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CITY OF SUSANVILLE  
66 N. Lassen Street • Susanville CA  
Robert Tyndall, Chair  
Richard Hrezo, Vice Chair  
Paul Clark • William Heyland • Dan Weaver

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Susanville Municipal Airport Commission  
**Regular Susanville Municipal Airport Commission Meeting • City  
Council Chambers**  
Thursday, June 13, 2024 - 4:00 PM

Call meeting to Order

Roll Call of Commissioners Present

1. **AGENDA APPROVAL:** *(Additions and/or Deletions)*
2. **APPROVAL OF MINUTES:** *Approval of minutes from the March 14, 2024 meeting.*
  - 2.A [Approval of minutes from the March 14, 2024 meeting](#)
3. **CORRESPONDENCE/INFORMATION:**
  - 3.A [Airport Financial Report](#)
4. **BUSINESS FROM THE FLOOR:** *Any person may address the Commission at this time upon any subject **not on the agenda** within the jurisdiction of the Commission. However, any matter that requires action will be referred to staff for a report and action at a subsequent meeting. Presentations are subject to a five-minute limit.*
5. **NEW BUSINESS:**
  - 5.A [Update on Taxiway B Project](#)
  - 5.B [Presentation of the Pavement Maintenance and Management Program](#)
  - 5.C [Report on CAAP \(Caltrans Grant\)](#)
6. **CONTINUING BUSINESS:**
7. **AIRPORT MANAGERS REPORT:**
8. **COMMISSION ITEMS:**
9. **ADJOURNMENT:**
  - **The next regular meeting of the Susanville Municipal Airport Commission will be held on July 11, 2024 at 4:00PM.**

*Reports and documents relating to each agenda item are on file in the Office of the City Clerk and are available for public inspection during normal business hours and at the meeting. These reports and documents are also available at the City's website [www.cityofsusanville.net](http://www.cityofsusanville.net), unless there were systems*

***problems posting to the website.***

***Accessibility: An interpreter for the hearing-impaired may be made available upon request to the City Clerk seventy-two hours prior to a meeting. A reader for the vision-impaired for purposes of reviewing the agenda may be made available upon request to the City Clerk. The location of this meeting is wheelchair-accessible.***

*I, Marci Rojas, certify that I caused to be posted notice of the regular meeting scheduled for 06/13/2024 in the areas designated on 06/10/2024.*

**SUSANVILLE MUNICIPAL AIRPORT COMMISSION AGENDA ITEM**

**Submitted By:** Marci Rojas, Public Works

**Action Date:** June 13, 2024

**SUBJECT:** Approval of minutes from the March 14, 2024 meeting

**PRESENTED BY:** Bob Godman, Public Works Director

**SUMMARY:** Attached for the Commission's review are the minutes from the March 14, 2024 SMAC meeting.

**FISCAL IMPACT:** None.

**ACTION REQUESTED:** Motion to approve minutes from the March 14, 2024 SMAC meeting.

**ATTACHMENTS:**  
[SMAC\\_minutes\\_20240314.docx](#)

**SUSANVILLE MUNICIPAL AIRPORT COMMISSION Regular  
Susanville Municipal Airport Commission Meeting Minutes  
THURSDAY, MARCH 14, 2024 – 4:00 PM**

This meeting was recorded and live streamed for public consumption. The below minutes are action minutes. To view the meeting recording, please visit the city's website:  
<https://www.cityofsusanville.net/rooptown/city-council/agendas-and-minutes/>

The direct link to this recording is: [https://cityofsusanville.granicus.com/player/clip/292?view\\_id=1&redirect=true&h=14e3f655f14bafcb845752f39550daa9](https://cityofsusanville.granicus.com/player/clip/292?view_id=1&redirect=true&h=14e3f655f14bafcb845752f39550daa9)

**Call meeting to Order**

**Roll Call of Commissioners Present:** Robert Tyndall, Richard Hrezo, William Heyland  
**Absent:** Paul Clark, Dan Weaver

**1. AGENDA APPROVAL:**

Moved by William Heyland; seconded by Richard Hrezo to  
Approve . Motion Carried: 3 - 0  
Voting For: Robert Tyndall, Richard Hrezo, William Heyland  
Voting Against: None

**2. APPROVAL OF MINUTES:**

2.A Consider approval of minutes from the February 08, 2024 SMAC  
meeting. Motion to approve February 08, 2024 meeting minutes  
[SMAC\\_Minutes\\_20240208.docx](#)

Moved by William Heyland; seconded by Richard Hrezo to Approve .  
Motion Carried: 3- 0  
Voting For: Robert Tyndall, Richard Hrezo, William Heyland  
Voting Against: None

**3. CORRESPONDENCE/INFORMATION:**

3.A Financial Report for the Airport  
None. This is for transparency purposes only.  
[Airport Available Cash Report\\_022024.pdf](#)  
[Airport Financials\\_022024.pdf](#)

**4. BUSINESS FROM THE FLOOR:**

**5. NEW BUSINESS:**

5.A Report on Hangar 9 repairs  
None  
[24-6280.pdf](#)

5.B Update on Taxiway B resurfacing Project

None

5.C Airport Promotion Ideas

Discussion only

6. **CONTINUING BUSINESS:**

6.A ACIP for 2024-2029

Final Scheduling of projects for the 2024-2029 ACIP, and recommendation to Council for approval.

Moved by Richard Hrezo; seconded by William Heyland to Approve .

Motion Carried: 3- 0

Voting For: Robert Tyndall, Richard Hrezo, William Heyland

Voting Against: None

7. **AIRPORT MANAGERS REPORT:**

8. **COMMISSION ITEMS:**

9. **ADJOURNMENT:**



**SUSANVILLE MUNICIPAL AIRPORT COMMISSION AGENDA ITEM**

**Submitted By:** Bob Godman, Public Works

**Action Date:** June 13, 2024

**SUBJECT:** Airport Financial Report

**PRESENTED BY:** Bob Godman, Public Works Director

**SUMMARY:** Attached is the Airport financial report through May 31, 2024.

**FISCAL IMPACT:** None

**ACTION REQUESTED:** None, information only

**ATTACHMENTS:**  
[20240531 Airport Cash Report.pdf](#)  
[20240531 Airport Budget.pdf](#)

CITY OF SUSANVILLE  
COMBINED CASH AND INVESTMENTS  
JUNE 30, 2024

COMBINED ACCOUNTS

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

CASH ALLOCATION RECONCILIATION

RESTRICTED FUNDS

|                                 |            |
|---------------------------------|------------|
| 7201 ALLOCATION TO AIRPORT      | 113,964.00 |
| ALLOCATIONS TO RESTRICTED FUNDS | 113,964.00 |

UNRESTRICTED FUNDS

|                                   |     |
|-----------------------------------|-----|
| ALLOCATIONS TO UNRESTRICTED FUNDS | .00 |
|-----------------------------------|-----|

|                                  |            |
|----------------------------------|------------|
| TOTAL ALLOCATIONS TO OTHER FUNDS | 113,964.00 |
|----------------------------------|------------|

|                                   |            |
|-----------------------------------|------------|
| ZERO PROOF IF ALLOCATIONS BALANCE | 113,964.00 |
|-----------------------------------|------------|



CITY OF SUSANVILLE  
INCOME STATEMENT  
REVENUES WITH COMPARISON TO BUDGET  
FOR THE 11 MONTHS ENDING MAY 31, 2024

AIRPORT

|                                |                               | BUDGET     | YTD ACTUAL | ENCUMBRANCE | % EARNED | UNEARNED     | % UNEARNED  |
|--------------------------------|-------------------------------|------------|------------|-------------|----------|--------------|-------------|
| <u>PUBLIC WORKS</u>            |                               |            |            |             |          |              |             |
| <u>AIRPORT-OPERATIONS</u>      |                               |            |            |             |          |              |             |
| 7201-430-81-3301               | US DEPT OF TRANS-FAA          | .00        | 71,209.25  | .00         | .00      | ( 71,209.25) | .00         |
| 7201-430-81-3341               | STATE OF CA - CALTRANS        | 10,000.00  | .00        | .00         | .00      | 10,000.00    | 100.00      |
| 7201-430-81-3611               | INTEREST REVENUE              | 200.00     | 2,581.77   | .00         | 1,290.89 | ( 2,381.77)  | ( 1,190.89) |
| 7201-430-81-3613               | NET INCREASE(DECREASE) FMV    | .00        | 782.86     | .00         | .00      | ( 782.86)    | .00         |
| 7201-430-81-3620               | AIRPORT - LEASES              | 100,000.00 | 89,206.00  | .00         | 89.21    | 10,794.00    | 10.79       |
| 7201-430-81-3701               | AIRPORT - FLOWAGE FEES        | 10,000.00  | 4,585.55   | .00         | 45.86    | 5,414.45     | 54.14       |
| 7201-430-81-3703               | COMMERCIAL OPERATOR FEES      | 11,000.00  | 11,909.10  | .00         | 108.26   | ( 909.10)    | ( 8.26)     |
|                                | TOTAL AIRPORT-OPERATIONS      | 131,200.00 | 180,274.53 | .00         | 137.40   | ( 49,074.53) | ( 37.40)    |
| <u>PMMP 3-06-0251-021-2023</u> |                               |            |            |             |          |              |             |
| 7201-430-88-3301               | US DEPT OF TRANS-FAA          | 114,300.00 | .00        | .00         | .00      | 114,300.00   | 100.00      |
| 7201-430-88-3341               | STATE OF CA - CALTRANS        | 5,715.00   | .00        | .00         | .00      | 5,715.00     | 100.00      |
|                                | TOTAL PMMP 3-06-0251-021-2023 | 120,015.00 | .00        | .00         | .00      | 120,015.00   | 100.00      |
|                                | TOTAL PUBLIC WORKS            | 251,215.00 | 180,274.53 | .00         | 71.76    | 70,940.47    | 28.24       |

CITY OF SUSANVILLE  
INCOME STATEMENT  
REVENUES WITH COMPARISON TO BUDGET  
FOR THE 11 MONTHS ENDING MAY 31, 2024

AIRPORT

|                  |                         | BUDGET     | YTD ACTUAL | ENCUMBRANCE | % EARNED | UNEARNED  | % UNEARNED |
|------------------|-------------------------|------------|------------|-------------|----------|-----------|------------|
|                  | DEPARTMENT 490          |            |            |             |          |           |            |
|                  | DIVISION 00             |            |            |             |          |           |            |
| 7201-490-00-3904 | TRN IN 7202 AIRPORT CIP | 15,000.00  | .00        | .00         | .00      | 15,000.00 | 100.00     |
|                  | TOTAL DIVISION 00       | 15,000.00  | .00        | .00         | .00      | 15,000.00 | 100.00     |
|                  | TOTAL DEPARTMENT 490    | 15,000.00  | .00        | .00         | .00      | 15,000.00 | 100.00     |
|                  | TOTAL FUND REVENUE      | 266,215.00 | 180,274.53 | .00         | 67.72    | 85,940.47 | 32.28      |

CITY OF SUSANVILLE  
INCOME STATEMENT  
EXPENDITURES WITH COMPARISON TO BUDGET  
FOR THE 11 MONTHS ENDING MAY 31, 2024

AIRPORT

|                                                 | BUDGET        | YTD ACTUAL    | ENCUMBRANCE | % EXPENDED | UNEXPENDED    | % UNEXP. |
|-------------------------------------------------|---------------|---------------|-------------|------------|---------------|----------|
| <u>PUBLIC WORKS</u>                             |               |               |             |            |               |          |
| <u>AIRPORT-OPERATIONS</u>                       |               |               |             |            |               |          |
| 7201-430-81-4100 REGULAR EMPLOYEES              | .00           | 3,071.31      | .00         | .00        | ( 3,071.31)   | .00      |
| 7201-430-81-4120 TEMPORARY EMPLOYEES            | 24,204.00     | 22,380.05     | .00         | 92.46      | 1,823.95      | 7.54     |
| 7201-430-81-4221 SOCIAL SECURITY CONTRIBUTIONS  | 1,509.00      | 1,573.95      | .00         | 104.30     | ( 64.95)      | ( 4.30)  |
| 7201-430-81-4222 MEDICARE                       | 353.00        | 368.10        | .00         | 104.28     | ( 15.10)      | ( 4.28)  |
| 7201-430-81-4230 PERS                           | .00           | 235.90        | .00         | .00        | ( 235.90)     | .00      |
| 7201-430-81-4260 WORKERS' COMPENSATION          | 730.00        | 1,193.54      | .00         | 163.50     | ( 463.54)     | ( 63.50) |
| 7201-430-81-4293 STATE UNEMPLOYMENT             | .00           | 26.67         | .00         | .00        | ( 26.67)      | .00      |
| 7201-430-81-4330 PROFESSIONAL SVCS              | 550.00        | 528.00        | .00         | 96.00      | 22.00         | 4.00     |
| 7201-430-81-4340 TECHNICAL SVCS                 | 7,201.00      | 5,325.53      | 2,400.00    | 107.28     | ( 524.53)     | ( 7.28)  |
| 7201-430-81-4431 REPAIR AND MAINTENANCE-MISC    | 848.00        | 489.33        | .00         | 57.70      | 358.67        | 42.30    |
| 7201-430-81-4434 REPAIR AND MAINTENANCE-FACILIT | 6,490.00      | 921.88        | .00         | 14.20      | 5,568.12      | 85.80    |
| 7201-430-81-4510 INSURANCE AIRPORT HANGARS      | 6,210.00      | 5,698.00      | .00         | 91.76      | 512.00        | 8.24     |
| 7201-430-81-4511 INSUR.AIRPORT OWNER OPER. LIAB | 6,434.00      | 5,896.00      | .00         | 91.64      | 538.00        | 8.36     |
| 7201-430-81-4512 INSUR.AIRPORT AIR SHOW LIAB    | 442.00        | 407.00        | .00         | 92.08      | 35.00         | 7.92     |
| 7201-430-81-4524 INTERNAL SVCS ADMIN            | 26,099.00     | 23,925.00     | .00         | 91.67      | 2,174.00      | 8.33     |
| 7201-430-81-4525 INTERNAL SVC PW/ENG            | 27,521.00     | 25,223.00     | .00         | 91.65      | 2,298.00      | 8.35     |
| 7201-430-81-4526 INTERNAL SVC FLEET             | 279.00        | 253.00        | .00         | 90.68      | 26.00         | 9.32     |
| 7201-430-81-4530 COMMUNICATIONS                 | 900.00        | 824.98        | .00         | 91.66      | 75.02         | 8.34     |
| 7201-430-81-4610 SUPPLIES - GENERAL             | 327.00        | .00           | .00         | .00        | 327.00        | 100.00   |
| 7201-430-81-4622 ELECTRICITY                    | 5,452.00      | 3,672.82      | .00         | 67.37      | 1,779.18      | 32.63    |
| 7201-430-81-4623 PROPANE                        | 3,268.00      | 3,267.12      | .00         | 99.97      | .88           | .03      |
| 7201-430-81-4626 GASOLINE                       | 915.00        | 499.33        | .00         | 54.57      | 415.67        | 45.43    |
| 7201-430-81-4641 POSTAGE                        | 25.00         | 20.41         | .00         | 81.64      | 4.59          | 18.36    |
| 7201-430-81-4770 DEPRECIATION EXPENSE           | 158,159.00    | 144,980.00    | .00         | 91.67      | 13,179.00     | 8.33     |
| 7201-430-81-4810 TAXES, FEES, PERMITS & CHARGES | 2,500.00      | 2,445.96      | .00         | 97.84      | 54.04         | 2.16     |
| 7201-430-81-4840 BAD DEBT EXPENSE               | 1,843.00      | .00           | .00         | .00        | 1,843.00      | 100.00   |
| TOTAL AIRPORT-OPERATIONS                        | 282,259.00    | 253,226.88    | 2,400.00    | 90.56      | 26,632.12     | 9.44     |
| <u>PMMP 3-06-0251-021-2023</u>                  |               |               |             |            |               |          |
| 7201-430-88-4340 TECHNICAL SVCS                 | 127,000.00    | .00           | .00         | .00        | 127,000.00    | 100.00   |
| TOTAL PMMP 3-06-0251-021-2023                   | 127,000.00    | .00           | .00         | .00        | 127,000.00    | 100.00   |
| TOTAL PUBLIC WORKS                              | 409,259.00    | 253,226.88    | 2,400.00    | 62.46      | 153,632.12    | 37.54    |
| TOTAL FUND EXPENDITURES                         | 409,259.00    | 253,226.88    | 2,400.00    | 62.46      | 153,632.12    | 37.54    |
| REVENUE OVER (UNDER) EXPENDITURES               | ( 143,044.00) | ( 72,952.35)  | ( 2,400.00) | ( 52.68)   | ( 67,691.65)  | ( 47.32) |
| GRAND TOTAL REVENUE                             | 266,215.00    | 180,274.53    | .00         | 67.72      | 85,940.47     | 32.28    |
| GRAND TOTAL EXPENDITURES                        | ( 409,259.00) | ( 253,226.88) | ( 2,400.00) | ( 62.46)   | ( 153,632.12) | ( 37.54) |

CITY OF SUSANVILLE  
INCOME STATEMENT  
EXPENDITURES WITH COMPARISON TO BUDGET  
FOR THE 11 MONTHS ENDING MAY 31, 2024

| {SEGTITLE[F FUND]}              |               |              |             |            |              |          |
|---------------------------------|---------------|--------------|-------------|------------|--------------|----------|
|                                 | BUDGET        | YTD ACTUAL   | ENCUMBRANCE | % EXPENDED | UNEXPENDED   | % UNEXP. |
|                                 |               |              |             |            |              |          |
| TOTAL NET REVENUE(EXPENDITURES) | ( 143,044.00) | ( 72,952.35) | ( 2,400.00) | ( 52.68)   | ( 67,691.65) | ( 47.32) |

**SUSANVILLE MUNICIPAL AIRPORT COMMISSION AGENDA ITEM**

**Submitted By:** Bob Godman, Public Works

**Action Date:** June 13, 2024

**SUBJECT:** Update on Taxiway B Project

**PRESENTED BY:** Bob Godman, Public Works Director

**SUMMARY:** In April staff completed the official bidding process for the construction of Taxiway B. The City only received one bid for the project which was about \$130,000 higher than the engineer's estimate for the job. Since the project scheduling is based off of the engineer's estimate and the standard FAA and BIL amounts that the Airport receives annually there is currently not enough funding for this project. This is a somewhat common occurrence with a few different remedies. The first, which staff is currently pursuing is asking the FAA to fund the extra cost by increasing our grant. The other options are to make the project smaller, wait for another year for the new FAA grant allotment or to ask City Council to cover the extra cost out of the General Fund.

**FISCAL IMPACT:** None.

**ACTION REQUESTED:** Information only

**ATTACHMENTS:**

**SUSANVILLE MUNICIPAL AIRPORT COMMISSION AGENDA ITEM**

**Submitted By:** Bob Godman, Public Works

**Action Date:** June 13, 2024

**SUBJECT:** Presentation of the Pavement Maintenance and Management Program

**PRESENTED BY:** Bob Godman, Public Works Director

**SUMMARY:** One of the projects on the ACIP this year was the creation of a Pavement Maintenance and Management Plan. This plan is an important element in securing future funding for paving and pavement maintenance projects in the future.

