAD	MARIN ROAD	TOWN LIMITS	2	C	AC	1,480	23	34,040	8/29/2022	51
PACHEC	10	PACHECO AVENUE	SIR FRANCIS DRAKE BLVD	DEAD END	2	R	AC/AC	596	20	11,920	8/29/2022	49
PARKRO	10	PARK ROAD	BOLINAS ROAD	SCHOOL STREET	2	R	AC/AC	588	24	14,112	8/29/2022	47
PARKRO	20	PARK ROAD	SCHOOL STREET	SPRUCE ROAD	2	R	AC	585	21	12,285	8/29/2022	51
PASTOR	10	PASTORI AVENUE	SIR FRANCIS DRAKE BOULEVARD	DEAD END	2	R	AC	608	32	19,456	9/9/2022	85
PINEDR	10	PINE DRIVE	LAUREL DRIVE	635' WEST OF LAUREL DRIVE	2	C	AC/AC	635	16	10,160	9/9/2022	59
PINEDR	20	PINE DRIVE	635' WEST OF LAUREL DRIVE	1900' WEST OF LAUREL DRIVE	2	C	AC/AC	1,265	14	17,710	9/9/2022	66
PINEDR	30	PINE DRIVE	1900' WEST OF LAUREL DRIVE	2760' WEST OF LAUREL DRIVE	2	C	AC/AC	860	14	12,040	9/9/2022	65
PIPERC	10	PIPER COURT	PIPER LANE	DEAD END	2	R	AC/AC	492	23	11,316	9/10/2022	93
PIPERL	10	PIPER LANE	OAK MANOR DRIVE	DEAD END	2	R	AC/AC	1,002	34	34,068	9/10/2022	95
PORTEO	10	PORTEOUS AVENUE	BOLINAS ROAD	IVY LANE	2	C	AC/AC	720	18	12,960	8/30/2022	30
PORTEO	20	PORTEOUS AVENUE	IVY LANE	WOOD LANE	2	C	AC/AC	261	18	4,698	8/30/2022	11
PORTEO	30	PORTEOUS AVENUE	WOOD LANE	TOWN LIMITS	2	C	AC/AC	1,160	17	19,720	8/30/2022	30

FC (Functional Class): A (Arterial), C (Collector), NCR (Non-City Road), O (Other), R (Residential)
ST (Surface Type): AC (Asphalt Concrete), AC/AC (Asphalt Concrete Overlay), GRAVEL, PCC (Portland Cement Concrete)

City of Fairfax - PTAP 23 PMP Update
Section Description Inventory
Sorted by Street Name

Street ID	Section ID	Street Name	Begin Location	End Location	# of Lanes	FC	ST	Length (ft)	Width (ft)	Area (sf)	PCI Date	PCI
REDWOO	10	REDWOOD ROAD	SCENIC ROAD	420' WEST OF SCENIC ROAD	2	C	AC/AC	420	12	5,040	9/10/2022	87
REDWOO	20	REDWOOD ROAD	420' WEST OF SCENIC ROAD	1240' WEST OF SCENIC ROAD	2	C	AC/AC	820	12	9,840	9/10/2022	89
REDWOO	30	REDWOOD ROAD	1240' WEST OF SCENIC ROAD	1800' WEST OF SCENIC ROAD	2	C	AC/AC	560	14	7,840	9/10/2022	91
RIDGER	10	RIDGE ROAD	SCENIC ROAD	CUL-DE-SAC	2	R	AC/AC	1,536	12	18,432	9/9/2022	47
RIDGEW	10	RIDGEWAY AVENUE	LIVE OAK AV	END	2	R	AC/AC	1,350	16	21,600	9/10/2022	73
ROCCAD	20	ROCCA DRIVE	TAYLOR DRIVE	TAYLOR DRIVE AT SADY LANE	2	R	AC/AC	1,701	14	23,814	9/9/2022	69
ROCKRI	10	ROCK RIDGE ROAD	MANOR ROAD	BOTHIN ROAD	2	R	AC	1,115	25	27,875	8/29/2022	8
SANGAC	10	SAN GABRIEL COURT	SAN GABRIEL DRIVE	DEAD END	2	R	AC	177	30	5,310	9/10/2022	41
SANGAD	10	SAN GABRIEL DRIVE	MARINDA DRIVE	1148' EAST OF MARINDA DRIVE	2	C	AC	1,148	30	34,440	9/10/2022	26
SANGAD	20	SAN GABRIEL DRIVE	1148' EAST OF MARINDA DRIVE	DEAD END	2	C	AC	633	30	18,990	9/10/2022	27
SANMIG	10	SAN MIGUEL COURT	SIR FRANCIS DRAKE BOULEVARD	DEAD END	2	R	AC/AC	409	23	9,407	9/10/2022	32
SCENIC	05	SCENIC ROAD	AZALEA AVENUE	ACACIA ROAD	2	R	AC	1,165	18	20,970	9/9/2022	30
SCENIC	10	SCENIC ROAD	ACACIA ROAD	TAMALPIAS ROAD	2	A	AC	625	24	15,000	9/9/2022	51
SCENIC	30	SCENIC ROAD	200' WEST OF BAY ROAD	400' NORTH OF REDWOOD ROAD	2	A	AC/AC	922	15	13,830	9/9/2022	51
SCENIC	40	SCENIC ROAD	400' NORTH OF REDWOOD ROAD	REDWOOD ROAD	2	A	AC/AC	458	14	6,412	9/9/2022	88
SCENIC	50	SCENIC ROAD	REDWOOD ROAD	TAMALPIAS ROAD	2	A	AC/AC	580	14	8,120	9/9/2022	87
SCENIC	60	SCENIC ROAD	TAMALPIAS ROAD	UPPER SCENIC ROAD	2	A	AC	1,145	15	17,175	9/9/2022	54
SCENIC	20A	SCENIC ROAD	TAMALPIAS ROAD	BAY ROAD	2	A	AC/AC	535	14	7,490	9/9/2022	85
SCENIC	20B	SCENIC ROAD	BAY ROAD	200 FT W. BAY ROAD	2	A	AC/AC	200	14	2,800	9/9/2022	62
SCHOOL	10	SCHOOL STREET	BROADWAY	PARKING LOT	2	R	AC	120	25	3,000	9/10/2022	17
SCHOOL	20	SCHOOL STREET	PARK ROAD	DEAD END	2	R	AC	150	25	3,750	9/9/2022	63
SEQUOI	10	SEQUOIA ROAD	LOWER SCENIC ROAD	SPRUCE ROAD	2	R	AC/AC	974	19	18,506	9/9/2022	70
SHEMRC	10	SHEMRAN COURT	SIR FRANCIS DRAKE BOULEVARD	NORTH TO DEAD END	2	R	AC	380	23	8,740	8/29/2022	81
SHERMA	10	SHERMAN AVENUE	BOLINAS ROAD	DOMINGA AVENUE	2	R	AC/AC	262	18	4,716	8/29/2022	65
SIRFRA	10	SIR FRANCIS DRAKE BOULEVARD	TOWN LIMITS	PACHECO AVENUE	2	A	AC/AC	1,526	36	54,936	9/9/2022	50
SIRFRA	20	SIR FRANCIS DRAKE BOULEVARD	PACHECO AVENUE	BANK STREET	2	A	AC	819	35	28,665	9/9/2022	70
SIRFRA	30	SIR FRANCIS DRAKE BOULEVARD	BANK STREET	BROADWAY	2	A	AC	939	36	33,804	9/9/2022	65
SIRFRA	40	SIR FRANCIS DRAKE BOULEVARD	BROADWAY	SAN MIGUEL COURT	2	A	AC	939	47	44,133	9/9/2022	71
SIRFRA	50	SIR FRANCIS DRAKE BOULEVARD	SAN MIGUEL COURT	OAK TREE LANE	2	A	AC	870	35	30,450	9/9/2022	76
SIRFRA	60	SIR FRANCIS DRAKE BOULEVARD	OAK TREE LANE	OAK MANOR DRIVE	2	A	AC/AC	722	35	25,270	9/9/2022	34

FC (Functional Class): A (Arterial), C (Collector), NCR (Non-City Road), O (Other), R (Residential)
ST (Surface Type): AC (Asphalt Concrete), AC/AC (Asphalt Concrete Overlay), GRAVEL, PCC (Portland Cement Concrete)

City of Fairfax - PTAP 23 PMP Update
Section Description Inventory
Sorted by Street Name

Street ID	Section ID	Street Name	Begin Location	End Location	# of Lanes	FC	ST	Length (ft)	Width (ft)	Area (sf)	PCI Date	PCI
SIRFRA	70	SIR FRANCIS DRAKE BOULEVARD	OAK MANOR DRIVE	1003' WEST OF OAK MANOR DRIVE	2	A	AC/AC	1,003	45	45,135	9/9/2022	31
SIRFRA	80	SIR FRANCIS DRAKE BOULEVARD	1003' WEST OF OAK MANOR DRIVE	455' NORTH OF JUNE COURT	2	A	AC/AC	1,053	35	36,855	9/9/2022	40
SIRFRA	90	SIR FRANCIS DRAKE BOULEVARD	455' NORTH OF JUNE COURT	GLEN DRIVE	2	A	AC/AC	795	60	47,700	9/9/2022	88
SIRFRA	100	SIR FRANCIS DRAKE BOULEVARD	GLEN DRIVE	TOWN LIMITS	2	A	AC/AC	1,302	45	58,590	9/9/2022	84
SPRING	10	SPRING LANE	HILLSIDE DRIVE	DEAD END	2	R	AC/AC	1,376	15	20,640	8/30/2022	62
SPRUCE	10	SPRUCE ROAD	AZALEA ROAD	PARK ROAD	2	C	AC	732	21	15,372	9/9/2022	23
SPRUCE	15	SPRUCE ROAD	PARK ROAD	610 FT WEST OF PARK ROAD	1	C	AC/AC	610	12	7,320	9/9/2022	83
SPRUCE	25	SPRUCE ROAD	610 FT WEST OF PARK ROAD	TAMALPIAS ROAD	1	C	AC/AC	765	12	9,180	9/9/2022	78
SUMMER	10	SUMMER AVENUE	FOREST AVENUE	DEAD END	2	R	AC/AC	284	15	4,260	8/30/2022	79
TAMALP	20	TAMALPAIS ROAD	SCENIC ROAD	1050' SOUTH OF SCENIC ROAD	2	A	AC/AC	1,050	15	15,750	9/10/2022	52
TAMALP	30	TAMALPAIS ROAD	1050' SOUTH OF SCENIC ROAD	BERRY TRAIL	2	A	AC/AC	812	16	12,992	9/10/2022	95
TAMALP	40	TAMALPAIS ROAD	BERRY TRAIL	MOUNTAIN VIEW ROAD	2	A	AC/AC	835	15	12,525	9/10/2022	95
TAMALP	50	TAMALPAIS ROAD	MOUNTAIN VIEW ROAD	SCENIC ROAD	2	A	AC/AC	590	12	7,080	9/9/2022	81
TAMALP	60	TAMALPAIS ROAD	SCENIC ROAD	DEAD END	2	A	AC/AC	1,135	10	11,350	9/9/2022	36
TAMALP	10A	TAMALPAIS ROAD	SEQUOIA ROAD	SPRUCE ROAD	2	A	AC	615	16	9,840	9/9/2022	20
TAMALP	10B	TAMALPAIS ROAD	SPRUCE ROAD	INT. 60 FT W. OF SCENIC	2	A	AC/AC	370	16	5,920	9/10/2022	46
TAYLOR	10	TAYLOR DRIVE	SIR FRANCIS DRAKE BOULEVARD	CLAUS DRIVE	2	R	AC	618	14	8,652	9/9/2022	37
TAYLOR	20	TAYLOR DRIVE	CLAUS DRIVE	PARKER LANE	2	R	AC/AC	855	14	11,970	9/9/2022	28
TAYLOR	30	TAYLOR DRIVE	TAYLOR DRIVE INTERSECTION	ROCCA DRIVE AT SADY LANE	2	R	AC/AC	840	14	11,760	9/9/2022	31
TOYONR	10	TOYON DRIVE	OAK ROAD	NORTH DEAD END	2	R	AC	710	22	15,620	9/9/2022	56
TOYONR	20	TOYON DRIVE	OAK ROAD	SOUTH DEAD END	2	R	AC	1,000	20	20,000	9/9/2022	55
VALLEY	10	VALLEY ROAD	WILLIS LANE	DEAD END	1	R	AC/AC	330	14	4,620	9/10/2022	81
VANNI	10	VANNI LN	RIDGEWAY AV	CHESTER AV	2	R	AC	760	14	10,640	9/10/2022	70
VISTAW	10	VISTA WAY	SAN GABRIEL DRIVE	DEAD END	2	R	AC	366	32	11,712	9/10/2022	32
WESTBR	10	WESTBRAE DRIVE	OLEMA ROAD	OLEMA ROAD	2	R	AC/AC	760	25	19,000	8/29/2022	55
WILLIS	10	WILLIS LN	FRUSTUCK AV	END	2	R	AC	217	14	3,038	9/10/2022	16
WILLOW	10	WILLOW AVENUE	SIR FRANCIS DRAKE BOULEVARD	MAPLE AVENUE	2	C	AC/AC	837	20	16,740	9/10/2022	22
WILLOW	20	WILLOW AVENUE	MAPLE AVENUE	912' NORTH OF MAPLE AVENUE	2	C	AC/AC	912	20	18,240	9/10/2022	20
WILLOW	30	WILLOW AVENUE	912' NORTH OF MAPLE AVENUE	CHESTER AVENUE	2	C	AC/AC	527	20	10,540	9/10/2022	37
WOODLA	10	WOOD LANE	PORTEOUS AVENUE	780' WEST OF PORTEOUS AVENUE	2	R	AC	780	17	13,260	8/30/2022	25

FC (Functional Class): A (Arterial), C (Collector), NCR (Non-City Road), O (Other), R (Residential)
ST (Surface Type): AC (Asphalt Concrete), AC/AC (Asphalt Concrete Overlay), GRAVEL, PCC (Portland Cement Concrete)

City of Fairfax - PTAP 23 PMP Update
Section Description Inventory
Sorted by Street Name

Street ID	Section ID	Street Name	Begin Location	End Location	# of Lanes	FC	ST	Length (ft)	Width (ft)	Area (sf)	PCI Date	PCI
WOODLA	20	WOOD LANE	780' WEST OF PORTEOUS AVENUE	DEAD END	2	R	AC	983	17	16,711	8/30/2022	21
WOODRO	10	WOODLAND ROAD	LAUREL DRIVE	OAK ROAD	1	R	AC/AC	1,284	10	12,840	8/30/2022	61
WREDEN	10	WREDEN AVENUE	PARK ROAD	FRUSTUCK AVENUE	2	R	AC/AC	576	16	9,216	9/9/2022	53
WREDEN	20	WREDEN AVENUE	FRUSTUCK AVENUE	MANZANITA ROAD	2	R	AC/AC	543	15	8,145	9/9/2022	61

FC (Functional Class): A (Arterial), C (Collector), NCR (Non-City Road), O (Other), R (Residential)
ST (Surface Type): AC (Asphalt Concrete), AC/AC (Asphalt Concrete Overlay), GRAVEL, PCC (Portland Cement Concrete)

Section Description Inventory – Sorted by Descending PCI

City of Fairfax - PTAP 23 PMP Update
Section Description Inventory
Sorted by Descending PCI

Street ID	Section ID	Street Name	Begin Location	End Location	# of Lanes	FC	ST	Length (ft)	Width (ft)	Area (sf)	PCI Date	PCI
TAMALP	30	TAMALPAIS ROAD	1050' SOUTH OF SCENIC ROAD	BERRY TRAIL	2	A	AC/AC	812	16	12,992	9/10/2022	95
TAMALP	40	TAMALPAIS ROAD	BERRY TRAIL	MOUNTAIN VIEW ROAD	2	A	AC/AC	835	15	12,525	9/10/2022	95
BAYWOO	10	BAYWOOD COURT	LANDSDALE AVENUE	DEAD END	2	R	AC/AC	470	18	8,460	9/9/2022	95
BELMON	20	BELMONT AVENUE	KENT AVENUE	TOWN LIMITS	2	R	AC/AC	543	14	7,602	9/9/2022	95
BRIDGE	10	BRIDGE COURT	DOMINGA AVENUE	DEAD END	2	R	AC/AC	97	16	1,552	9/10/2022	95
COOLID	10	COOLIDGE AVENUE	BELMONT AVENUE	BELLE AVENUE	2	R	AC/AC	227	14	3,178	9/9/2022	95
COURTL	10	COURT LANE	DOMINGA AVENUE	DEAD END	1	R	AC/AC	141	14	1,974	8/29/2022	95
MONOAV	05	MONO AVENUE	BOLINAS RD	BANK ST	2	R	AC	230	11	2,530	8/29/2022	95
MONOAV	10	MONO AVENUE	BOLINAS RD	PACHECO AV	2	R	AC/AC	525	16	8,400	8/29/2022	95
PIPERL	10	PIPER LANE	OAK MANOR DRIVE	DEAD END	2	R	AC/AC	1,002	34	34,068	9/10/2022	95
PIPERC	10	PIPER COURT	PIPER LANE	DEAD END	2	R	AC/AC	492	23	11,316	9/10/2022	93
REDWOO	30	REDWOOD ROAD	1240' WEST OF SCENIC ROAD	1800' WEST OF SCENIC ROAD	2	C	AC/AC	560	14	7,840	9/10/2022	91
CENTER	10	CENTER BOULEVARD	TOWN LIMITS	PASTORI AVENUE	2	R	AC	808	40	32,320	8/30/2022	91
REDWOO	20	REDWOOD ROAD	420' WEST OF SCENIC ROAD	1240' WEST OF SCENIC ROAD	2	C	AC/AC	820	12	9,840	9/10/2022	89
ACACIA	10	ACACIA ROAD	SCENIC RD	DEAD END	2	R	AC	980	12	11,760	9/10/2022	89
MOUNTA	10	MOUNTAIN VIEW ROAD	MANZANITA ROAD	TAMALPIAS ROAD	2	R	AC/AC	1,035	14	14,490	9/9/2022	89
SCENIC	40	SCENIC ROAD	400' NORTH OF REDWOOD ROAD	REDWOOD ROAD	2	A	AC/AC	458	14	6,412	9/9/2022	88
SIRFRA	90	SIR FRANCIS DRAKE BOULEVARD	455' NORTH OF JUNE COURT	GLEN DRIVE	2	A	AC/AC	795	60	47,700	9/9/2022	88
MARINR	20	MARIN ROAD	MANOR ROAD (TOP OF CIRCLE)	SIR FRANCIS DRAKE BLVD	2	C	AC	140	48	6,720	8/29/2022	88
SCENIC	50	SCENIC ROAD	REDWOOD ROAD	TAMALPIAS ROAD	2	A	AC/AC	580	14	8,120	9/9/2022	87
REDWOO	10	REDWOOD ROAD	SCENIC ROAD	420' WEST OF SCENIC ROAD	2	C	AC/AC	420	12	5,040	9/10/2022	87
SCENIC	20A	SCENIC ROAD	TAMALPIAS ROAD	BAY ROAD	2	A	AC/AC	535	14	7,490	9/9/2022	85
MANZAC	10	MANZANITA COURT	`	DEAD END	2	R	AC	123	10	1,230	9/9/2022	85
PASTOR	10	PASTORI AVENUE	SIR FRANCIS DRAKE BOULEVARD	DEAD END	2	R	AC	608	32	19,456	9/9/2022	85
SIRFRA	100	SIR FRANCIS DRAKE BOULEVARD	GLEN DRIVE	TOWN LIMITS	2	A	AC/AC	1,302	45	58,590	9/9/2022	84
MANORR	25	MANOR ROAD	LOWER SCENIC ROAD	TAMALPIAS ROAD	2	C	AC	500	23	11,500	8/29/2022	84
ARROYO	10	ARROYO ROAD	LOWER SCENIC ROAD	SPRUCE ROAD	2	R	AC/AC	646	12	7,752	9/9/2022	84
LANSDA	10	LANSDALE AVENUE	PASTORI AVENUE	TOWN LIMITS	2	R	AC/AC	794	18	14,292	9/9/2022	84
MARINR	10	MARIN ROAD	OLEMA ROAD	MANOR ROAD (AROUND CIRCLE)	2	C	AC/AC	398	25	9,950	8/29/2022	83
SPRUCE	15	SPRUCE ROAD	PARK ROAD	610 FT WEST OF PARK ROAD	1	C	AC/AC	610	12	7,320	9/9/2022	83
BELLEA	20	BELLE AVENUE	KENT AVENUE	TOWN LIMITS	2	R	AC/AC	515	18	9,270	9/9/2022	82
MEADOW	20	MEADOW WAY (2)	N E END	GATE (SW END)	2	R	AC/AC	805	20	16,100	8/30/2022	82
TAMALP	50	TAMALPAIS ROAD	MOUNTAIN VIEW ROAD	SCENIC ROAD	2	A	AC/AC	590	12	7,080	9/9/2022	81
COREEL	10	COREE LANE	FRUSTUCK AVENUE	DEAD END	2	R	AC	267	14	3,738	9/9/2022	81
SHEMRC	10	SHEMRAN COURT	SIR FRANCIS DRAKE BOULEVARD	NORTH TO DEAD END	2	R	AC	380	23	8,740	8/29/2022	81

FC (Functional Class): A (Arterial), C (Collector), NCR (Non-City Road), O (Other), R (Residential)
ST (Surface Type): AC (Asphalt Concrete), AC/AC (Asphalt Concrete Overlay), GRAVEL, PCC (Portland Cement Concrete)

City of Fairfax - PTAP 23 PMP Update
Section Description Inventory
Sorted by Descending PCI