**FISCAL IMPACT:** None.

**ACTION REQUESTED:** Information Only

**ATTACHMENTS:**  
[SVE PMP FINAL 4-12-2024.pdf](#)



# PAVEMENT MANAGEMENT PROGRAM REPORT

## SUSANVILLE MUNICIPAL AIRPORT SUSANVILLE, CALIFORNIA



C&S Engineers, Inc.  
2355 Northside Dr., Suite 350  
San Diego, CA, 92108  
Phone: (619) 296-9373  
[www.cscos.com](http://www.cscos.com)

**MARCH 2024**

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## **APPENDICES**

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APPENDIX E – RECOMMENDED PROJECTS PLAN & COST ESTIMATES

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APPENDIX H - PAVEMENT MAINTENANCE AND REHABILITATION RECORD FORMS

## 1. EXECUTIVE SUMMARY

C&S Engineers Inc. Contacted Silent Falcon UAS Technologies to perform a Pavement Management Program (PMP) for the Susanville Municipal Airport. Development of the plan required record drawing research to divide the pavement areas into section units based on construction history and in accordance with FAA Advisory Circular 150/5380-7B. After this was complete, a site visit was performed by Silent Falcon using aerial survey to assess the existing condition of the pavement sections. Photogrammetry was utilized to provide continuous photos that are used to gather surface and 3D data of the airfield. Data is then entered into ArcGIS where future conditions were calculated for the pavements at Susanville Municipal Airport. Findings were shared with C&S Engineers Inc. and the airport's ACIP was modified in accordance with the PMP results.

### Condition

The Pavement Condition Index (PCI) is calculated based on the results of an aerial condition survey in which distress types, severity, and quantities are identified. The area-weighted pavement condition index (PCI) for the airfield pavements that were inspected in 2023 is 60. Table 1 (below) and Figure 1 - PCI Condition Map (below) provide a tabular and visual overview of the area-weighted PCIs. For the analysis performed in this report, a PCI between 51 & 70 for a runway and between 46 & 65 for a taxiway or apron, rehabilitation is recommended. Table 1 shows a condensed version of the area-weighted PCI for the airfield pavements. A more detailed version is located in Appendix G.

| Table 1<br>Area-Weighted PCI by Pavement Use |                 |                          |                                |
|----------------------------------------------|-----------------|--------------------------|--------------------------------|
| Pavement Use<br>(Branch Name)                | Area-Wt.<br>PCI | Pavement<br>Area, Sq.Ft. | % of Total<br>Pavement<br>Area |
| Taxiways                                     | 73              | 260,918.13               | 30                             |
| Aprons                                       | 65              | 153,630.02               | 17                             |
| Runways                                      | 88              | 302,410.35               | 34                             |
| Helipads                                     | 51              | 9,861.91                 | 1                              |
| Tiedowns                                     | 21              | 161,243.04               | 18                             |
| Overall                                      | 60              | 889,063.46               | 100                            |

Figure 1 - PCI Condition Map



### **Capital Improvements**

PAVER™ software was used to generate PCIs and to evaluate pavement rehabilitation and reconstruction needs at Susanville Municipal Airport. The program is also able to forecast future pavement conditions. A five and ten-year forecast map of PCI conditions are shown in Figure 2 and Figure 3, respectively and is shown in tabular form in Appendix G. Based upon the forecasted conditions, an analysis was performed to identify a prioritized plan for major rehabilitation and reconstruction projects. The results from the PAVER™ software were used as a basis for determining a logical pavement rehabilitation and reconstruction program that would be incorporated into the Airport Capital Improvement Program (ACIP) for Susanville Municipal Airport. The recommended strategy was discussed with the Engineers at C&S Engineering, Inc. and it was agreed that the County will attempt to modify the ACIP to align with the Pavement Management Program (PMP) results to the maximum extent practicable. Figure 4 illustrates the results of the recommended prioritized plan for airfield pavement rehabilitation. Details of the pavement rehabilitation program are presented in Appendix G.

The estimated total cost to complete the 10-year pavement rehabilitation program as shown in Figure 4, is from 2023-2033 See Section 8 and Appendix E for a detailed breakdown of the 10-year project costs. These project costs should be used for future capital programming purposes and referenced when updating the Airport Capital Improvement Program (ACIP) for the Susanville Municipal Airport.

**TABLE 1-2 – ACIP PROJECTS – (2024-2034)**

| PROJECT       | DESIGN YEAR | DESIGN COST | PROJECT                    | CONSTRUCTION YEAR | CONSTRUCTION COST* |
|---------------|-------------|-------------|----------------------------|-------------------|--------------------|
| 1             | 2024        | \$12,000    | South Apron Reconstruction | 2025              | \$1,100,000        |
| <b>TOTAL:</b> |             |             |                            |                   | \$1,100,000        |

| PROJECT       | DESIGN YEAR | DESIGN COST | PROJECT                  | CONSTRUCTION YEAR | CONSTRUCTION COST* |
|---------------|-------------|-------------|--------------------------|-------------------|--------------------|
| 2             | 2024        | \$12,000    | Taxiway C Reconstruction | 2025              | \$650,000          |
| <b>TOTAL:</b> |             |             |                          |                   | \$650,000          |

| PROJECT       | DESIGN YEAR | DESIGN COST | PROJECT                  | CONSTRUCTION YEAR | CONSTRUCTION COST* |
|---------------|-------------|-------------|--------------------------|-------------------|--------------------|
| 3             | 2024        | \$98,000    | Taxiway D Reconstruction | 2025              | \$400,000          |
| <b>TOTAL:</b> |             |             |                          |                   | \$400,000          |

| PROJECT       | DESIGN YEAR | DESIGN COST | PROJECT                | CONSTRUCTION YEAR | CONSTRUCTION COST* |
|---------------|-------------|-------------|------------------------|-------------------|--------------------|
| 4             | 2025        | \$75,000    | Runway 11-29 Seal Coat | 2026              | \$500,000          |
| <b>TOTAL:</b> |             |             |                        |                   | \$500,000          |

\*Design Cost is equal to between roughly 6% and 10% of the total 2023 cost estimates for the project located in Appendix E.

\*Construction Cost is equal to the total 2023 cost estimates for the project located in Appendix E plus 15% for CA/CO and other related items.

\*These prices include a 2% annual inflation from the total 2023 cost estimates for the projects located in Appendix E.

## **2. INTRODUCTION**

### **2.1 General**

This report has been prepared to document the results of a Pavement Management Program (PMP) for Susanville Municipal Airport, which is owned and operated by the City of Susanville. This program serves to evaluate and document the current pavement condition, including observed pavement distresses, along with a comprehensive historic listing of maintenance and rehabilitation improvements performed throughout the airfield.

Silent Falcon UAS Technologies has performed an airport-wide pavement investigation and developed a long-term pavement maintenance and rehabilitation program for the Airport.

The ultimate objective of the PMP is to develop a prioritized list of pavement rehabilitation and reconstruction projects, and also identify scheduled pavement maintenance type activities in such a way that the network of pavements can be maintained in a serviceable condition in the most cost-effective manner. The PMP is also used as a reference document to help program preventive maintenance work at specific intervals which would extend the life of the pavement.

Through the use of PAVER™, which was developed by U.S. Army Corps of Engineers, data from the current field investigation was used to develop a recommended and prioritized list of projects. The software was also used to forecast future pavement conditions that simulate completion of the prioritized projects.

### **2.2 Project Background**

Historically, most airport owners have made decisions regarding pavement maintenance and rehabilitation (M&R) based on experience and judgment rather than using documented data and an objective approach. Over the past decade, Pavement Management technology has been developed to assist airport owners, facility managers, budget directors and engineers do a better job in proactively planning pavement M&R so that cost effective treatments may be applied at optimum time intervals in a pavement's life cycle. A PMP may be defined as an objective method of prioritizing maintenance and rehabilitation work for a network of pavements such that optimal use is made of the Airport Owner's funds. Through the use of a PMP, an inventory of the pavement system is established, and a cost-effective maintenance program is developed to define which pavements should be rehabilitated, how they should be rehabilitated and when they should be rehabilitated.

Pavement Management Programs have been implemented at many airports over the past several years. In recognition of the long-term benefits of PMP's, the Federal Aviation Administration (FAA) has required that owners utilize a PMP to support any requests for Federal funding of airport pavement replacement or reconstruction projects after March 1, 1995. The intent of the requirement is to assure the FAA that owners are evaluating pavement conditions in an objective manner and selecting properly timed M&R treatments to ensure that federal funds are being spent in an optimal manner.

## 2.3 Scope of Work Performed

The following services were performed to generate this report:

- **Research Historical Records** - To determine pavement construction and maintenance history and to document existing pavement structure composition.
- **Develop Network Segmentation** - To subdivide the pavement into "sections" based on construction history for inspection and maintenance management purposes.
- **Perform Pavement Condition Survey** - To identify and quantify existing pavement distresses in an objective manner using established criteria.
- **Development of Engineering Strategies** - To set criteria for determination of short and long-term pavement maintenance and rehabilitation strategies.
- **Conduct Network Analysis** - To forecast future pavement conditions, select specific maintenance and rehabilitation treatments, prepare cost estimates, and develop a prioritized list of projects.
- **Develop Capital Improvement Program** - To summarize results of network analysis and identifying recommended pavement maintenance and rehabilitation projects over a 10-year period.

### 3. HISTORICAL DATA

Record plans were studied, and a pavement construction and maintenance history compiled for all airside pavements. This information was used to assist in segmenting the network of pavements for maintenance management purposes. The information will also be useful for future in-depth evaluations and rehabilitation designs. Select as Built pavement section sheets are in Appendix F- Record Drawings, Requests for access to the full set of record drawings can be made through C&S. The historical data is summarized in Table 3-1:

**TABLE 3-1 – SUMMARY OF PAVEMENT HISTORY**

| Branch Name | Section Name | Construction History | Existing Pavement Section |
|-------------|--------------|----------------------|---------------------------|
| A1          | Apron        | 2015                 | 3" Asphalt - 8" Aggregate |
| A2          | Apron        | 2015                 | 3" Asphalt - 8" Aggregate |
| A3          | Apron        | 2015                 | 3" Asphalt - 8" Aggregate |
| A4          | Apron        | 2015                 | 3" Asphalt - 8" Aggregate |
| H1a         | Heli Pad     | Unknown              | Unknown                   |
| H1b         | Heli Pad     | Unknown              | Unknown                   |
| H2          | Heli Pad     | Unknown              | Unknown                   |
| R1          | Runway       | Unknown              | Unknown                   |
| T1          | Taxiway A    | 2022                 | 4" Asphalt - 6" Aggregate |
| T2          | Taxiway B    | Unknown              | Unknown                   |
| T3          | Taxiway A    | Unknown              | Unknown                   |
| T4          | Taxiway B    | 2012                 | Unknown                   |
| T5          | Taxiway D    | Unknown              | Unknown                   |
| T6          | Taxiway A    | Unknown              | Unknown                   |
| T7          | Taxiway A    | Unknown              | Unknown                   |
| T8          | Taxiway      | 2016                 | 3" Asphalt - 8" Aggregate |
| TD1         | Apron        | 2016                 | 3" Asphalt - 8" Aggregate |

#### 4. PAVEMENT INVENTORY AND NETWORK DEFINITION

Based on the contents of the pavement inventory, including the pavement use, surface type, and structural composition, the network of airside pavements was divided into smaller, more manageable components for inspection and maintenance management purposes. A description of the three network components is provided below.

- a. **Branches** - defined as any identifiable part of the pavement network which is a single entity and has a distinct function. For Susanville Municipal Airport, individual branches were identified for the Taxiways and Aprons.
- b. **Sections** - defined as pavement segments of similar structure, age and use.
- c. **Sample Units** - defined as a convenient area of a pavement section which is designated only for the purpose of pavement inspection. For bituminous concrete airfield pavements, ASTM D5340-12 recommends that sample unit areas should measure 5,000 sq. ft. with a tolerance of +/- 2,000 sq. ft. For PCC pavements, sample units are defined by slabs rather than by area. Each sample should have between 12 and 28 slabs, with a target number of 20 slabs.

Pavement Condition Plans showing the Branches, Sections and Sample Units are included in Appendix A.



## 5. PAVEMENT CONDITION SURVEY AND RATING PROCEDURE

### 5.1 Overview

The most useful feature of an effective PMP is the ability to determine both the current condition of a pavement network and predict pavement condition over a specified time period. To predict conditions reliably, an objective, repeatable rating system for identifying the pavement's present condition must be used. The Pavement Condition Index (PCI) Rating System, developed by the FAA and the United States Army Construction Engineering Research Laboratory (CERL), is widely accepted for use on airfield pavements.

The PCI procedures, described in FAA Advisory Circular 150/5380-7B and ASTM D5340, were utilized for this survey.

The PCI is a numerical pavement condition rating ranging from 0 to 100, with 0 indicating a failed pavement and 100 indicating a pavement in perfect condition. Table 5-1 shows the relationship between PCI and a descriptive rating of conditions.

**Table 5-1**  
**PCI Numerical Ratings**

| PCI Range | Description  |
|-----------|--------------|
| 100 to 86 | Good         |
| 85 to 71  | Satisfactory |
| 70 to 56  | Fair         |
| 55 to 41  | Poor         |
| 40 to 26  | Very Poor    |
| 25 to 11  | Serious      |
| 10 to 0   | Failed       |

The PCI is calculated based on the results of a visual condition survey in which distress types, severity, and quantities are identified. For flexible pavements, ASTM D5340-20 Standard Test Method for *Airport Pavement Condition Index Surveys* identifies seventeen distinct distress types that are commonly considered. For rigid pavements, sixteen distinct distresses are commonly considered. The PAVERTM software program utilizes coding that is synonymous with the particular distress. See summary of distresses and respective coding for flexible and rigid pavements in Table 5-2 and Table 5-3.

**Table 5-2**  
**Flexible (Asphalt) Pavement Distress Types**

| <b>PAVER™<br/>Distress Code<br/>No.</b> | <b>DISTRESS TYPE</b>                                           | <b>PAVER™<br/>Distress<br/>Code No.</b> | <b>DISTRESS TYPE</b>                     |
|-----------------------------------------|----------------------------------------------------------------|-----------------------------------------|------------------------------------------|
| 41                                      | Alligator or Fatigue Cracking                                  | 49                                      | Oil Spill Damage                         |
| 42                                      | Bleeding                                                       | 50                                      | Patching and Utility Cut Patch           |
| 43                                      | Block Cracking                                                 | 51                                      | Polished Aggregate                       |
| 44                                      | Corrugation                                                    | 52                                      | Raveling                                 |
| 45                                      | Depression                                                     | 53                                      | Rutting                                  |
| 46                                      | Jet Blast Erosion                                              | 54                                      | Shoving of Asphalt Pavement by PCC slabs |
| 47                                      | Joint Reflection Cracking from PCC (Longitudinal & Transverse) | 55                                      | Slippage Cracking                        |
| 48                                      | Longitudinal & Transverse Cracking (Non-PCC Reflection)        | 56                                      | Swelling                                 |
|                                         |                                                                | 57                                      | Weathering                               |

**Table 5-3**  
**Rigid (Concrete) Pavement Distress Types**

| <b>PAVER™<br/>Distress Code<br/>No.</b> | <b>DISTRESS TYPE</b>      | <b>PAVER™<br/>Distress<br/>Code No.</b> | <b>DISTRESS TYPE</b>           |
|-----------------------------------------|---------------------------|-----------------------------------------|--------------------------------|
| 61                                      | Blowup                    | 69                                      | Pumping                        |
| 62                                      | Corner Break              | 70                                      | Scaling                        |
| 63                                      | Cracking                  | 71                                      | Settlement, Faulting           |
| 64                                      | Durability ("D") Cracking | 72                                      | Shattered Slab                 |
| 65                                      | Joint Seal Damage         | 73                                      | Shrinkage Cracking             |
| 66                                      | Patching, Small           | 74                                      | Spalling, Joint                |
| 67                                      | Patching, Large           | 75                                      | Spalling, Corner               |
| 68                                      | Popouts                   | 76                                      | Alkali-Silica Reactivity (ASR) |

Distresses can be grouped into three major categories; Load-Related, Climate/Durability Related and Other. Load-Related distresses include Alligator Cracking, Raveling, Linear Cracking, Corner Breaks, and Shattered Slabs. Climate/Durability Related distresses include Block Cracking, Joint Reflection Cracking, Longitudinal & Transverse (L&T) Cracking, Patching, Raveling, Durability Cracking, and Joint Seal Damage. Other Related distresses include Bleeding, Corrugations, Depressions, Jet Blast Erosion, Oil Spillage, Polished Aggregate, Shoving, Slippage Cracking, Swelling, Patching, Popouts, Scaling, Faulting, Joint and Corner Spalling, and Alkali Silica Reactivity (ASR). PAVER™ considers the general condition of the pavement to determine which category each distress goes into when calculating the percentage of related distresses.

Field verification of the PCI inspection method has shown that the index gives a good indication of a pavement's structural integrity and operational condition. Also, analysis of the existing distress types in the pavement is necessary to enable accurate deterioration forecasts on which rehabilitation strategies can be based.

## **5.2 Calculation of PCI**

The degree of pavement deterioration is a function of distress type, distress severity, and amount or density of particular distresses. Because of the large number of possible distress combinations, "deduct values" are used as a weighting factor to indicate the effect that each particular distress type, severity level, and distress density combination has on pavement condition. Based on input from field-testing and evaluating the procedure, accurate descriptions of distress types, severity levels, and the corresponding deduct values were derived so that a composite distress index (the PCI) could be determined. Deduct curves for all distress types and combinations of distresses are presented in ASTM D5340-20. PAVER™ software program incorporates these deduct curves for the distress types.

## **5.3 Pavement Inspection**

Silent Falcon UAS surveyed 100 percent of all sample sections and sample units. There was no statistical sampling as may have been done in previous inspections.

## **5.4 Layout Methodology**

Throughout this report, there are references to sections and sample units. The Sections of each Branch are labeled using an alpha-numeric descriptor. To better understand where on the Branch the references are made, the following descriptions and methods of determining sections and sample units were used.

The letter portion of the Section descriptor designates a section on the Taxiway or Apron (i.e. Section TW A-1 designates a section on Taxiway "A", and Section AP-1 designates a section on the Apron)

The numeric portion of the Section descriptor designates a particular Section of pavement which has been identified as distinctive, based on construction history, pavement section and/or use of pavement. Sections are numbered consecutively for each Branch. Pavements with the same use, but with differing construction history and pavement cross section are indicated by alpha-numeric descriptors, with the alpha descriptor before the

hyphen indicating the use, and the number after the hyphen indicating areas within a section with differing construction history and pavement section, (i.e. Section AP-1 and AP-2 indicates the areas have the same use, but differ in construction history and pavement section).

In most cases, Sample Units are numbered from north to south or west to east. Sample Unit numbers are consecutive moving through the sections.

See Appendix A for the layout of the branches, sections and sample units.

After the selected sample units were inspected, PAVER™ ver. 7.0 software was used to calculate the Sample Unit PCI and the PCI for each Section.

## 6. RESULTS OF PAVEMENT CONDITION SURVEY

Appendix A contains Pavement Condition Plans illustrating the PCI associated with each Section, the number of Sample Units inspected for each Section, the total number of Sample Units in each Section and the PCI for each Sample Unit inspected. The PCI Reports showing the mean PCI for each Section are included in Appendix B. The results of the field inspection for each Sample Unit showing distress types, severity levels and quantities, and Section PCI are included in Appendix B. Field inspection photographs, are located in Appendix C. Photographs of typical pavement distresses are provided in Appendix D.

General information on each pavement Section is shown below. The tables highlight the area-weighted PCI of the section, the associated distress types and severities, and what the percent deducts are due to. It should be noted that it is typical of airports that primarily serve smaller aircraft to see the majority or all of the PCI deducts to be climate-related.

### 6.1 Apron 1

A summary of the condition of Apron 1 is as follows:

| Apron 1<br>Branch "A1" |          |                         |         |       |                                                                                                              |
|------------------------|----------|-------------------------|---------|-------|--------------------------------------------------------------------------------------------------------------|
| Section                | 2023 PCI | Percent Deducts Due To: |         |       | Distress Type (Severity)                                                                                     |
|                        |          | Load                    | Climate | Other |                                                                                                              |
| A1                     | 59       | 39                      | 61      | 0     | Alligator Cracking (L)<br>Block Cracking (L,M)<br>Longitudinal & Transverse Cracking (L,M)<br>Weathering (L) |

### 6.2 Apron 2

A summary of the condition of Apron 2 is as follows:

| Apron 2<br>Branch "A2" |          |                         |         |       |                                                                                         |
|------------------------|----------|-------------------------|---------|-------|-----------------------------------------------------------------------------------------|
| Section                | 2023 PCI | Percent Deducts Due To: |         |       | Distress Type (Severity)                                                                |
|                        |          | Load                    | Climate | Other |                                                                                         |
| A2                     | 43       | 48                      | 52      | 0     | Alligator Cracking (L,M)<br>Longitudinal & Transverse Cracking (L, M)<br>Weathering (L) |

### 6.3 Apron 3

A summary of the condition of Apron 3 is as follows:

| Apron 3<br>Branch "A3" |          |                         |         |       |                                      |
|------------------------|----------|-------------------------|---------|-------|--------------------------------------|
| Section                | 2023 PCI | Percent Deducts Due To: |         |       | Distress Type (Severity)             |
|                        |          | Load                    | Climate | Other |                                      |
| A3                     | 76       | 0                       | 100     | 0     | Block Cracking (M)<br>Weathering (L) |

### 6.4 Apron 4

A summary of the condition of Apron 4 is as follows:

| Apron 4<br>Branch "A4" |          |                         |         |       |                                                             |
|------------------------|----------|-------------------------|---------|-------|-------------------------------------------------------------|
| Section                | 2023 PCI | Percent Deducts Due To: |         |       | Distress Type (Severity)                                    |
|                        |          | Load                    | Climate | Other |                                                             |
| A4                     | 83       | 0                       | 100     | 0     | Longitudinal & Transverse<br>Cracking (M)<br>Weathering (L) |

### 6.5 Heli 1

A summary of the condition of Heli 1 is as follows:

| Heli 1<br>Branch "H1" |          |                         |         |       |                                                                                                                                  |
|-----------------------|----------|-------------------------|---------|-------|----------------------------------------------------------------------------------------------------------------------------------|
| Section               | 2023 PCI | Percent Deducts Due To: |         |       | Distress Type (Severity)                                                                                                         |
|                       |          | Load                    | Climate | Other |                                                                                                                                  |
| H1A                   | 62       | 74                      | 12      | 14    | Longitudinal & Transverse<br>& Diagonal Cracking (L,<br>M)<br>Joint Seal Damage (M)<br>Shrinkage Cracking<br>Corner Spalling (L) |
| H1B                   | 50       | 0                       | 100     | 0     | Block Cracking (M)<br>Longitudinal and<br>Transverse Cracking (M)<br>Weathering (L)                                              |

## 6.6 Heli 2

A summary of the condition of Heli 2 is as follows:

| Heli 2<br>Branch "H2" |          |                         |         |       |                                                                                                                                                |
|-----------------------|----------|-------------------------|---------|-------|------------------------------------------------------------------------------------------------------------------------------------------------|
| Section               | 2023 PCI | Percent Deducts Due To: |         |       | Distress Type (Severity)                                                                                                                       |
|                       |          | Load                    | Climate | Other |                                                                                                                                                |
| H2                    | 40       | 90                      | 8       | 2     | Intersecting Cracks (M)<br>Joint Seal Damage (M)<br>Shattered Slab (H)<br>Shrinkage Cracking<br>Longitudinal and<br>Transverse Joint Spall (L) |

## 6.7 Runway 1

A summary of the condition of the Runway 1 is as follows:

| Runway 1<br>Branch "R1" |          |                         |         |       |                                                             |
|-------------------------|----------|-------------------------|---------|-------|-------------------------------------------------------------|
| Section                 | 2023 PCI | Percent Deducts Due To: |         |       | Distress Type (Severity)                                    |
|                         |          | Load                    | Climate | Other |                                                             |
| R1                      | 88       | 0                       | 100     | 0     | Longitudinal & Transverse<br>Cracking (L)<br>Weathering (L) |

## 6.8 Taxiway 1

A summary of the condition of the Taxiway 1 is as follows:

| Taxiway 1<br>Branch "T1" |          |                         |         |       |                                           |
|--------------------------|----------|-------------------------|---------|-------|-------------------------------------------|
| Section                  | 2023 PCI | Percent Deducts Due To: |         |       | Distress Type (Severity)                  |
|                          |          | Load                    | Climate | Other |                                           |
| T1                       | 98       | 0                       | 100     | 0     | Longitudinal & Transverse<br>Cracking (L) |

## 6.9 Taxiway 2

A summary of the condition of the Taxiway 2 is as follows:

| Taxiway 2<br>Branch "T2" |          |                         |         |       |                                        |
|--------------------------|----------|-------------------------|---------|-------|----------------------------------------|
| Section                  | 2023 PCI | Percent Deducts Due To: |         |       | Distress Type (Severity)               |
|                          |          | Load                    | Climate | Other |                                        |
| T2                       | 92       | 0                       | 100     | 0     | Longitudinal & Transverse Cracking (L) |

## 6.10 Taxiway 3

A summary of the condition of the Taxiway 3 is as follows:

| Taxiway 3<br>Branch "T3" |          |                         |         |       |                                                             |
|--------------------------|----------|-------------------------|---------|-------|-------------------------------------------------------------|
| Section                  | 2023 PCI | Percent Deducts Due To: |         |       | Distress Type (Severity)                                    |
|                          |          | Load                    | Climate | Other |                                                             |
| T3                       | 81       | 0                       | 100     | 0     | Longitudinal & Transverse Cracking (L, M)<br>Weathering (L) |

## 6.11 Taxiway 4

A summary of the condition of the Taxiway 4 is as follows:

| Taxiway 4<br>Branch "T4" |          |                         |         |       |                                                                                                      |
|--------------------------|----------|-------------------------|---------|-------|------------------------------------------------------------------------------------------------------|
| Section                  | 2023 PCI | Percent Deducts Due To: |         |       | Distress Type (Severity)                                                                             |
|                          |          | Load                    | Climate | Other |                                                                                                      |
| T4                       | 23       | 0                       | 100     | 0     | Longitudinal & Transverse Cracking (L, M)<br>Alligator Cracking (M)<br>Joint Reflection Cracking (M) |



### 6.12 Taxiway 5

A summary of the condition of the Taxiway 5 is as follows:

| Taxiway 5<br>Branch "T5" |          |                         |         |       |                                                                                                             |
|--------------------------|----------|-------------------------|---------|-------|-------------------------------------------------------------------------------------------------------------|
| Section                  | 2023 PCI | Percent Deducts Due To: |         |       | Distress Type (Severity)                                                                                    |
|                          |          | Load                    | Climate | Other |                                                                                                             |
| T5                       | 30       | 34                      | 66      | 0     | Longitudinal & Transverse Cracking (L, M)<br>Block Cracking (M)<br>Alligator Cracking (M)<br>Weathering (L) |

### 6.13 Taxiway 6

A summary of the condition of the Taxiway 6 is as follows:

| Taxiway 6<br>Branch "T6" |          |                         |         |       |                                                             |
|--------------------------|----------|-------------------------|---------|-------|-------------------------------------------------------------|
| Section                  | 2023 PCI | Percent Deducts Due To: |         |       | Distress Type (Severity)                                    |
|                          |          | Load                    | Climate | Other |                                                             |
| T6                       | 85       | 0                       | 100     | 0     | Longitudinal & Transverse Cracking (L, M)<br>Weathering (L) |

### 6.14 Taxiway 7

A summary of the condition of the Taxiway 7 is as follows:

| Taxiway 7<br>Branch "T7" |          |                         |         |       |                                           |
|--------------------------|----------|-------------------------|---------|-------|-------------------------------------------|
| Section                  | 2023 PCI | Percent Deducts Due To: |         |       | Distress Type (Severity)                  |
|                          |          | Load                    | Climate | Other |                                           |
| T7                       | 85       | 0                       | 100     | 0     | Longitudinal & Transverse Cracking (L, M) |

### 6.15 Taxiway 8

A summary of the condition of the Taxiway 8 is as follows:

| Taxiway 8<br>Branch "T8" |          |                         |         |       |                                        |
|--------------------------|----------|-------------------------|---------|-------|----------------------------------------|
| Section                  | 2023 PCI | Percent Deducts Due To: |         |       | Distress Type (Severity)               |
|                          |          | Load                    | Climate | Other |                                        |
| T8                       | 94       | 0                       | 100     | 0     | Longitudinal & Transverse Cracking (L) |

### 6.16 Tiedown 1

A summary of the condition of the Tiedown 1 is as follows:

| Tiedown 1<br>Branch "TD1" |          |                         |         |       |                                                                                                      |
|---------------------------|----------|-------------------------|---------|-------|------------------------------------------------------------------------------------------------------|
| Section                   | 2023 PCI | Percent Deducts Due To: |         |       | Distress Type (Severity)                                                                             |
|                           |          | Load                    | Climate | Other |                                                                                                      |
| TD1                       | 21       | 19                      | 81      | 0     | Longitudinal & Transverse Cracking (L, M)<br>Alligator Cracking (M)<br>Joint Reflection Cracking (M) |

## **7. ENGINEERING ANALYSES**

Engineering analyses were performed using the PAVER™ software program to provide the information needed to develop a 10-year pavement rehabilitation plan and budget. The methodology used and results of the analyses are described below.

### **7.1 PMP Customization**

In order for a PMP to be a useful tool, it must reflect the policies, practices, and procedures of the agency using it. These factors must be taken into account during the analytical system development in order for the final product to reflect the decision process used by the agency. The PAVER™ software program was customized during this task to reflect the conditions and policies under which the Susanville Municipal Airport operates. The customization involved the development of pavement performance models and the input of feasible repair types and unit costs. The repair types and unit costs were based upon information from previous projects.

### **7.2 Pavement Performance Models**

Performance prediction models play an essential role in developing rehabilitation programs. The performance models are used within a pavement management system to predict pavement performance over time, thereby helping to determine the appropriate time to apply rehabilitation to a section so that the benefits obtained from the expenditure are maximized. In addition, by projecting the rate at which the pavement condition will change over time, a meaningful life cycle cost analysis can be performed to compare the costs of different rehabilitation alternatives.

PAVER™ software program uses the “family” approach to pavement condition prediction modeling. The family modeling approach involves organizing the pavement network into groups of pavements based on factors such as pavement type, climate, and traffic. For example, asphalt concrete (AC) pavements that have never received an overlay and are subjected to heavy traffic may be grouped into a family. A constrained regression is then applied to the data set (pavement age versus current pavement condition index [PCI] value) to develop a deterioration curve for that family of pavements. The performance of an individual section can then be predicted by using a section’s relative position to the family curve that represents it.

The following factors were investigated during the development of the Susanville Municipal Airport pavement performance models:

- surface type (asphalt concrete [AC] and Portland cement concrete [PCC])
- pavement use (runways, taxiways, and aprons)

Performance models were developed based on pavement surface type and use (i.e., runway vs. taxiway). These models should be updated whenever new pavement condition data is collected. Over time, as more data becomes available, it should be possible to further refine these models and to incorporate the consideration of other factors into their development.

### 7.3 Rehabilitation Analysis Process

Using the customized PAVER™ software program, a 10-year rehabilitation program was prepared for the Susanville Municipal Airport. The analysis was conducted considering an unconstrained budget, where the goal was to maintain minimum PCI levels, which were assigned as follows:

- Runways: PCI > 70
- Taxiways: PCI > 65
- Aprons: PCI > 65

Using PAVER™ software program an analysis was performed to identify and prioritize pavement rehabilitation needs at the Susanville Municipal Airport. The following process is used within PAVER™ to develop a pavement rehabilitation program:

1. PAVER™ calculates the PCI of all pavement sections for each analysis year by analyzing the last inspection data available and the pavement performance models developed for the pavement network.
2. PAVER™ compares each section's PCI in each analysis year with the "critical" PCI for that family of pavements. The critical PCI is the point at which pavement deterioration accelerates and preventive maintenance activities are no longer considered cost-effective. The critical PCI concept was developed by studying the results from the dynamic programming network optimization process and by performing life-cycle cost analyses on many projects nationwide. The critical PCI varies based on the type of pavement, pavement use, and other factors; generally, it is in the range of 50 to 70. During this project, a critical PCI of 70 was assigned to runways, a critical PCI of 65 to taxiways and a critical PCI of 65 to aprons.
3. If an apron or taxiway pavement section in a given analysis year has a PCI between 46-65 or between 51-70 for a runway pavement section, the section was considered for resurfacing. If an apron or taxiway pavement section in a given analysis year has a PCI of 45 and below, or 50 and below for a runway pavement section, the section was considered for reconstruction. If a pavement section PCI in a given analysis year is above these PCI values, it is assumed that no work will be done aside from typical maintenance i.e. global crack seal treatment every few years until the need for major rehabilitation.
4. The initial output from PAVER™ was modified to ensure that the final program is a reasonable blueprint for the airport to follow in the future. This process consisted of 1) manually making recommendations for resurfacing and reconstructing pavement sections and 2) grouping logical projects together into common program years. Each of these activities is discussed further below.

## **7.4 Cost Estimates**

Cost estimates were developed for the 10-year rehabilitation program. Below is a detailed list of items to be included in these estimates.

### **7.4.1 Reconstruction of Aircraft Parking Ramp/Apron**

- Pavement Removal
- Aggregate Base Course
- Bituminous Tack Coat
- Asphalt Surface Course
- Paint Striping (Yellow Reflectorized)
- Paint Striping (White Reflectorized)
- Paint Striping (Black Nonreflectorized)

### **7.4.2 Rehabilitation of Aircraft Parking Ramp/Apron**

- Mill & Overlay Existing Pavement
- Bituminous Tack Coat
- Paint Striping (Yellow Reflectorized)
- Paint Striping (Black Non-reflectorized)

### **7.4.3 Rehabilitation of Taxiway 'A' and Associated Taxilanes**

- Filling of Cracks 1/8" to 1/2" Wide
- Emulsified Asphalt Slurry Seal Surface Treatment
- Paint Striping (Yellow Reflectorized)
- Paint Striping (Black Nonreflectorized)

The cost estimates were prepared in terms of 2023 dollars and utilizing daytime construction. Cost breakdowns for each of the recommended projects is located in Appendix E. In addition to the work described above, the cost estimates include a 20% contingency cost. Cost estimates do not include design, survey, mobilization, electrical, drainage, traffic control, SWPPP, unclassified excavation, construction administration or construction management.

## 8. AIRPORT CAPITAL IMPROVEMENT PLAN

A ten-year Airport Capital Improvement Plan (ACIP) project list has been prepared based on the results of the recommended 10-Year Rehabilitation Program derived by the field survey. The resulting 10-year ACIP and cost estimates are summarized in Table 8-1 (next page). The cost estimates for the projects include work typical of pavement maintenance and reconstruction projects.

Based on an analysis of the PCI reduction per year, it is recommended to implement stop-gap maintenance in the original recommended construction year, if the construction of any recommended project is delayed 3.5 years or more. The intent of the stop-gap activities is to address safety-related repairs on pavements which have a condition lower than the Critical PCI, and where there is insufficient funding to fully repair the section with major rehabilitation. Stop-gap maintenance does not extend the life of the pavement. A stop-gap maintenance policy usually consists of such actions as patching high-severity patches, depressions, blow-ups, and so on. In other words, pavement distresses that could pose safety hazards are corrected (at least temporarily).

These costs may be used for planning and budgeting purposes. The actual extent and duration of maintenance will depend upon pavement conditions as revealed by periodic inspections by the Airport Operations Staff.

**TABLE 8-1 – ACIP PROJECTS – (2024-2034)**

| PROJECT | DESIGN YEAR | DESIGN COST | PROJECT                    | CONSTRUCTION YEAR | CONSTRUCTION COST* |
|---------|-------------|-------------|----------------------------|-------------------|--------------------|
| 1       | 2024        | \$12,000    | South Apron Reconstruction | 2025              | \$1,100,000        |
| TOTAL:  |             |             |                            |                   | \$1,100,000        |

| PROJECT | DESIGN YEAR | DESIGN COST | PROJECT                  | CONSTRUCTION YEAR | CONSTRUCTION COST* |
|---------|-------------|-------------|--------------------------|-------------------|--------------------|
| 2       | 2024        | \$12,000    | Taxiway C Reconstruction | 2025              | \$650,000          |
| TOTAL:  |             |             |                          |                   | \$650,000          |

| PROJECT | DESIGN YEAR | DESIGN COST | PROJECT                  | CONSTRUCTION YEAR | CONSTRUCTION COST* |
|---------|-------------|-------------|--------------------------|-------------------|--------------------|
| 3       | 2024        | \$98,000    | Taxiway D Reconstruction | 2025              | \$400,000          |
| TOTAL:  |             |             |                          |                   | \$400,000          |

| PROJECT | DESIGN YEAR | DESIGN COST | PROJECT                | CONSTRUCTION YEAR | CONSTRUCTION COST* |
|---------|-------------|-------------|------------------------|-------------------|--------------------|
| 4       | 2025        | \$75,000    | Runway 11-29 Seal Coat | 2026              | \$500,000          |
| TOTAL:  |             |             |                        |                   | \$500,000          |

\*Design Cost is equal to between roughly 6% and 10% of the total 2023 cost estimates for the project located in Appendix E.

\*Construction Cost is equal to the total 2023 cost estimates for the project located in Appendix E plus 15% for CA/CO and other related items.

\*These prices include a 2% annual inflation from the total 2023 cost estimates for the project located in Appendix E.

## **9. PAVEMENT MANAGEMENT REQUIREMENTS**

This report fulfills the FAA requirements to establish a Pavement Maintenance Management System to inventory airside pavements, store construction and maintenance history, document current pavement conditions and to identify pavement maintenance and rehabilitation needs. Further, the FAA requires that airport sponsors maintain the Airport Pavement Management System by performing and recording all substantial maintenance and rehabilitation work performed on airside pavements. It is required to provide a convenient means for retrieval of the data recorded.

Should any inspection reveal the need for repair, the inspector should document the distress and notify the airport manager who will make arrangements for repair. Routine repairs will be performed as soon as possible or deferred to regular cyclic repair schedules where appropriate. Emergency repairs will be performed within 24 hours with confirmation by the airport manager.

1. Daily Inspections – Drive-by inspections of all pavements will be inspected for FOD and obvious damage to the pavement.
2. Weekly Inspections – inspections of all pavements for any unexpected changes in the pavement condition or any situation creating unsafe condition.
3. Monthly Inspections – All pavements will be inspected for follow-up on required maintenance items. Obvious distresses, not previously identified, should be noted.
4. Annual Inspections – All pavements are to be visually observed for general performance and condition. Review and revise the maintenance program, as necessary, at this time. Pavements that show increase in deterioration should be identified for inclusion in capital improvement plan. Preventative maintenance should be identified and recommended for budgeting.
5. 3 year Inspection – All pavements will be inspected and evaluated in accordance with ASTM D5340, Test Method for Airport Pavement Condition Surveys.

C&S has developed a set of forms for recording pavement maintenance activities. The PMP inspections are in addition to routine maintenance inspections for operations. The forms, provided in Appendix H, should provide a convenient means for Susanville Municipal Airport to record this data in such a way that it can be readily incorporated into any future PMP Report updates. There is a form for Annual reporting as well as a form that can be used for daily, weekly, and monthly reporting.

C&S recommends that Susanville Municipal Airport continue to utilize the PCI method of pavement inspection because this method was used to develop this report. The PCI data should be loaded into the PMP and the ACIP and Maintenance and Repair Plan updated every 3 years. In addition, Susanville Municipal Airport should continue its periodic overview inspections of pavement conditions and perform isolated repairs to keep the pavement in a serviceable condition.

## 9.1 PAVEMENT MAINTENANCE IDEOLOGY

As noted in FAA Advisory Circular 150/5380-7B, *Airport Pavement Management*, a pavement generally performs well for the majority of its life, after which it reaches a “critical condition” and begins to deteriorate rapidly. Figure 1 below, illustrates how pavement typically deteriorates and the relative cost of rehabilitation at various times throughout its life. Maintaining and preserving a pavement in good condition versus rehabilitating a pavement in fair to poor condition is four to five times less expensive and increases pavement useful life. The number of years a pavement stays in “good” condition before reaching the point of rapid deterioration depends on several factors, including construction type and quality, pavement use, climate, and maintenance.