Street ID	Section ID	Street Name	Begin Location	End Location	# of Lanes	FC	ST	Length (ft)	Width (ft)	Area (sf)	PCI Date	PCI
VALLEY	10	VALLEY ROAD	WILLIS LANE	DEAD END	1	R	AC/AC	330	14	4,620	9/10/2022	81
BELLEA	10	BELLE AVENUE	PASTORI AVENUE	KENT AVENUE	2	R	AC/AC	295	18	5,310	9/9/2022	79
SUMMER	10	SUMMER AVENUE	FOREST AVENUE	DEAD END	2	R	AC/AC	284	15	4,260	8/30/2022	79
CASCAD	20	CASCADE DRIVE	1285' WEST OF BOLINAS DR	LAUREL DRIVE	2	C	AC/AC	853	21	17,913	8/30/2022	78
SPRUCE	25	SPRUCE ROAD	610 FT WEST OF PARK ROAD	TAMALPIAS ROAD	1	C	AC/AC	765	12	9,180	9/9/2022	78
AZALEA	10	AZALEA AVENUE	SIR FRANCIS DRAKE BLVD	SEQUOIA RD	2	R	AC/AC	789	20	15,780	9/9/2022	77
SIRFRA	50	SIR FRANCIS DRAKE BOULEVARD	SAN MIGUEL COURT	OAK TREE LANE	2	A	AC	870	35	30,450	9/9/2022	76
CANYON	10	CANYON ROAD	CASCADE DRIVE	1017' WEST OF CASCADE DRIVE	2	C	AC/AC	1,017	14	14,238	8/30/2022	76
CASCAD	10	CASCADE DRIVE	BOLINAS DRIVE	1285' WEST OF BOLINAS DRIVE	2	C	AC/AC	1,285	32	41,120	8/30/2022	76
MEERNA	20	MEERNA AVENUE	IVY LANE	HILLSIDE DRIVE	2	C	AC/AC	942	18	16,956	8/30/2022	76
MANORR	10	MANOR ROAD	MARIN AVENUE	OLEMA ROAD	2	R	AC/AC	393	26	10,218	8/29/2022	76
MEERNA	30	MEERNA AVENUE	HILLSIDE DR	PORTEOUS AV	2	R	AC	995	19	18,905	8/30/2022	76
GLENDR	20	GLEN DRIVE	1260' NORTH OF SFD BLVD	TOWN LIMIT	2	C	AC/AC	1,200	40	48,000	8/29/2022	75
BOTHIN	10	BOTHIN ROAD	MARIN AVENUE	OLEMA ROAD	2	C	AC/AC	460	26	11,960	8/29/2022	74
HICKOR	05	HICKORY ROAD	CASADE DR	CYPRESS DR	2	R	AC	178	20	3,560	9/9/2022	74
FORREA	10	FORREST AVENUE	MEERNAA AVENUE	SUMMER AVENUE	2	C	AC/AC	1,080	14	15,120	8/30/2022	73
RIDGEW	10	RIDGEWAY AVENUE	LIVE OAK AV	END	2	R	AC/AC	1,350	16	21,600	9/10/2022	73
SIRFRA	40	SIR FRANCIS DRAKE BOULEVARD	BROADWAY	SAN MIGUEL COURT	2	A	AC	939	47	44,133	9/9/2022	71
BROADW	10b	BROADWAY	CLAUS DR	BANK ST	3	C	AC/AC	155	60	9,300	8/29/2022	71
LAUREL	10	LAUREL DRIVE	CASCADE DRIVE	PINE ROAD	2	C	AC	950	14	13,300	8/30/2022	71
SIRFRA	20	SIR FRANCIS DRAKE BOULEVARD	PACHECO AVENUE	BANK STREET	2	A	AC	819	35	28,665	9/9/2022	70
BROADW	35A	BROADWAY	AZALEA AVENUE	50 FT. NW AZALEA AVE.	2	C	AC/AC	50	22	1,100	8/29/2022	70
ALDERC	10	ALDER COURT	LANDSDALE AVE	DEAD END	2	R	AC/AC	195	12	2,340	9/10/2022	70
CASCAD	50	CASCADE DRIVE	690' WEST OF MEADOW WAY	CANYON ROAD	2	R	AC/AC	933	21	19,593	8/30/2022	70
SEQUOI	10	SEQUOIA ROAD	LOWER SCENIC ROAD	SPRUCE ROAD	2	R	AC/AC	974	19	18,506	9/9/2022	70
VANNI	10	VANNI LN	RIDGEWAY AV	CHESTER AV	2	R	AC	760	14	10,640	9/10/2022	70
CYPRES	50	CYPRESS DRIVE	935' NORTH OF LAUREL	LAUREL DRIVE	2	C	AC/AC	1,700	16	27,200	9/9/2022	69
IRONSP	10	IRON SPRINGS ROAD	ROCK RIDGE ROAD	DEAD END	2	R	AC/AC	886	12	10,632	8/29/2022	69
ROCCAD	20	ROCCA DRIVE	TAYLOR DRIVE	TAYLOR DRIVE AT SADY LANE	2	R	AC/AC	1,701	14	23,814	9/9/2022	69
BOTHIN	30	BOTHIN ROAD	1041' WEST OF OLEMA ROAD	TOWN LIMITS	2	C	AC/AC	1,031	25	25,775	8/29/2022	68
CASCAD	80	CASCADE DRIVE	1770' WEST OF CANYON ROAD	DEAD END	2	R	AC/AC	833	15	12,495	8/30/2022	68
MAINC	10	MAIN COURT	PACHECO AVENUE	DEAD END	2	R	AC/AC	208	20	4,160	8/29/2022	68
MEADOW	30	MEADOW WAY (3)	MEADOW WAY (2)	E END	2	R	AC	642	18	11,556	8/30/2022	68
CYPRES	10	CYPRESS DRIVE	CASCADE DRIVE	760' WEST OF HICKORY ROAD	2	C	AC/AC	1,264	34	42,976	9/9/2022	67
PINEDR	20	PINE DRIVE	635' WEST OF LAUREL DRIVE	1900' WEST OF LAUREL DRIVE	2	C	AC/AC	1,265	14	17,710	9/9/2022	66
KENTAV	10	KENT AVENUE	BELMONT AVENUE	SIR FRANCIS DRAKE BLVD	2	R	AC	481	24	11,544	9/9/2022	66

FC (Functional Class): A (Arterial), C (Collector), NCR (Non-City Road), O (Other), R (Residential)
ST (Surface Type): AC (Asphalt Concrete), AC/AC (Asphalt Concrete Overlay), GRAVEL, PCC (Portland Cement Concrete)

City of Fairfax - PTAP 23 PMP Update
Section Description Inventory
Sorted by Descending PCI

Street ID	Section ID	Street Name	Begin Location	End Location	# of Lanes	FC	ST	Length (ft)	Width (ft)	Area (sf)	PCI Date	PCI
SIRFRA	30	SIR FRANCIS DRAKE BOULEVARD	BANK STREET	BROADWAY	2	A	AC	939	36	33,804	9/9/2022	65
FORREA	30	FORREST AVENUE	1230' EAST OF SUMMER AVENUE	2230' EAST OF SUMMER AVENUE	2	C	AC/PCC	1,000	14	14,000	8/30/2022	65
PINEDR	30	PINE DRIVE	1900' WEST OF LAUREL DRIVE	2760' WEST OF LAUREL DRIVE	2	C	AC/AC	860	14	12,040	9/9/2022	65
SHERMA	10	SHERMAN AVENUE	BOLINAS ROAD	DOMINGA AVENUE	2	R	AC/AC	262	18	4,716	8/29/2022	65
GLENDR	10	GLEN DRIVE	SIR FRANCIS DRAKE BOULEVARD	1260' NORTH OF SFD BLVD	2	C	AC/AC	1,260	35	44,100	8/29/2022	64
CASCAD	70	CASCADE DRIVE	890' WEST OF CANYON ROAD	1770' WEST OF CANYON ROAD	2	R	AC/AC	880	15	13,200	8/30/2022	64
BROADW	10a	BROADWAY	PACHECO AVE	CLAUS DR	3	C	AC	828	60	49,680	9/9/2022	63
FRUSTU	30	FRUSTUCK AVENUE	MANZANITA ROAD	WILLIS LANE	2	C	AC	1,029	14	14,406	9/9/2022	63
OLEMAR	10	OLEMA ROAD	SIR FRANCIS DRAKE BOULEVARD	MARIN ROAD	2	C	AC	1,050	24	25,200	8/29/2022	63
CASCAD	30	CASCADE DRIVE	LAUREL DRIVE	MEADOW WAY	2	R	AC/AC	1,295	20	25,900	8/30/2022	63
CHESTE	10	CHESTER AVENUE	WILLOW AVENUE	402' WEST OF WILLOW AVENUE	2	R	AC/AC	402	14	5,628	9/10/2022	63
MANZAR	20	MANZANITA ROAD	991 FRM WRENDEN FRUSTRUCK INT	FRUSTUCK AVENUE	2	R	AC/AC	594	14	8,316	9/9/2022	63
SCHOOL	20	SCHOOL STREET	PARK ROAD	DEAD END	2	R	AC	150	25	3,750	9/9/2022	63
SCENIC	20B	SCENIC ROAD	BAY ROAD	200 FT W. BAY ROAD	2	A	AC/AC	200	14	2,800	9/9/2022	62
MARIND	20	MARINDA DRIVE	SAN GABRIEL DRIVE	DEAD END	2	C	AC	1,398	30	41,940	9/10/2022	62
MANZAR	10	MANZANITA ROAD	543 FROM WRENDEN FRUSTRUCK INT	991 FRM WRENDEN FRUSTRUCK INT	2	R	AC/AC	448	14	6,272	9/9/2022	62
SPRING	10	SPRING LANE	HILLSIDE DRIVE	DEAD END	2	R	AC/AC	1,376	15	20,640	8/30/2022	62
BOTHIN	20	BOTHIN ROAD	OLEMA ROAD	1041' WEST OF OLEMA ROAD	2	C	AC/AC	1,041	26	27,066	8/29/2022	61
CASCAD	40	CASCADE DRIVE	MEADOW WAY	690' WEST OF MEADOW WAY	2	R	AC/AC	690	24	16,560	8/30/2022	61
DEERP	10	DEER PARK DR	HILLSIDE DR	END (E)	2	R	AC	565	16	9,040	8/30/2022	61
WOODRO	10	WOODLAND ROAD	LAUREL DRIVE	OAK ROAD	1	R	AC/AC	1,284	10	12,840	8/30/2022	61
WREDEN	20	WREDEN AVENUE	FRUSTUCK AVENUE	MANZANITA ROAD	2	R	AC/AC	543	15	8,145	9/9/2022	61
FRUSTU	50	FRUSTUCK AVENUE	500' WEST OF BOLINAS ROAD	BOLINAS ROAD	2	C	AC	500	14	7,000	9/9/2022	59
PINEDR	10	PINE DRIVE	LAUREL DRIVE	635' WEST OF LAUREL DRIVE	2	C	AC/AC	635	16	10,160	9/9/2022	59
LAUREL	20	LAUREL DRIVE	PINE ROAD	WOODLAND ROAD	2	C	AC/AC	1,382	18	24,876	8/30/2022	58
CRESCE	10	CRESCENT CIRCLE	OAK TREE LANE	DEAD END	2	R	AC/AC	331	29	9,599	9/10/2022	57
FRUSTU	10	FRUSTUCK AVENUE	PARK ROAD	WRENDEN AVENUE	2	C	AC/AC	839	15	12,585	9/9/2022	56
TOYONR	10	TOYON DRIVE	OAK ROAD	NORTH DEAD END	2	R	AC	710	22	15,620	9/9/2022	56
CANYON	20	CANYON ROAD	1017' WEST OF CASCADE DRIVE	2454' WEST OF CASCADE DRIVE	2	C	AC/AC	1,437	17	24,429	8/30/2022	55
FORREA	40	FORREST AVENUE	2230' EAST OF SUMMER AVENUE	TOWN LIMITS	2	C	AC/PCC	850	14	11,900	8/30/2022	55
BELMON	10	BELMONT AVENUE	PASTORI AVENUE	KENT AVENUE	2	R	AC/AC	271	24	6,504	9/9/2022	55

FC (Functional Class): A (Arterial), C (Collector), NCR (Non-City Road), O (Other), R (Residential)
ST (Surface Type): AC (Asphalt Concrete), AC/AC (Asphalt Concrete Overlay), GRAVEL, PCC (Portland Cement Concrete)

City of Fairfax - PTAP 23 PMP Update
Section Description Inventory
Sorted by Descending PCI

Street ID	Section ID	Street Name	Begin Location	End Location	# of Lanes	FC	ST	Length (ft)	Width (ft)	Area (sf)	PCI Date	PCI
OAKTRE	10	OAK TREE LANE	SIR FRANCIS DRAKE BOULEVARD	DEAD END	2	R	AC/AC	494	29	14,326	9/10/2022	55
TOYONR	20	TOYON DRIVE	OAK ROAD	SOUTH DEAD END	2	R	AC	1,000	20	20,000	9/9/2022	55
WESTBR	10	WESTBRAE DRIVE	OLEMA ROAD	OLEMA ROAD	2	R	AC/AC	760	25	19,000	8/29/2022	55
BOLINA	20	BOLINAS ROAD	PARK ROAD	CASCADE DRIVE	2	A	AC	1,227	36	44,172	8/30/2022	54
SCENIC	60	SCENIC ROAD	TAMALPIAS ROAD	UPPER SCENIC ROAD	2	A	AC	1,145	15	17,175	9/9/2022	54
BLACKB	10	BLACKBERRY LANE	CREEK ROAD	FORREST AVE	2	R	AC/AC	190	18	3,420	8/29/2022	54
IVYLAN	10	IVY LANE	PORTEOUS AVENUE	MEERNA AVENUE	2	R	AC/AC	118	18	2,124	8/29/2022	54
BOLINA	10	BOLINAS ROAD	BROADWAY	PARK ROAD	2	A	AC	962	34	32,708	8/30/2022	53
FORREA	20	FORREST AVENUE	SUMMER AVENUE	1230' EAST OF SUMMER AVENUE	2	C	AC/PCC	1,230	14	17,220	8/30/2022	53
CASCAD	60	CASCADE DRIVE	CANYON ROAD	890' WEST OF CANYON ROAD	2	R	AC/AC	890	18	16,020	8/30/2022	53
WREDEN	10	WREDEN AVENUE	PARK ROAD	FRUSTUCK AVENUE	2	R	AC/AC	576	16	9,216	9/9/2022	53
TAMALP	20	TAMALPAIS ROAD	SCENIC ROAD	1050' SOUTH OF SCENIC ROAD	2	A	AC/AC	1,050	15	15,750	9/10/2022	52
CENTER	20	CENTER BOULEVARD	PASTORI AVENUE	727' NORTH OF PASTORI AVENUE	2	R	AC	727	51	37,077	8/30/2022	52
LIVEOA	10	LIVE OAK AVENUE	MAPLE AVENU	1027' WEST OF MAPLE AVENUE	2	R	AC/AC	1,027	18	18,486	9/10/2022	52
MURIEL	10	MURIEL PLACE	LOWER SCENIC ROAD	DEAD END	2	R	AC/AC	485	21	10,185	8/29/2022	52
SCENIC	10	SCENIC ROAD	ACACIA ROAD	TAMALPIAS ROAD	2	A	AC	625	24	15,000	9/9/2022	51
SCENIC	30	SCENIC ROAD	200' WEST OF BAY ROAD	400' NORTH OF REDWOOD ROAD	2	A	AC/AC	922	15	13,830	9/9/2022	51
BROADW	35B	BROADWAY	50 FT NW AZALEA AVE.	SIR FRANCIS DRAKE BLVD.	2	C	AC	340	22	7,480	8/29/2022	51
CYPRES	40	CYPRESS DRIVE	1700' NORTH OF LAUREL DRIVE	935' NORTH OF LAUREL DRIVE	2	C	AC/AC	765	16	12,240	9/9/2022	51
OLEMAR	20	OLEMA ROAD	MARIN ROAD	TOWN LIMITS	2	C	AC	1,480	23	34,040	8/29/2022	51
LIVEOA	20	LIVE OAK AVENUE	1027' WEST OF MAPLE AVENUE	DEAD END	2	R	AC/AC	858	18	15,444	9/10/2022	51
PARKRO	20	PARK ROAD	SCHOOL STREET	SPRUCE ROAD	2	R	AC	585	21	12,285	8/29/2022	51
SIRFRA	10	SIR FRANCIS DRAKE BOULEVARD	TOWN LIMITS	PACHECO AVENUE	2	A	AC/AC	1,526	36	54,936	9/9/2022	50
CANYON	30	CANYON ROAD	2428' WEST OF CASCADE DRIVE	DEAD END	2	C	AC/AC	672	14	9,408	8/30/2022	50
PACHEC	10	PACHECO AVENUE	SIR FRANCIS DRAKE BLVD	DEAD END	2	R	AC/AC	596	20	11,920	8/29/2022	49
NAPAAV	10	NAPA AVENUE	PACHECO AVENUE	DOMINGA AVENUE	2	R	AC/AC	300	20	6,000	8/29/2022	48
DOMING	20	DOMINGA AVENUE	BRIDGE COURT	NAPA AVENUE	2	C	AC/AC	472	20	9,440	8/29/2022	47
PARKRO	10	PARK ROAD	BOLINAS ROAD	SCHOOL STREET	2	R	AC/AC	588	24	14,112	8/29/2022	47
RIDGER	10	RIDGE ROAD	SCENIC ROAD	CUL-DE-SAC	2	R	AC/AC	1,536	12	18,432	9/9/2022	47
TAMALP	10B	TAMALPAIS ROAD	SPRUCE ROAD	INT. 60 FT W. OF SCENIC	2	A	AC/AC	370	16	5,920	9/10/2022	46
BARKER	10	BARKER AVENUE	PORTEOUS AVENUE	DEAD END	2	R	AC/AC	345	18	6,210	8/30/2022	45
MARINC	10	MARINDA COURT	MARINDA DRIVE	DEAD END	2	R	AC	186	29	5,394	9/10/2022	44

FC (Functional Class): A (Arterial), C (Collector), NCR (Non-City Road), O (Other), R (Residential)
ST (Surface Type): AC (Asphalt Concrete), AC/AC (Asphalt Concrete Overlay), GRAVEL, PCC (Portland Cement Concrete)

City of Fairfax - PTAP 23 PMP Update
Section Description Inventory
Sorted by Descending PCI

Street ID	Section ID	Street Name	Begin Location	End Location	# of Lanes	FC	ST	Length (ft)	Width (ft)	Area (sf)	PCI Date	PCI
CLAUSD	10	CLAUS DRIVE	SIR FRANCIS DRAKE BOULEVARD	TAYLOR DRIVE	2	R	AC	494	26	12,844	9/9/2022	43
MEERNA	10	MEERNA AVENUE	CREEK ROAD	IVY LANE	2	C	AC/AC	870	18	15,660	8/29/2022	42
SANGAC	10	SAN GABRIEL COURT	SAN GABRIEL DRIVE	DEAD END	2	R	AC	177	30	5,310	9/10/2022	41
SIRFRA	80	SIR FRANCIS DRAKE BOULEVARD	1003' WEST OF OAK MANOR DRIVE	455' NORTH OF JUNE COURT	2	A	AC/AC	1,053	35	36,855	9/9/2022	40
HILLSI	50	HILLSIDE DRIVE	CREST ROAD	DEAD END	2	C	AC/AC	850	14	11,900	8/30/2022	40
MERWIN	10	MERWIN AVENUE	BROADWAY	PARK ROAD	2	R	AC	651	21	13,671	8/29/2022	40
BOLINA	30	BOLINAS ROAD	CASCADE DRIVE	1120' SO. OF CASCADE DRIVE	2	A	AC	1,120	20	22,400	8/30/2022	39
CHESTE	20	CHESTER AVENUE	LIVE OAK AVENUE	556' NORTH OF LIVE OAK AVENUE	2	R	AC/AC	556	14	7,784	9/10/2022	39
BROADW	25	BROADWAY	MERWIN AVENUE	AZALEA AVENUE	2	C	AC/AC	402	22	8,844	8/29/2022	38
MONOAV	20	MONO AVENUE	PACHECO AVE	INYO AVE	2	R	AC/AC	638	20	12,760	8/29/2022	38
MARIND	10	MARINDA DRIVE	SIR FRANCIS DRAKE BOULEVARD	SAN GABRIEL DRIVE	2	C	AC	685	30	20,550	9/10/2022	37
WILLOW	30	WILLOW AVENUE	912' NORTH OF MAPLE AVENUE	CHESTER AVENUE	2	C	AC/AC	527	20	10,540	9/10/2022	37
BANKST	10	BANK STREET	BROADWAY	ELSIE LANE	2	R	AC	280	32	8,960	9/10/2022	37
TAYLOR	10	TAYLOR DRIVE	SIR FRANCIS DRAKE BOULEVARD	CLAUS DRIVE	2	R	AC	618	14	8,652	9/9/2022	37
TAMALP	60	TAMALPAIS ROAD	SCENIC ROAD	DEAD END	2	A	AC/AC	1,135	10	11,350	9/9/2022	36
CRESTR	10	CREST ROAD	HILLSIDE DRIVE	1422' SO.EAST OF HILLSIDE DR.	2	R	AC	1,422	14	19,908	8/30/2022	36
GEARYA	10	GEARY AVENUE	TAYLOR DRIVE	TAYLOR DRIVE	2	R	AC/AC	666	13	8,658	9/9/2022	36
MADROR	20	MADRONE ROAD	895' NORTH OF LAUREL DRIVE	1625' NORTH OF LAUREL DRIVE	2	R	AC	730	14	10,220	9/9/2022	36
MEADOW	10	MEADOW WAY (1)	CASCADE DR	MEADOW WAY (2) "T"	2	R	AC	380	20	7,600	8/30/2022	36
FRUSTU	20	FRUSTUCK AVENUE	WRENDEN AVENUE	MANZANITA ROAD	2	C	AC	1,278	14	17,892	9/9/2022	35
BAYROA	10	BAY ROAD	SCENIC ROAD	DEAD END	2	R	AC	1,014	14	14,196	9/10/2022	35
MADROR	10	MADRONE ROAD	LAUREL DRIVE	895' NORTH OF LAUREL DRIVE	2	R	AC	895	14	12,530	9/9/2022	35
MAPLEA	10	MAPLE AVENUE	WILLOW AVENUE	LIVE OAK AVENUE	2	R	AC/AC	387	15	5,805	9/10/2022	35
SIRFRA	60	SIR FRANCIS DRAKE BOULEVARD	OAK TREE LANE	OAK MANOR DRIVE	2	A	AC/AC	722	35	25,270	9/9/2022	34
JUNECO	10	JUNE COURT	SIR FRANCIS DRAKE BOULEVARD	DEAD END	2	R	AC	309	16	4,944	8/29/2022	34
FRUSTU	40	FRUSTUCK AVENUE	WILLIS LANE	500' WEST OF BOLINAS ROAD	2	C	AC	396	14	5,544	9/9/2022	32
MADROC	10	MADRONE COURT	LAUREL DRIVE	DEAD END	2	R	AC	343	18	6,174	9/9/2022	32
SANMIG	10	SAN MIGUEL COURT	SIR FRANCIS DRAKE BOULEVARD	DEAD END	2	R	AC/AC	409	23	9,407	9/10/2022	32
VISTAW	10	VISTA WAY	SAN GABRIEL DRIVE	DEAD END	2	R	AC	366	32	11,712	9/10/2022	32
SIRFRA	70	SIR FRANCIS DRAKE BOULEVARD	OAK MANOR DRIVE	1003' WEST OF OAK MANOR DRIVE	2	A	AC/AC	1,003	45	45,135	9/9/2022	31

FC (Functional Class): A (Arterial), C (Collector), NCR (Non-City Road), O (Other), R (Residential)
ST (Surface Type): AC (Asphalt Concrete), AC/AC (Asphalt Concrete Overlay), GRAVEL, PCC (Portland Cement Concrete)

City of Fairfax - PTAP 23 PMP Update
Section Description Inventory
Sorted by Descending PCI

Street ID	Section ID	Street Name	Begin Location	End Location	# of Lanes	FC	ST	Length (ft)	Width (ft)	Area (sf)	PCI Date	PCI
CENTER	30	CENTER BOULEVARD	727' NORTH OF PASTORI AVENUE	PACHECO AVENUE	2	R	AC/AC	599	54	32,346	8/30/2022	31
TAYLOR	30	TAYLOR DRIVE	TAYLOR DRIVE INTERSECTION	ROCCA DRIVE AT SADY LANE	2	R	AC/AC	840	14	11,760	9/9/2022	31
PORTEO	10	PORTEOUS AVENUE	BOLINAS ROAD	IVY LANE	2	C	AC/AC	720	18	12,960	8/30/2022	30
PORTEO	30	PORTEOUS AVENUE	WOOD LANE	TOWN LIMITS	2	C	AC/AC	1,160	17	19,720	8/30/2022	30
HILLAV	10	HILL AVENUE	BELLE AVENUE	TOWN LIMITS	2	R	AC/AC	475	18	8,550	9/9/2022	30
SCENIC	05	SCENIC ROAD	AZALEA AVENUE	ACACIA ROAD	2	R	AC	1,165	18	20,970	9/9/2022	30
DOMING	10	DOMINGA AVENUE	CREEK ROAD	BRIDGE COURT	2	C	AC/AC	847	20	16,940	8/29/2022	29
TAYLOR	20	TAYLOR DRIVE	CLAUS DRIVE	PARKER LANE	2	R	AC/AC	855	14	11,970	9/9/2022	28
SANGAD	20	SAN GABRIEL DRIVE	1148' EAST OF MARINDA DRIVE	DEAD END	2	C	AC	633	30	18,990	9/10/2022	27
MAPLEA	20	MAPLE AVENUE	LIVE OAK AVENUE	DEAD END	2	R	AC/AC	685	15	10,275	9/10/2022	27
BOLINA	50	BOLINAS ROAD	2200' SO OF CASCADE DRIVE	TOWN LIMITS	2	A	AC	1,048	20	20,960	8/30/2022	26
CREEKR	10	CREEK ROAD	PORTEOUS AVENUE	BLACKBERRY LANE	2	C	AC/AC	752	18	13,536	8/29/2022	26
MANORR	15	MANOR ROAD	OLEMA ROAD	LOWER SCENIC ROAD	2	C	AC	670	23	15,410	8/29/2022	26
SANGAD	10	SAN GABRIEL DRIVE	MARINDA DRIVE	1148' EAST OF MARINDA DRIVE	2	C	AC	1,148	30	34,440	9/10/2022	26
BOLINA	40	BOLINAS ROAD	1120' SO. OF CASCADE DRIVE	2200' SO OF CASCADE DRIVE	2	A	AC	1,080	20	21,600	8/30/2022	25
BROADW	20	BROADWAY	BANK ST	MERWIN AVENUE	2	C	AC	472	22	10,384	8/29/2022	25
HILLSI	30	HILLSIDE DRIVE	770' NORTH OF MEERNA AVENUE	1275' NORTH OF MEERNA AVENUE	2	C	AC	505	12	6,060	8/30/2022	25
WOODLA	10	WOOD LANE	PORTEOUS AVENUE	780' WEST OF PORTEOUS AVENUE	2	R	AC	780	17	13,260	8/30/2022	25
FORRES	50	FORREST TERRACE	MEERNA AVENUE	FORREST AVENUE	2	R	AC	957	14	13,398	8/30/2022	24
HILLSI	20	HILLSIDE DRIVE	MEERNA AVENUE	770' NORTH OF MEERNA AVENUE	2	C	AC	770	12	9,240	8/30/2022	23
SPRUCE	10	SPRUCE ROAD	AZALEA ROAD	PARK ROAD	2	C	AC	732	21	15,372	9/9/2022	23
WILLOW	10	WILLOW AVENUE	SIR FRANCIS DRAKE BOULEVARD	MAPLE AVENUE	2	C	AC/AC	837	20	16,740	9/10/2022	22
WOODLA	20	WOOD LANE	780' WEST OF PORTEOUS AVENUE	DEAD END	2	R	AC	983	17	16,711	8/30/2022	21
TAMALP	10A	TAMALPAIS ROAD	SEQUOIA ROAD	SPRUCE ROAD	2	A	AC	615	16	9,840	9/9/2022	20
HILLSI	40	HILLSIDE DRIVE	1275' NORTH OF MEERNA AVENUE	CREST ROAD	2	C	AC	625	12	7,500	8/30/2022	20
WILLOW	20	WILLOW AVENUE	MAPLE AVENUE	912' NORTH OF MAPLE AVENUE	2	C	AC/AC	912	20	18,240	9/10/2022	20
CLAUSC	10	CLAUS CIRCLE	CLAUS DRIVE	CLAUS DRIVE	2	R	AC	321	26	8,346	9/9/2022	20
HAWTHORNE	10	HAWTHORNE CT	OLEMA RD	END	2	R	AC	210	20	4,200	8/29/2022	17
SCHOOL	10	SCHOOL STREET	BROADWAY	PARKING LOT	2	R	AC	120	25	3,000	9/10/2022	17
ELSIEL	10	ELSIE LANE	BOLINAS ROAD	BANK ST	2	R	AC/AC	595	36	21,420	9/10/2022	16
WILLIS	10	WILLIS LN	FRUSTUCK AV	END	2	R	AC	217	14	3,038	9/10/2022	16
INYOAV	10	INYO AVENUE	PACHECO AVENUE	END	2	R	AC/AC	498	20	9,960	8/29/2022	15

FC (Functional Class): A (Arterial), C (Collector), NCR (Non-City Road), O (Other), R (Residential)
ST (Surface Type): AC (Asphalt Concrete), AC/AC (Asphalt Concrete Overlay), GRAVEL, PCC (Portland Cement Concrete)

City of Fairfax - PTAP 23 PMP Update
Section Description Inventory
Sorted by Descending PCI

Street ID	Section ID	Street Name	Begin Location	End Location	# of Lanes	FC	ST	Length (ft)	Width (ft)	Area (sf)	PCI Date	PCI
CREEKR	20	CREEK ROAD	BLACKBERRY LANE	BOLINAS ROAD	2	C	AC/AC	475	20	9,500	8/29/2022	14
PORTEO	20	PORTEOUS AVENUE	IVY LANE	WOOD LANE	2	C	AC/AC	261	18	4,698	8/30/2022	11
OAKROA	10	OAK ROAD	LAUREL DRIVE	TOYON DRIVE	2	R	AC	1,249	15	18,735	9/9/2022	11
ROCKRI	10	ROCK RIDGE ROAD	MANOR ROAD	BOTHIN ROAD	2	R	AC	1,115	25	27,875	8/29/2022	8
HICKOR	10	HICKORY ROAD	CYPRESS DRIVE	DEAD END	2	R	AC	1,132	20	22,640	9/9/2022	7

FC (Functional Class): A (Arterial), C (Collector), NCR (Non-City Road), O (Other), R (Residential)
ST (Surface Type): AC (Asphalt Concrete), AC/AC (Asphalt Concrete Overlay), GRAVEL, PCC (Portland Cement Concrete)

Appendix B

Maintenance and Rehabilitation Decision Tree

Maintenance and Rehabilitation (M&R) Decision Tree

This report presents the current maintenance and rehabilitation decision tree that exists in the database. The decision tree forms the basis for all of the budgetary computations included in this report. ***Changes to the decision tree will make the results in the budget reports invalid.*** All pavement treatment unit costs relevant to the road types in the database were updated.

The decision tree lists the treatments and costs selected for preventive maintenance and rehabilitation activities. Each line represents a specific combination of functional classification and surface type.

The preventive maintenance portion of the report is identified as Condition Category I – Very Good. All preventive maintenance treatment listings are assigned only to sections in Condition Category I where the PCI ≥ 70. Sections with PCI values less than 70 are assigned to treatments listed in Categories II through V.

In the preventive maintenance category (PCI ≥ 70), a time sequence is used to identify the appropriate treatment and cost. Each preventive maintenance treatment description consists of three parts: 1) a CRACK treatment, 2) a SURFACE treatment, and 3) a RESTORATION treatment. These three parts allow the user to specify one of three different preventive maintenance treatments depending on the prior maintenance history of the section.

1. The CRACK treatment part can be used to specify the most frequent type of preventive maintenance activity planned (typically crack seals).
2. The SURFACE treatment part can be used to specify more extensive and less frequent preventive maintenance activities, such as chip seals or slurry seals. For example, a crack seal can be specified on a 3-year cycle with a slurry seal specified after 5 years.
3. The RESTORATION part can be used to specify a surface restoration treatment (such as an overlay) to be performed after a specified number of surface treatments. For example, after a certain number of successive slurry seals, an overlay can be specified instead of another slurry seal.

Rehabilitation treatments are assigned to sections in Condition Categories II through V (PCI less than 70). Each line is defined by a specific combination of functional classification, surface type, and condition category.

COLUMN	DESCRIPTION
Functional Class	Functional Classification identifying the branch
Surface	Surface Type identifying the branch number.
Condition Category	Condition Category (I through V).
Treatment Type	First Row (Crack Treatment) indicates localized treatment (e.g., crack sealing). Second Row (Surface Treatment) indicates surface treatment (e.g., slurry sealing). Third Row (Restoration Treatment) indicates surface restoration (e.g., overlay).
Treatment	Name of treatments from the "Treatment Descriptions" report.
Yrs. Between Crack Seals	First Row - number of years between successive treatment applications specified in the first row (i.e., CRACK treatment).
Yrs. Between Surface Seals	Second Row - number of years between successive treatment applications specified in the second row (i.e., SURFACE treatment).
Number of Sequential Seals	Number of times that the treatment application in the second row (i.e., SURFACE treatment) will be performed prior to performing the treatment application in the third row.

Note that the treatments assigned to each section should not be blindly followed in preparing a road maintenance program. Engineering judgment and project level analysis should be applied to ensure that the treatment is appropriate and cost effective for the section.

Decision Tree

Printed: 11/27/2022

Functional Class	Surface	Condition Category	Treatment Type	Treatment	Cost/Sq Yd, except Seal Cracks in LF:	Yrs Between Crack Seals	Yrs Between Surface Seals	# of Surface Seals before Overlay
Arterial	AC	I - Very Good	Crack Treatment	CRACK SEAL	$1.75	6		
			Surface Treatment	MICROSURFACING	$10.50		6	
			Restoration Treatment	DO NOTHING	$0.00			99
		II - Good, Non-Load Related		MICROSURFACING w/DIGOUTS	$15.00		6	
		III - Good, Load Related		2" HMA MILL & OVERLAY	$55.00			
		IV - Poor		CIR w/2" HMA OVERLAY	$78.00			
		V - Very Poor		6" SURFACE RECONSTRUCT	$169.00			
	AC/AC	I - Very Good	Crack Treatment	CRACK SEAL	$1.75	6		
			Surface Treatment	MICROSURFACING	$10.50		6	
			Restoration Treatment	DO NOTHING	$0.00			99
		II - Good, Non-Load Related		MICROSURFACING w/DIGOUTS	$15.00		6	
		III - Good, Load Related		2" HMA MILL & OVERLAY	$55.00			
		IV - Poor		CIR w/2" HMA OVERLAY	$78.00			
		V - Very Poor		6" SURFACE RECONSTRUCT	$169.00			
	AC/PCC	I - Very Good	Crack Treatment	SEAL CRACKS	$3.00	3		
			Surface Treatment	SLURRY SEAL	$3.50		5	
			Restoration Treatment	MILL AND THIN OVERLAY	$38.00			2
		II - Good, Non-Load Related		MICROSURFACING	$5.00		6	
		III - Good, Load Related		MILL AND THICK OVERLAY	$60.00			
		IV - Poor		MILL AND THICK OVERLAY	$48.00			
		V - Very Poor		RECONSTRUCT STRUCTURE (AC)	$80.00			
	PCC	I - Very Good	Crack Treatment	DO NOTHING	$0.00	4		
			Surface Treatment	DO NOTHING	$0.00		15	
			Restoration Treatment	DO NOTHING	$0.00			99
		II - Good, Non-Load Related		DO NOTHING	$0.00			
		III - Good, Load Related		DO NOTHING	$0.00			
		IV - Poor		DO NOTHING	$0.00			
		V - Very Poor		DO NOTHING	$0.00			

Functional Class and Surface combination not used

Selected Treatment is not a Surface Seal

Collector	AC	I - Very Good	Crack Treatment	CRACK SEAL	$1.75	7		
			Surface Treatment	CRACK SEAL w/MICROSURFACING	$10.50		7	
			Restoration Treatment	DO NOTHING	$0.00			99
		II - Good, Non-Load Related		MICROSURFACING w/DIGOUTS	$14.00		7	
		III - Good, Load Related		2" HMA MILL & OVERLAY	$52.00			
		IV - Poor		CIR w/2" HMA OVERLAY	$75.00			
		V - Very Poor		4" SURFACE RECONSTRUCT	$109.00			
	AC/AC	I - Very Good	Crack Treatment	CRACK SEAL	$1.75	7		
			Surface Treatment	CRACK SEAL w/MICROSURFACING	$10.50		7	
			Restoration Treatment	DO NOTHING	$0.00			99
		II - Good, Non-Load Related		MICROSURFACING w/DIGOUTS	$14.00		7	
		III - Good, Load Related		2" HMA MILL & OVERLAY	$52.00			
		IV - Poor		CIR w/2" HMA OVERLAY	$75.00			
		V - Very Poor		4" SURFACE RECONSTRUCT	$109.00			
	AC/PCC	I - Very Good	Crack Treatment	DO NOTHING	$0.00	99		
			Surface Treatment	DO NOTHING	$0.00		15	
			Restoration Treatment	DO NOTHING	$0.00			99
		II - Good, Non-Load Related		DO NOTHING	$0.00			
		III - Good, Load Related		2" HMA MILL & OVERLAY	$43.20			
		IV - Poor		2" HMA MILL & OVERLAY	$43.20			
		V - Very Poor		4" SURFACE RECONSTRUCT OVER 10" AB	$259.20			
	PCC	I - Very Good	Crack Treatment	DO NOTHING	$0.00	5		
			Surface Treatment	DO NOTHING	$0.00		15	
			Restoration Treatment	DO NOTHING	$0.00			99
		II - Good, Non-Load Related		DO NOTHING	$0.00			
		III - Good, Load Related		DO NOTHING	$0.00			
		IV - Poor		DO NOTHING	$0.00			
		V - Very Poor		DO NOTHING	$0.00			

Functional Class and Surface combination not used

Selected Treatment is not a Surface Seal

Residential/Local	AC	I - Very Good	Crack Treatment	CRACK SEAL	$1.75	7		
			Surface Treatment	CRACK SEAL w/MICROSURFACING	$10.00		7	
			Restoration Treatment	DO NOTHING	$0.00			99
		II - Good, Non-Load Related		MICROSURFACING w/DIGOUTS	$12.50		7	
		III - Good, Load Related		DOUBLE MICROSURFACING w/DIGOUTS	$21.00		7	
		IV - Poor		2" HMA MILL & OVERLAY	$38.00			
		V - Very Poor		3" SURFACE RECONSTRUCT	$79.00			
	AC/AC	I - Very Good	Crack Treatment	CRACK SEAL	$1.75	7		
			Surface Treatment	CRACK SEAL w/MICROSURFACING	$10.00		7	
			Restoration Treatment	DO NOTHING	$0.00			99
		II - Good, Non-Load Related		MICROSURFACING w/DIGOUTS	$12.50		7	
		III - Good, Load Related		DOUBLE MICROSURFACING w/DIGOUTS	$21.00		7	
		IV - Poor		2" HMA MILL & OVERLAY	$38.00			
		V - Very Poor		3" SURFACE RECONSTRUCT	$79.00			
	AC/PCC	I - Very Good	Crack Treatment	SEAL CRACKS	$3.00	5		
			Surface Treatment	SLURRY SEAL	$3.50		7	
			Restoration Treatment	MILL AND THIN OVERLAY	$38.00			3
		II - Good, Non-Load Related		MICROSURFACING	$5.00		7	
		III - Good, Load Related		MILL AND THIN OVERLAY	$35.00			
		IV - Poor		MILL AND THICK OVERLAY	$48.00			
		V - Very Poor		RECONSTRUCT SURFACE (AC)	$80.00			
	PCC	I - Very Good	Crack Treatment	DO NOTHING	$0.00	5		
			Surface Treatment	DO NOTHING	$0.00		15	
			Restoration Treatment	DO NOTHING	$0.00			99
		II - Good, Non-Load Related		DO NOTHING	$0.00			
		III - Good, Load Related		DO NOTHING	$0.00			
		IV - Poor		DO NOTHING	$0.00			
		V - Very Poor		DO NOTHING	$0.00			

Functional Class and Surface combination not used

Selected Treatment is not a Surface Seal

Appendix C

Budget Needs Analysis Results

Budget Needs Reports

The purpose of this section is to answer the question: ***If the City had all the money in the world, what sections should be fixed and how much will it cost?*** Based on the Maintenance & Rehabilitation (M&R) decision tree and the PCIs of the sections, the program will then select a maintenance or rehabilitation action and compute the total costs over a period of five years. The Budget Needs represents the "ideal world" funding levels, while the Budget Scenario reports in the next section represent the most "cost effective" prioritization possible for the actual funding levels.

A budget needs analysis has been performed. The summary results from the analysis are shown below. An interest rate of 4% and an inflation factor of 5% were used to project the costs for the next ten years. This report shows the total five-year budget that would be required to meet the City's standards as exemplified in the M&R decision tree.

Budget Needs reports included in this appendix are listed below:

- Projected PCI/Cost Summary
- Preventive Maintenance Treatment/Cost Summary
- Rehabilitation Treatment/Cost Summary

Needs - Projected PCI/Cost Summary

This report summarizes and projects the network PCI over the ten-year analysis period, both with and without treatments applied. It also reports the associated costs, which are based on the treatment unit costs presented in the M&R decision tree.

COLUMN	DESCRIPTION
Year	Year in the analysis period.
PCI Treated	Projected network average PCI with all needed treatments applied.
PCI Untreated	Projected network average PCI without any treatments applied.
PM Cost	Total preventive maintenance treatment cost.
Rehab Cost	Total rehabilitation treatment cost.
Cost	The budget required for each year in the analysis period to meet the City's standard as shown on the M&R decision tree.
Total Cost	Total budget required over a five-year period.

Needs - Projected PCI/Cost Summary

Interest: 5.00% Inflation: 5.00% Printed: 11/27/2022

Year	PCI Treated	PCI Untreated	PM Cost	Rehab Cost	Cost
2023	87	55	$617,389	$11,908,293	$12,525,683
2024	83	52	$78,569	$173,109	$251,678
2025	82	49	$101,004	$96,314	$197,319
2026	80	47	$33,978	$0	$33,978
2027	78	44	$0	$0	$0

% PM	PM Total Cost	Rehab Total Cost	Total Cost
6.39%	$830,940	$12,177,717	$13,008,657

Needs - Preventive Maintenance Treatment/Cost Summary

This report summarizes each preventive maintenance treatment type, quantity of pavement affected, and total costs over the analysis period. It also summarizes the total quantities and costs over the next five years.

COLUMN	DESCRIPTION
Treatment	Type of preventive maintenance treatments needed.
Year	Year in the analysis period (i.e., 2023, 2024, 2025, etc.).
Area Treated	Quantities in linear feet (Seal Cracks) or square yard (Slurry Seal).
Cost	Maintenance treatment cost.

Needs - Preventive Maintenance
Treatment/Cost Summary

Interest: 5.00% Inflation: 5.00% Printed: 11/27/2022

Treatment	Year	Area Treated		Cost
CRACK SEAL w/MICROSURFACING	2023	42,925.33	sq. yd.	$440,905
	2024	4,462.22	sq. yd.	$47,311
	2025	7,461.56	sq. yd.	$82,264
	2026	2,935.11	sq. yd.	$33,978
	Total	57,784.22		$604,457
MICROSURFACING	2023	16,808	sq. yd.	$176,484
	2024	2,835.22	sq. yd.	$31,258
	2025	1,618.89	sq. yd.	$18,741
	Total	21,262.11		$226,483
	Total Quantity	79,046.33		$830,940

Needs - Rehabilitation Treatment/Cost Summary

This report summarizes each rehabilitation treatment type, quantity of pavement affected, and total costs over the analysis period. It also summarizes the total quantities and costs over the next five years.

COLUMN	DESCRIPTION
Treatment	Type of rehabilitation treatments needed.
Year	Year in the analysis period (i.e., 2023, 2024, 2025, etc.).
Area Treated	Quantities in square yard.
Cost	Rehabilitation treatment cost.

Needs - Rehabilitation
Treatment/Cost Summary

Interest: 5.00% Inflation: 5.00% Printed: 11/27/2022

Treatment	Year	Area Treated	Cost
2" HMA MILL & OVERLAY	2023	54,377.89 sq.yd.	$2,291,703
	2024	1,477.78 sq.yd.	$80,687
	2025	1,680 sq.yd.	$96,314
	Total	57,535.67 sq.yd.	$2,468,704
3" SURFACE RECONSTRUCT	2023	18,064.78 sq.yd.	$1,427,117
	Total	18,064.78 sq.yd.	$1,427,117
4" SURFACE RECONSTRUCT	2023	17,902.22 sq.yd.	$1,951,342
	Total	17,902.22 sq.yd.	$1,951,342
6" SURFACE RECONSTRUCT	2023	5,822.22 sq.yd.	$983,956
	Total	5,822.22 sq.yd.	$983,956
CIR w/2" HMA OVERLAY	2023	46,863.78 sq.yd.	$3,582,072
	Total	46,863.78 sq.yd.	$3,582,072
DOUBLE MICROSURFACING w/DIGOUTS	2023	26,019.78 sq.yd.	$546,415
	Total	26,019.78 sq.yd.	$546,415
MICROSURFACING w/DIGOUTS	2023	82,066.11 sq.yd.	$1,125,688
	2024	5,937 sq.yd.	$92,423
	Total	88,003.11 sq.yd.	$1,218,110

Total Cost	$12,177,717

Appendix D

Budget Scenario Results

Scenario 1: Do Nothing

Cost Summary Report
Network Condition Summary Report

Scenarios - Cost Summary

Interest: 5.00% Inflation: 5.00% Printed: 11/22/2022

Scenario: PTAP 23: Scenario 1: Do Nothing

Year	PM	Budget		Rehabilitation		Preventative Maintenance	Surplus PM	Deferred		Stop Gap
2023	0%	$0	II	$0	Non-Project	$0	$0	$12,525,683	Funded	$0
			III	$0					Unmet	$65,544
			IV	$0	Project	$0				
			V	$0						
			Total	$0						
			Project	$0						
2024	0%	$0	II	$0	Non-Project	$0	$0	$14,549,066	Funded	$0
			III	$0					Unmet	$1,203
			IV	$0	Project	$0				
			V	$0						
			Total	$0						
			Project	$0						
2025	0%	$0	II	$0	Non-Project	$0	$0	$16,867,407	Funded	$0
			III	$0					Unmet	$241
			IV	$0	Project	$0				
			V	$0						
			Total	$0						
			Project	$0						
2026	0%	$0	II	$0	Non-Project	$0	$0	$19,001,470	Funded	$0
			III	$0					Unmet	$1,130
			IV	$0	Project	$0				
			V	$0						
			Total	$0						
			Project	$0						
2027	0%	$0	II	$0	Non-Project	$0	$0	$22,450,857	Funded	$0
			III	$0					Unmet	$1,390
			IV	$0	Project	$0				
			V	$0						
			Total	$0						
			Project	$0						

Summary

Functional Class	Rehabilitation	Prev. Maint.	Funded Stop Gap	Unmet Stop Gap
Arterial	$0	$0	$0	$13,151
Collector	$0	$0	$0	$27,528
Residential/Local	$0	$0	$0	$28,829
Grand Total:	$0	$0	$0	$69,508

Scenarios Criteria:

Criteria:

Scenarios - Network Condition Summary

Interest: 5% Inflation: 5% Printed: 11/21/2022

Scenario: PTAP 23: Scenario 1: Do Nothing

Year	Budget	PM	Year	Budget	PM	Year	Budget	PM
2023	$0	0%	2025	$0	0%	2027	$0	0%
2024	$0	0%	2026	$0	0%			

Projected Network Average PCI by Year

Year	Never Treated	With Selected Treatment	Treated Centerline Miles	Treated Lane Miles
2023	55	55	0	0
2024	52	52	0	0
2025	49	49	0	0
2026	47	47	0	0
2027	44	44	0	0

Percent Network Area by Functional Class and Condition Category

Condition in base year 2023, prior to applying treatments.

Condition	Arterial	Collector	Res/Loc	Other	Total
I	7.7%	8.3%	9.9%	0.0%	25.9%
II / III	6.6%	15.1%	15.3%	0.0%	37.0%
IV	6.6%	7.2%	11.0%	0.0%	24.8%
V	1.7%	5.3%	5.3%	0.0%	12.3%
Total	22.6%	35.9%	41.**5**%	0.0%	100.0%

Condition in year 2023 after schedulable treatments applied.

Condition	Arterial	Collector	Res/Loc	Other	Total
I	7.7%	8.3%	9.9%	0.0%	25.9%
II / III	6.6%	15.1%	15.2%	0.0%	37.1%
IV	6.6%	7.2%	11.1%	0.0%	24.9%
V	1.7%	5.3%	5.3%	0.0%	12.3%
Total	22.6%	35.9%	41.**5**%	0.0%	100.0%

Condition in year 2027 after schedulable treatments applied.