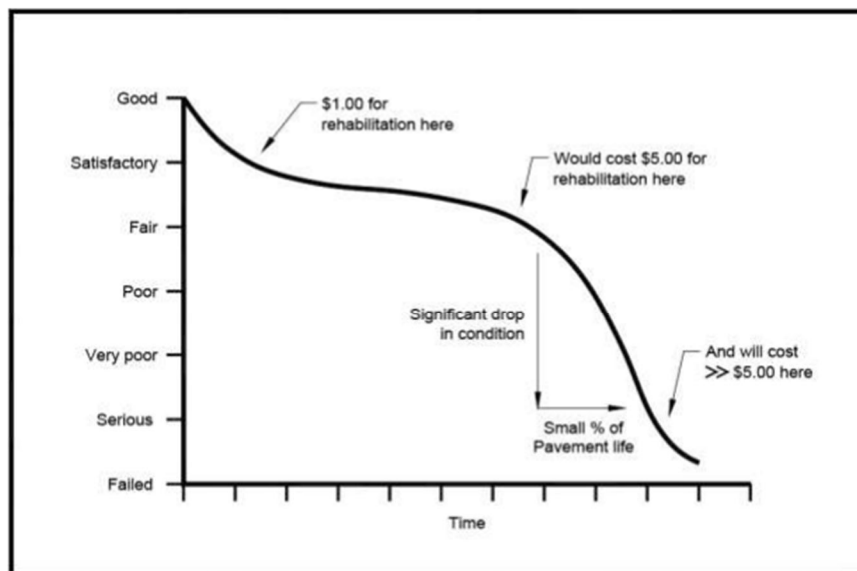


Figure 1. Typical Pavement Condition Life Cycle.

Figure 1 also shows that the ideal time for major rehabilitation is just as a pavement's rate of deterioration begins to increase. Maintenance and rehabilitation (M&R) solutions would be easy to plan if pavements exhibited clear signs they had reached this point, but unfortunately, they do not. There is no prescribed or determined treatment schedule for every pavement. The shape of the deterioration curve, and the optimal maintenance and repair points, vary considerably within a pavement network. A pavement experiencing a sudden increase in operations or aircraft loading will have a tendency to deteriorate more rapidly than a pavement deteriorating solely from environmental causes. A pavement deteriorating from environmental damage may have a number of cracks that need filling, but still remain structurally sound. Conversely, this same pavement may be in the early stages of load damage deterioration, which can only be detected with testing. Because it is difficult to determine when a pavement has reached the critical condition, a PMP helps identify the optimal rehabilitation point and allows decision-makers to target available resources where they will be most effective.



For typical general aviation airport pavements, an annual pavement inspection and crack filling maintenance is recommended. In addition to annual maintenance, the following rule of thumb could be applied for the life of asphalt pavement under normal conditions:

| Rehabilitation                                      | Years from original pavement |
|-----------------------------------------------------|------------------------------|
| Spray Coat (or fog seal)                            | 1                            |
| Crack Sealing and Seal Coat                         | 7                            |
| Crack Sealing and Seal Coat                         | 15                           |
| Mill and Overlay                                    | 20                           |
| Spray Coat (or fog seal)                            | 21                           |
| Crack Sealing                                       | 24                           |
| Seal Coat                                           | 26                           |
| Crack Sealing and Seal Coat                         | 30                           |
| <b>Assess Rehabilitation or Reconstruction Need</b> |                              |

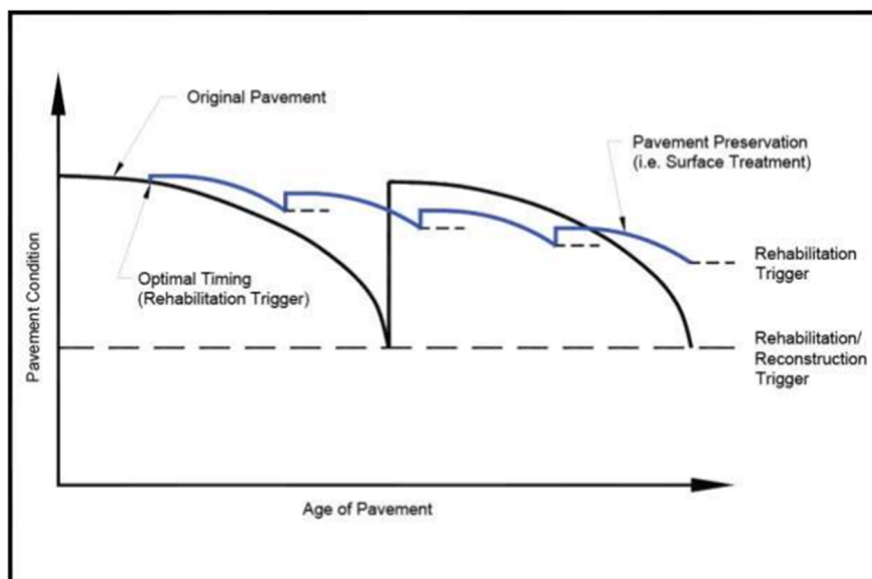


Figure 2. Pavement Preservation Concept.

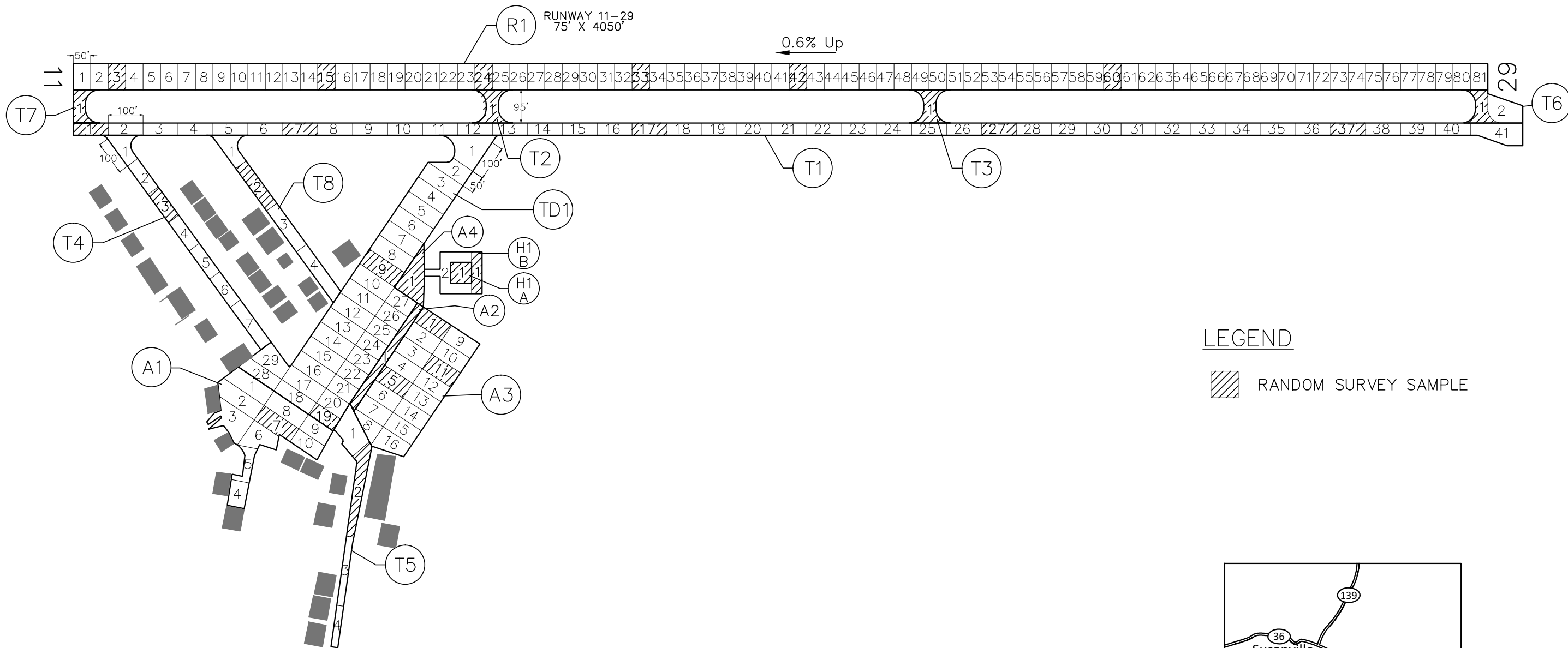
Figure 2 illustrates the pavement preservation concept, which begins with an application of M&R techniques early in a pavement's life. An effective pavement preservation program addresses pavements while they are still in good condition and before any serious damage occurs. By applying a cost-effective treatment at the right time, the pavement condition is improved. The cumulative effect of systematic, successive preservation treatments is to minimize or eliminate costly repairs and postpone costly rehabilitation and reconstruction. During the life of a pavement, the cumulative cost of the series of pavement preservation treatments is substantially less than the cost of the more extensive, higher cost of reconstruction and generally more economical than the cost of major rehabilitation. Additionally, performing a series of successive pavement preservation treatments during the life of a pavement is less disruptive to users than the long closures normally associated with reconstruction projects.

## **10. LIMITATIONS**

The results of the pavement management study should be used as a guide in planning, prioritizing and budgeting pavement maintenance and rehabilitation. It should not be used as an alternative to, nor replace, a detailed engineering evaluation of individual pavements scheduled for repair. It is essential that thorough engineering evaluations and investigations are completed to confirm the projects detailed in this report.

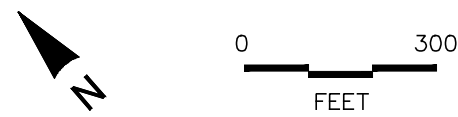
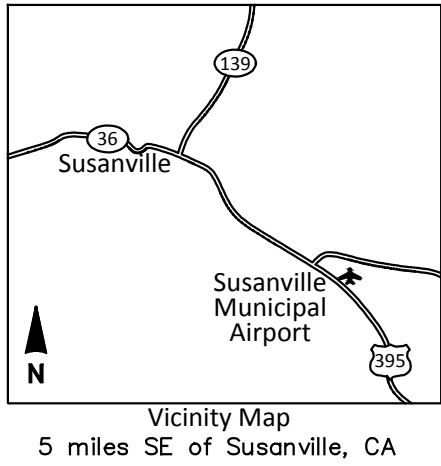
**APPENDIX “A”**

**SECTION AND SAMPLE UNIT LAYOUT PLANS**



LEGEND

 RANDOM SURVEY SAMPLE



- Notes:
- 1. Map intended for schematic representation of pavement condition. Do not scale.
  - 2. Private taxilanes and aprons as well as other non-publicly funded improvements are not shown.

|     |          |      |                                                        |                                                                                                                                                                             |
|-----|----------|------|--------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|     |          |      | SUSANVILLE MUNICIPAL AIRPORT                           |                                                                                                                                                                             |
|     |          |      | LASSEN COUNTY, CALIFORNIA                              |                                                                                                                                                                             |
|     |          |      | FAA Site Number 02332.*A                               | Site Code SVE                                                                                                                                                               |
|     |          |      | BRANCH AND SAMPLE DESIGNATION                          |                                                                                                                                                                             |
|     |          |      | California Division of Aeronautics Project No. 63A0061 |   |
| NO. | REVISION | DATE | DATE: 2/20/12                                          |                                                                                                                                                                             |

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## **APPENDIX “B”**

### **PCI REPORTS**

3/5/2024

**Branch Condition Report**

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*Pavement Database: SVE*

| Branch ID | Number of Sections | Sum Section Length (Ft) | Avg Section Width (Ft) | True Area (SqFt) | Use   | Average PCI | Standard Deviation PCI | Weighted Average PCI |
|-----------|--------------------|-------------------------|------------------------|------------------|-------|-------------|------------------------|----------------------|
| A1        | 1                  | 356.61                  | 351.24                 | 53,961.30        | OTHER | 58.80       | 0.00                   | 58.80                |
| A2        | 1                  | 101.20                  | 279.91                 | 4,790.64         | OTHER | 42.50       | 0.00                   | 42.50                |
| A3        | 1                  | 312.74                  | 436.50                 | 78,631.35        | OTHER | 76.20       | 0.00                   | 76.20                |
| A4        | 1                  | 202.56                  | 240.96                 | 16,246.73        | OTHER | 83.20       | 0.00                   | 83.20                |
| h1a       | 1                  | 83.44                   | 83.97                  | 3,570.18         | OTHER | 62.00       | 0.00                   | 62.00                |
| H1B       | 1                  | 114.59                  | 102.28                 | 3,874.23         | OTHER | 50.40       | 0.00                   | 50.40                |
| h2        | 1                  | 85.00                   | 82.35                  | 3,417.50         | OTHER | 40.10       | 0.00                   | 40.10                |
| R1        | 1                  | 2,722.45                | 3,289.89               | 302,410.35       | OTHER | 87.90       | 0.00                   | 87.90                |
| T1        | 1                  | 2,720.14                | 3,306.21               | 153,781.14       | OTHER | 97.50       | 0.00                   | 97.50                |
| T2        | 1                  | 139.61                  | 142.11                 | 5,246.02         | OTHER | 91.60       | 0.00                   | 91.60                |
| T3        | 1                  | 145.49                  | 150.36                 | 5,386.92         | OTHER | 81.30       | 0.00                   | 81.30                |
| T4        | 1                  | 799.96                  | 179.89                 | 33,486.80        | OTHER | 23.00       | 0.00                   | 23.00                |
| T5        | 1                  | 500.27                  | 464.66                 | 27,156.87        | OTHER | 30.00       | 0.00                   | 30.00                |
| T6        | 1                  | 189.97                  | 164.18                 | 10,721.94        | OTHER | 84.70       | 0.00                   | 84.70                |
| T7        | 1                  | 119.60                  | 117.91                 | 4,348.52         | OTHER | 85.40       | 0.00                   | 85.40                |
| T8        | 1                  | 587.77                  | 90.57                  | 20,789.92        | OTHER | 93.70       | 0.00                   | 93.70                |
| TD1       | 1                  | 471.05                  | 1,002.86               | 161,243.04       | OTHER | 20.70       | 0.00                   | 20.70                |

3/5/2024

## Branch Condition Report

Page 2 of 2

*Pavement Database: SVE*

| Use Category | Number of Sections | Total Area (SqFt) | Arithmetic Average PCI | Average STD PCI | Weighted Average PCI |
|--------------|--------------------|-------------------|------------------------|-----------------|----------------------|
| OTHER        | 17                 | 889,063.45        | 65.24                  | 25.41           | 69.64                |
| ALL          | 17                 | 889,063.45        | 65.24                  | 25.41           | 69.64                |

3/4/2024

**Branch Condition Report**

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*Pavement Database: SVESHAPES*

| Branch ID | Number of Sections | Sum Section Length (Ft) | Avg Section Width (Ft) | True Area (SqFt) | Use   | Average PCI | Standard Deviation PCI | Weighted Average PCI |
|-----------|--------------------|-------------------------|------------------------|------------------|-------|-------------|------------------------|----------------------|
| A1_1      | 1                  | 135.81                  | 84.35                  | 6,016.53         | OTHER | 70.20       | 0.00                   | 70.20                |
| A1_10     | 1                  | 111.93                  | 74.64                  | 4,574.88         | OTHER | 70.00       | 0.00                   | 70.00                |
| A1_2      | 1                  | 154.91                  | 86.60                  | 7,365.84         | OTHER | 74.50       | 0.00                   | 74.50                |
| A1_3      | 1                  | 135.42                  | 80.35                  | 6,334.87         | OTHER | 76.20       | 0.00                   | 76.20                |
| A1_4      | 1                  | 63.23                   | 58.97                  | 1,868.24         | OTHER | 31.00       | 0.00                   | 31.00                |
| A1_5      | 1                  | 115.96                  | 109.01                 | 5,142.51         | OTHER | 29.20       | 0.00                   | 29.20                |
| A1_6      | 1                  | 194.29                  | 138.00                 | 4,709.83         | OTHER | 77.70       | 0.00                   | 77.70                |
| A1_7      | 1                  | 116.84                  | 80.16                  | 5,227.67         | OTHER | 72.40       | 0.00                   | 72.40                |
| A1_8      | 1                  | 113.92                  | 71.75                  | 4,556.60         | OTHER | 73.50       | 0.00                   | 73.50                |
| A1_9      | 1                  | 109.62                  | 72.00                  | 4,438.23         | OTHER | 73.70       | 0.00                   | 73.70                |
| A2_1      | 1                  | 110.46                  | 304.45                 | 5,220.43         | OTHER | 34.50       | 0.00                   | 34.50                |
| A3_1      | 1                  | 121.96                  | 74.90                  | 4,911.90         | OTHER | 59.60       | 0.00                   | 59.60                |
| A3_10     | 1                  | 104.38                  | 77.66                  | 4,911.83         | OTHER | 89.60       | 0.00                   | 89.60                |
| A3_11     | 1                  | 104.96                  | 77.47                  | 4,911.80         | OTHER | 89.90       | 0.00                   | 89.90                |
| A3_12     | 1                  | 105.53                  | 77.29                  | 4,911.84         | OTHER | 94.00       | 0.00                   | 94.00                |
| A3_13     | 1                  | 106.10                  | 77.12                  | 4,911.82         | OTHER | 94.00       | 0.00                   | 94.00                |
| A3_14     | 1                  | 106.67                  | 76.96                  | 4,911.82         | OTHER | 94.00       | 0.00                   | 94.00                |
| A3_15     | 1                  | 107.24                  | 76.80                  | 4,911.83         | OTHER | 94.00       | 0.00                   | 94.00                |
| A3_16     | 1                  | 99.54                   | 87.42                  | 4,749.47         | OTHER | 84.00       | 0.00                   | 84.00                |
| A3_2      | 1                  | 113.47                  | 75.47                  | 4,911.89         | OTHER | 85.80       | 0.00                   | 85.80                |
| A3_3      | 1                  | 113.47                  | 75.47                  | 4,911.89         | OTHER | 81.90       | 0.00                   | 81.90                |
| A3_4      | 1                  | 113.47                  | 75.47                  | 4,911.90         | OTHER | 61.60       | 0.00                   | 61.60                |
| A3_5      | 1                  | 113.47                  | 75.47                  | 4,911.88         | OTHER | 75.70       | 0.00                   | 75.70                |
| A3_6      | 1                  | 113.47                  | 75.47                  | 4,911.91         | OTHER | 82.70       | 0.00                   | 82.70                |
| A3_7      | 1                  | 113.47                  | 75.47                  | 4,911.89         | OTHER | 85.00       | 0.00                   | 85.00                |
| A3_8      | 1                  | 125.90                  | 85.50                  | 4,911.88         | OTHER | 82.00       | 0.00                   | 82.00                |
| A3_9      | 1                  | 103.80                  | 77.85                  | 4,911.83         | OTHER | 86.00       | 0.00                   | 86.00                |
| A4_1      | 1                  | 138.27                  | 150.30                 | 7,713.30         | OTHER | 76.10       | 0.00                   | 76.10                |
| A4_2      | 1                  | 150.17                  | 157.83                 | 8,513.81         | OTHER | 92.00       | 0.00                   | 92.00                |
| H1A       | 1                  | 83.68                   | 84.31                  | 3,590.77         | OTHER | 99.60       | 0.00                   | 99.60                |
| H1B       | 1                  | 114.59                  | 102.28                 | 3,874.23         | OTHER | 23.70       | 0.00                   | 23.70                |
| h2        | 1                  | 85.00                   | 82.35                  | 3,417.50         | OTHER | 40.10       | 0.00                   | 40.10                |
| R1        | 1                  | 89.25                   | 86.37                  | 3,746.28         | OTHER | 86.10       | 0.00                   | 86.10                |
| R1_1      | 1                  | 0.00                    | 0.00                   | 0.00             | OTHER | 100.00      | 0.00                   | NaN                  |
| R1_10     | 1                  | 89.32                   | 86.39                  | 3,746.27         | OTHER | 88.40       | 0.00                   | 88.40                |
| R1_11     | 1                  | 89.33                   | 86.39                  | 3,746.27         | OTHER | 89.30       | 0.00                   | 89.30                |
| R1_12     | 1                  | 89.34                   | 86.40                  | 3,746.26         | OTHER | 85.10       | 0.00                   | 85.10                |
| R1_13     | 1                  | 89.34                   | 86.40                  | 3,746.28         | OTHER | 86.00       | 0.00                   | 86.00                |
| R1_14     | 1                  | 89.35                   | 86.40                  | 3,746.29         | OTHER | 88.70       | 0.00                   | 88.70                |
| R1_15     | 1                  | 89.36                   | 86.41                  | 3,746.30         | OTHER | 86.70       | 0.00                   | 86.70                |
| R1_16     | 1                  | 89.37                   | 86.41                  | 3,746.27         | OTHER | 87.40       | 0.00                   | 87.40                |
| R1_17     | 1                  | 89.38                   | 86.41                  | 3,746.30         | OTHER | 88.90       | 0.00                   | 88.90                |



3/4/2024

**Branch Condition Report**

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*Pavement Database: SVESHAPES*

| Branch ID | Number of Sections | Sum Section Length (Ft) | Avg Section Width (Ft) | True Area (SqFt) | Use   | Average PCI | Standard Deviation PCI | Weighted Average PCI |
|-----------|--------------------|-------------------------|------------------------|------------------|-------|-------------|------------------------|----------------------|
| R1_18     | 1                  | 89.39                   | 86.41                  | 3,746.28         | OTHER | 80.90       | 0.00                   | 80.90                |
| R1_19     | 1                  | 89.39                   | 86.42                  | 3,746.27         | OTHER | 87.30       | 0.00                   | 87.30                |
| R1_20     | 1                  | 89.40                   | 86.42                  | 3,746.27         | OTHER | 87.20       | 0.00                   | 87.20                |
| R1_21     | 1                  | 89.41                   | 86.42                  | 3,746.27         | OTHER | 85.20       | 0.00                   | 85.20                |
| R1_22     | 1                  | 89.42                   | 86.42                  | 3,746.28         | OTHER | 83.10       | 0.00                   | 83.10                |
| R1_23     | 1                  | 89.51                   | 86.33                  | 3,746.28         | OTHER | 84.00       | 0.00                   | 84.00                |
| R1_24     | 1                  | 90.67                   | 87.22                  | 3,865.66         | OTHER | 82.10       | 0.00                   | 82.10                |
| R1_25     | 1                  | 90.67                   | 87.22                  | 3,865.66         | OTHER | 88.30       | 0.00                   | 88.30                |
| R1_26     | 1                  | 90.67                   | 87.22                  | 3,865.63         | OTHER | 82.40       | 0.00                   | 82.40                |
| R1_27     | 1                  | 90.67                   | 87.22                  | 3,865.65         | OTHER | 82.40       | 0.00                   | 82.40                |
| R1_28     | 1                  | 90.66                   | 87.22                  | 3,865.62         | OTHER | 82.90       | 0.00                   | 82.90                |
| R1_29     | 1                  | 90.66                   | 87.22                  | 3,865.62         | OTHER | 82.90       | 0.00                   | 82.90                |
| R1_30     | 1                  | 90.66                   | 87.22                  | 3,865.63         | OTHER | 82.90       | 0.00                   | 82.90                |
| R1_31     | 1                  | 90.66                   | 87.22                  | 3,865.61         | OTHER | 89.10       | 0.00                   | 89.10                |
| R1_32     | 1                  | 90.66                   | 87.22                  | 3,865.63         | OTHER | 84.20       | 0.00                   | 84.20                |
| R1_33     | 1                  | 90.66                   | 87.22                  | 3,865.63         | OTHER | 85.10       | 0.00                   | 85.10                |
| R1_34     | 1                  | 90.66                   | 87.22                  | 3,865.62         | OTHER | 86.20       | 0.00                   | 86.20                |
| R1_35     | 1                  | 90.66                   | 87.22                  | 3,865.59         | OTHER | 88.70       | 0.00                   | 88.70                |
| R1_36     | 1                  | 90.66                   | 87.22                  | 3,865.63         | OTHER | 84.10       | 0.00                   | 84.10                |
| R1_37     | 1                  | 90.66                   | 87.22                  | 3,865.64         | OTHER | 81.70       | 0.00                   | 81.70                |
| R1_38     | 1                  | 90.66                   | 87.22                  | 3,865.62         | OTHER | 82.20       | 0.00                   | 82.20                |
| R1_39     | 1                  | 90.66                   | 87.22                  | 3,865.64         | OTHER | 81.40       | 0.00                   | 81.40                |
| R1_4      | 1                  | 89.27                   | 86.37                  | 3,746.28         | OTHER | 85.60       | 0.00                   | 85.60                |
| R1_40     | 1                  | 90.66                   | 87.22                  | 3,865.63         | OTHER | 80.40       | 0.00                   | 80.40                |
| R1_41     | 1                  | 90.66                   | 87.22                  | 3,865.64         | OTHER | 83.20       | 0.00                   | 83.20                |
| R1_42     | 1                  | 90.66                   | 87.22                  | 3,865.64         | OTHER | 85.30       | 0.00                   | 85.30                |
| R1_43     | 1                  | 90.66                   | 87.22                  | 3,865.65         | OTHER | 83.50       | 0.00                   | 83.50                |
| R1_44     | 1                  | 90.66                   | 87.22                  | 3,865.63         | OTHER | 82.30       | 0.00                   | 82.30                |
| R1_45     | 1                  | 181.33                  | 174.44                 | 7,731.34         | OTHER | 85.20       | 0.00                   | 85.20                |
| R1_46     | 1                  | 90.66                   | 87.22                  | 3,865.64         | OTHER | 81.60       | 0.00                   | 81.60                |
| R1_47     | 1                  | 90.66                   | 87.22                  | 3,865.66         | OTHER | 81.40       | 0.00                   | 81.40                |
| R1_48     | 1                  | 90.66                   | 87.22                  | 3,865.65         | OTHER | 83.70       | 0.00                   | 83.70                |
| R1_49     | 1                  | 91.09                   | 86.69                  | 3,865.67         | OTHER | 84.60       | 0.00                   | 84.60                |
| R1_5      | 1                  | 89.28                   | 86.38                  | 3,746.27         | OTHER | 89.30       | 0.00                   | 89.30                |
| R1_50     | 1                  | 91.46                   | 86.12                  | 3,860.41         | OTHER | 79.50       | 0.00                   | 79.50                |
| R1_51     | 1                  | 91.45                   | 86.12                  | 3,860.39         | OTHER | 83.50       | 0.00                   | 83.50                |
| R1_52     | 1                  | 91.45                   | 86.12                  | 3,860.39         | OTHER | 86.00       | 0.00                   | 86.00                |
| R1_53     | 1                  | 91.44                   | 86.12                  | 3,860.38         | OTHER | 81.90       | 0.00                   | 81.90                |
| R1_54     | 1                  | 91.44                   | 86.12                  | 3,860.38         | OTHER | 83.20       | 0.00                   | 83.20                |
| R1_55     | 1                  | 91.43                   | 86.12                  | 3,860.39         | OTHER | 83.00       | 0.00                   | 83.00                |
| R1_56     | 1                  | 91.42                   | 86.11                  | 3,860.37         | OTHER | 90.90       | 0.00                   | 90.90                |
| R1_57     | 1                  | 91.42                   | 86.11                  | 3,860.36         | OTHER | 92.00       | 0.00                   | 92.00                |

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## Branch Condition Report

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Pavement Database: SVESHAPES

| Branch ID | Number of Sections | Sum Section Length (Ft) | Avg Section Width (Ft) | True Area (SqFt) | Use   | Average PCI | Standard Deviation PCI | Weighted Average PCI |
|-----------|--------------------|-------------------------|------------------------|------------------|-------|-------------|------------------------|----------------------|
| R1_58     | 1                  | 91.41                   | 86.11                  | 3,860.37         | OTHER | 94.00       | 0.00                   | 94.00                |
| R1_59     | 1                  | 91.41                   | 86.11                  | 3,860.38         | OTHER | 94.00       | 0.00                   | 94.00                |
| R1_6      | 1                  | 89.29                   | 86.38                  | 3,746.29         | OTHER | 83.30       | 0.00                   | 83.30                |
| R1_60     | 1                  | 91.40                   | 86.11                  | 3,860.39         | OTHER | 94.00       | 0.00                   | 94.00                |
| R1_61     | 1                  | 91.40                   | 86.11                  | 3,860.40         | OTHER | 94.00       | 0.00                   | 94.00                |
| R1_62     | 1                  | 91.39                   | 86.11                  | 3,860.41         | OTHER | 94.00       | 0.00                   | 94.00                |
| R1_63     | 1                  | 91.39                   | 86.11                  | 3,860.40         | OTHER | 94.00       | 0.00                   | 94.00                |
| R1_64     | 1                  | 91.38                   | 86.11                  | 3,860.42         | OTHER | 94.00       | 0.00                   | 94.00                |
| R1_65     | 1                  | 91.37                   | 86.10                  | 3,860.40         | OTHER | 94.00       | 0.00                   | 94.00                |
| R1_66     | 1                  | 91.37                   | 86.10                  | 3,860.43         | OTHER | 94.00       | 0.00                   | 94.00                |
| R1_67     | 1                  | 91.36                   | 86.10                  | 3,860.39         | OTHER | 94.00       | 0.00                   | 94.00                |
| R1_68     | 1                  | 91.36                   | 86.10                  | 3,860.40         | OTHER | 94.00       | 0.00                   | 94.00                |
| R1_69     | 1                  | 91.35                   | 86.10                  | 3,860.41         | OTHER | 94.00       | 0.00                   | 94.00                |
| R1_7      | 1                  | 89.30                   | 86.38                  | 3,746.27         | OTHER | 84.80       | 0.00                   | 84.80                |
| R1_70     | 1                  | 91.35                   | 86.10                  | 3,860.39         | OTHER | 94.00       | 0.00                   | 94.00                |
| R1_71     | 1                  | 91.34                   | 86.10                  | 3,860.38         | OTHER | 94.00       | 0.00                   | 94.00                |
| R1_72     | 1                  | 91.33                   | 86.10                  | 3,860.40         | OTHER | 94.00       | 0.00                   | 94.00                |
| R1_73     | 1                  | 91.33                   | 86.10                  | 3,860.40         | OTHER | 94.00       | 0.00                   | 94.00                |
| R1_74     | 1                  | 91.32                   | 86.10                  | 3,860.39         | OTHER | 94.00       | 0.00                   | 94.00                |
| R1_75     | 1                  | 91.32                   | 86.09                  | 3,860.39         | OTHER | 94.00       | 0.00                   | 94.00                |
| R1_76     | 1                  | 91.31                   | 86.09                  | 3,860.37         | OTHER | 94.00       | 0.00                   | 94.00                |
| R1_77     | 1                  | 91.31                   | 86.09                  | 3,860.40         | OTHER | 94.00       | 0.00                   | 94.00                |
| R1_78     | 1                  | 91.30                   | 86.09                  | 3,860.40         | OTHER | 94.00       | 0.00                   | 94.00                |
| R1_79     | 1                  | 91.30                   | 86.09                  | 3,860.40         | OTHER | 94.00       | 0.00                   | 94.00                |
| R1_8      | 1                  | 89.30                   | 86.39                  | 3,746.28         | OTHER | 85.00       | 0.00                   | 85.00                |
| R1_80     | 1                  | 90.34                   | 87.27                  | 3,860.39         | OTHER | 94.00       | 0.00                   | 94.00                |
| R1_81     | 1                  | 0.00                    | 0.00                   | 0.00             | OTHER | 100.00      | 0.00                   | NaN                  |
| R1_9      | 1                  | 89.31                   | 86.39                  | 3,746.25         | OTHER | 89.50       | 0.00                   | 89.50                |
| R2        | 1                  | 89.26                   | 86.37                  | 3,746.28         | OTHER | 90.20       | 0.00                   | 90.20                |
| R3        | 1                  | 89.26                   | 86.37                  | 3,746.27         | OTHER | 88.90       | 0.00                   | 88.90                |
| SVE_SHAP  | 1                  | 91.07                   | 87.43                  | 3,419.78         | APRON | 100.00      | 0.00                   | 100.00               |
| T1_1      | 1                  | 92.25                   | 101.54                 | 3,665.62         | OTHER | 100.00      | 0.00                   | 100.00               |
| T1_10     | 1                  | 91.42                   | 100.22                 | 3,665.63         | OTHER | 97.50       | 0.00                   | 97.50                |
| T1_11     | 1                  | 91.33                   | 100.08                 | 3,665.62         | OTHER | 97.50       | 0.00                   | 97.50                |
| T1_12     | 1                  | 91.84                   | 99.21                  | 3,665.63         | OTHER | 95.70       | 0.00                   | 95.70                |
| T1_13     | 1                  | 91.43                   | 97.90                  | 3,617.78         | OTHER | 97.00       | 0.00                   | 97.00                |
| T1_14     | 1                  | 91.91                   | 98.01                  | 3,636.14         | OTHER | 97.00       | 0.00                   | 97.00                |
| T1_15     | 1                  | 91.98                   | 98.12                  | 3,636.12         | OTHER | 97.50       | 0.00                   | 97.50                |
| T1_16     | 1                  | 92.04                   | 98.23                  | 3,636.12         | OTHER | 97.50       | 0.00                   | 97.50                |
| T1_17     | 1                  | 92.11                   | 98.34                  | 3,636.13         | OTHER | 97.20       | 0.00                   | 97.20                |
| T1_18     | 1                  | 92.17                   | 98.46                  | 3,636.13         | OTHER | 95.90       | 0.00                   | 95.90                |
| T1_19     | 1                  | 92.24                   | 98.57                  | 3,636.12         | OTHER | 97.50       | 0.00                   | 97.50                |

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## Branch Condition Report

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Pavement Database: SVESHAPES

| Branch ID | Number of Sections | Sum Section Length (Ft) | Avg Section Width (Ft) | True Area (SqFt) | Use   | Average PCI | Standard Deviation PCI | Weighted Average PCI |
|-----------|--------------------|-------------------------|------------------------|------------------|-------|-------------|------------------------|----------------------|
| T1_20     | 1                  | 92.31                   | 98.69                  | 3,636.12         | OTHER | 97.50       | 0.00                   | 97.50                |
| T1_21     | 1                  | 92.38                   | 98.80                  | 3,636.12         | OTHER | 96.20       | 0.00                   | 96.20                |
| T1_22     | 1                  | 92.45                   | 98.92                  | 3,636.13         | OTHER | 97.30       | 0.00                   | 97.30                |
| T1_23     | 1                  | 92.52                   | 99.04                  | 3,636.14         | OTHER | 97.50       | 0.00                   | 97.50                |
| T1_24     | 1                  | 90.48                   | 101.75                 | 3,636.15         | OTHER | 97.50       | 0.00                   | 97.50                |
| T1_25     | 1                  | 90.21                   | 106.54                 | 3,756.19         | OTHER | 96.70       | 0.00                   | 96.70                |
| T1_26     | 1                  | 90.09                   | 106.38                 | 3,756.17         | OTHER | 97.40       | 0.00                   | 97.40                |
| T1_27     | 1                  | 89.98                   | 106.22                 | 3,756.16         | OTHER | 96.30       | 0.00                   | 96.30                |
| T1_28     | 1                  | 89.86                   | 106.07                 | 3,756.18         | OTHER | 97.00       | 0.00                   | 97.00                |
| T1_29     | 1                  | 89.74                   | 105.91                 | 3,756.17         | OTHER | 97.50       | 0.00                   | 97.50                |
| T1_30     | 1                  | 89.63                   | 105.76                 | 3,756.17         | OTHER | 97.50       | 0.00                   | 97.50                |
| T1_31     | 1                  | 89.52                   | 105.61                 | 3,756.18         | OTHER | 96.30       | 0.00                   | 96.30                |
| T1_32     | 1                  | 89.41                   | 105.46                 | 3,756.19         | OTHER | 97.50       | 0.00                   | 97.50                |
| T1_33     | 1                  | 89.30                   | 105.31                 | 3,756.18         | OTHER | 97.50       | 0.00                   | 97.50                |
| T1_34     | 1                  | 89.19                   | 105.16                 | 3,756.18         | OTHER | 97.10       | 0.00                   | 97.10                |
| T1_35     | 1                  | 89.09                   | 105.02                 | 3,756.15         | OTHER | 97.50       | 0.00                   | 97.50                |
| T1_36     | 1                  | 88.98                   | 104.87                 | 3,756.16         | OTHER | 96.80       | 0.00                   | 96.80                |
| T1_37     | 1                  | 88.88                   | 104.73                 | 3,756.16         | OTHER | 97.50       | 0.00                   | 97.50                |
| T1_38     | 1                  | 88.78                   | 104.59                 | 3,756.17         | OTHER | 97.50       | 0.00                   | 97.50                |
| T1_39     | 1                  | 88.68                   | 104.45                 | 3,756.18         | OTHER | 96.80       | 0.00                   | 96.80                |
| T1_4      | 1                  | 91.96                   | 101.09                 | 3,665.60         | OTHER | 97.50       | 0.00                   | 97.50                |
| T1_40     | 1                  | 90.25                   | 102.25                 | 3,756.18         | OTHER | 93.60       | 0.00                   | 93.60                |
| T1_41     | 1                  | 149.06                  | 143.40                 | 7,866.60         | OTHER | 96.90       | 0.00                   | 96.90                |
| T1_5      | 1                  | 91.87                   | 100.94                 | 3,665.60         | OTHER | 97.50       | 0.00                   | 97.50                |
| T1_6      | 1                  | 91.78                   | 100.79                 | 3,665.61         | OTHER | 97.50       | 0.00                   | 97.50                |
| T1_7      | 1                  | 91.69                   | 100.65                 | 3,665.62         | OTHER | 97.50       | 0.00                   | 97.50                |
| T1_8      | 1                  | 91.60                   | 100.50                 | 3,665.62         | OTHER | 97.50       | 0.00                   | 97.50                |
| T1_9      | 1                  | 91.51                   | 100.36                 | 3,665.63         | OTHER | 100.00      | 0.00                   | 100.00               |
| T2        | 1                  | 231.76                  | 243.50                 | 8,911.63         | OTHER | 93.30       | 0.00                   | 93.30                |
| T3        | 1                  | 237.54                  | 251.59                 | 9,052.53         | OTHER | 84.50       | 0.00                   | 84.50                |
| T3_1      | 1                  | 0.00                    | 0.00                   | 0.00             | OTHER | 100.00      | 0.00                   | NaN                  |
| T4_1      | 1                  | 149.13                  | 185.50                 | 10,932.64        | OTHER | 81.40       | 0.00                   | 81.40                |
| T4_2      | 1                  | 118.28                  | 43.40                  | 4,276.23         | OTHER | 22.00       | 0.00                   | 22.00                |
| T4_3      | 1                  | 72.74                   | 37.15                  | 2,533.20         | OTHER | 6.80        | 0.00                   | 6.80                 |
| T4_4      | 1                  | 89.11                   | 36.41                  | 3,134.85         | OTHER | 11.90       | 0.00                   | 11.90                |
| T4_5      | 1                  | 137.31                  | 42.45                  | 5,020.12         | OTHER | 18.70       | 0.00                   | 18.70                |
| T4_6      | 1                  | 95.09                   | 41.18                  | 3,452.18         | OTHER | 17.70       | 0.00                   | 17.70                |
| T4_7      | 1                  | 172.51                  | 43.88                  | 6,416.39         | OTHER | 25.80       | 0.00                   | 25.80                |
| T5_1      | 1                  | 145.27                  | 136.89                 | 8,658.33         | OTHER | 27.20       | 0.00                   | 27.20                |
| T5_2      | 1                  | 172.46                  | 180.34                 | 6,637.75         | OTHER | 12.30       | 0.00                   | 12.30                |
| T5_3      | 1                  | 256.01                  | 193.30                 | 11,622.47        | OTHER | 43.80       | 0.00                   | 43.80                |
| T5_4      | 1                  | 109.02                  | 112.68                 | 3,840.79         | OTHER | 63.60       | 0.00                   | 63.60                |