Condition	Arterial	Collector	Res/Loc	Other	Total
I	5.2%	4.1%	9.1%	0.0%	18.4%
II / III	4.6%	11.1%	9.3%	0.0%	25.0%
IV	6.5%	10.7%	10.8%	0.0%	28.0%
V	6.3%	10.0%	12.3%	0.0%	28.6%
Total	22.6%	35.9%	41.5%	0.0%	100.0%

Scenarios Criteria:

Scenario 2: Existing Budget

Cost Summary Report
Network Condition Summary Report

Scenarios - Cost Summary

Interest: 5.00% Inflation: 5.00% Printed: 11/22/2022

Scenario: PTAP 23: Scenario 2 - $500,000/Yr

Year	PM	Budget		Rehabilitation		Preventative Maintenance	Surplus PM	Deferred		Stop Gap
2023	10%	$500,000	II	$111,265	Non-Project	$48,654	$1,346	$11,938,508	Funded	$0
			III	$0					Unmet	$62,295
			IV	$338,715	Project	$0				
			V	$0						
			Total	$449,980						
			Project	$0						
2024	10%	$500,000	II	$109,275	Non-Project	$51,807	$0	$13,434,622	Funded	$0
			III	$0					Unmet	$393
			IV	$336,829	Project	$0				
			V	$0						
			Total	$446,104						
			Project	$0						
2025	10%	$500,000	II	$65,931	Non-Project	$52,438	$0	$15,094,701	Funded	$0
			III	$0					Unmet	$241
			IV	$378,849	Project	$0				
			V	$0						
			Total	$444,780						
			Project	$0						
2026	10%	$500,000	II	$78,839	Non-Project	$52,062	$0	$16,633,918	Funded	$0
			III	$0					Unmet	$361
			IV	$368,781	Project	$0				
			V	$0						
			Total	$447,620						
			Project	$0						
2027	10%	$500,000	II	$218,855	Non-Project	$50,295	$0	$19,363,819	Funded	$0
			III	$0					Unmet	$0
			IV	$230,192	Project	$0				
			V	$0						
			Total	$449,047						
			Project	$0						

Summary

Functional Class	Rehabilitation	Prev. Maint.	Funded Stop Gap	Unmet Stop Gap
Arterial	$369,352	$73,059	$0	$11,518
Collector	$396,336	$128,671	$0	$25,250
Residential/Local	$1,471,842	$53,526	$0	$26,521
Grand Total:	$2,237,530	$255,256	$0	$63,289

Scenarios Criteria:

Criteria:

Scenarios - Network Condition Summary

Interest: 5% Inflation: 5% Printed: 11/21/2022

Scenario: PTAP 23: Scenario 2 - $500,000/Yr

Year	Budget	PM	Year	Budget	PM	Year	Budget	PM
2023	$500,000	10%	2025	$500,000	10%	2027	$500,000	10%
2024	$500,000	10%	2026	$500,000	10%			

Projected Network Average PCI by Year

Year	Never Treated	With Selected Treatment	Treated Centerline Miles	Treated Lane Miles
2023	55	57	2.09	4.04
2024	52	56	1.39	2.81
2025	49	54	1.60	3.20
2026	47	53	1.35	2.63
2027	44	51	1.79	3.59

Percent Network Area by Functional Class and Condition Category

Condition in base year 2023, prior to applying treatments.

Condition	Arterial	Collector	Res/Loc	Other	Total
I	7.7%	8.3%	9.9%	0.0%	25.9%
II / III	6.6%	15.1%	15.3%	0.0%	37.0%
IV	6.6%	7.2%	11.0%	0.0%	24.8%
V	1.7%	5.3%	5.3%	0.0%	12.3%
Total	22.6%	35.9%	41.5%	0.0%	100.0%

Condition in year 2023 after schedulable treatments applied.

Condition	Arterial	Collector	Res/Loc	Other	Total
I	8.7%	9.5%	13.2%	0.0%	31.4%
II / III	5.6%	13.9%	15.3%	0.0%	34.8%
IV	6.6%	7.2%	7.7%	0.0%	21.5%
V	1.7%	5.3%	5.3%	0.0%	12.3%
Total	22.6%	35.9%	41.5%	0.0%	100.0%

Condition in year 2027 after schedulable treatments applied.

Condition	Arterial	Collector	Res/Loc	Other	Total
I	8.3%	10.1%	22.1%	0.0%	40.5%
II / III	2.1%	6.2%	6.3%	0.0%	14.6%
IV	5.9%	9.7%	1.4%	0.0%	17.0%
V	6.3%	9.9%	11.7%	0.0%	27.9%
Total	22.6%	35.9%	41.5%	0.0%	100.0%

Scenario 3: Increase PCI by 5 Points

Cost Summary Report
Network Condition Summary Report

Scenarios - Cost Summary

Interest: 5.00% Inflation: 5.00% Printed: 11/22/2022

Scenario: PTAP 23: Scenario 3 - Increase PCI by 5 Points

Year	PM	Budget	Rehabilitation			Preventative Maintenance	Surplus PM	Deferred		Stop Gap
2023	10%	$700,000	II	$289,457	Non-Project	$69,722	$278	$11,739,249	Funded	$0
			III	$0					Unmet	$60,646
			IV	$338,715	Project	$0				
			V	$0						
			Total	$628,172						
			Project	$0						
2024	10%	$1,000,000	II	$273,710	Non-Project	$97,306	$2,694	$12,726,198	Funded	$0
			III	$0					Unmet	$393
			IV	$626,098	Project	$0				
			V	$0						
			Total	$899,807						
			Project	$0						
2025	10%	$1,500,000	II	$43,180	Non-Project	$169,052	$0	$13,348,800	Funded	$0
			III	$40,377					Unmet	$241
			IV	$1,246,665	Project	$0				
			V	$0						
			Total	$1,330,222						
			Project	$0						
2026	10%	$1,800,000	II	$34,729	Non-Project	$196,299	$0	$13,483,036	Funded	$0
			III	$243,010					Unmet	$0
			IV	$1,325,704	Project	$0				
			V	$0						
			Total	$1,603,444						
			Project	$0						
2027	10%	$2,200,000	II	$0	Non-Project	$246,673	$0	$14,333,459	Funded	$0
			III	$0					Unmet	$0
			IV	$1,856,316	Project	$0				
			V	$95,598						
			Total	$1,951,914						
			Project	$0						

Summary

Functional Class	Rehabilitation	Prev. Maint.	Funded Stop Gap	Unmet Stop Gap
Arterial	$2,126,188	$245,063	$0	$11,030
Collector	$2,624,300	$282,169	$0	$24,357
Residential/Local	$1,663,074	$251,819	$0	$25,892
Grand Total:	$6,413,562	$779,051	$0	$61,280

Scenarios Criteria:

Criteria:

Scenarios - Network Condition Summary

Interest: 5% Inflation: 5% Printed: 11/21/2022

Scenario: PTAP 23: Scenario 3 - Increase PCI by 5 Points

Year	Budget	PM
2023	$700,000	10%
2024	$1,000,000	10%

Year	Budget	PM
2025	$1,500,000	10%
2026	$1,800,000	10%

Year	Budget	PM
2027	$2,200,000	10%

Projected Network Average PCI by Year

Year	Never Treated	With Selected Treatment	Treated Centerline Miles	Treated Lane Miles
2023	55	57	2.68	5.36
2024	52	57	3.24	6.36
2025	49	58	2.88	5.75
2026	47	59	3.14	6.16
2027	44	60	3.56	7.18

Percent Network Area by Functional Class and Condition Category

Condition in base year 2023, prior to applying treatments.

Condition	Arterial	Collector	Res/Loc	Other	Total
I	7.7%	8.3%	9.9%	0.0%	25.9%
II / III	6.6%	15.1%	15.3%	0.0%	37.0%
IV	6.6%	7.2%	11.0%	0.0%	24.8%
V	1.7%	5.3%	5.3%	0.0%	12.3%
Total	22.6%	35.9%	41.5%	0.0%	100.0%

Condition in year 2023 after schedulable treatments applied.

Condition	Arterial	Collector	Res/Loc	Other	Total
I	9.8%	11.5%	13.8%	0.0%	35.1%
II / III	4.5%	11.9%	14.7%	0.0%	31.1%
IV	6.6%	7.2%	7.7%	0.0%	21.5%
V	1.7%	5.3%	5.3%	0.0%	12.3%
Total	22.6%	35.9%	41.5%	0.0%	100.0%

Condition in year 2027 after schedulable treatments applied.

Condition	Arterial	Collector	Res/Loc	Other	Total
I	14.2%	17.5%	23.6%	0.0%	55.3%
II / III	2.1%	5.1%	5.1%	0.0%	12.4%
IV	0.0%	3.3%	1.4%	0.0%	4.7%
V	6.3%	9.9%	11.4%	0.0%	27.6%
Total	22.6%	35.9%	41.5%	0.0%	100.0%

Appendix E

Pavement Condition Maps

Current Network Condition - 2022

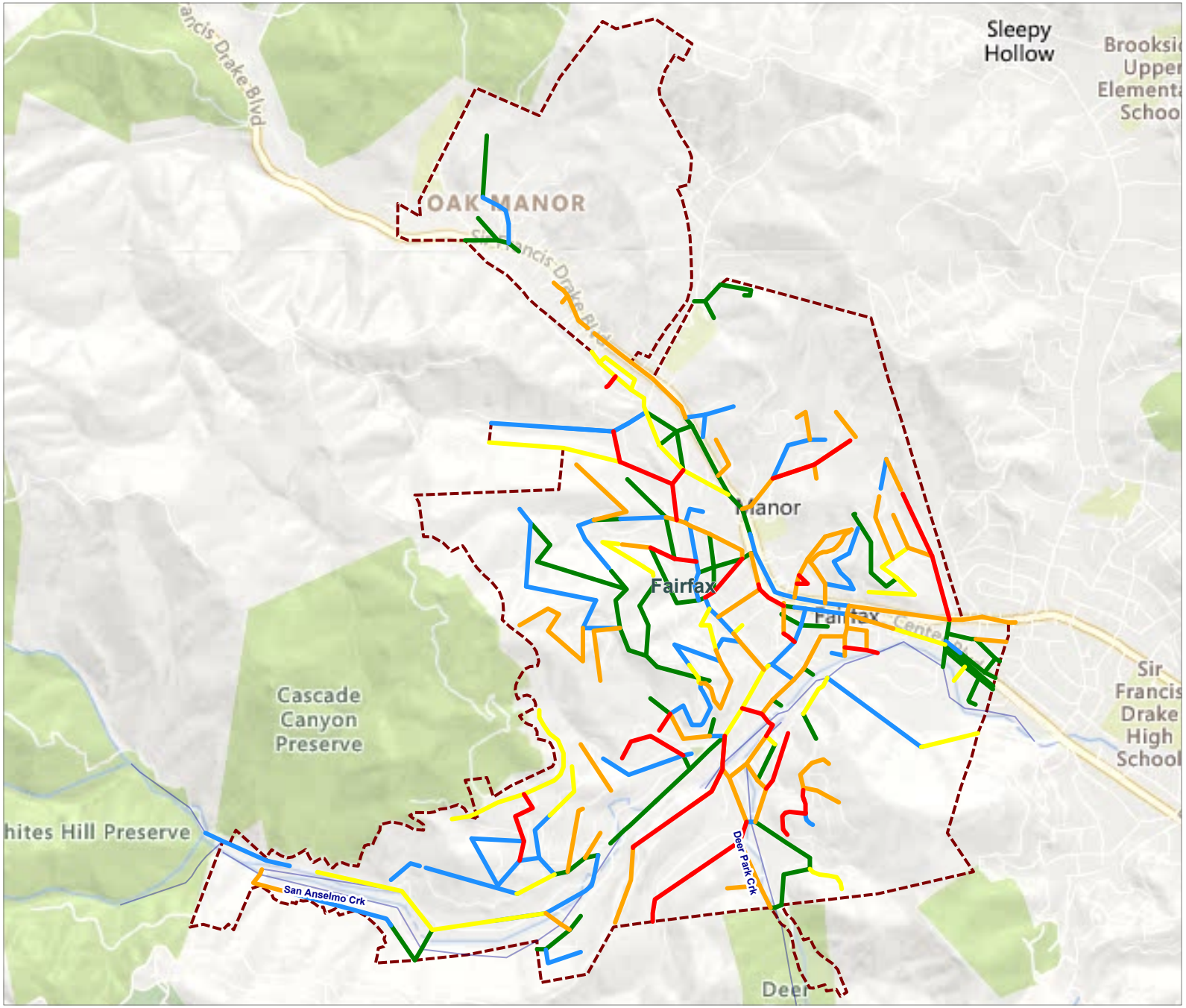
Town of Fairfax

Current PCI Condition

Printed: 11/27/2022

Feature Legend

- Category I - Very Good
- Category II - Good (Non-Load)
- Category III - Good (Load)
- Category IV - Poor
- Category V - Very Poor



Scenario 1: Do Nothing

Projected Street Network Condition - 2027

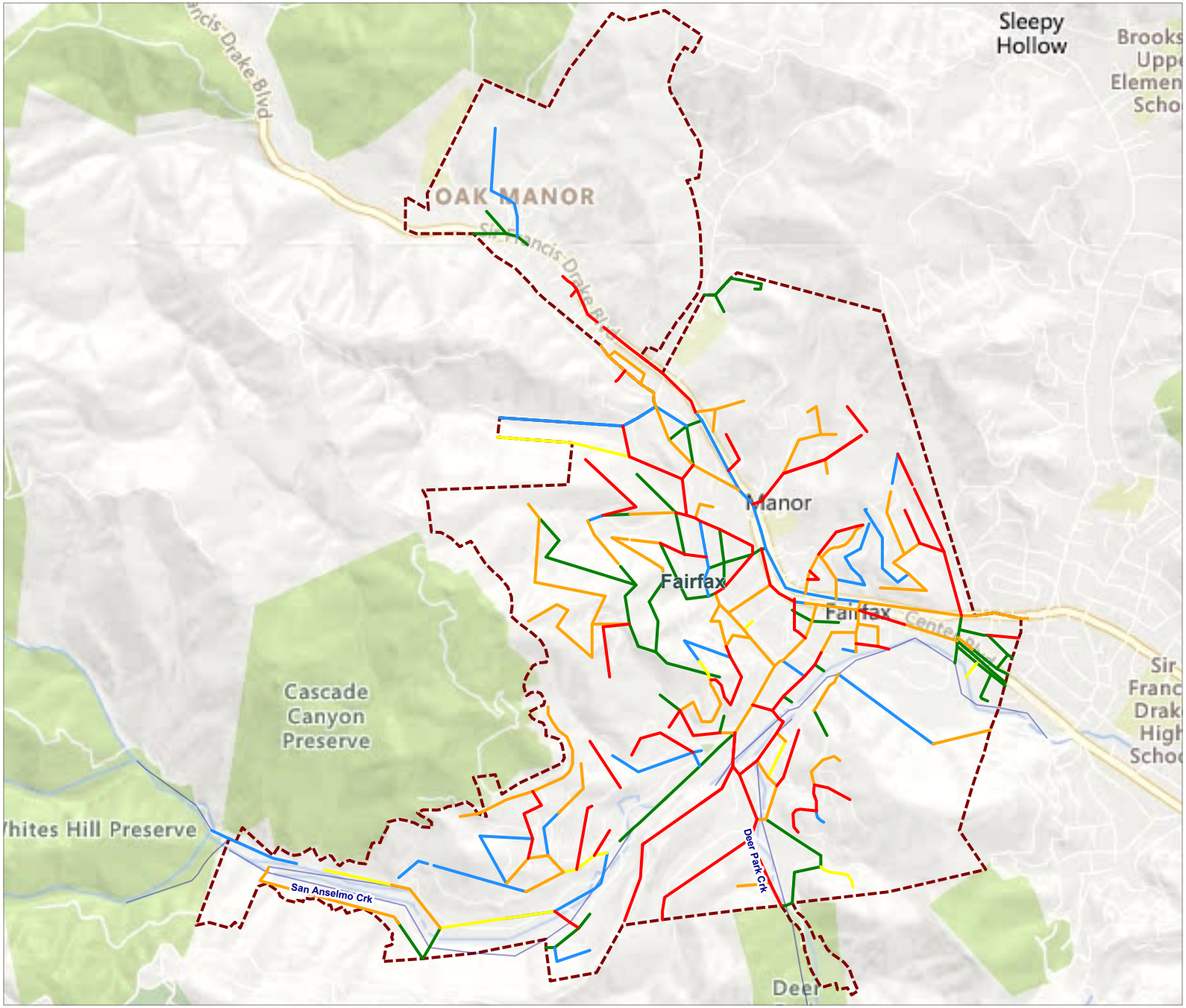
Town of Fairfax

Scenario PCI Condition

PTAP 23: Scenario 1: Do Nothing - 2027 Project Period - Total Rehab for 2027: $0 - Printed: 11/27/2022

Feature Legend

- Category I - Very Good
- Category II - Good (Non-Load)
- Category III - Good (Load)
- Category IV - Poor
- Category V - Very Poor



Scenario 2: Existing Budget

Projected Street Network Condition – 2027

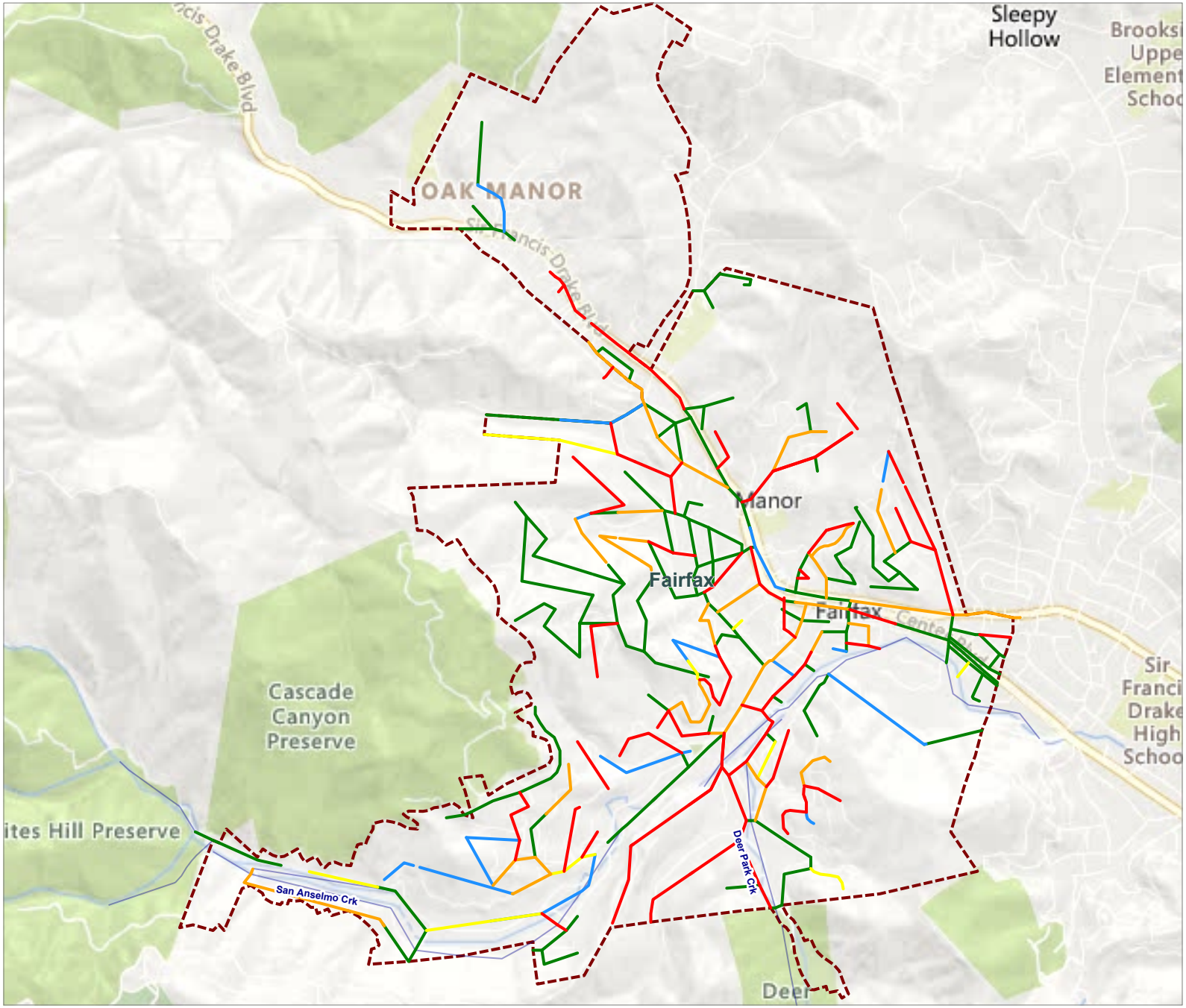
Town of Fairfax

Scenario PCI Condition

PTAP 23: Scenario 2 - $500,000/Yr - 2027 Project Period - Total Rehab for 2027: $449,047 - Printed: 11/27/2022

Feature Legend

- Category I - Very Good
- Category II - Good (Non-Load)
- Category III - Good (Load)
- Category IV - Poor
- Category V - Very Poor



Scenario 3: Increase PCI by 5 Points

Projected Street Network Condition – 2027

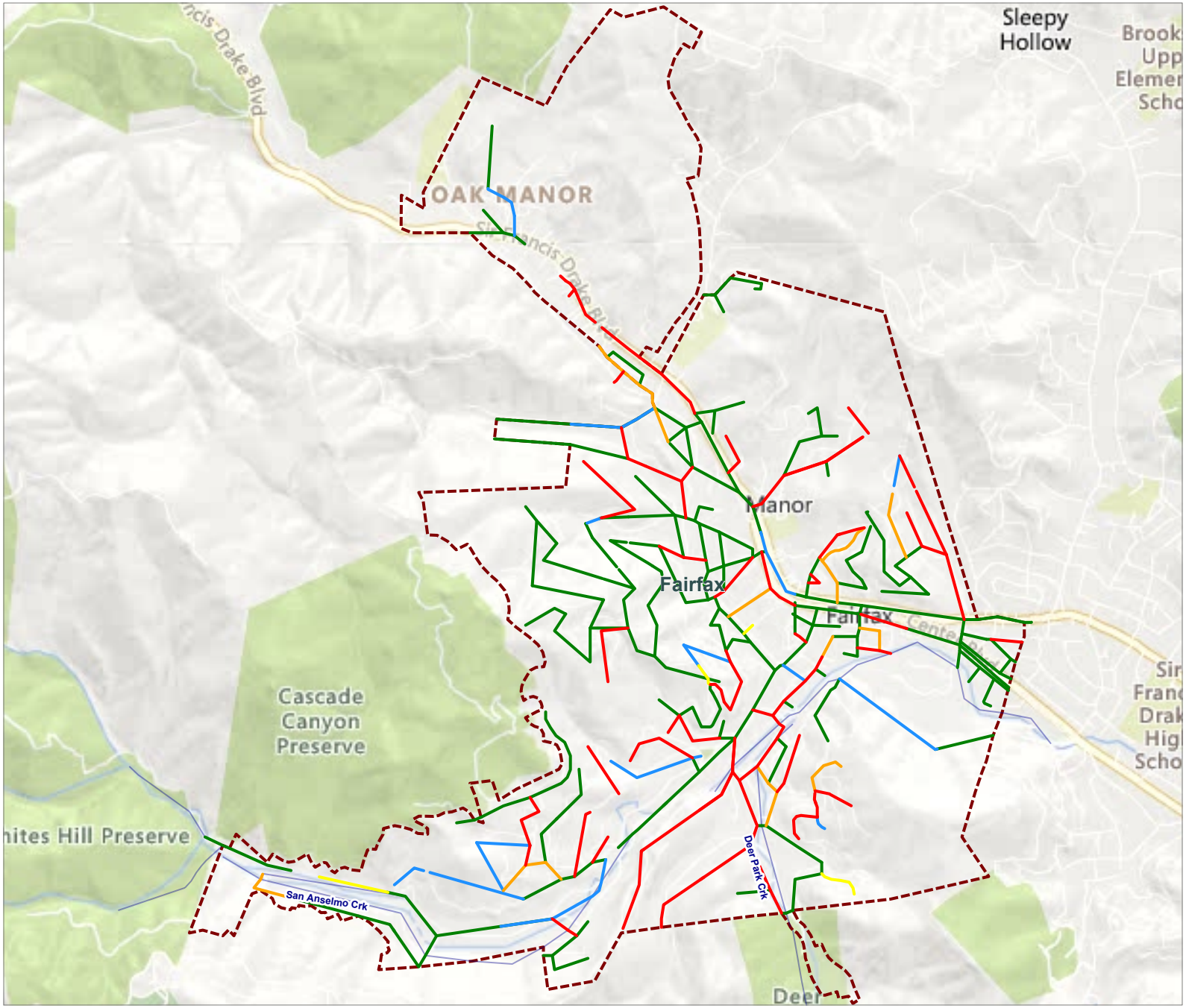
Town of Fairfax

Scenario PCI Condition

PTAP 23: Scenario 3 - Increase PCI by 5 Points - 2027 Project Period - Total Rehab for 2027: $1,951,914 - Printed: 11/27/2022