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**Branch Condition Report**

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*Pavement Database: SVESHAPES*

| Branch ID | Number of Sections | Sum Section Length (Ft) | Avg Section Width (Ft) | True Area (SqFt) | Use   | Average PCI | Standard Deviation PCI | Weighted Average PCI |
|-----------|--------------------|-------------------------|------------------------|------------------|-------|-------------|------------------------|----------------------|
| T5_5      | 1                  | 84.97                   | 82.33                  | 3,415.13         | OTHER | 78.00       | 0.00                   | 78.00                |
| T6_1      | 1                  | 142.07                  | 110.34                 | 4,642.63         | OTHER | 85.60       | 0.00                   | 85.60                |
| T6_2      | 1                  | 141.51                  | 101.01                 | 6,602.21         | OTHER | 84.60       | 0.00                   | 84.60                |
| T7        | 1                  | 117.30                  | 116.96                 | 4,290.67         | OTHER | 82.10       | 0.00                   | 82.10                |
| T8_1      | 1                  | 105.98                  | 72.40                  | 3,904.63         | OTHER | 92.50       | 0.00                   | 92.50                |
| T8_2      | 1                  | 155.41                  | 39.63                  | 5,332.40         | OTHER | 93.10       | 0.00                   | 93.10                |
| T8_3      | 1                  | 148.59                  | 40.04                  | 5,139.69         | OTHER | 93.50       | 0.00                   | 93.50                |
| T8_4      | 1                  | 185.56                  | 43.83                  | 6,347.05         | OTHER | 92.10       | 0.00                   | 92.10                |
| TD1       | 1                  | 108.63                  | 127.59                 | 5,791.44         | OTHER | 21.30       | 0.00                   | 21.30                |
| TD10      | 1                  | 129.45                  | 79.87                  | 5,791.44         | OTHER | 27.90       | 0.00                   | 27.90                |
| TD11      | 1                  | 129.42                  | 79.87                  | 5,791.44         | OTHER | 19.40       | 0.00                   | 19.40                |
| TD12      | 1                  | 129.38                  | 79.88                  | 5,791.42         | OTHER | 29.10       | 0.00                   | 29.10                |
| TD13      | 1                  | 129.35                  | 79.88                  | 5,791.43         | OTHER | 32.10       | 0.00                   | 32.10                |
| TD14      | 1                  | 129.32                  | 79.89                  | 5,791.44         | OTHER | 27.20       | 0.00                   | 27.20                |
| TD15      | 1                  | 129.29                  | 80.02                  | 5,791.43         | OTHER | 22.20       | 0.00                   | 22.20                |
| TD16      | 1                  | 140.47                  | 75.70                  | 5,791.43         | OTHER | 40.00       | 0.00                   | 40.00                |
| TD17      | 1                  | 119.63                  | 81.53                  | 5,791.45         | OTHER | 37.90       | 0.00                   | 37.90                |
| TD18      | 1                  | 118.02                  | 81.95                  | 5,791.43         | OTHER | 41.30       | 0.00                   | 41.30                |
| TD19      | 1                  | 91.02                   | 70.44                  | 3,965.68         | OTHER | 31.60       | 0.00                   | 31.60                |
| TD2       | 1                  | 118.39                  | 99.27                  | 5,791.42         | OTHER | 23.00       | 0.00                   | 23.00                |
| TD20      | 1                  | 90.79                   | 70.82                  | 3,965.70         | OTHER | 36.50       | 0.00                   | 36.50                |
| TD21      | 1                  | 90.78                   | 70.82                  | 3,965.68         | OTHER | 36.10       | 0.00                   | 36.10                |
| TD22      | 1                  | 90.77                   | 70.83                  | 3,965.69         | OTHER | 10.70       | 0.00                   | 10.70                |
| TD23      | 1                  | 90.77                   | 70.83                  | 3,965.65         | OTHER | 5.40        | 0.00                   | 5.40                 |
| TD24      | 1                  | 90.76                   | 70.83                  | 3,965.69         | OTHER | 2.70        | 0.00                   | 2.70                 |
| TD25      | 1                  | 90.75                   | 70.84                  | 3,965.66         | OTHER | 9.60        | 0.00                   | 9.60                 |
| TD26      | 1                  | 90.74                   | 70.84                  | 3,965.69         | OTHER | 20.50       | 0.00                   | 20.50                |
| TD27      | 1                  | 90.73                   | 70.84                  | 3,965.68         | OTHER | 21.40       | 0.00                   | 21.40                |
| TD28      | 1                  | 122.92                  | 92.23                  | 6,882.15         | OTHER | 46.40       | 0.00                   | 46.40                |
| TD29      | 1                  | 105.27                  | 92.02                  | 6,056.02         | OTHER | 40.30       | 0.00                   | 40.30                |
| TD3       | 1                  | 129.67                  | 79.84                  | 5,791.45         | OTHER | 15.80       | 0.00                   | 15.80                |
| TD4       | 1                  | 129.64                  | 79.84                  | 5,791.44         | OTHER | 19.40       | 0.00                   | 19.40                |
| TD5       | 1                  | 129.61                  | 79.85                  | 5,791.45         | OTHER | 22.70       | 0.00                   | 22.70                |
| TD6       | 1                  | 129.58                  | 79.85                  | 5,791.44         | OTHER | 21.30       | 0.00                   | 21.30                |
| TD7       | 1                  | 129.54                  | 79.86                  | 5,791.42         | OTHER | 26.00       | 0.00                   | 26.00                |
| TD8       | 1                  | 129.51                  | 79.86                  | 5,791.42         | OTHER | 16.20       | 0.00                   | 16.20                |
| TD9       | 1                  | 129.48                  | 79.86                  | 5,791.43         | OTHER | 14.80       | 0.00                   | 14.80                |

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## Branch Condition Report

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*Pavement Database: SVESHAPES*

| Use Category | Number of Sections | Total Area (SqFt) | Arithmetic Average PCI | Average STD PCI | Weighted Average PCI |
|--------------|--------------------|-------------------|------------------------|-----------------|----------------------|
| APRON        | 1                  | 3,419.78          | 100.00                 | 0.00            | 100.00               |
| OTHER        | 204                | 896,476.83        | 75.42                  | 27.59           | 72.63                |
| ALL          | 205                | 899,896.61        | 75.54                  | 27.57           | 72.73                |

**APPENDIX “C”**

**INSPECTION PHOTOGRAPHS**

## APPENDIX “C”

### INSPECTION PHOTOGRAPHS



Ground Control Point 1

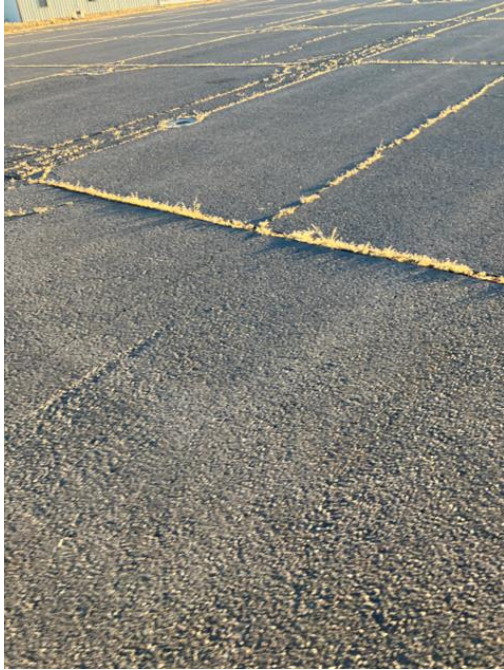


Ground Control Point 2



Ground Control Point 3





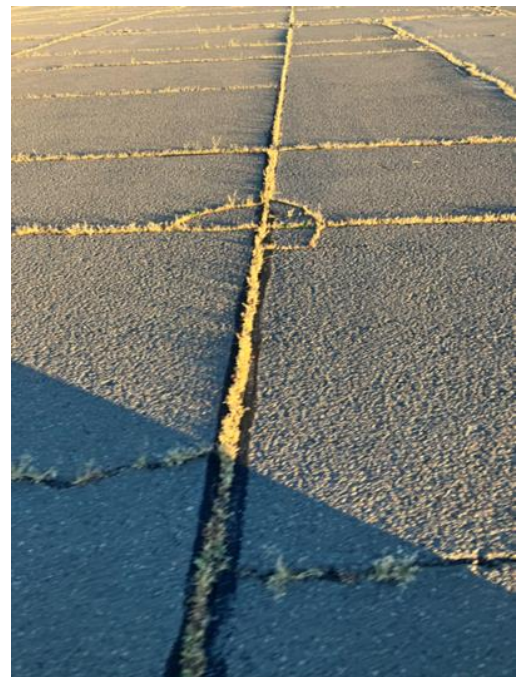
Apron 1 Asphalt Distress



Apron 2 Asphalt Distress



Apron 3 Asphalt Distress

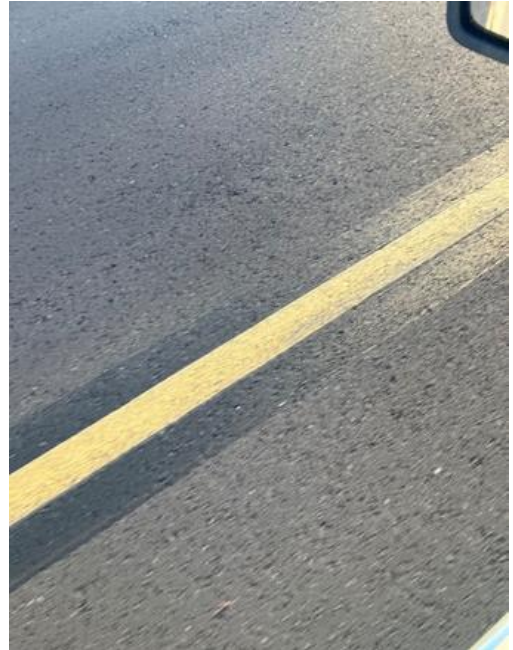


Apron 4 Asphalt Distress





Apron 5 Asphalt Distress



Taxiway Asphalt Distress



Runway 1 Asphalt Distress



Runway 2 Asphalt Distress





Runway 3 Asphalt Distress



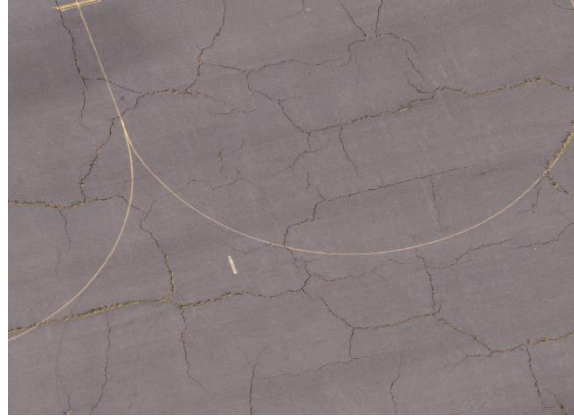
Runway 4 Asphalt Distress

**APPENDIX “D”**

**TYPICAL DISTRESS PHOTOGRAPHS**



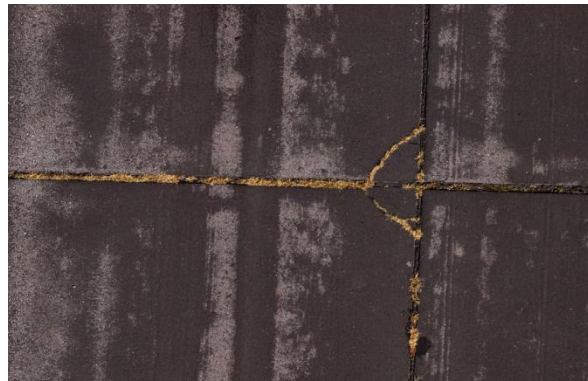
1) 41 – Alligator Cracking Medium, Asphalt – Section A1



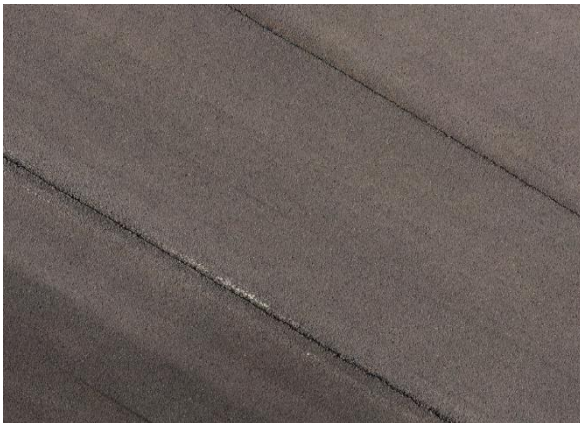
2) 43 – Block Cracking Medium, Asphalt – Section A3



3) 47 – Joint Reflection Cracking Medium, Asphalt – Section TD1



4) 47 – Joint Reflection Cracking Medium, Asphalt – Section T7



5) 48 – Longitudinal and Transverse Cracking Low, Asphalt – Section RW32



6) 48 – Longitudinal and Transverse Cracking Medium, Asphalt – Section A1





7) 52 – Raveling Low, Asphalt –  
Section TD1



8) 52 – Raveling Medium, Asphalt –  
Section TD1



9) 57 – Weathering Low, Asphalt –  
Section T5



10) 63 – Longitudinal, Transverse, and Diagonal  
Cracking Low, Asphalt – Section H1A



11) 63 – Longitudinal, Transverse, and Diagonal  
Cracking Medium, Asphalt – Section H1a



12) 65 – Joint Seal Damage Low,  
Concrete – Section H2



13) 65 – Joint Seal Damage Medium,  
Concrete – Section H1A



14) 70 – Scaling Low, Concrete – Section H2



15) 70 – Scaling Medium, Concrete –  
Section H2



16) 72 – Shattered Slab Low, Concrete –  
Section H2



17) 72 – Shattered Slab Medium,  
Concrete – Section H2



18) 72 – Shattered Slab High, Concrete –  
Section H2





19) 73 – Shrinkage Cracking, Asphalt –  
Section H1A



20) 74 – Spalling Longitudinal and Transverse  
Joint Low, Concrete – Section H2



21) 75 – Corner Spalling Low, Concrete  
– Section H1A

**APPENDIX “E”**

**RECOMMENDED PROJECTS PLAN & COST  
ESTIMATES**



Susanville Airport Construction Contract Cost Estimate for Runway 11-29

| <u>Treatment</u>                                | <u>Specification</u> | <u>Quantity</u> | <u>Unit</u> | <u>Unit Price</u> | <u>Treatment Cost</u> |
|-------------------------------------------------|----------------------|-----------------|-------------|-------------------|-----------------------|
| Mobilization (10% Maximum)                      | C-105                | 1               | LS          | \$18,640.00       | \$18,640.00           |
| Asphalt Surface Treatment with Aggregate        | P-608R               | 33,800          | SY          | \$3               | \$101,400             |
| Runway and Highspeed Exit Taxiway Friction test | P-608R               | 1               | LS          | \$10,000          | \$10,000              |
| Obliterate Existing Markings                    | P-620                | 10,000          | SF          | \$6               | \$55,000              |
| Paint Striping (Yellow Reflectorized)           | P-620                | 1               | LS          | \$10,000          | \$10,000              |
| Paint Striping (Black Nonreflectorized)         | P-620                | 1               | LS          | \$10,000          | \$10,000              |
| Contingency (20%)                               |                      |                 |             |                   | \$41,008              |

Project Cost

\$246,048

Notes & Assumptions

1. Pavement sections to be designed based on FAA specifications and geotechnical recommendations
2. Unit price based on 2024 dollars
3. 20% contingency
4. Survey, electrical and drainage, traffic control, SWPPP, unclassified excavation, construction administration and construction management costs not included in this estimate

Susanville Airport Construction Contract Cost Estimate for South Apron Reconstruction

| <u>Treatment</u>                        | <u>Specification</u> | <u>Quantity</u> | <u>Unit</u> | <u>Unit Price</u> | <u>Treatment Cost</u> |
|-----------------------------------------|----------------------|-----------------|-------------|-------------------|-----------------------|
| Mobilization (10% Maximum)              | C-105                | 1               | LS          | \$188,150.00      | \$188,150.00          |
| Pavement Removal                        | P-101                | 13,000          | SY          | \$100             | \$1,300,000           |
| Crushed Aggregate Base Course (6")      | P-209                | 2,100           | CY          | \$65              | \$136,500             |
| Asphalt Surface Course (4")             | P-401                | 2,700           | TON         | \$150             | \$405,000             |
| Bituminous Tack Coat                    | P-603                | 2,000           | GAL         | \$10              | \$20,000              |
| Paint Striping (Yellow Reflectorized)   | P-620                | 1               | LS          | \$10,000          | \$10,000              |
| Paint Striping (Black Nonreflectorized) | P-620                | 1               | LS          | \$10,000          | \$10,000              |
| Contingency (20%)                       |                      |                 |             |                   | \$413,930             |

Project Cost

\$2,483,580

Notes & Assumptions

1. Pavement sections to be designed based on FAA specifications and geotechnical recommendations
2. Unit price based on 2024 dollars
3. 20% contingency
4. Survey, electrical and drainage, traffic control, SWPPP, unclassified excavation, construction administration and construction management costs not included in this estimate

Susanville Airport Construction Contract Cost Estimate for Taxiway C Reconstruction

| <u>Treatment</u>                        | <u>Specification</u> | <u>Quantity</u> | <u>Unit</u> | <u>Unit Price</u> | <u>Treatment Cost</u> |
|-----------------------------------------|----------------------|-----------------|-------------|-------------------|-----------------------|
| Mobilization (10% Maximum)              | C-105                | 1               | LS          | \$49,400.00       | \$49,400.00           |
| Pavement Removal                        | P-101                | 3,200           | SY          | \$100             | \$320,000             |
| Crushed Aggregate Base Course (6")      | P-209                | 600             | CY          | \$65              | \$39,000              |
| Asphalt Surface Course (4")             | P-401                | 700             | TON         | \$150             | \$105,000             |
| Bituminous Tack Coat                    | P-603                | 1,000           | GAL         | \$10              | \$10,000              |
| Paint Striping (Yellow Reflectorized)   | P-620                | 1               | LS          | \$10,000          | \$10,000              |
| Paint Striping (Black Nonreflectorized) | P-620                | 1               | LS          | \$10,000          | \$10,000              |
| Contingency (20%)                       |                      |                 |             |                   | \$108,680             |

Project Cost

\$652,080

Notes & Assumptions

1. Pavement sections to be designed based on FAA specifications and geotechnical recommendations
2. Unit price based on 2024 dollars
3. 20% contingency
4. Survey, electrical and drainage, traffic control, SWPPP, unclassified excavation, construction administration and construction management costs not included in this estimate

Susanville Airport Construction Contract Cost Estimate for Taxiway D Reconstruction

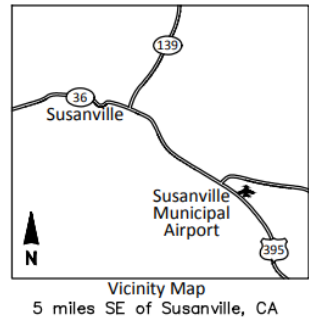
| <u>Treatment</u>                        | <u>Specification</u> | <u>Quantity</u> | <u>Unit</u> | <u>Unit Price</u> | <u>Treatment Cost</u> |
|-----------------------------------------|----------------------|-----------------|-------------|-------------------|-----------------------|
| Mobilization (10% Maximum)              | C-105                | 1               | LS          | \$39,950.00       | \$39,950.00           |
| Pavement Removal                        | P-101                | 2,500           | SY          | \$100             | \$250,000             |
| Crushed Aggregate Base Course (6")      | P-209                | 500             | CY          | \$65              | \$32,500              |
| Asphalt Surface Course (4")             | P-401                | 600             | TON         | \$150             | \$90,000              |
| Bituminous Tack Coat                    | P-603                | 700             | GAL         | \$10              | \$7,000               |
| Paint Striping (Yellow Reflectorized)   | P-620                | 1               | LS          | \$10,000          | \$10,000              |
| Paint Striping (Black Nonreflectorized) | P-620                | 1               | LS          | \$10,000          | \$10,000              |
| Contingency (20%)                       |                      |                 |             |                   | \$87,890              |

Project Cost

\$527,340

Notes & Assumptions

1. Pavement sections to be designed based on FAA specifications and geotechnical recommendations
2. Unit price based on 2024 dollars
3. 20% contingency
4. Survey, electrical and drainage, traffic control, SWPPP, unclassified excavation, construction administration and construction management costs not included in this estimate



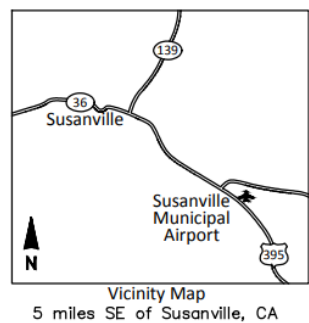
**Notes:**

1. Map intended for schematic representation of pavement condition. Do not scale.
2. Private taxilanes and aprons as well as other non-publicly funded improvements are not shown.



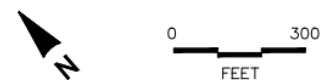
|     |          |      |                                                        |               |
|-----|----------|------|--------------------------------------------------------|---------------|
|     |          |      | SUSANVILLE MUNICIPAL AIRPORT                           |               |
|     |          |      | LASSEN COUNTY, CALIFORNIA                              |               |
|     |          |      | FAA Site Number 02332.*A                               | Site Code SVE |
|     |          |      | PCI RATING                                             |               |
|     |          |      | California Division of Aeronautics Project No. 63A0061 |               |
|     |          |      | Hill International                                     | Mead & Hunt   |
|     |          |      | Date: 4/8/23                                           |               |
| NO. | REVISION | DATE |                                                        |               |

# Silent Falcon Airport Pavement Management Program, 5 Years from 2023

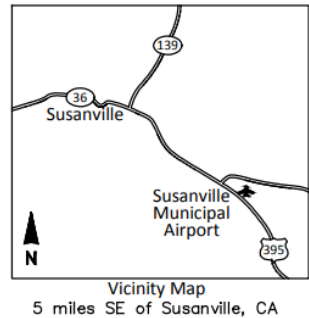
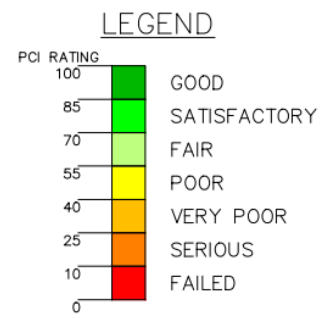
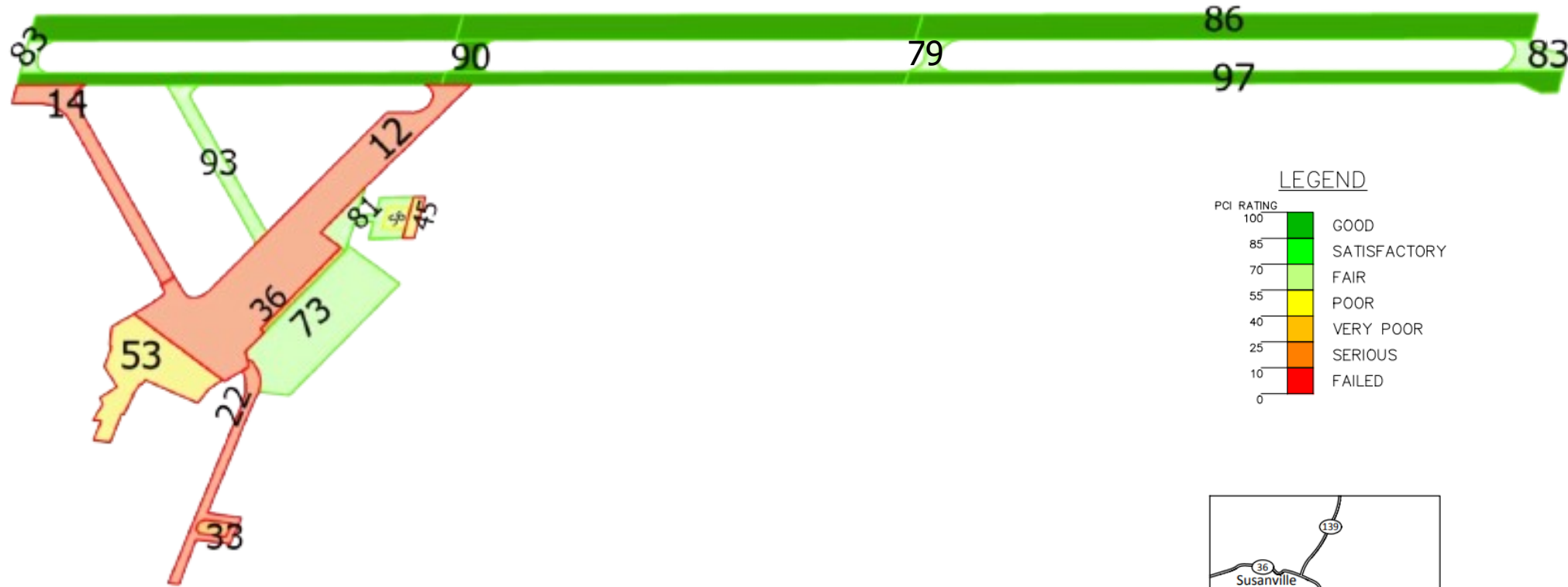


## Notes:

1. Map intended for schematic representation of pavement condition. Do not scale.
2. Private taxilanes and aprons as well as other non-publicly funded improvements are not shown.



|     |          |      |                                                        |                                |
|-----|----------|------|--------------------------------------------------------|--------------------------------|
|     |          |      | SUSANVILLE MUNICIPAL AIRPORT                           |                                |
|     |          |      | LASSEN COUNTY, CALIFORNIA                              |                                |
|     |          |      | FAA Site Number 02332.*A                               | Site Code SVE                  |
|     |          |      | PCI RATING                                             |                                |
|     |          |      | California Division of Aeronautics Project No. 63A0061 | Hill International Mead & Hunt |
| NO. | REVISION | DATE | Date: 4/8/23                                           |                                |



Notes:

1. Map intended for schematic representation of pavement condition. Do not scale.
2. Private taxilanes and aprons as well as other non-publicly funded improvements are not shown.



|                                                        |                    |               |
|--------------------------------------------------------|--------------------|---------------|
| SUSANVILLE MUNICIPAL AIRPORT                           |                    |               |
| LASSEN COUNTY, CALIFORNIA                              |                    |               |
| FAA Site Number 02332.*A                               |                    | Site Code SVE |
| PCI RATING                                             |                    |               |
| California Division of Aeronautics Project No. 63A0061 | Hill International | Mead & Hunt   |
| NO.                                                    | REVISION           | DATE          |
| Date: 4/8/23                                           |                    |               |

**APPENDIX “F”**

**RECORD DRAWING**



**APPENDIX “G”**

**10 YEAR CONDITION FORECAST**

## 10 Year PCI Forecast

| Network ID | Branch ID | Year  |       |       |       |       |       |       |       |       |       |
|------------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|            |           | 2023  | 2024  | 2025  | 2026  | 2027  | 2028  | 2029  | 2030  | 2031  | 2032  |
| (All)      | (All)     | 65.16 | 64.74 | 64.32 | 63.91 | 63.49 | 63.07 | 62.66 | 62.24 | 61.82 | 61.40 |
| SVE        | (All)     | 65.16 | 64.74 | 64.32 | 63.91 | 63.49 | 63.07 | 62.66 | 62.24 | 61.82 | 61.40 |
| SVE        | A1        | 57.50 | 56.99 | 56.48 | 55.97 | 55.46 | 54.95 | 54.45 | 53.94 | 53.43 | 52.92 |
| SVE        | A2        | 42.50 | 41.81 | 41.12 | 40.43 | 39.75 | 39.06 | 38.37 | 37.68 | 36.99 | 36.30 |
| SVE        | A3        | 76.20 | 75.91 | 75.63 | 75.34 | 75.06 | 74.77 | 74.49 | 74.20 | 73.92 | 73.63 |
| SVE        | A4        | 83.20 | 83.00 | 82.80 | 82.60 | 82.40 | 82.19 | 81.99 | 81.79 | 81.59 | 81.39 |
| SVE        | h1a       | 62.00 | 61.54 | 61.09 | 60.63 | 60.18 | 59.72 | 59.27 | 58.81 | 58.36 | 57.90 |
| SVE        | H1B       | 50.40 | 49.80 | 49.21 | 48.62 | 48.02 | 47.43 | 46.84 | 46.24 | 45.65 | 45.05 |
| SVE        | h2        | 40.10 | 39.38 | 38.66 | 37.95 | 37.23 | 36.51 | 35.80 | 35.08 | 34.36 | 33.64 |
| SVE        | R1        | 87.90 | 87.75 | 87.61 | 87.47 | 87.32 | 87.18 | 87.03 | 86.89 | 86.74 | 86.60 |
| SVE        | T1        | 97.50 | 97.47 | 97.44 | 97.41 | 97.38 | 97.35 | 97.32 | 97.29 | 97.26 | 97.23 |
| SVE        | T2        | 91.60 | 91.50 | 91.40 | 91.30 | 91.20 | 91.10 | 91.00 | 90.90 | 90.80 | 90.69 |
| SVE        | T3        | 81.30 | 81.08 | 80.85 | 80.63 | 80.40 | 80.18 | 79.96 | 79.73 | 79.51 | 79.28 |
| SVE        | T4        | 23.00 | 22.08 | 21.15 | 20.23 | 19.31 | 18.39 | 17.47 | 16.55 | 15.62 | 14.70 |
| SVE        | T5        | 30.00 | 29.16 | 28.32 | 27.48 | 26.65 | 25.81 | 24.97 | 24.13 | 23.29 | 22.45 |
| SVE        | T6        | 84.70 | 84.52 | 84.33 | 84.15 | 83.97 | 83.78 | 83.60 | 83.42 | 83.23 | 83.05 |
| SVE        | T7        | 85.40 | 85.22 | 85.05 | 84.88 | 84.70 | 84.53 | 84.35 | 84.18 | 84.00 | 83.83 |
| SVE        | T8        | 93.70 | 93.62 | 93.55 | 93.47 | 93.40 | 93.32 | 93.25 | 93.17 | 93.10 | 93.02 |
| SVE        | TD1       | 20.70 | 19.75 | 18.80 | 17.85 | 16.90 | 15.95 | 15.00 | 14.05 | 13.10 | 12.15 |

## 10 Year PCI Forecast (Sample Sections)

| Network ID | Branch ID | Year  |       |       |       |       |       |       |       |       |       |
|------------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|            |           | 2023  | 2024  | 2025  | 2026  | 2027  | 2028  | 2029  | 2030  | 2031  | 2032  |
| (All)      | (All)     | 75.18 | 74.83 | 74.49 | 74.15 | 73.82 | 73.48 | 73.15 | 72.83 | 72.50 | 72.18 |
| SVESHAPES  | (All)     | 75.18 | 74.83 | 74.49 | 74.15 | 73.82 | 73.48 | 73.15 | 72.83 | 72.50 | 72.18 |
| SVESHAPES  | A1_1      | 70.20 | 69.84 | 69.49 | 69.13 | 68.77 | 68.42 | 68.06 | 67.70 | 67.35 | 66.99 |
| SVESHAPES  | A1_10     | 70.00 | 69.64 | 69.28 | 68.92 | 68.56 | 68.20 | 67.84 | 67.49 | 67.13 | 66.77 |
| SVESHAPES  | A1_2      | 74.50 | 74.19 | 73.89 | 73.58 | 73.28 | 72.97 | 72.67 | 72.36 | 72.06 | 71.75 |
| SVESHAPES  | A1_3      | 76.20 | 75.91 | 75.63 | 75.34 | 75.06 | 74.77 | 74.49 | 74.20 | 73.92 | 73.63 |
| SVESHAPES  | A1_4      | 31.00 | 30.17 | 29.35 | 28.52 | 27.70 | 26.87 | 26.04 | 25.22 | 24.39 | 23.56 |
| SVESHAPES  | A1_5      | 29.20 | 28.35 | 27.50 | 26.66 | 25.81 | 24.96 | 24.11 | 23.26 | 22.42 | 21.57 |
| SVESHAPES  | A1_6      | 77.70 | 77.43 | 77.17 | 76.90 | 76.63 | 76.36 | 76.10 | 75.83 | 75.56 | 75.30 |
| SVESHAPES  | A1_7      | 72.40 | 72.07 | 71.74 | 71.41 | 71.08 | 70.75 | 70.42 | 70.09 | 69.76 | 69.42 |
| SVESHAPES  | A1_8      | 73.50 | 73.18 | 72.86 | 72.55 | 72.23 | 71.91 | 71.60 | 71.28 | 70.96 | 70.64 |
| SVESHAPES  | A1_9      | 73.70 | 73.38 | 73.07 | 72.76 | 72.44 | 72.12 | 71.81 | 71.50 | 71.18 | 70.87 |
| SVESHAPES  | A2_1      | 34.50 | 33.71 | 32.93 | 32.15 | 31.36 | 30.58 | 29.79 | 29.01 | 28.23 | 27.44 |
| SVESHAPES  | A3_1      | 59.60 | 59.12 | 58.63 | 58.15 | 57.66 | 57.18 | 56.70 | 56.21 | 55.73 | 55.25 |
| SVESHAPES  | A3_10     | 89.60 | 89.48 | 89.35 | 89.23 | 89.10 | 88.98 | 88.85 | 88.73 | 88.60 | 88.48 |
| SVESHAPES  | A3_11     | 89.90 | 89.78 | 89.66 | 89.54 | 89.42 | 89.30 | 89.17 | 89.05 | 88.93 | 88.81 |
| SVESHAPES  | A3_12     | 94.00 | 93.93 | 93.86 | 93.78 | 93.71 | 93.64 | 93.57 | 93.50 | 93.43 | 93.35 |
| SVESHAPES  | A3_13     | 94.00 | 93.93 | 93.86 | 93.78 | 93.71 | 93.64 | 93.57 | 93.50 | 93.43 | 93.35 |
| SVESHAPES  | A3_14     | 94.00 | 93.93 | 93.86 | 93.78 | 93.71 | 93.64 | 93.57 | 93.50 | 93.43 | 93.35 |
| SVESHAPES  | A3_15     | 94.00 | 93.93 | 93.86 | 93.78 | 93.71 | 93.64 | 93.57 | 93.50 | 93.43 | 93.35 |
| SVESHAPES  | A3_16     | 84.00 | 83.81 | 83.62 | 83.43 | 83.23 | 83.04 | 82.85 | 82.66 | 82.47 | 82.28 |
| SVESHAPES  | A3_2      | 85.80 | 85.63 | 85.46 | 85.29 | 85.12 | 84.95 | 84.78 | 84.61 | 84.44 | 84.27 |
| SVESHAPES  | A3_3      | 81.90 | 81.68 | 81.47 | 81.25 | 81.03 | 80.82 | 80.60 | 80.38 | 80.17 | 79.95 |
| SVESHAPES  | A3_4      | 61.60 | 61.14 | 60.68 | 60.22 | 59.76 | 59.30 | 58.84 | 58.38 | 57.92 | 57.46 |
| SVESHAPES  | A3_5      | 75.70 | 75.41 | 75.12 | 74.83 | 74.54 | 74.24 | 73.95 | 73.66 | 73.37 | 73.08 |
| SVESHAPES  | A3_6      | 82.70 | 82.49 | 82.29 | 82.08 | 81.87 | 81.66 | 81.46 | 81.25 | 81.04 | 80.84 |
| SVESHAPES  | A3_7      | 85.00 | 84.82 | 84.64 | 84.46 | 84.28 | 84.10 | 83.92 | 83.74 | 83.56 | 83.38 |
| SVESHAPES  | A3_8      | 82.00 | 81.78 | 81.57 | 81.35 | 81.14 | 80.92 | 80.71 | 80.49 | 80.28 | 80.06 |
| SVESHAPES  | A3_9      | 86.00 | 85.83 | 85.66 | 85.50 | 85.33 | 85.16 | 84.99 | 84.83 | 84.66 | 84.49 |
| SVESHAPES  | A4_1      | 76.10 | 75.81 | 75.53 | 75.24 | 74.96 | 74.67 | 74.38 | 74.10 | 73.81 | 73.52 |
| SVESHAPES  | A4_2      | 92.00 | 91.90 | 91.81 | 91.71 | 91.62 | 91.52 | 91.43 | 91.33 | 91.23 | 91.14 |
| SVESHAPES  | H1A       | 99.60 | 99.60 | 99.59 | 99.59 | 99.58 | 99.58 | 99.57 | 99.57 | 99.56 | 99.56 |
| SVESHAPES  | H1B       | 23.70 | 22.78 | 21.87 | 20.96 | 20.05 | 19.13 | 18.22 | 17.30 | 16.39 | 15.48 |
| SVESHAPES  | h2        | 40.10 | 39.38 | 38.66 | 37.95 | 37.23 | 36.51 | 35.80 | 35.08 | 34.36 | 33.64 |
| SVESHAPES  | R1        | 86.10 | 85.93 | 85.77 | 85.60 | 85.43 | 85.27 | 85.10 | 84.93 | 84.77 | 84.60 |
| SVESHAPES  | R1_10     | 88.40 | 88.26 | 88.12 | 87.98 | 87.84 | 87.71 | 87.57 | 87.43 | 87.29 | 87.15 |
| SVESHAPES  | R1_11     | 89.30 | 89.17 | 89.04 | 88.92 | 88.79 | 88.66 | 88.53 | 88.40 | 88.28 | 88.15 |
| SVESHAPES  | R1_12     | 85.10 | 84.92 | 84.74 | 84.56 | 84.39 | 84.21 | 84.03 | 83.85 | 83.67 | 83.49 |
| SVESHAPES  | R1_13     | 86.00 | 85.83 | 85.66 | 85.50 | 85.33 | 85.16 | 84.99 | 84.83 | 84.66 | 84.49 |
| SVESHAPES  | R1_14     | 88.70 | 88.56 | 88.43 | 88.29 | 88.16 | 88.02 | 87.89 | 87.75 | 87.62 | 87.48 |