Feature Legend

- Category I - Very Good
- Category II - Good (Non-Load)
- Category III - Good (Load)
- Category IV - Poor
- Category V - Very Poor



Appendix F

Sections Selected For Treatment – Scenario 2

Scenarios - Sections Selected for Treatment

Interest: 5.00% Inflation: 5.00% Printed: 11/27/2022

Scenario: PTAP 23: Scenario 2 - $500,000/Yr

Year	Budget	PM
2023	$500,000	10%
2024	$500,000	10%

Year	Budget	PM
2025	$500,000	10%
2026	$500,000	10%

Year	Budget	PM
2027	$500,000	10%

Year: 2023

Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surface Type	Area ID	Current PCI	Treatment PCI Before	Treatment PCI After	Cost	Rating	Treatment
SCENIC ROAD	REDWOOD ROAD	TAMALPIAS ROAD	SCENIC	50	580	14	8,120	A	AC/AC		87	87	93	$9,473	16,575	MICROSURFACING
											Treatment Total			$9,473		
BOTHIN ROAD	1041' WEST OF OLEMA ROAD	TOWN LIMITS	BOTHIN	30	1,031	25	25,775	C	AC/AC		68	67	77	$40,094	9,445	MICROSURFACING w/DIGOUTS
PINE DRIVE	1900' WEST OF LAUREL DRIVE	2760' WEST OF LAUREL DRIVE	PINEDR	30	860	14	12,040	C	AC/AC		65	64	74	$18,729	8,321	MICROSURFACING w/DIGOUTS
SCENIC ROAD	BAY ROAD	200 FT W. BAY ROAD	SCENIC	20B	200	14	2,800	A	AC/AC		62	61	72	$4,667	9,605	MICROSURFACING w/DIGOUTS
SIR FRANCIS DRAKE BOULEVARD	PACHECO AVENUE	BANK STREET	SIRFRA	20	819	35	28,665	A	AC		70	69	78	$47,775	8,664	MICROSURFACING w/DIGOUTS
											Treatment Total			$111,265		
HICKORY ROAD	CASADE DR	CYPRESS DR	HICKOR	05	178	20	3,560	R	AC		74	74	82	$3,956	10,198	CRACK SEAL w/MICROSURFACING
MEERNA AVENUE	IVY LANE	HILLSIDE DRIVE	MEERNA	20	942	18	16,956	C	AC/AC		76	76	84	$19,782	15,165	CRACK SEAL w/MICROSURFACING
SPRUCE ROAD	610 FT WEST OF PARK ROAD	TAMALPIAS ROAD	SPRUCE	25	765	12	9,180	C	AC/AC		78	78	86	$10,710	15,756	CRACK SEAL w/MICROSURFACING
SUMMER AVENUE	FOREST AVENUE	DEAD END	SUMMER	10	284	15	4,260	R	AC/AC		79	79	87	$4,733	10,370	CRACK SEAL w/MICROSURFACING
											Treatment Total			$39,181		
BARKER AVENUE	PORTEOUS AVENUE	DEAD END	BARKER	10	345	18	6,210	R	AC/AC		44	44	100	$26,220	8,786	2" HMA MILL & OVERLAY
CLAUS DRIVE	SIR FRANCIS DRAKE BOULEVARD	TAYLOR DRIVE	CLAUSD	10	494	26	12,844	R	AC		42	42	100	$54,230	8,950	2" HMA MILL & OVERLAY
MARINDA COURT	MARINDA DRIVE	DEAD END	MARINC	10	186	29	5,394	R	AC		43	43	100	$22,775	8,902	2" HMA MILL & OVERLAY
NAPA AVENUE	PACHECO AVENUE	DOMINGA AVENUE	NAPAAV	10	300	20	6,000	R	AC/AC		48	47	100	$25,333	8,591	2" HMA MILL & OVERLAY
PACHECO AVENUE	SIR FRANCIS DRAKE BLVD	DEAD END	PACHEC	10	596	20	11,920	R	AC/AC		49	48	100	$50,329	8,520	2" HMA MILL & OVERLAY
PARK ROAD	BOLINAS ROAD	SCHOOL STREET	PARKRO	10	588	24	14,112	R	AC/AC		46	46	100	$59,584	8,661	2" HMA MILL & OVERLAY
RIDGE ROAD	SCENIC ROAD	CUL-DE-SAC	RIDGER	10	1,536	12	18,432	R	AC/AC		47	46	100	$77,824	8,657	2" HMA MILL & OVERLAY
SAN GABRIEL COURT	SAN GABRIEL DRIVE	DEAD END	SANGAC	10	177	30	5,310	R	AC		40	40	100	$22,420	9,032	2" HMA MILL & OVERLAY

** - Treatment from Project Selection

Scenarios Criteria:

Scenarios - Sections Selected for Treatment

Interest: 5.00% Inflation: 5.00% Printed: 11/27/2022

Scenario: PTAP 23: Scenario 2 - $500,000/Yr

													Treatment Total		$338,715	
**SCENIC ROAD	AZALEA AVENUE	ACACIA ROAD	SCENIC	05	1,165	18	20,970	R	AC		29	29	100	$0	0	MILL AND THICK OVERLAY
													Treatment Total		$0	
					Year 2023 Area Total		212,548						Year 2023 Total		$498,634	

Year: 2024

Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surface Type	Area ID	Current PCI	Treatment PCI Before	Treatment PCI After	Cost	Rating	Treatment
BROADWAY	CLAUS DR	BANK ST	BROADW	10b	155	60	9,300	C	AC/AC		71	69	78	$15,190	8,370	MICROSURFACING w/DIGOUTS
MEADOW WAY (3)	MEADOW WAY (2)	E END	MEADOW	30	642	18	11,556	R	AC		68	66	76	$16,853	7,211	MICROSURFACING w/DIGOUTS
SIR FRANCIS DRAKE BOULEVARD	BROADWAY	SAN MIGUEL COURT	SIRFRA	40	939	47	44,133	A	AC		71	68	77	$77,233	8,203	MICROSURFACING w/DIGOUTS
													Treatment Total		$109,275	
CASCADE DRIVE	BOLINAS DRIVE	1285' WEST OF BOLINAS DRIVE	CASCAD	10	1,285	32	41,120	C	AC/AC		76	74	83	$50,372	14,354	CRACK SEAL w/MICROSURFACING
MANZANITA COURT	MANZANITA ROAD	DEAD END	MANZAC	10	123	10	1,230	R	AC		85	83	90	$1,435	6,575	CRACK SEAL w/MICROSURFACING
													Treatment Total		$51,807	
FORREST AVENUE	SUMMER AVENUE	1230' EAST OF SUMMER AVENUE	FORREA	20	1,230	14	17,220	C	AC/PCC		52	50	100	$86,789	8,591	2" HMA MILL & OVERLAY
LIVE OAK AVENUE	MAPLE AVENU	1027' WEST OF MAPLE AVENUE	LIVEOA	10	1,027	18	18,486	R	AC/AC		52	49	100	$81,955	8,126	2" HMA MILL & OVERLAY
LIVE OAK AVENUE	1027' WEST OF MAPLE AVENUE	DEAD END	LIVEOA	20	858	18	15,444	R	AC/AC		51	48	100	$68,468	8,201	2" HMA MILL & OVERLAY
MURIEL PLACE	LOWER SCENIC ROAD	DEAD END	MURIEL	10	485	21	10,185	R	AC/AC		51	49	100	$45,154	8,096	2" HMA MILL & OVERLAY
PARK ROAD	SCHOOL STREET	SPRUCE ROAD	PARKRO	20	585	21	12,285	R	AC		50	48	100	$54,464	8,227	2" HMA MILL & OVERLAY
													Treatment Total		$336,829	
					Year 2024 Area Total		180,959						Year 2024 Total		$497,911	

Year: 2025

Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surface Type	Area ID	Current PCI	Treatment PCI Before	Treatment PCI After	Cost	Rating	Treatment
SCENIC ROAD	TAMALPIAS ROAD	BAY ROAD	SCENIC	20A	535	14	7,490	A	AC/AC		85	81	89	$9,634	11,673	MICROSURFACING
TAMALPAIS ROAD	MOUNTAIN VIEW ROAD	SCENIC ROAD	TAMALP	50	590	12	7,080	A	AC/AC		81	76	84	$9,107	10,528	MICROSURFACING

** - Treatment from Project Selection

Scenarios Criteria:

Scenarios - Sections Selected for Treatment

Interest: 5.00% Inflation: 5.00% Printed: 11/27/2022

Scenario: PTAP 23: Scenario 2 - $500,000/Yr

											Treatment Total			$18,741		
PINE DRIVE	635' WEST OF LAUREL DRIVE	1900' WEST OF LAUREL DRIVE	PINEDR	20	1,265	14	17,710	C	AC/AC		66	62	72	$30,373	7,387	MICROSURFACING w/DIGOUTS
SEQUOIA ROAD	LOWER SCENIC ROAD	SPRUCE ROAD	SEQUOI	10	974	19	18,506	R	AC/AC		70	67	76	$28,337	6,992	MICROSURFACING w/DIGOUTS
SHERMAN AVENUE	BOLINAS ROAD	DOMINGA AVENUE	SHERMA	10	262	18	4,716	R	AC/AC		65	61	72	$7,221	6,303	MICROSURFACING w/DIGOUTS
											Treatment Total			$65,931		
BOTHIN ROAD	MARIN AVENUE	OLEMA ROAD	BOTHIN	10	460	26	11,960	C	AC/AC		74	71	80	$15,384	12,679	CRACK SEAL w/MICROSURFACING
CANYON ROAD	CASCADE DRIVE	1017' WEST OF CASCADE DRIVE	CANYON	10	1,017	14	14,238	C	AC/AC		76	73	81	$18,314	11,973	CRACK SEAL w/MICROSURFACING
											Treatment Total			$33,697		
BLACKBERRY LANE	CREEK ROAD	FORREST AVE	BLACKB	10	190	18	3,420	R	AC/AC		53	49	100	$15,920	7,735	2" HMA MILL & OVERLAY
CASCADE DRIVE	CANYON ROAD	890' WEST OF CANYON ROAD	CASCAD	60	890	18	16,020	R	AC/AC		52	48	100	$74,573	7,843	2" HMA MILL & OVERLAY
CENTER BOULEVARD	PASTORI AVENUE	727' NORTH OF PASTORI AVENUE	CENTER	20	727	51	37,077	R	AC		51	47	100	$172,593	7,906	2" HMA MILL & OVERLAY
FORREST AVENUE	2230' EAST OF SUMMER AVENUE	TOWN LIMITS	FORREA	40	850	14	11,900	C	AC/PCC		54	49	100	$62,975	8,211	2" HMA MILL & OVERLAY
IVY LANE	PORTEOUS AVENUE	MEERNA AVENUE	IVYLAN	10	118	18	2,124	R	AC/AC		53	49	100	$9,887	7,735	2" HMA MILL & OVERLAY
WREDEN AVENUE	PARK ROAD	FRUSTUCK AVENUE	WREDEN	10	576	16	9,216	R	AC/AC		53	48	100	$42,900	7,783	2" HMA MILL & OVERLAY
											Treatment Total			$378,849		
					Year 2025 Area Total		161,457				Year 2025 Total			$497,218		

Year: 2026

Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surface Type	Area ID	Treatment Current PCI	Treatment PCI Before	Treatment PCI After	Cost	Rating	Treatment
SCENIC ROAD	400' NORTH OF REDWOOD ROAD	REDWOOD ROAD	SCENIC	40	458	14	6,412	A	AC/AC		88	82	90	$8,660	10,967	MICROSURFACING
											Treatment Total			$8,660		
CASCADE DRIVE	1770' WEST OF CANYON ROAD	DEAD END	CASCAD	80	833	15	12,495	R	AC/AC		68	63	73	$20,090	6,260	MICROSURFACING w/DIGOUTS
SIR FRANCIS DRAKE BOULEVARD	SAN MIGUEL COURT	OAK TREE LANE	SIRFRA	50	870	35	30,450	A	AC		76	69	78	$58,749	7,469	MICROSURFACING w/DIGOUTS
											Treatment Total			$78,839		
MANOR ROAD	MARIN AVENUE	OLEMA ROAD	MANORR	10	393	26	10,218	R	AC/AC		76	72	81	$13,143	9,328	CRACK SEAL w/MICROSURFACING

Scenarios - Sections Selected for Treatment

Interest: 5.00% Inflation: 5.00% Printed: 11/27/2022

Scenario: PTAP 23: Scenario 2 - $500,000/Yr

Year: 2026

Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surface Type	Area ID	Current PCI	Treatment PCI Before	Treatment PCI After	Cost	Rating	Treatment
MEERNA AVENUE	HILLSIDE DR	PORTEOUS AV	MEERNA	30	995	19	18,905	R	AC		76	72	81	$24,317	9,839	CRACK SEAL w/MICROSURFACING
VALLEY ROAD	WILLIS LANE	DEAD END	VALLEY	10	330	14	4,620	R	AC/AC		81	76	85	$5,942	7,495	CRACK SEAL w/MICROSURFACING
												Treatment Total		$43,402		
BELMONT AVENUE	PASTORI AVENUE	KENT AVENUE	BELMON	10	271	24	6,504	R	AC/AC		55	49	100	$31,790	7,337	2" HMA MILL & OVERLAY
OAK TREE LANE	SIR FRANCIS DRAKE BOULEVARD	DEAD END	OAKTRE	10	494	29	14,326	R	AC/AC		55	48	100	$70,022	7,379	2" HMA MILL & OVERLAY
TOYON DRIVE	OAK ROAD	NORTH DEAD END	TOYONR	10	710	22	15,620	R	AC		56	49	100	$76,347	7,413	2" HMA MILL & OVERLAY
TOYON DRIVE	OAK ROAD	SOUTH DEAD END	TOYONR	20	1,000	20	20,000	R	AC		55	48	100	$97,755	7,474	2" HMA MILL & OVERLAY
WESTBRAE DRIVE	OLEMA ROAD	OLEMA ROAD	WESTBR	10	760	25	19,000	R	AC/AC		55	48	100	$92,867	7,383	2" HMA MILL & OVERLAY
												Treatment Total		$368,781		
						Year 2026 Area Total	158,550					Year 2026 Total		$499,682		

Year: 2027

Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surface Type	Area ID	Current PCI	Treatment PCI Before	Treatment PCI After	Cost	Rating	Treatment
TAMALPAIS ROAD	1050' SOUTH OF SCENIC ROAD	BERRY TRAIL	TAMALP	30	812	16	12,992	A	AC/AC		93	84	91	$18,424	9,091	MICROSURFACING
TAMALPAIS ROAD	BERRY TRAIL	MOUNTAIN VIEW ROAD	TAMALP	40	835	15	12,525	A	AC/AC		93	84	91	$17,762	9,091	MICROSURFACING
												Treatment Total		$36,185		
CYPRESS DRIVE	935' NORTH OF LAUREL	LAUREL DRIVE	CYPRES	50	1,700	16	27,200	C	AC/AC		69	61	71	$51,429	6,367	MICROSURFACING w/DIGOUTS
GLEN DRIVE	1260' NORTH OF SFD BLVD	TOWN LIMIT	GLENDR	20	1,200	40	48,000	C	AC/AC		75	69	78	$90,758	8,205	MICROSURFACING w/DIGOUTS
RIDGEWAY AVENUE	LIVE OAK AV	END	RIDGEW	10	1,350	16	21,600	R	AC/AC		73	68	77	$36,465	6,754	MICROSURFACING w/DIGOUTS
ROCCA DRIVE	TAYLOR DRIVE	TAYLOR DRIVE AT SADY LANE	ROCCAD	20	1,701	14	23,814	R	AC/AC		69	63	73	$40,203	6,151	MICROSURFACING w/DIGOUTS
												Treatment Total		$218,855		
MARIN ROAD	OLEMA ROAD	MANOR ROAD (AROUND CIRCLE)	MARINR	10	398	25	9,950	C	AC/AC		83	76	84	$14,110	8,761	CRACK SEAL w/MICROSURFACING
												Treatment Total		$14,110		

** - Treatment from Project Selection

Scenarios Criteria:

Scenarios - Sections Selected for Treatment

Interest: 5.00% Inflation: 5.00% Printed: 11/27/2022

Scenario: PTAP 23: Scenario 2 - $500,000/Yr

Year: 2027

Street Name	Begin Location	End Location	Street ID	Section ID	Length	Width	Area	FC	Surface Type	Area ID	Current PCI	Treatment PCI Before	Treatment PCI After	Cost	Rating	Treatment
CRESCENT CIRCLE	OAK TREE LANE	DEAD END	CRESCE	10	331	29	9,599	R	AC/AC		57	49	100	$49,263	7,002	2" HMA MILL & OVERLAY
													Treatment Total	$49,263		
SCENIC ROAD	TAMALPIAS ROAD	UPPER SCENIC ROAD	SCENIC	60	1,145	15	17,175	A	AC		53	41	100	$180,928	6,128	CIR w/2" HMA OVERLAY
													Treatment Total	$180,928		
							Year 2027 Area Total	182,855					Year 2027 Total	$499,342		
							Grand Total Section Area:	896,369					Grand Total	$2,492,787		

** - Treatment from Project Selection

Scenarios Criteria:

Appendix G

Quality Management Report

City of Fairfax PTAP 23
Quality Management Report

Street ID	Section ID	Street Name	Begin Location	End Location	Functional Class	PCI Date	PCI	Re-inspected PCI
ALDERC	10	ALDER COURT	LANDSDALE AVE	DEAD END	R	9/10/2022	70	70
BELLEA	20	BELLE AVENUE	KENT AVENUE	TOWN LIMITS	R	9/9/2022	82	82
BOTHIN	20	BOTHIN ROAD	OLEMA ROAD	1041' WEST OF OLEMA ROAD	C	8/29/2022	62	61
CASCAD	40	CASCADE DRIVE	MEADOW WAY	690' WEST OF MEADOW WAY	R	8/30/2022	61	61
CASCAD	80	CASCADE DRIVE	1770' WEST OF CANYON ROAD	DEAD END	R	8/30/2022	68	68
CENTER	20	CENTER BOULEVARD	PASTORI AVENUE	727' NORTH OF PASTORI AVENUE	R	8/30/2022	52	52
CENTER	30	CENTER BOULEVARD	727' NORTH OF PASTORI AVENUE	PACHECO AVENUE	R	8/30/2022	32	31
CYPRES	40	CYPRESS DRIVE	1700' NORTH OF LAUREL DRIVE	935' NORTH OF LAUREL DRIVE	C	9/9/2022	37	51
DOMING	10	DOMINGA AVENUE	CREEK ROAD	BRIDGE COURT	C	8/29/2022	29	29
FORREA	20	FORREST AVENUE	SUMMER AVENUE	1230' EAST OF SUMMER AVENUE	C	8/30/2022	55	53
FRUSTU	10	FRUSTUCK AVENUE	PARK ROAD	WRENDEN AVENUE	C	9/9/2022	26	56
HILLSI	50	HILLSIDE DRIVE	CREST ROAD	DEAD END	C	8/30/2022	23	40
INYOAV	10	INYO AVENUE	PACHECO AVENUE	END	R	8/29/2022	15	15
LIVEOA	10	LIVE OAK AVENUE	MAPLE AVENU	1027' WEST OF MAPLE AVENUE	R	9/10/2022	21	52
MARIND	10	MARINDA DRIVE	SIR FRANCIS DRAKE BOULEVARD	SAN GABRIEL DRIVE	C	9/10/2022	41	37
MURIEL	10	MURIEL PLACE	LOWER SCENIC ROAD	DEAD END	R	8/29/2022	48	52
OAKROA	10	OAK ROAD	LAUREL DRIVE	TOYON DRIVE	R	9/9/2022	13	11
OLEMAR	20	OLEMA ROAD	MARIN ROAD	TOWN LIMITS	C	8/29/2022	51	51
SANGAD	10	SAN GABRIEL DRIVE	MARINDA DRIVE	1148' EAST OF MARINDA DRIVE	C	9/10/2022	21	26
SIRFRA	60	SIR FRANCIS DRAKE BOULEVARD	OAK TREE LANE	OAK MANOR DRIVE	A	9/9/2022	35	34
TAMALP	60	TAMALPAIS ROAD	SCENIC ROAD	DEAD END	A	9/9/2022	23	36
TOYONR	10	TOYON DRIVE	OAK ROAD	NORTH DEAD END	R	9/9/2022	56	56
VISTAW	10	VISTA WAY	SAN GABRIEL DRIVE	DEAD END	R	9/10/2022	41	32
WILLIS	10	WILLIS LN	FRUSTUCK AV	END	R	9/10/2022	38	16
WREDEN	10	WREDEN AVENUE	PARK ROAD	FRUSTUCK AVENUE	R	9/9/2022	51	53

FC (Functional Classification): A (Arterial), C (Collector), R (Residential/Local)

February 18, 2023 MP23-063A

Loren Umbertis
Town of Fairfax
142 Bolinas Road
Fairfax, CA 94930

Subject: Request for Proposal - Preparation of Plans, Specifications and Estimates for the Town's 2023 Pavement Project

Dear Loren:

We are pleased to submit our proposal for the subject project. Our scope of work, fees and schedule for this work are outlined below.

SCOPE OF WORK

Our scope of work includes developing treatment options and preliminary budgets, measuring field quantities, and preparing contract documents and estimates for the following project streets:

- Claus Drive – Sir Francis Drake Boulevard to Taylor Drive (~600 LF)
- Taylor Drive – Taylor Drive/Claus Drive to Burdette Lane (~700 LF)
- Porteous Avenue – Bolinas Road to Wood Lane (~1,200 LF)
- Scenic Road – Azalea Avenue to Acacia Road (~1,300 LF)

As part of our scope of work, we will develop a design to address the drainage and ponding at the intersection of Porteous Avenue and Wood Lane.

Our work is broken down into several tasks outlined below.

TASK 1 – PROJECT ADMINISTRATION

This work includes a kick-off meeting with Town of Fairfax staff to confirm the project's scope of work, schedule, budget, and availability of project documents; review project goals; discuss format of deliverables; and clarify the responsibilities of each party for each project.

Progress meetings will be arranged to review the work at critical stages. For this project, we are recommending that we meet after we complete the work associated with Task 2 to review and confirm the final treatments and conceptual level budget analysis, then again at the 60% stage, at the 90% stage to review and confirm the final documents and collect comments. We anticipate three (3) meetings, including the kick-off meeting, with the Town of Fairfax staff.

ATTACHMENT B

TASK 2 – PAVEMENT ANALYSIS & PRELIMINARY ENGINEERING

The purpose of this task is to gather and confirm all necessary information, either from field measurements or existing archives to facilitate the design and development of the project's contract documents. The end result of this task is to develop a concept level budget for each project that can be used to refine the project to fit the Town's anticipated construction budget. We have separated the anticipated investigation and survey items below and provided a detailed explanation of the expected work for each project.

Phase 2.1 - Pavement Analysis

PEI will perform pavement evaluation services including deflection testing, coring and analysis on the project streets. This type of analysis will eliminate the guesswork and ensure that an optimum rehabilitation approach is identified.

The field-testing portion of our work consists of deflection testing and coring the pavement to determine the asphalt layer thickness. Deflection tests will be performed at 100-foot maximum intervals in the travel lane. Coring will be performed at 500-foot maximum intervals over the street segment. The deflection analysis will be performed in general accordance with CTM 356. The Town of Fairfax will provide the traffic index for the project street.

Our work excludes pre-marking the core locations and coordination with Underground Service Alert. Because our cores are confined to the existing AC layer or existing structural section thickness, we do not anticipate any utilities. Traffic control will be provided using a vehicle with mounted warning lights conforming to MUTCD for a Mobile Operation. Modifications to this approach will result in additional fees. Flagging will be provided as needed.

Rehabilitation options to be investigated will include HMA and RHMA overlays, milling and filling, and pulverization and resurfacing. As part of our analysis, we will present any viable maintenance options for streets that are structurally adequate.

For this task, we are proposing that we do not develop a formal report, instead, we will compile our findings in a decision matrix and deflection summary sheets that will be provided to the Town for your reference. Going straight from the raw analysis and data to design saves design funds.

Phase 2.2 - M*easure Field Quantities*

PEI will physically walk each of the project streets to measure and record all pertinent field quantities, including the location of existing striping, pavement markers and paint markings; location of underground utility covers; limits of paving transitions, digouts,

and other pavement repairs; and the total area of pavement to be resurfaced. This information will be compiled into the bid schedule.

If we identify any concrete repairs or tree root damage during our field reviews, we will note it and bring it to your attention to determine if the repairs should be added to the contract.

Phase 2.3 - Monument Perpetuation Research

PEI will subcontract with Geo-West to perform monument perpetuation research on Claus Drive, Taylor Drive, Scenic Road and Porteous Avenue for the project.

The work will assist the Town of Fairfax with the monument identification and preservation process (State Business and Professions Code Section 8771) by performing a records search to locate any potential recorded survey monuments within the street limits. Our surveyor will prepare a written report that PEI will review with the Town to determine which monuments might potentially be disturbed during construction and how to perpetuate them. Our work will include showing the monuments to be perpetuated on the plan set and performing a post-construction cross-check once the contractor is finished to verify the contractor's monument perpetuation work.

At the Town's request, PEI can also provide a service to tie-off the existing monuments prior to construction and establish new monumentation after construction. If desired, PEI can provide an additional proposal for these services.

Phase 2.4 - Concept Level Budget Analysis

After the site investigations and analysis outlined in Task 2 are complete, PEI will meet with the Town to review the gathered information. As part of the meeting, we will review preliminary cost information for each viable option for the street segment and a life cycle cost analysis (LCCA) to assist the Town in selecting the most cost effective and constructible options for the project street.

As part of our meeting, PEI will also discuss any drainage issues that are observed to determine if/ how to implement the needed improvements.

This meeting will be where critical decisions are made about how far the budget can be stretched. At the conclusion of this meeting, PEI and the Town will have a clear understanding about the specific design approach that will be implemented for the project. This meeting will be considered the 35% submittal.

In addition to the tasks listed above, PEI will coordinate with Town staff to obtain the following information:

- Facility maps from utility agencies
- Other available design data such as drainage facility maps, traffic data, Town standards, front-end specifications, etc.

Task 2 Deliverables:

- Design recommendations and preliminary cost estimates (with LCCA) for each roadway segment within each project area for Town review.
- Pavement decision matrix and deflection summary sheets with summarized rehabilitation options.

TASK 3 – PLANS, SPECIFICATIONS AND ESTIMATES

Phase 3.1 – 60%, 90% and Final PS&E Submittals

PEI will develop project plans for each project that will convey the design intent and treatments selected during the concept level budget meeting. We will use aerial images to develop base sheets and provide details for typical sections, transitions, conforms, digouts, and additional pavement work as necessary. PEI will submit any portion of the maintenance work that requires further clarification in the form of drafted plan views, details, elevations, or cross sections. We will also prepare technical specifications that will incorporate the latest asphalt industry guidelines and criteria. PEI will compile all field quantities collected from Task 2 into individual engineer's estimates by street segment and will provide a summary spreadsheet for each project. This will be considered the 60% submittal.

After the Town has reviewed the 60% submittal, PEI will meet to receive and review the comments. We will use these comments from the Town to refine the plans and technical specifications. This information will be submitted to the Town as the 90% design review.

After the Town reviews the 90% submittal, we will meet with staff to resolve any final outstanding issues and will adjust the contract documents accordingly. A final 100% submittal will follow.

We understand that the Town will provide the front-end conditions for this project.

Our design will match the existing striping patterns on each street.

Task 3 – Deliverables

- The 60% and 90% plan submittals will be submitted in PDF format. Technical specifications will be submitted in Word format.
- Final approved drawing submittals will include one PDF copy of all the drawing sheets, technical specifications in Word format and an engineer's estimate in PDF format.

TASK 4 – CURB RAMP DESIGNS

Prior to beginning any curb ramp designs, PEI will meet with town staff and their CASp (Certified Access Specialist) to review and determine which ramps should be upgraded based on location and surrounding paths of travel. For this project, we estimate that there could be as many as 24 curb ramp locations that need to be upgraded on Claus Drive, Taylor Drive, Scenic Road and Porteous Avenue.

As discussed during our field meeting, the Town is expecting that the curb ramps will be field fit during construction and that a detailed topographic design is not needed as part of this project. To assist the Town with the curb ramps, PEI will collect the quantities necessary to construct each ramp. The quantities will be tabulated and included in the plan set for the contractor to reference.

TASK 5 – BID SUPPORT SERVICES

During the bid period, we will be available to answer any specific questions from the Town concerning the design. Should the need arise, we will prepare an addendum as required. In addition, we will also be available to attend a pre-bid meeting and for help with questions from the contractors during the bidding process and reviewing and evaluating bids. All fees for this task will be on a time and materials bases.

Excluded Work

Our work excludes developing traffic control plans, topographic survey of the roads, right-of-way research, design of C.3 stormwater improvements and LIDs, electronic locating or potholing of existing underground utilities, and providing testing or inspection services during construction. PEI can provide a proposal for any these services at the City's request.

PROPOSED WORK SCHEDULE

We understand that a quick delivery of this project is needed. PEI will discuss the schedule and deliverables once a contract is in place.

PROPOSAL FEE & FEE BREAKDOWN

PEI's fee for the work is based on our experience with similar projects performed for the Town and throughout the state. Our fee for this work is $66,720 and is based on a project with an estimated construction cost of $600,000 for the pavement work only.

The enclosed fee breakdown shows our projected costs for each portion of the project. The individual fees associated with each task will serve as guidelines for progress payments. All fees and costs associated with this project are subject to final negotiation with the Town of Fairfax. Changes in scope may result in additional fees. The enclosed proposal conditions apply.

Please feel free to contact us at (805) 781-2265 with any questions you may have concerning this proposal.

Very truly yours,
PAVEMENT ENGINEERING INC.

Joseph L. Ririe, P.E.
Senior Principal Engineer

Attachments: Estimated Fee Breakdown Schedule
Proposal Conditions

pc: C File
M File

FEE BREAKDOWN SCHEDULE
FOR THE
TOWN OF FAIRFAX
2023 PAVEMENT PROJECT

TASK 1	**PROJECT ADMINISTRATION**			
	Position	**Rate**	**Hours**	**Total**
	Senior Principal Engineer	$260	12	$3,120
	Assistant Engineer	$175	12	$2,100
			Est. Total:	**$5,220**
TASK 2	**PAVEMENT ANALYSIS & PRELIMINARY ENGINEERING**			
Phase 2.1	**Pavement Analysis**			
	Senior Principal Engineer	$260	3	$780
	Assistant Engineer	$175	10	$1,750
	Senior Engineering Technician	$155	4	$620
	Clerical	$80	3	$240
	Dynaflect Operator	$525	4	$2,100
	Coring Technician	$430	4	$1,720
	Dynaflect & Coring Crew Preparation	$155	2	$310
	Mobilization			$4,560
			Est. Total:	**$12,080**
Phase 2.2	**Measure Field Quantities**			
	Assistant Engineer	$175	2	$350
	Senior Engineering Technician	$155	8	$1,240
	Engineering Technician	$140	8	$1,120
			Est. Total:	**$2,710**
Phase 2.3	**Monument Perpetuation**			
	Assistant Engineer	$175	2	$350
	Geo -West - Monument Perpetuation Report			$1,540
			Est. Total:	**$1,890**
Phase 2.4	**Concept Level Budget Analysis**			
	Senior Principal Engineer	$260	1	$260
	Assistant Engineer	$175	4	$700
	Senior Engineering Technician	$155	4	$620
			Est. Total:	**$1,580**

FEE BREAKDOWN SCHEDULE
FOR THE
TOWN OF FAIRFAX
2023 PAVEMENT PROJECT
(Continued)

TASK 3	**PLANS, SPECIFICATIONS and ESTIMATES**			
	60%, 90% and Final PS&E Submittals			
	Senior Principal Engineer	$260	12	$3,120
	Assistant Engineer	$175	44	$7,700
	Senior Engineering Technician	$155	56	$8,680
	Engineering Technician	$140	56	$7,840
			Est. Total:	**$27,340**
TASK 4	**Curb Ramp Designs**			
	Curb Ramps Quantities Only (24 Ramps)			
	Senior Principal Engineer	$260	1	$260
	Assistant Engineer	$175	1	$175
	Senior Engineering Technician	$155	1	$155
		Est. Total Per Ramp		**$590**
	Estimated Number of Ramps			24
		Est. Total		**$14,160**
TASK 5	**BID SUPPORT SERVICES**			
	Senior Principal Engineer	$260	4	$1,040
	Assistant Engineer	$175	4	$700
			Est. Total:	**$1,740**
		Total Estimated Project Fee:		**$66,720**

PROPOSAL CONDITIONS

1. Proposal is valid for thirty days from the date of the proposal.

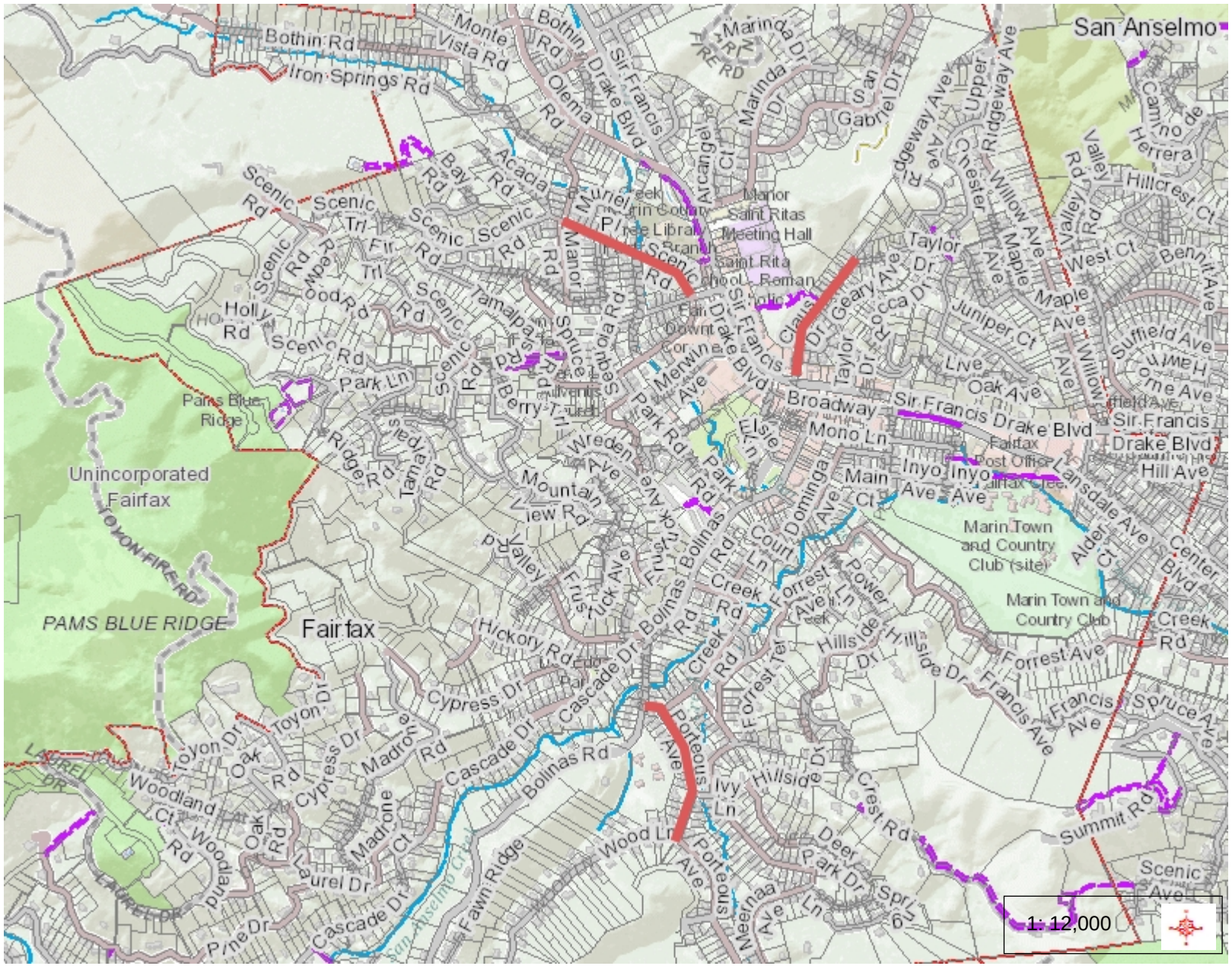
2. All work shall be performed utilizing common methods and practices of the civil engineering profession.

3. Fees for lump sum or unit price proposals will be charged at the quoted price. Fees for engineering services will be charged on a time and materials basis will be charged at the applicable hourly rates.

4. The proposal is based upon providing liability insurance with limits up to $1,000,000.

5. Payment: Invoices will be submitted monthly. All invoices are due within 30 days. Attorney fees or other costs incurred in collecting any delinquent amount shall be paid by the client.

MarinMap GIS Map Report



Legend

- Condominium Common Area
- City
- Community
- Marin County Legal Boundary
- Other Bay Area County
- MMWD Easement
- Parcel Secured

Notes

2,000.0 0 1,000.00 2,000.0 Feet

NAD_1983_HARN_StatePlane_California_III_FIPS_0403_Feet

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.
THIS MAP IS NOT TO BE USED FOR NAVIGATION

ATTACHMENT C

RESOLUTION 23-__

A RESOLUTION OF THE TOWN COUNCIL OF THE TOWN OF FAIRFAX TO AUTHORIZE THE TOWN MANAGER TO EXECUTE AN AMENDMENT IN THE AMOUNT OF $66,720 TO THE CONTRACT WITH PAVEMENT ENGINEERING INC, (PEI) TO DEVELOP BID DOCUMENTS INCLUDING PLANS AND SPECIFICATIONS FOR PROPOSED ROADWAY IMPROVEMENTS IN FY22/23

WHEREAS, every two years, the Town applies for and receives a grant from the State of California to assess the pavement condition of public roads, to project the costs of needed repairs, and to assist the Town in planning how it will maintain public roads; and

WHEREAS, the attached report provides an assessment of each street based on the standardized Pavement Condition Index (PCI) and provides a computer-generated recommendation of the funding needed to achieve a desired PCI rating for the Town; and

WHEREAS, the Town Council was provided a draft copy of the PTAP report at their regularly scheduled meeting on February 1, 2023 to allow for the Council's and the public's review pending a larger discussion of its contents at a later meeting and to discuss the Department of Public Works plans for a road improvement project in FY 22-23; and

WHEREAS, Staff noted in the Feb 1, 2023 Staff Report that it was working with our consultant PEI to identify projects for a 5 year plan and to proceed to the next step of preparing necessary Plans and Specifications for immediately identified projects; and

WHEREAS, Staff and its consultant have identified three road segments for the current fiscal year of 2023 based upon observed conditions of the roadways, their utility to the community and their dispersed locations within the Town for repair and rehabilitation and that the roads were also selected as they do not have significant slope stabilization repair requirements that would need to be addressed prior to work or have known significant storm drainage deficiencies for which the Town is responsible; and

WHEREAS, the proposed road segments are:

- Scenic Road between Azalea Avenue and Manor Road
- Porteous Ave between Bolinas Road and Wood Lane
- Claus Drive from Sir Francis Drake Blvd and Burdette/Taylor Lane; and

WHEREAS, the next step for Staff and the Council is to authorize PEI to develop the technical construction drawings, plans and specifications necessary to complete a Bid Package that can be issued to the marketplace in the Spring of 2023 with anticipated construction start dates for the Summer and Fall of 2023 for the identified segments; and

ATTACHMENT D

WHEREAS, PEI has submitted a proposal for $66,720 to provide the Town with the initial investigation, preparation of the Bid Documents and Bid Support; and

WHEREAS, funds are available in the CIP Street Resurfacing and Repair General Ledger fund 53-887 and Selected Streets Resurfacing and Repair fund 51-810; and

NOW, THEREFORE, BE IT HEREBY RESOLVED, that the Town Council of Fairfax has received and discussed the report on Town Draft Pavement Condition Index (PCI) Report, known as PTAP-23 (Pavement Technical Assistance Program) and hereby authorizes the Town Manager to execute an amendment, in an amount not to exceed $66,720 and in a form to be approved by the Town Attorney, to the contract with Pavement Engineering Inc (PEI) to develop Bid Documents including Plans and Specifications for proposed Roadway Improvements in FY 22-23.

The foregoing resolution was adopted at a regular meeting of the Town Council of the Town of Fairfax held in said Town on the 1st day of March 2023, by the following vote:

AYES:
NOES:
ABSENT:

_____
Chance Cutrano, Mayor

Attest:

_____
Michele Gardner, Town Clerk

ATTACHMENT D

1. **PARTIES AND DATE.**

This Engineering Services Agreement ("Agreement") is made and entered into as February 14, 2022 by and between the Town of Fairfax, a municipal corporation organized and operating under the laws of the State of California with its principal place of business at 142 Bolinas Rd., Fairfax, California 94930 ("Town"), and PAVEMENT ENGINEERING, INC., a California corporation with its principal place of business at 3485 Sacramento Drive, Suite A, San Luis Obispo, CA 93401 (hereinafter referred to as "Designer"). Town and Engineer are sometimes individually referred to herein as "Party" and collectively as "Parties."

2. **RECITALS.**

2.1. Town. Town is a municipal corporation organized under the laws of the State of California, with power to contract for services necessary to achieve its purpose.

2.2. Engineer. Engineer desires to perform and assume responsibility for the provision of certain professional engineering services required by the Town on the terms and conditions set forth in this Agreement. Engineer warrants that it is fully licensed, qualified, and willing to perform the services required by this Agreement; provided, however, that if Engineer is a corporation or other organization, the Project Engineer designated pursuant to Section 3.2, and not the Engineer itself, shall be fully licensed to practice as an architect and/or engineer in the State of California.

2.3. Project. Town desires to engage Engineer to render such services for the identification of priority street lists for pavement improvement projects ("Project") as set forth in this Agreement.

3. **TERMS**

3.1. **Employment of Designer.**

3.1.1. Scope of Services. Engineer promises and agrees to furnish to Town all labor, materials, tools, equipment, services, and incidental and customary work necessary to fully and adequately supply the professional engineering and related services necessary for the full and adequate completion of the Project consistent with the provisions of this Agreement (hereinafter referred to as "Services"). The Services are more particularly described throughout this Agreement, including Exhibit "A" attached hereto and incorporated herein by reference. All Services shall be subject to, and performed in accordance with, this Agreement, any exhibits attached hereto and incorporated herein by reference, and all applicable local, state and federal laws, rules and regulations. All Services performed by Engineer shall be subject to the sole and discretionary approval of the Town, which approval shall not be unreasonably withheld.

3.1.2. Term. The term of this Agreement shall be from January 6, 2022 to December 31, 2022, unless earlier terminated as provided herein. The Town reserves the right to review the Designer's performance at the end of each year and cancel all or part of the Agreement.

3.2. **Project Designer; Key Personnel.**

3.2.1. Project Designer. Engineer shall name a specific individual to act as

Project Designer, subject to the approval of Town Engineer hereby designates **Joseph L. Ririe (License No. C52735)** to act as the Project Engineer for the Project. The Project Engineer shall: (1) maintain oversight of the Services; (2) have full authority to represent and act on behalf of the Engineer for all purposes under this Agreement; (3) supervise and direct the Services using his or her best skill and attention; (4) be responsible for the means, methods, techniques, sequences and procedures used for the Services; (5) adequately coordinate all portions of the Services; and (6) act as principal contact with Town and all contractors, consultants, engineers and inspectors on the Project. Any change in the Project Engineer shall be subject to the Town's prior written approval, which approval shall not be unreasonably withheld. The new Project Engineer shall be of at least equal competence as the prior Project Designer. In the event that Town and Engineer cannot agree as to the substitution of a new Project Designer, Town shall be entitled to terminate this Agreement for cause.

3.3. **Hiring of Consultants and Personnel.**

3.3.1. Right to Hire or Employ. Engineer shall have the option, unless Town objects in writing after notice, to employ at its expense architects, engineers, experts or other consultants qualified and licensed to render services in connection with the planning and/or administration of the Project, and to delegate to them such duties as Engineer may delegate without relieving Engineer from administrative or other responsibility under this Agreement. Engineer shall be responsible for the coordination and cooperation of Designer's architects, engineers, experts or other consultants. All consultants, including changes in consultants, shall be subject to approval by Town in its sole and reasonable discretion. Engineer shall notify Town of the identity of all consultants at least fourteen (14) days prior to their commencement of work to allow Town to review their qualifications and approve to their participation on the Project in its sole and reasonable discretion.

3.3.2. Qualification and License. All architects, engineers, experts and other consultants retained by Engineer in performance of this Agreement shall be qualified to perform the Services assigned to them, and shall be licensed to practice in their respective professions, where required by law.

3.3.3. Standards and Insurance. All architects, engineers, experts and other consultants hired by Engineer shall be required to meet all of the same standards and insurance requirements set forth in this Agreement, unless other standards or requirements are approved by the Town in writing. Unless changes are approved in writing by the Town, Designer's agreements with its consultants shall contain a provision making them subject to all provisions stipulated in this Agreement.

3.3.4. Assignments or Staff Changes. Engineer shall promptly obtain written Town approval of any assignment, reassignment or replacement of such architects, engineers, experts and consultants, or of other staff changes of key personnel working on the Project. As provided in the Agreement, any changes in Designer's consultants and key personnel shall be subject to approval by Town.

3.3.5. Draftsman and Clerical Support. Draftsmen and clerical personnel shall be retained by Engineer at Designer's sole expense.

3.4. **Standard of Care.**

3.4.1. Standard of Care. Engineer shall perform all Services under this Agreement in a skillful and competent manner, consistent with the standards generally recognized as being employed by professionals qualified to perform the Services in the

same discipline in the State of California, and shall be responsible to Town for damages sustained by the Town and delays to the Project as specified in the indemnification provision of this Agreement. Without limiting the foregoing, Engineer shall be fully responsible to the Town for any increased costs incurred by the Town as a result of any such delays in the engineering or construction of the Project. Engineer represents and maintains that it is skilled in the professional calling necessary to perform the Services. Engineer warrants and represents that all of its employees, architects, engineers, experts and other consultants shall have sufficient skill and experience to perform the Services assigned to them. Finally, Engineer represents that it, its employees, architects, engineers, experts and other consultants have all licenses, permits, qualifications and approvals of whatever nature that are legally required to perform the Services assigned to or rendered by them and that such licenses and approvals shall be maintained throughout the term of this Agreement. As provided for in the indemnification provisions of this Agreement, Engineer shall perform, at its own cost and expense and without reimbursement from the Town, any services necessary to correct errors or omissions which are caused by the Designer's failure to comply with the standard of care provided for herein.

3.4.2. Performance of Employees. Any employee or consultant who is determined by the Town to be uncooperative, incompetent, a threat to the adequate or timely completion of the Project, a threat to the safety of persons or property, or any employee or consultant who fails or refuses to perform the Services in a manner acceptable to the Town, shall be promptly removed from the Project by the Engineer and shall not be re-employed to perform any of the Services or to work on the Project.

3.5. **Laws and Regulations.**

3.5.1. Knowledge and Compliance. Engineer shall keep itself fully informed of and in compliance with all applicable local, state and federal laws, rules and regulations in any manner affecting the performance of the Services or the Project, and shall give all notices required of the Engineer by law. Engineer shall be liable, pursuant to the standard of care and indemnification provisions of this Agreement, for all violations of such laws and regulations in connection with its Services. If the Engineer performs any work knowing it to be contrary to such laws, rules and regulations, Engineer shall be solely responsible for all costs arising therefrom. Engineer shall defend, indemnify and hold Town, its officials, officers, employees and agents free and harmless, pursuant to the indemnification provisions of this Agreement, from any claim or liability arising out of any failure or alleged failure to comply with such laws, rules or regulations.

3.5.2. Drawings and Specifications. Engineer shall cause all drawings and specifications to conform to any applicable requirements of federal, state and local laws, rules and regulations, including the Uniform Building Code, in effect as of the time the drawings and specifications are prepared or revised during the latest phase of the Services described in Exhibit "A" attached hereto. Any significant revisions made necessary by changes in such laws, rules and regulations after this time may be compensated as Additional Services which were not known or reasonably should not have been known by Designer. Engineer shall cause the necessary copies of such drawings and specifications to be filed with any governmental bodies with approval jurisdiction over the Project, in accordance with the Services described in Exhibit "A" attached hereto. For the preparation of all such drawings and specifications, the Engineer shall use Computer Aided Design Drafting ("CADD") (e.g., AutoCAD) or other technology acceptable to the Engineer and Town.

3.5.3. Americans with Disabilities Act. [Intentionally Deleted]

3.5.4. Permits, Approvals and Authorizations. Engineer shall provide Town with a list of all permits, approvals or other authorizations required for the Project from all federal, state or local governmental bodies with approval jurisdiction over the Project. Engineer shall then assist the Town in obtaining all such permits, approvals and other authorizations. The costs of such permits, approvals and other authorizations shall be paid by the Town.

3.5.5. Water Quality Management and Compliance. [Intentionally Deleted]

3.6. **Independent Contractor.**

3.6.1. Control and Payment of Subordinates. Town retains Engineer on an independent contractor basis and Engineer is not an employee of Town. Engineer is not an employee for state tax, federal tax or any other purpose, and is not entitled to the rights or benefits afforded to Town's employees. Any additional personnel performing the Services under this Agreement on behalf of Engineer shall also not be employees of Town, and shall at all times be under Designer's exclusive direction and control. Engineer shall pay all wages, salaries, and other amounts due such personnel in connection with their performance of Services under this Agreement and as required by law. Engineer shall be responsible for all reports and obligations respecting such additional personnel, including, but not limited to: social security taxes, income tax withholding, unemployment insurance, disability insurance, and workers' compensation insurance.

3.7. **Schedule of Services.**

3.7.1. Engineer Services. Engineer shall fully and adequately complete the Services described in this Agreement and in Exhibit "A" attached hereto and incorporated herein by reference.

3.7.2. Timely Performance Standard. Engineer shall perform all Services hereunder as expeditiously as is consistent with professional skill and care, as well as the orderly progress of the Project work so as not to be the cause, in whole or in part, of delays in the completion of the Project or in the achievement of any Project milestones, as provided herein. Specifically, Engineer shall perform its Services so as to allow for the full and adequate completion of the Project within the time required by the Town and within any completion schedules adopted for the Project. Engineer agrees to coordinate with Town's staff, contractors and consultants in the performance of the Services, and shall be available to Town's staff, contractors and consultants at all reasonable times.

3.7.3. Performance Schedule. Engineer shall prepare an estimated time schedule for the performance of Designer's Services, to be adjusted as the Project proceeds. Such schedule shall be subject to the Town's review and approval, which approval shall not be unreasonably withheld, and shall include allowances for periods of time required for Town's review and approval of submissions, and for approvals of authorities having jurisdiction over Project approval and funding. If Town and Engineer cannot mutually agree on a performance schedule, Town shall have the authority to immediately terminate this Agreement. The schedule shall not be exceeded by Engineer without the prior written approval of Town. If the Designer's Services are not completed within the time provided by the agreed upon performance schedule, or any milestones established therein, it is understood, acknowledged and agreed that the Town will suffer damage for which the Engineer will be responsible pursuant to the indemnification provision of this Agreement.

3.7.4. Excusable Delays. Any delays in Designer's work caused by the following shall be added to the time for completion of any obligations of Designer: (1) the actions of Town or its employees; (2) the actions of those in direct contractual relationship with Town; (3) the actions of any governmental agency having jurisdiction over the Project; (4) the actions of any parties not within the reasonable control of the Designer; and (5) any act of God or other unforeseen occurrence not due to any fault or negligence on the part of Designer. Neither the Town nor the Engineer shall be liable for damages, liquidated or otherwise, to the other on account of such delays.

3.7.5. Request for Excusable Delay Credit. The Engineer shall, within fifteen (15) calendar days of the beginning of any excusable delay, notify the Town in writing of the causes of delay (unless Town grants in writing a further period of time to file such notice prior to the date of final payment under the Agreement). Town will then ascertain the facts and the extent of the delay, and grant an extension of time for completing the Services when, in its sole judgment, the findings of fact justify such an extension. The Town's findings of fact thereon shall be final and conclusive on the parties. Extensions of time shall apply only to that portion of the Services affected by the delay and shall not apply to other portions of the Services not so affected. The sole remedy of Engineer for extensions of time shall be an extension of the performance time at no cost to the Town. If Additional Services are required as a result of an excusable delay, the parties shall mutually agree thereto pursuant to the Additional Services provision of this Agreement. Should Engineer make an application for an extension of time, Engineer shall submit evidence that the insurance policies required by this Agreement remain in effect during the requested additional period of time.

3.8. **Additional Engineer Services.**

3.8.1. Request for Services. At Town's request, Engineer may be asked to perform services not otherwise included in this Agreement, not included within the basic services listed in Exhibit "A" attached hereto, and/or not customarily furnished in accordance with generally accepted engineering practice.

3.8.2. Definition. As used herein, "Additional Services" mean: (1) any work which is determined by Town to be necessary for the proper completion of the Project, but which the parties did not reasonably anticipate would be necessary for the Engineer to perform at the execution of this Agreement; or (2) any work listed as Additional Services in Exhibit "A" attached hereto. Engineer shall not perform, nor be compensated for, Additional Services without prior written authorization from Town and without an agreement between the Town and Engineer as to the compensation to be paid for such services. Town shall pay Engineer for any approved Additional Services, pursuant to the compensation provisions herein, so long as such services are not made necessary through the fault of Engineer pursuant to the indemnification provision of this Agreement.

3.8.3. Examples of Additional Services. Such Additional Services shall not include any reengineering or revisions to drawings, specifications or other documents when such revisions are necessary in order to bring such documents into compliance with applicable laws, rules, regulations or codes of which Engineer was aware or should have been aware pursuant to the laws and regulations provision of this Agreement above. Such Additional Services may include, but shall not be limited to:

(a) Separately Bid Portions of Project. Plan preparation and/or administration of work on portions of the Project separately bid.

(b) Furniture and Interior Design. Assistance to Town, if requested, for

the selection of moveable furniture, equipment or articles which are not included in the Construction Documents.

(c) Fault of Contractor. Services caused by delinquency, default or insolvency of contractor, or by major defects in the work of the contractor, provided that any such services made necessary by the failure of Engineer to detect and report such matters when it reasonably should have done so shall not be compensated.

(d) Inconsistent Approvals or Instructions. Revisions in drawings, specifications or other documents when such revisions are inconsistent with written approvals or instructions previously given and are due to causes beyond the control of Designer.

(e) Legal Proceedings. Serving as an expert witness on Town's behalf or attending legal proceedings to which the Engineer is not a party.

(f) Damage Repair. Supervision of repair of damages to any structure.

(g) Extra Environmental Services. Additional work required for environmental conditions (e.g. asbestos or site conditions) not already contemplated within the Designer's services for the Project.

3.9. **Town Responsibilities.** Town's responsibilities shall include the following:

3.9.1. Data and Information. Town shall make available to Engineer all necessary data and information concerning the purpose and requirements of the Project, including scheduling and budget limitations, objectives, constraints and criteria. As part of the budget limitation information, the Town shall provide the Engineer with a preliminary construction budget ("Town's Preliminary Construction Budget").

3.9.2. Project Survey. If required pursuant to the scope of the Project and if requested by Designer, Town shall furnish Engineer with, or direct Engineer to procure at Town's expense, a survey of the Project site prepared by a registered surveyor or civil engineer, any other record documents which shall indicate existing structures, land features, improvements, sewer, water, gas, electrical and utility lines, topographical information and boundary dimensions of the site, and any other such pertinent information.

3.9.3. Bid Phase. Distribute Construction Documents to bidders and conduct the opening and review of bids for the Project.

3.9.4. Testing. Retain consultant(s) to conduct chemical, mechanical, soils, geological or other tests required for proper engineering of the Project, and furnish such surveys, borings, test pits, and other tests as may be necessary to reveal conditions of the site which must be known to determine soil condition or to ensure the proper development of the required drawings and specifications.

3.9.5. Required Inspections and Tests. Retain consultant(s) to conduct materials testing and inspection or environmental/hazardous materials testing and inspection pursuant to any applicable laws, rules or regulations.

3.9.6. Fees of Reviewing or Licensing Agencies. Directly pay or reimburse the payment of all fees required by any reviewing or licensing agency, or other agency having approval jurisdiction over the Project.

3.9.7. Town's Representative. The Town hereby designates the Town Manager, or his or her designee, to act as its representative for the performance of this Agreement ("Town's Representative"). Town's Representative shall have the power to act on behalf of the Town for all purposes under this Agreement. The Town Manager hereby designates **Jonathon Goldman, PE, Interim Public Works Director**, or his or her designee, as the Town's contact for the implementation of the Services hereunder. Engineer shall not accept direction or orders from any person other than the Town's Representative or his or her designee.

3.9.8. Review and Approved Documents. Review all documents submitted by Designer, including change orders and other matters requiring approval by the Town Council or other officials. Town shall advise Engineer of decisions pertaining to such documents within a reasonable time after submission, so as not to cause unreasonable delay as provided in the excusable delay provisions of this Agreement above.

3.10. **Compensation.**

3.10.1. Designer's Compensation for Basic Services. Town shall pay to Designer, for the performance of all Services rendered under this Agreement, the total not to exceed amount of Eighteen Thousand Seven Hundred and Twenty Dollars ($**18,720)**("Total Compensation"). This Total Compensation amount shall be based upon, and may be adjusted according to, the fee schedule and related terms and conditions attached hereto as Exhibit "B" and incorporated herein by reference. The Total Compensation, as may be adjusted upon mutual agreement, shall constitute complete and adequate payment for Services under this Agreement.

3.10.2. Payment for Additional Services. At any time during the term of this Agreement, Town may request that Engineer perform Additional Services. As used herein, Additional Services means any work which is determined by Town to be necessary for the proper completion of the Project, but which the Parties did not reasonably anticipate would be necessary at the execution of this Agreement. Any additional work in excess of this amount must be approved by the Town. If authorized, such Additional Services will be compensated at the rates and in the manner set forth in Exhibit "C" attached hereto and incorporated herein by reference, unless a flat rate or some other form of compensation is mutually agreed upon by the parties. If Town requires Engineer to hire consultants to perform any Additional Services, Engineer shall be compensated therefore at the rates and in the manner set forth in Exhibit "C" attached hereto and incorporated herein by reference, unless a flat rate or some other form of compensation is mutually agreed upon by the parties. Town shall have the authority to review and approve the rates of any such consultants. In addition, Engineer shall be reimbursed for any expenses incurred by such consultants pursuant to the terms and conditions of Section 3.10.3.

3.10.3. Reimbursable Expenses. Reimbursable expenses are in addition to compensation for the Services and Additional Services. Engineer shall not be reimbursed for any expenses unless authorized in writing by Town, which approval may be evidenced by inclusion in Exhibit "C" attached hereto. Such reimbursable expenses shall include only those expenses which are reasonably and necessarily incurred by Engineer in the interest of the Project. Engineer shall be required to acquire prior written consent in order to obtain reimbursement for the following: (1) extraordinary transportation expenses incurred in connection with the Project; (2) out-of-town travel expenses incurred in connection with the Project; (3) fees paid for securing approval of authorities having jurisdiction over the Project; (4) bid document duplication costs in excess of $1,000.00; and (5) other costs, fees and expenses in excess of $1,000.00.

3.10.4. Payment to Designer. Designer's compensation and reimbursable expenses shall be paid by Town to Engineer no more often than monthly. Such periodic payments shall be made based upon the percentage of work completed, and in accordance with the phasing and funding schedule provided in Exhibit "B" and the compensation rates indicated in Exhibit "C" attached hereto and incorporated herein by reference. In order to receive payment, Engineer shall present to Town an itemized statement which indicates Services performed, percentage of Services completed, method for computing the amount payable, and the amount to be paid. The statement shall describe the amount of Services provided since the initial commencement date, or since the start of the subsequent billing periods, as appropriate, through the date of the statement, as well as those expenses for which reimbursement is requested for that statement period. The amount paid to Engineer shall never exceed the percentage amounts authorized by the phasing and funding schedule located in Exhibit "B" attached hereto. Town shall, within thirty (30) days of receiving such statement, review the statement and pay all approved charges thereon pursuant to the provisions of Civil Code Section 3320. Disputed amounts shall be resolved by the parties in a mutually agreeable manner.

Payments made for Additional Services shall be made in installments, not more often than monthly, proportionate to the degree of completion of such services or in such other manner as the parties shall specify when such services are agreed upon, and in accordance with any authorized fee or rate schedule. In order to receive payment, Engineer shall present to Town an itemized statement which indicates the Additional Services performed, percentage of Additional Services completed, method for computing the amount payable, and the amount to be paid. The statement shall describe the amount of Additional Services provided since the initial commencement date, or since the start of the subsequent billing periods, as appropriate, through the date of the statement. Town shall, within thirty (30) days of receiving such statement, review the statement and pay all approved charges thereon pursuant to the provisions of Civil Code Section 3320. Disputed amounts shall be resolved by the parties in a mutually agreeable manner.

Upon cancellation or termination of this Agreement, Engineer shall be compensated as set forth in the termination provision herein.

3.10.5. Withholding Payment to Designer. The Town may withhold payment, in whole or in part, to the extent reasonably necessary to protect the Town from claims, demands, causes of action, costs, expenses, liabilities, losses, damages, or injuries of any kind to the extent arising out of or caused by the negligence, recklessness, or willful misconduct protected under the indemnification provisions of this Agreement. Failure by Town to deduct any sums from a progress payment shall not constitute a waiver of the Town's right to such sums. The Town may keep any moneys which would otherwise be payable at any time hereunder and apply the same, or so much as may be necessary therefor, to the payment of any expenses, losses, or damages as determined by the Town, incurred by the Town for which Engineer is liable under the Agreement or state law. Payments to the Engineer for compensation and reimbursable expenses due shall not be contingent on the construction, completion or ultimate success of the Project. Payment to the Engineer shall not be withheld, postponed, or made contingent upon receipt by the Town of offsetting reimbursement or credit from parties not within the Designer's reasonable control.

3.10.6. Prevailing Wages. Engineer is aware of the requirements of California Labor Code Sections 1720, et seq., and 1770, et seq., as well as California Code of Regulations, Title 8, Section 16000, et seq., ("Prevailing Wage Laws"), which require the payment of prevailing wage rates and the performance of other requirements on certain

"public works" and "maintenance" projects. If the Services are being performed as part of an applicable "public works" or "maintenance" project, as defined by the Prevailing Wage Laws, and if the total compensation is $1,000 or more, Engineer agrees to fully comply with and to require its consultants to fully comply with such Prevailing Wage Laws. Town shall provide Engineer with a copy of the prevailing rates of per diem wages in effect at the commencement of this Agreement. Engineer shall make copies of the prevailing rates of per diem wages for each craft, classification or type of worker needed to execute the Services available to interested parties upon request, and shall post copies at the Designer's principal place of business and at the Project site. Engineer shall defend, indemnify and hold the Town, its officials, officers, employees and agents free and harmless from any claims, liabilities, costs, penalties or interest arising out of any failure or alleged failure of the Engineer or its consultants to comply with the Prevailing Wage Laws. It shall be mandatory upon the Engineer and all subconsultants to comply with all California Labor Code provisions, which include but are not limited to prevailing wages (Labor Code Sections 1771, 1774 and 1775), employment of apprentices (Labor Code Section 1777.5), certified payroll records (Labor Code Sections 1771.4 and 1776), hours of labor (Labor Code Sections 1813 and 1815) and debarment of contractors and subcontractors (Labor Code Section 1777.1). The requirement to submit certified payroll records directly to the Labor Commissioner under Labor Code section 1771.4 shall not apply to work performed on a public works project that is exempt pursuant to the small project exemption specified in Labor Code Section 1771.4.

3.10.7. Registration. If the Services are being performed as part of an applicable "public works" or "maintenance" project, then pursuant to Labor Code Sections 1725.5 and 1771.1, the Engineer and all subconsultants performing such Services must be registered with the Department of Industrial Relations. Engineer shall maintain registration for the duration of the Project and require the same of any subconsultants, as applicable. Notwithstanding the foregoing, the contractor registration requirements mandated by Labor Code Sections 1725.5 and 1771.1 shall not apply to work performed on a public works project that is exempt pursuant to the small project exemption specified in Labor Code Sections 1725.5 and 1771.1.

3.10.8. Labor Compliance. This Project may also be subject to compliance monitoring and enforcement by the Department of Industrial Relations. It shall be Designer's sole responsibility to comply with all applicable registration and labor compliance requirements. Any stop orders issued by the Department of Industrial Relations against Engineer or any subcontractor that affect Designer's performance of Services, including any delay, shall be Designer's sole responsibility. Any delay arising out of or resulting from such stop orders shall be considered Engineer caused delay and shall not be compensable by the Town. Engineer shall defend, indemnify and hold the Town, its officials, officers, employees and agents free and harmless from any claim or liability arising out of stop orders issued by the Department of Industrial Relations against Engineer or any subcontractor.

3.11. **Notice to Proceed.**

Engineer shall not proceed with performance of any Services under this Agreement unless and until the Ton provides a written notice to proceed.

3.12. **Termination, Suspension and Abandonment.**

3.12.1. Grounds for Termination; Designer's Termination for Cause. Town hereby reserves the right to suspend or abandon, at any time and for any reason, all or any portion of the Project and the construction work thereon, or to terminate this Agreement at

any time with or without cause. Engineer shall be provided with at least seven (7) days advanced written notice of such suspension, abandonment or termination. In the event of such suspension, abandonment or termination, Engineer shall be paid for Services and reimbursable expenses rendered up to the date of such suspension, abandonment or termination, pursuant to the schedule of payments provided for in this Agreement, less any claims against or damages suffered by Town as a result of the default, if any, by Designer. Engineer hereby expressly waives any and all claims for damages or compensation arising under this Agreement, except as set forth herein, in the event of such suspension, abandonment or termination. Engineer may terminate this Agreement for substantial breach of performance by the Town such as failure to make payment to Engineer as provided in this Agreement.

3.12.2. Town's Suspension of Work.

If Designer's Services are suspended by Town, Town may require Engineer to resume such Services within ninety (90) days after written notice from Town. When the Project is resumed, the Total Compensation and schedule of Services shall be equitably adjusted upon mutual agreement of the Town and Designer.

3.12.3. Documents and Other Data. Upon suspension, abandonment or termination, Engineer shall provide to Town all preliminary studies, sketches, working drawings, specifications, computations, and all other Project Documents, as defined below, to which Town would have been entitled at the completion of Designer's Services under this Agreement. Upon payment of the amount required to be paid to Engineer pursuant to the termination provisions of this Agreement, Town shall have the rights, as provided in this Agreement hereinafter, to use such Project Documents prepared by or on behalf of Engineer under this Agreement. Engineer shall make such documents available to Town upon request and without additional compensation other than as may be approved as a reimbursable expense.

3.12.4. Employment of other Designers. In the event this Agreement is terminated in whole or in part as provided herein, Town may procure, upon such terms and in such manner as it may determine appropriate, services similar to those terminated.

3.13. **Ownership and Use of Documents; Confidentiality.**

3.13.1. Ownership. All plans, specifications, original or reproducible transparencies of working drawings and master plans, preliminary sketches, engineering presentation drawings, structural computations, estimates and any other documents prepared pursuant to this Agreement, including, but not limited to, any other works of authorship fixed in any tangible medium of expression such as writings, physical drawings and data magnetically or otherwise recorded on computer diskettes (hereinafter referred to as the "Project Documents") shall be and remain the property of Town. Although the official copyright in all Project Documents shall remain with the Engineer or other applicable subcontractors or consultants, the Project Documents shall be the property of Town whether or not the work for which they were made is executed or completed. Within thirty (30) calendar days following completion of the Project, Engineer shall provide to Town copies of all Project Documents required by Town. In addition, Engineer shall retain copies of all Project Documents on file for a minimum of fifteen (15) years following completion of the Project, and shall make copies available to Town upon the payment of reasonable duplication costs. Before destroying the Project Documents following this retention period, Engineer shall make a reasonable effort to notify Town and provide Town with the opportunity to obtain the documents. Notwithstanding the foregoing, Town

acknowledges that Engineer will use the StreetSaver database in connection with the work on the Project and Engineer makes no representations or warranties regarding Town's continued use of the program to access engineering materials which is subject to the terms and conditions of the StreetSaver program.

3.13.2. Right to Use. Engineer grants to Town the right to use and reuse all or part of the Project Documents, at Town's sole discretion and with no additional compensation to Designer, for the following purposes:

(a) The construction of all or part of this Project.

(b) The repair, renovation, modernization, replacement, reconstruction or expansion of this Project at any time;

(c) The construction of another project by or on behalf of the Town for its ownership and use;

Town is not bound by this Agreement to employ the services of Engineer in the event such documents are used or reused for these purposes. Town shall be able to use or reuse the Project Documents for these purposes without risk of liability to the Engineer or third parties with respect to the condition of the Project Documents, and the use or reuse of the Project Documents for these purposes shall not be construed or interpreted to waive or limit Town's right to recover for latent defects or for errors or omissions of the Designer.

Any use or reuse by Town of the Project Documents on any project other than this Project without employing the services of Engineer shall be at Town's own risk with respect to third parties. If Town uses or reuses the Project Documents on any project other than this Project, it shall remove the Designer's seal from the Project Documents and hold harmless Engineer and its officers, directors, agents and employees from claims arising out of the negligent use or re-use of the Project Documents on such other project.

3.13.3. License. This Agreement creates a non-exclusive and perpetual license for Town to copy, use, modify or reuse any and all Project Documents and any intellectual property rights therein. Engineer shall require any and all subcontractors and consultants to agree in writing that Town is granted a non-exclusive and perpetual license for the work of such subcontractors or consultants performed pursuant to this Agreement.

3.13.4. Right to License. Engineer represents and warrants that Engineer has the legal right to license any and all copyrights, designs and other intellectual property embodied in the Project Documents that Engineer prepares or causes to be prepared pursuant to this Agreement. Engineer shall indemnify and hold Town harmless pursuant to the indemnification provisions of this Agreement for any breach of this Section. Engineer makes no such representation and warranty in regard to previously prepared designs, plans, specifications, studies, drawings, estimates or other documents that were prepared by engineering professionals other than Engineer and provided to Engineer by Town.

3.13.5. Confidentiality. All Project Documents, either created by or provided to Engineer in connection with the performance of this Agreement, shall be held confidential by Engineer to the extent they are not subject to disclosure pursuant to the Public Records Act. All Project Documents shall not, without the written consent of Town, be used or reproduced by Engineer for any purposes other than the performance of the Services. Engineer shall not disclose, cause or facilitate the disclosure of the Project

Documents to any person or entity not connected with the performance of the Services or the Project. Nothing furnished to Engineer which is otherwise known to Engineer or is generally known, or has become known, to the related industry shall be deemed confidential. Engineer shall not use Town's name or insignia, photographs of the Project, or any publicity pertaining to the Services or the Project in any magazine, trade paper, newspaper, television or radio production or other similar medium without the written consent of Town.

3.14. **Indemnification.**

3.14.1. To the fullest extent permitted by law, Engineer shall defend (with counsel of Town's choosing), indemnify and hold the Town, its officials, officers, employees, volunteers, and agents free and harmless from any and all claims, demands, causes of action, costs, expenses, liability, loss, damage or injury of any kind, in law or equity, to property or persons, including wrongful death, in any manner arising out of, pertaining to, or incident to any acts, errors or omissions, or willful misconduct of Designer, its officials, officers, employees, subcontractors, consultants or agents in connection with the performance of the Designer's services, the Project or this Agreement, including without limitation the payment of all damages, expert witness fees and attorney's fees and other related costs and expenses. Designer's obligation to indemnify shall not be restricted to insurance proceeds, if any, received by Designer, the Town, its officials, officers, employees, agents, or volunteers.

3.14.2. If Designer's obligation to defend, indemnify, and/or hold harmless arises out of Designer's performance of "design professional" services (as that term is defined under Civil Code section 2782.8), then, and only to the extent required by Civil Code section 2782.8, which is fully incorporated herein, Designer's indemnification obligation shall be limited to claims that arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Designer, and, upon Engineer obtaining a final adjudication by a court of competent jurisdiction, Designer's liability for such claim, including the cost to defend, shall not exceed the Designer's proportionate percentage of fault.

3.15. **Insurance.** Engineer shall not commence work under this Agreement until it has provided evidence satisfactory to the Town that it has secured all insurance required under Exhibit "D" (Insurance Requirements), attached hereto and incorporated herein by this reference. In addition, Engineer shall not allow any subconsultant to commence work on any subcontract until it has provided evidence satisfactory to the Town that the subconsultant has secured all insurance required therein.

3.16. **Records.**

Engineer shall maintain complete and accurate records with respect to all costs and expenses incurred under this Agreement. All such records shall be clearly identifiable. Engineer shall allow a representative of Town during normal business hours to examine, audit, and make transcripts or copies of such records and any other documents created pursuant to this Agreement. Engineer shall allow inspection of all work, data, documents, proceedings, and activities related to the Agreement for a period of five (5) years from the date of final payment under this Agreement.

3.17. **Standardized Manufactured Items.**

Engineer shall cooperate and consult with Town in the use and selection of manufactured items on the Project, including but not limited to, paint, hardware, plumbing, mechanical

and electrical equipment, fixtures, roofing materials and floor coverings. All such manufactured items shall be standardized to Town's criteria to the extent such criteria do not interfere with building design.

3.18. **Limitation of Agreement.**

This Agreement is limited to and includes only the work included in the Project described herein. Any additional or subsequent construction at the site of the Project, or at any other Town site, will be covered by, and be the subject of, a separate agreement for engineering services between Town and the Engineer chosen therefor by Town.

3.19. **Mediation.**

Disputes arising from this Agreement may be submitted to mediation if mutually agreeable to the parties hereto. The type and process of mediation to be utilized shall be subject to the mutual agreement of the parties.

3.20. **Successors and Assigns.**

This Agreement shall be binding upon and shall inure to the benefit of the successors in interest, executors, administrators and assigns of each party to this Agreement. However, Engineer shall not assign or transfer by operation of law or otherwise any or all of its rights, burdens, duties or obligations without the prior written consent of Town. Any attempted assignment without such consent shall be invalid and void.

3.21. **Asbestos Certification.**

Engineer shall certify to Town, in writing and under penalty of perjury, that to the best of its knowledge, information and belief no asbestos-containing material or other material deemed to be hazardous by the state or federal government was specified as a building material in any construction document that the Engineer prepares for the Project. Engineer shall require all consultants who prepare any other documents for the Project to submit the same written certification. Engineer shall also assist the Town in ensuring that contractors provide Town with certification, in writing and under penalty of perjury, that to the best of their knowledge, information and belief no material furnished, installed or incorporated into the Project contains asbestos or any other material deemed to be hazardous by the state or federal government. These certifications shall be part of the final Project submittal. Engineer shall include statements in its specifications that materials containing asbestos or any other material deemed to be hazardous by the state or federal government are not to be included.

3.22. **No Third Party Rights.**

This Agreement shall not create any rights in, or inure to the benefits of, any third party except as expressly provided herein.

3.23. **Governing Law.**

This Agreement shall be construed in accordance with, and governed by, the laws of the State of California. Venue shall be in Marin County.

3.24. **Exhibits and Recitals**.

All exhibits and recitals contained herein and attached hereto are material parts of this Agreement and are incorporated as if fully set forth.

3.25. **Severability.**

Should any provision in the Agreement be held by a court of competent jurisdiction to be invalid, void, or unenforceable, the remaining provisions shall continue in full force and effect.

3.26. **Non-Waiver.**

None of the provisions of this Agreement shall be considered waived by either party, unless such waiver is specifically specified in writing.

3.27. **Safety.**

Engineer shall execute and maintain its work so as to avoid injury or damage to any person or property. In carrying out its Services, the Engineer shall at all times be in compliance with all applicable local, state and federal laws, rules and regulations, and shall exercise all necessary precautions for the safety of its employees, consultant and subcontractors appropriate to the nature of the work and the conditions under which the work is to be performed.

3.28. **Harassment Policy.**

Engineer shall provide a copy of the Town's Harassment Policy to each of its employees assigned to perform the tasks under this Agreement. Engineer shall submit to the Town's Personnel Manager a statement signed by each of its employees who are assigned to perform the Services under this Agreement certifying receipt of Town's Harassment Policy and certifying that they have read the Harassment Policy. A finding by the Town that any of Designer's employees has harassed a Town employee shall be grounds for appropriate discipline, up to and including such employee's removal from performance of this Agreement at Town's request.

3.29. **Delivery of Notices.**

All notices permitted or required under this Agreement shall be given to the respective parties at the following address, or at such other address as the respective parties may provide in writing for this purpose:

TOWN:
Town of Fairfax
142 Bolinas Rd.
Fairfax, California 94930
Attn: Michele Gardner, Town Clerk

DESIGNER:
PAVEMENT ENGINEERING, INC.
3485 Sacramento Drive
San Luis Obispo, CA 93401
Attn: Joseph Ririe

Such notice shall be deemed made when personally delivered or when mailed, forty-eight (48) hours after deposit in the U.S. Mail, first class postage prepaid and addressed to the party at its applicable address. Actual notice shall be deemed adequate notice on the date actual notice occurred, regardless of the method of service.

3.30. **Time of Essence.**

Time is of the essence for each and every provision of this Agreement.

3.31. **Town's Right to Employ Other Consultants.**

Town reserves right to employ other consultants, including designers, in connection with this Project or other projects.

3.32. **Prohibited Interests.**

3.32.1. Solicitation. Engineer maintains and warrants that it has not employed nor retained any company or person, other than a bona fide employee working solely for Designer, to solicit or secure this Agreement. Further, Engineer warrants that it has not paid nor has it agreed to pay any company or person, other than a bona fide employee working solely for Designer, any fee, commission, percentage, brokerage fee, gift or other consideration contingent upon or resulting from the award or making of this Agreement. For breach or violation of this warranty, Town shall have the right to rescind this Agreement without liability.

3.32.2. Conflict of Interest. For the term of this Agreement, no director, official, officer or employee of Town, during the term of his or her service with Town, shall have any direct interest in this Agreement, or obtain any present or anticipated material benefit arising therefrom.

3.33. **Equal Opportunity Employment.**

Engineer represents that it is an equal opportunity employer and that it shall not discriminate against any employee or applicant for employment because of race, religion, color, national origin, ancestry, sex, age or any other classification protected by federal or state law. Such non-discrimination shall include, but not be limited to, all activities related to initial employment, upgrading, demotion, transfer, recruitment or recruitment advertising, layoff or termination. Engineer shall also comply with all relevant provisions of Town's minority business enterprise program, affirmative action plan or other related programs or guidelines currently in effect or hereinafter enacted.

3.34. **Labor Certification.**

By its signature hereunder, Engineer certifies that it is aware of the provisions of Section 3700 of the California Labor Code which require every employer to be insured against liability for Worker's Compensation or to undertake self-insurance in accordance with the provisions of that Code, and agrees to comply with such provisions before commencing the performance of the Services.

3.35. **Subcontracting.**

As specified in this Agreement, Engineer shall not subcontract any portion of the Services required by this Agreement, except as expressly stated herein, without prior written approval of Town. Subcontracts, if any, shall contain a provision making them subject to each and every provision of this Agreement.

3.36. **Supplemental Conditions.**

Any supplemental conditions shall be attached as an exhibit to this Agreement, and that exhibit shall be incorporated herein by reference.

3.37. **Entire Agreement.**

This Agreement, with its exhibits, contains the entire agreement of the parties hereto, and supersedes any and all other prior or contemporaneous negotiations, understandings and oral or written agreements between the parties hereto. Each party acknowledges that no representations, inducements, promises or agreements have been made by any person which are not incorporated herein, and that any other agreements shall be void. Furthermore, any modification of this Agreement shall only be effective if in writing signed by all parties hereto.

[SIGNATURES ON FOLLOWING PAGE]

SIGNATURE PAGE FOR ENGINEERING SERVICES AGREEMENT BETWEEN THE TOWN OF FAIRFAX AND PAVEMENT ENGINEERING, INC.

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the date first written above.

TOWN OF FAIRFAX
Adam Politzer, Interim Town Manager

Signature

FEB. 14 2022
Date

PAVEMENT ENGINEERING INC, a California corporation
Joseph L. Rinie

Signature

2/11/22
Date

Approved As To Form:
Janet Coleson, Town Attorney

Signature

Date

EXHIBIT "A"
ENGINEER'S SCOPE OF SERVICES

1. GENERAL REQUIREMENTS.

1.1. Basic Services. Engineer agrees to perform all the necessary professional design, engineering (e.g. mechanical, electrical, plumbing, structural, site engineering, and any other necessary engineering services mutually agreeable to the parties) to complete the services described in section 1.5 below.

1.2. Exclusions from Basic Services. Notwithstanding anything to the contrary herein, the following services shall be excluded from the basic services listed above: **civil engineering, landscape architectural, soils engineering, geotechnical services, hazardous waste or toxic substances engineering, water flow analysis, ADA compliance and any other services not directly related to the Services included in the attached PEI proposal attached hereto as Exhibit "C".**

1.3. Additional Services. Engineer shall perform the following Additional Services for the Project: **N/A.**

1.4. Communication with Town. Engineer shall participate in consultations and conferences with authorized representatives of Town and/or other local, regional, or state agencies concerned with the Project, which may be necessary for the completion of the Project or the development of the drawings, specifications and documents in accordance with the applicable standards and requirements of law and the Town. Such consultations and conferences shall continue throughout the planning and construction of the Project and the contractor's warranty period. Engineer shall take direction only from the Town's Representative, or any other representative specifically designated by the Town for this Project, including any construction manager hired by the Town.

1.5. Narrative

Engineer's scope of work will be to develop project street lists to maintain and improve the Town's maintained road system. Engineer's work will include working with the Town's StreetSaver® database and visually confirming treatments. Engineer's has assisted in the development of many multi-year pavement expenditure plans and understands that plan development is a dynamic process based on pavement needs, budget constraints, scheduled utility projects and public expectations. The effectiveness of the expenditure plan also depends on staff input. For this reason, Engineer will be working closely with Town staff throughout the process to capture their input and direction. The following tasks are intended to provide an outline of the process required to develop and recommend accurate project street lists. Public input, utility schedules and other unknowns could cause the tasks to be modified.

Phase 1 — Field Review and Staff Coordination

During discussions, the Town has expressed concern about the accuracy of the most recent PMP update submitted to the Town in December 2019. The field review will allow Designer's engineers to visually observe the existing pavement conditions and identify the next needed repair. Using an engineer with years of roadway design and construction experience to do the review will assist us to pick up more than just the visual conditions, we will be able to observe and note where additional work may be needed to address localized failures or drainage issues not picked up during a standard

PMP update.

The following items will be visually reviewed during our field review:

A. Confirmation of Pavement Treatment

During Engineer's review, Engineer's engineers will visually evaluate the pavement condition of each of the Town's maintained streets. Engineer will compare Engineer's recommended action to the reported PMP action. The purpose of the review is to visually confirm the next needed treatment and potential timing.

B. Identify Needed Drainage Repairs

Engineer's engineers will attempt to identify obvious areas where water drainage may be affecting pavement performance. Our assessment will be based on visual observations from the field such as scoured or overly oxidized pavement, base failures or evidence of underground seepage. Since drainage plays a major role in the longevity of asphalt pavement the needed repairs should be done prior to or part of the pavement repair project. Identifying these problems, quantifying and adding the needed repair and associated costs to the pavement plan will help the plans accuracy.

Included in Engineer's visual field review will be documenting any observed subsidence issues. As part of this task, Engineer will meet with Town staff to review and hear from them about current or ongoing pavement and drainage problems that should be considered. Engineer will also work with the Town and interact with utility companies in an effort to conform their upcoming improvement projects with the identified pavement needs of the Town.

From this information, accurate treatments can be selected and accurate budgets can be developed. Engineer will summarize our findings into a spreadsheet that can be used as a reference during the subsequent tasks.

Phase 2 — Analysis, Recommendations and Report

As part of our work, Engineer will perform a review of the decision tree information in the Town's StreetSaver database. The purpose of this task to utilize the powerful tools contained in the program to assist in the prioritization of street repairs and project selection. As part of this task, Engineer anticipates running various scenarios to gauge the effectiveness of the developed strategies.

Engineer will combine the field information with the analysis to develop recommended pavement maintenance and rehabilitation projects for the Town's consideration. Engineer will blend the analysis, field review, utility schedules and pavement goals of the Town with our knowledge of pavement maintenance and rehabilitation to develop an expenditure plan specific to the Town's needs. Engineer anticipates the plan will consist of road lists, associated treatments and costs for each road in each plan year. Engineer will provide a report that summarizes our findings and documents the proposed multi-year pavement maintenance and rehabilitation expenditure plan.

Phase 3 — Council Presentation

At the Town's request, Engineer will prepare and present its findings and recommendations at a Town Council Meeting.

Exclusions from the Scope of Work

Field testing such as coring and deflection testing, utility locating or potholing, documenting

ADA compliance, performing in depth drainage analysis or preparing construction documents (plans and specifications) are not included in our scope of work.

EXHIBIT "B"

FEE AND PHASING/FUNDING SCHEDULES

1. FEE SCHEDULE.

Engineer will invoice Town on a monthly cycle as set forth in Exhibit "C". Engineer will include with each invoice a detailed progress report that indicates the amount of budget spent on each phase and the total amount spent against the Total Compensation. Engineer will inform Town regarding any out-of-scope work being performed by Engineer for which Engineer intends to seek compensation from Town.

EXHIBIT "C"

ENGINEER PROPOSAL AND COMPENSATION RATES AND REIMBURSABLE EXPENSES

(Added)

	Position	Rate	Hours	Total
PHASE 1	**FIELD REVIEW AND STAFF COORDINATION**			
	Senior Principal Engineer	$240	24	$5,760
	Senior Engineering Technician	$150	8	$1,200
			Est. Total	$6,960
PHASE 2	**ANALYSIS, RECOMMENDATIONS AND REPORT**			
	Senior Principal Engineer	$240	16	$3,840
	Senior Engineering Technician	$150	32	$4,800
			Est. Total:	$8,640
PHASE 3	**COUNCIL PRESENTATION**			
	Senior Principal Engineer	$240	8	$1,920
	Senior Engineering Technician	$150	8	$1,200
			Est. Total:	$3,120
		Total Estimated Project Fee		$18,720.00

Estimates set forth above shall not be exceeded without the prior written approval of Town for good cause shown.

EXHIBIT "D"

INSURANCE REQUIREMENTS

Please refer to the insurance requirements listed below. **Those that have an "X" indicated in the space before the requirement apply to Engineering Services Agreement.**

Engineer shall procure and maintain for the duration of the Agreement insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder and the results of that work by the Designer, its agents, representatives, employees or subcontractors.

Engineer shall provide its insurance broker(s)/agent(s) with a copy of these requirements and request that they provide Certificates of Insurance complete with copies of all required endorsements.

Engineer shall furnish Town with copies of original endorsements affecting coverage required by this Exhibit D. The endorsements are to be signed by a person authorized by that insurer to bind coverage on its behalf. All endorsements and certificates are to be received and approved by Town before work commences. Town has the right to require Designer's insurer to provide complete, certified copies of all required insurance policies, including endorsements affecting the coverage required by these specifications.

Commercial General Liability (CGL):

X Coverage at least as broad as Insurance Services Office ("ISO") Form CG 00 01 covering CGL on an "occurrence" basis, including products and completed operations, property damage, bodily injury and personal and advertising injury with limits no less than $2,000,000.00 per occurrence. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location or the general aggregate limit shall be twice the required occurrence limit.

Automobile Liability:

X Coverage at least as broad as ISO Form Number CA 0001 covering, Code 1 (any auto), of if Engineer has no owned autos, Code 8 (hired) and 9 (non-owned), with limits no less than $1,000,000.00 combined single limit for bodily injury and property damage.

Professional Liability (Errors and Omissions):

X Insurance appropriates to the Designer's profession, with limit no less than $1,000,000.00 per occurrence or claim, $2,000,000.00 aggregate.

Workers' Compensation Insurance:

X Insurance as required by the State of California, with Statutory Limits, and Employer's Liability Insurance with limit of no less than $1,000,000.00 per accident for bodily injury or disease. *(Not required if Engineer provides written verification it has no employees)*

The Employer's Liability policy shall be endorsed to waive any right of subrogation as respects the Town, its elected and appointed officials, officers, attorneys, agents, and employees.

Other Insurance Provisions:

The insurance policies are to contain, or be endorsed to contain the following provisions:

X Additional Insured Status and Primary/Non-Contributory Language:

Designer's general liability and automobile liability policies shall be primary and shall not seek contribution from the Town's coverage and be endorsed to add the Town and its officers, officials, employees, and agents as additional insureds under such policies using Insurance Services Office form CG 20 10 (or equivalent) on the general liability policy. For construction projects, an endorsement providing completed operations coverage for the additional insured on the general liability policy, ISO form CG 20 37 (or equivalent), is also required.

The limits of insurance required in this Agreement may be satisfied by a combination of primary and umbrella or excess insurance. Any umbrella or excess insurance shall contain or be endorsed to contain a provision that such coverage shall also apply on a primary and non-contributory basis for the benefit of Town (if agreed to in a written contract or agreement) before the Town's own insurance or self-insurance shall be called upon to protect it as a named insured.

X Notice of Cancellation, Suspension or Otherwise Voiding Policies:

Each insurance policy required above shall contain or be endorsed to contain that coverage shall not be suspended, voided, canceled or reduced in coverage or in limits except with thirty (30) days' prior written notice by certified mail, return receipt requested to the Town.

X Waiver of Subrogation:

Engineer hereby grants to Town a waiver of any right to subrogation which any insurer of said Engineer may acquire against the Town by virtue of the payment of any loss under such insurance. Engineer agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation, but this provision applies regardless of whether or not the Town has received a waiver of subrogation endorsement from the insurer. The Workers' Compensation Policy shall be endorsed with a waiver of subrogation in favor of the Town for all work performed by Designer, its employees, agents and subcontractors.

THE FOLLOWING PROVISIONS APPLY TO ALL AGREEMENTS

Deductibles and Self-Insured Retentions ("SIR"):

Any deductibles or self-insured retentions must be declared to and approved by Town. The Town may require the Engineer to purchase coverage with a lower deductible or retention or provide proof of ability to pay losses and related investigations, claim administration, and defense expenses within the retention. At the option of the Town, either (1) the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the Town, its elected and appointed officials, officers, attorneys, agents, and employees; or (2) the Engineer shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.

All SIRs must be disclosed to Risk Management for approval and shall not reduce the limits of liability.

Policies containing any SIR provision shall provide or be endorsed to provide that the SIR may be satisfied by either the named insured or the Town.

Town reserves the right to obtain a full-certified copy of any insurance policy and endorsements. Failure to exercise this right shall not constitute a waiver of right to exercise later.

Acceptability of Insurers:

Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A-:VII, unless otherwise acceptable to Town.

Claims Made Policies:

1. Insurance must be maintained, and evidence of insurance must be provided for at least five (5) years after completion of contract of work.

2. If coverage is canceled or non-renewed, and not replaced with another claims-made policy form with a Retroactive Date prior to the contract effective date, the Engineer must purchase "extended reporting" coverage for a minimum of five (5) years after completion of work.

3. A copy of the claims reporting requirements must be submitted to the Town for review.

4. If the services involve lead-based paint or asbestos identification/remediation, the Designer's Pollution Liability Policy shall not contain lead-based paint or asbestos exclusions. If the services involve mold identification/remediation, the Designer's Pollution Liability Policy shall not contain a mold exclusion, and the definition of Pollution shall include microbial matter, including mold.

Subcontractors:

Engineer shall require and verify that all subcontractors maintain insurance meeting all the requirements stated herein, and Engineer shall ensure that Town is an additional insured on insurance required from subcontractors.

Subcontractor agrees to be bound to Engineer and Town in the same manner and to the same extent as Engineer is bound to Town under this Agreement and any other contract documents. Subcontractor further agrees to include the same requirements and provisions of this Agreement, including the indemnity and insurance requirements, with any sub-subcontractor to the extent they apply to the scope of the sub-subcontractor's work. A copy of the Town indemnity and insurance provisions will be furnished to the subcontractor upon request.

Verification of Coverage:

Engineer shall furnish the Town with original certificates and amendatory endorsements or copies of the applicable policy language effecting coverage required by this clause. All certificates and endorsements are to be received and approved by the Town before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive the Designer's obligation to provide them. The Town reserves the right to require complete, certified copies of all required insurance policies, including endorsements required by these specifications, at any time.

Special Risks or Circumstances

Town reserves the right to modify these requirements, including limits, based on the nature of

the risk, prior experience, insurer, coverage or other special circumstances.

Failure to Comply:

Each insurance policy required above shall contain or be endorsed to contain that any failure to comply with reporting provisions of the policies shall not affect coverage provided to the Town, its elected and appointed officials, officers, attorneys, agents, and employees.

Applicability of Coverage:

Each insurance policy required above shall contain or be endorsed to contain that the Designer's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.