|           |       |       |       |       |       |       |       |       |       |       |       |
|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| SVESHAPES | R1_15 | 86.70 | 86.54 | 86.38 | 86.22 | 86.06 | 85.90 | 85.74 | 85.59 | 85.43 | 85.27 |
| SVESHAPES | R1_16 | 87.40 | 87.25 | 87.10 | 86.95 | 86.80 | 86.65 | 86.49 | 86.34 | 86.19 | 86.04 |
| SVESHAPES | R1_17 | 88.90 | 88.77 | 88.63 | 88.50 | 88.37 | 88.24 | 88.10 | 87.97 | 87.84 | 87.70 |
| SVESHAPES | R1_18 | 80.90 | 80.67 | 80.44 | 80.21 | 79.99 | 79.76 | 79.53 | 79.30 | 79.07 | 78.84 |
| SVESHAPES | R1_19 | 87.30 | 87.15 | 87.00 | 86.84 | 86.69 | 86.54 | 86.39 | 86.24 | 86.08 | 85.93 |
| SVESHAPES | R1_20 | 87.20 | 87.05 | 86.89 | 86.74 | 86.59 | 86.43 | 86.28 | 86.13 | 85.97 | 85.82 |
| SVESHAPES | R1_21 | 85.20 | 85.02 | 84.85 | 84.67 | 84.49 | 84.31 | 84.14 | 83.96 | 83.78 | 83.60 |
| SVESHAPES | R1_22 | 83.10 | 82.90 | 82.69 | 82.49 | 82.29 | 82.09 | 81.89 | 81.68 | 81.48 | 81.28 |
| SVESHAPES | R1_23 | 84.00 | 83.81 | 83.62 | 83.43 | 83.23 | 83.04 | 82.85 | 82.66 | 82.47 | 82.28 |
| SVESHAPES | R1_24 | 82.10 | 81.89 | 81.67 | 81.46 | 81.24 | 81.03 | 80.81 | 80.60 | 80.39 | 80.17 |
| SVESHAPES | R1_25 | 88.30 | 88.16 | 88.02 | 87.88 | 87.74 | 87.60 | 87.46 | 87.32 | 87.18 | 87.04 |
| SVESHAPES | R1_26 | 82.40 | 82.19 | 81.98 | 81.77 | 81.56 | 81.35 | 81.14 | 80.92 | 80.71 | 80.50 |
| SVESHAPES | R1_27 | 82.40 | 82.19 | 81.98 | 81.77 | 81.56 | 81.35 | 81.14 | 80.92 | 80.71 | 80.50 |
| SVESHAPES | R1_28 | 82.90 | 82.69 | 82.49 | 82.29 | 82.08 | 81.88 | 81.67 | 81.47 | 81.26 | 81.06 |
| SVESHAPES | R1_29 | 82.90 | 82.69 | 82.49 | 82.29 | 82.08 | 81.88 | 81.67 | 81.47 | 81.26 | 81.06 |
| SVESHAPES | R1_30 | 82.90 | 82.69 | 82.49 | 82.29 | 82.08 | 81.88 | 81.67 | 81.47 | 81.26 | 81.06 |
| SVESHAPES | R1_31 | 89.10 | 88.97 | 88.84 | 88.71 | 88.58 | 88.45 | 88.32 | 88.19 | 88.06 | 87.93 |
| SVESHAPES | R1_32 | 84.20 | 84.01 | 83.82 | 83.63 | 83.44 | 83.25 | 83.06 | 82.88 | 82.69 | 82.50 |
| SVESHAPES | R1_33 | 85.10 | 84.92 | 84.74 | 84.56 | 84.39 | 84.21 | 84.03 | 83.85 | 83.67 | 83.49 |
| SVESHAPES | R1_34 | 86.20 | 86.03 | 85.87 | 85.70 | 85.54 | 85.37 | 85.21 | 85.04 | 84.88 | 84.71 |
| SVESHAPES | R1_35 | 88.70 | 88.56 | 88.43 | 88.29 | 88.16 | 88.02 | 87.89 | 87.75 | 87.62 | 87.48 |
| SVESHAPES | R1_36 | 84.10 | 83.91 | 83.72 | 83.53 | 83.34 | 83.15 | 82.96 | 82.77 | 82.58 | 82.39 |
| SVESHAPES | R1_37 | 81.70 | 81.48 | 81.26 | 81.04 | 80.82 | 80.60 | 80.38 | 80.17 | 79.95 | 79.73 |
| SVESHAPES | R1_38 | 82.20 | 81.99 | 81.77 | 81.56 | 81.35 | 81.13 | 80.92 | 80.71 | 80.49 | 80.28 |
| SVESHAPES | R1_39 | 81.40 | 81.18 | 80.95 | 80.73 | 80.51 | 80.29 | 80.06 | 79.84 | 79.62 | 79.40 |
| SVESHAPES | R1_4  | 85.60 | 85.43 | 85.25 | 85.08 | 84.91 | 84.74 | 84.57 | 84.39 | 84.22 | 84.05 |
| SVESHAPES | R1_40 | 80.40 | 80.16 | 79.93 | 79.70 | 79.46 | 79.23 | 78.99 | 78.76 | 78.52 | 78.29 |
| SVESHAPES | R1_41 | 83.20 | 83.00 | 82.80 | 82.60 | 82.40 | 82.19 | 81.99 | 81.79 | 81.59 | 81.39 |
| SVESHAPES | R1_42 | 85.30 | 85.12 | 84.95 | 84.77 | 84.60 | 84.42 | 84.24 | 84.07 | 83.89 | 83.72 |
| SVESHAPES | R1_43 | 83.50 | 83.30 | 83.10 | 82.91 | 82.71 | 82.51 | 82.31 | 82.12 | 81.92 | 81.72 |
| SVESHAPES | R1_44 | 82.30 | 82.09 | 81.88 | 81.66 | 81.45 | 81.24 | 81.03 | 80.82 | 80.60 | 80.39 |
| SVESHAPES | R1_45 | 85.20 | 85.02 | 84.85 | 84.67 | 84.49 | 84.31 | 84.14 | 83.96 | 83.78 | 83.60 |
| SVESHAPES | R1_46 | 81.60 | 81.38 | 81.16 | 80.94 | 80.72 | 80.50 | 80.28 | 80.06 | 79.84 | 79.62 |
| SVESHAPES | R1_47 | 81.40 | 81.18 | 80.95 | 80.73 | 80.51 | 80.29 | 80.06 | 79.84 | 79.62 | 79.40 |
| SVESHAPES | R1_48 | 83.70 | 83.50 | 83.31 | 83.11 | 82.92 | 82.72 | 82.53 | 82.33 | 82.14 | 81.94 |
| SVESHAPES | R1_49 | 84.60 | 84.42 | 84.23 | 84.05 | 83.86 | 83.68 | 83.49 | 83.31 | 83.12 | 82.94 |
| SVESHAPES | R1_5  | 89.30 | 89.17 | 89.04 | 88.92 | 88.79 | 88.66 | 88.53 | 88.40 | 88.28 | 88.15 |
| SVESHAPES | R1_50 | 79.50 | 79.25 | 79.01 | 78.76 | 78.52 | 78.27 | 78.03 | 77.78 | 77.54 | 77.29 |
| SVESHAPES | R1_51 | 83.50 | 83.30 | 83.10 | 82.91 | 82.71 | 82.51 | 82.31 | 82.12 | 81.92 | 81.72 |
| SVESHAPES | R1_52 | 86.00 | 85.83 | 85.66 | 85.50 | 85.33 | 85.16 | 84.99 | 84.83 | 84.66 | 84.49 |
| SVESHAPES | R1_53 | 81.90 | 81.68 | 81.47 | 81.25 | 81.03 | 80.82 | 80.60 | 80.38 | 80.17 | 79.95 |
| SVESHAPES | R1_54 | 83.20 | 83.00 | 82.80 | 82.60 | 82.40 | 82.19 | 81.99 | 81.79 | 81.59 | 81.39 |
| SVESHAPES | R1_55 | 83.00 | 82.80 | 82.59 | 82.39 | 82.19 | 81.98 | 81.78 | 81.57 | 81.37 | 81.17 |
| SVESHAPES | R1_56 | 90.90 | 90.79 | 90.68 | 90.57 | 90.46 | 90.35 | 90.25 | 90.14 | 90.03 | 89.92 |
| SVESHAPES | R1_57 | 92.00 | 91.90 | 91.81 | 91.71 | 91.62 | 91.52 | 91.43 | 91.33 | 91.23 | 91.14 |

|           |            |        |       |       |       |       |       |       |       |       |       |
|-----------|------------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| SVESHAPES | R1_58      | 94.00  | 93.93 | 93.86 | 93.78 | 93.71 | 93.64 | 93.57 | 93.50 | 93.43 | 93.35 |
| SVESHAPES | R1_59      | 94.00  | 93.93 | 93.86 | 93.78 | 93.71 | 93.64 | 93.57 | 93.50 | 93.43 | 93.35 |
| SVESHAPES | R1_6       | 83.30  | 83.10 | 82.90 | 82.70 | 82.50 | 82.30 | 82.10 | 81.90 | 81.70 | 81.50 |
| SVESHAPES | R1_60      | 94.00  | 93.93 | 93.86 | 93.78 | 93.71 | 93.64 | 93.57 | 93.50 | 93.43 | 93.35 |
| SVESHAPES | R1_61      | 94.00  | 93.93 | 93.86 | 93.78 | 93.71 | 93.64 | 93.57 | 93.50 | 93.43 | 93.35 |
| SVESHAPES | R1_62      | 94.00  | 93.93 | 93.86 | 93.78 | 93.71 | 93.64 | 93.57 | 93.50 | 93.43 | 93.35 |
| SVESHAPES | R1_63      | 94.00  | 93.93 | 93.86 | 93.78 | 93.71 | 93.64 | 93.57 | 93.50 | 93.43 | 93.35 |
| SVESHAPES | R1_64      | 94.00  | 93.93 | 93.86 | 93.78 | 93.71 | 93.64 | 93.57 | 93.50 | 93.43 | 93.35 |
| SVESHAPES | R1_65      | 94.00  | 93.93 | 93.86 | 93.78 | 93.71 | 93.64 | 93.57 | 93.50 | 93.43 | 93.35 |
| SVESHAPES | R1_66      | 94.00  | 93.93 | 93.86 | 93.78 | 93.71 | 93.64 | 93.57 | 93.50 | 93.43 | 93.35 |
| SVESHAPES | R1_67      | 94.00  | 93.93 | 93.86 | 93.78 | 93.71 | 93.64 | 93.57 | 93.50 | 93.43 | 93.35 |
| SVESHAPES | R1_68      | 94.00  | 93.93 | 93.86 | 93.78 | 93.71 | 93.64 | 93.57 | 93.50 | 93.43 | 93.35 |
| SVESHAPES | R1_69      | 94.00  | 93.93 | 93.86 | 93.78 | 93.71 | 93.64 | 93.57 | 93.50 | 93.43 | 93.35 |
| SVESHAPES | R1_7       | 84.80  | 84.62 | 84.44 | 84.25 | 84.07 | 83.89 | 83.71 | 83.53 | 83.34 | 83.16 |
| SVESHAPES | R1_70      | 94.00  | 93.93 | 93.86 | 93.78 | 93.71 | 93.64 | 93.57 | 93.50 | 93.43 | 93.35 |
| SVESHAPES | R1_71      | 94.00  | 93.93 | 93.86 | 93.78 | 93.71 | 93.64 | 93.57 | 93.50 | 93.43 | 93.35 |
| SVESHAPES | R1_72      | 94.00  | 93.93 | 93.86 | 93.78 | 93.71 | 93.64 | 93.57 | 93.50 | 93.43 | 93.35 |
| SVESHAPES | R1_73      | 94.00  | 93.93 | 93.86 | 93.78 | 93.71 | 93.64 | 93.57 | 93.50 | 93.43 | 93.35 |
| SVESHAPES | R1_74      | 94.00  | 93.93 | 93.86 | 93.78 | 93.71 | 93.64 | 93.57 | 93.50 | 93.43 | 93.35 |
| SVESHAPES | R1_75      | 94.00  | 93.93 | 93.86 | 93.78 | 93.71 | 93.64 | 93.57 | 93.50 | 93.43 | 93.35 |
| SVESHAPES | R1_76      | 94.00  | 93.93 | 93.86 | 93.78 | 93.71 | 93.64 | 93.57 | 93.50 | 93.43 | 93.35 |
| SVESHAPES | R1_77      | 94.00  | 93.93 | 93.86 | 93.78 | 93.71 | 93.64 | 93.57 | 93.50 | 93.43 | 93.35 |
| SVESHAPES | R1_78      | 94.00  | 93.93 | 93.86 | 93.78 | 93.71 | 93.64 | 93.57 | 93.50 | 93.43 | 93.35 |
| SVESHAPES | R1_79      | 94.00  | 93.93 | 93.86 | 93.78 | 93.71 | 93.64 | 93.57 | 93.50 | 93.43 | 93.35 |
| SVESHAPES | R1_8       | 85.00  | 84.82 | 84.64 | 84.46 | 84.28 | 84.10 | 83.92 | 83.74 | 83.56 | 83.38 |
| SVESHAPES | R1_80      | 94.00  | 93.93 | 93.86 | 93.78 | 93.71 | 93.64 | 93.57 | 93.50 | 93.43 | 93.35 |
| SVESHAPES | R1_9       | 89.50  | 89.37 | 89.25 | 89.12 | 89.00 | 88.87 | 88.75 | 88.62 | 88.49 | 88.37 |
| SVESHAPES | R2         | 90.20  | 90.08 | 89.97 | 89.85 | 89.73 | 89.61 | 89.50 | 89.38 | 89.26 | 89.14 |
| SVESHAPES | R3         | 88.90  | 88.77 | 88.63 | 88.50 | 88.37 | 88.24 | 88.10 | 87.97 | 87.84 | 87.70 |
| SVESHAPES | SVE_SHAPES | 100.00 | 96.99 | 94.00 | 91.00 | 88.00 | 84.99 | 82.00 | 79.00 | 76.00 | 72.99 |
| SVESHAPES | T1_1       | 100.00 | 96.99 | 94.00 | 91.00 | 88.00 | 84.99 | 82.00 | 79.00 | 76.00 | 72.99 |
| SVESHAPES | T1_10      | 97.50  | 97.47 | 97.44 | 97.41 | 97.38 | 97.35 | 97.32 | 97.29 | 97.26 | 97.23 |
| SVESHAPES | T1_11      | 97.50  | 97.47 | 97.44 | 97.41 | 97.38 | 97.35 | 97.32 | 97.29 | 97.26 | 97.23 |
| SVESHAPES | T1_12      | 95.70  | 95.65 | 95.60 | 95.55 | 95.49 | 95.44 | 95.39 | 95.34 | 95.29 | 95.24 |
| SVESHAPES | T1_13      | 97.00  | 96.96 | 96.93 | 96.89 | 96.86 | 96.82 | 96.78 | 96.75 | 96.71 | 96.68 |
| SVESHAPES | T1_14      | 97.00  | 96.96 | 96.93 | 96.89 | 96.86 | 96.82 | 96.78 | 96.75 | 96.71 | 96.68 |
| SVESHAPES | T1_15      | 97.50  | 97.47 | 97.44 | 97.41 | 97.38 | 97.35 | 97.32 | 97.29 | 97.26 | 97.23 |
| SVESHAPES | T1_16      | 97.50  | 97.47 | 97.44 | 97.41 | 97.38 | 97.35 | 97.32 | 97.29 | 97.26 | 97.23 |
| SVESHAPES | T1_17      | 97.20  | 97.17 | 97.13 | 97.10 | 97.07 | 97.03 | 97.00 | 96.97 | 96.93 | 96.90 |
| SVESHAPES | T1_18      | 95.90  | 95.85 | 95.80 | 95.75 | 95.70 | 95.65 | 95.61 | 95.56 | 95.51 | 95.46 |
| SVESHAPES | T1_19      | 97.50  | 97.47 | 97.44 | 97.41 | 97.38 | 97.35 | 97.32 | 97.29 | 97.26 | 97.23 |
| SVESHAPES | T1_20      | 97.50  | 97.47 | 97.44 | 97.41 | 97.38 | 97.35 | 97.32 | 97.29 | 97.26 | 97.23 |
| SVESHAPES | T1_21      | 96.20  | 96.15 | 96.11 | 96.06 | 96.02 | 95.97 | 95.93 | 95.88 | 95.84 | 95.79 |
| SVESHAPES | T1_22      | 97.30  | 97.27 | 97.24 | 97.20 | 97.17 | 97.14 | 97.11 | 97.07 | 97.04 | 97.01 |
| SVESHAPES | T1_23      | 97.50  | 97.47 | 97.44 | 97.41 | 97.38 | 97.35 | 97.32 | 97.29 | 97.26 | 97.23 |

|           |       |        |       |       |       |       |       |       |       |       |       |
|-----------|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| SVESHAPES | T1_24 | 97.50  | 97.47 | 97.44 | 97.41 | 97.38 | 97.35 | 97.32 | 97.29 | 97.26 | 97.23 |
| SVESHAPES | T1_25 | 96.70  | 96.66 | 96.62 | 96.58 | 96.54 | 96.50 | 96.46 | 96.42 | 96.38 | 96.34 |
| SVESHAPES | T1_26 | 97.40  | 97.37 | 97.34 | 97.31 | 97.28 | 97.24 | 97.21 | 97.18 | 97.15 | 97.12 |
| SVESHAPES | T1_27 | 96.30  | 96.26 | 96.21 | 96.17 | 96.12 | 96.08 | 96.03 | 95.99 | 95.95 | 95.90 |
| SVESHAPES | T1_28 | 97.00  | 96.96 | 96.93 | 96.89 | 96.86 | 96.82 | 96.78 | 96.75 | 96.71 | 96.68 |
| SVESHAPES | T1_29 | 97.50  | 97.47 | 97.44 | 97.41 | 97.38 | 97.35 | 97.32 | 97.29 | 97.26 | 97.23 |
| SVESHAPES | T1_30 | 97.50  | 97.47 | 97.44 | 97.41 | 97.38 | 97.35 | 97.32 | 97.29 | 97.26 | 97.23 |
| SVESHAPES | T1_31 | 96.30  | 96.26 | 96.21 | 96.17 | 96.12 | 96.08 | 96.03 | 95.99 | 95.95 | 95.90 |
| SVESHAPES | T1_32 | 97.50  | 97.47 | 97.44 | 97.41 | 97.38 | 97.35 | 97.32 | 97.29 | 97.26 | 97.23 |
| SVESHAPES | T1_33 | 97.50  | 97.47 | 97.44 | 97.41 | 97.38 | 97.35 | 97.32 | 97.29 | 97.26 | 97.23 |
| SVESHAPES | T1_34 | 97.10  | 97.07 | 97.03 | 97.00 | 96.96 | 96.93 | 96.89 | 96.86 | 96.82 | 96.79 |
| SVESHAPES | T1_35 | 97.50  | 97.47 | 97.44 | 97.41 | 97.38 | 97.35 | 97.32 | 97.29 | 97.26 | 97.23 |
| SVESHAPES | T1_36 | 96.80  | 96.76 | 96.72 | 96.69 | 96.65 | 96.61 | 96.57 | 96.53 | 96.49 | 96.46 |
| SVESHAPES | T1_37 | 97.50  | 97.47 | 97.44 | 97.41 | 97.38 | 97.35 | 97.32 | 97.29 | 97.26 | 97.23 |
| SVESHAPES | T1_38 | 97.50  | 97.47 | 97.44 | 97.41 | 97.38 | 97.35 | 97.32 | 97.29 | 97.26 | 97.23 |
| SVESHAPES | T1_39 | 96.80  | 96.76 | 96.72 | 96.69 | 96.65 | 96.61 | 96.57 | 96.53 | 96.49 | 96.46 |
| SVESHAPES | T1_4  | 97.50  | 97.47 | 97.44 | 97.41 | 97.38 | 97.35 | 97.32 | 97.29 | 97.26 | 97.23 |
| SVESHAPES | T1_40 | 93.60  | 93.52 | 93.45 | 93.37 | 93.29 | 93.22 | 93.14 | 93.06 | 92.99 | 92.91 |
| SVESHAPES | T1_41 | 96.90  | 96.86 | 96.83 | 96.79 | 96.75 | 96.71 | 96.68 | 96.64 | 96.60 | 96.57 |
| SVESHAPES | T1_5  | 97.50  | 97.47 | 97.44 | 97.41 | 97.38 | 97.35 | 97.32 | 97.29 | 97.26 | 97.23 |
| SVESHAPES | T1_6  | 97.50  | 97.47 | 97.44 | 97.41 | 97.38 | 97.35 | 97.32 | 97.29 | 97.26 | 97.23 |
| SVESHAPES | T1_7  | 97.50  | 97.47 | 97.44 | 97.41 | 97.38 | 97.35 | 97.32 | 97.29 | 97.26 | 97.23 |
| SVESHAPES | T1_8  | 97.50  | 97.47 | 97.44 | 97.41 | 97.38 | 97.35 | 97.32 | 97.29 | 97.26 | 97.23 |
| SVESHAPES | T1_9  | 100.00 | 96.99 | 94.00 | 91.00 | 88.00 | 84.99 | 82.00 | 79.00 | 76.00 | 72.99 |
| SVESHAPES | T2    | 93.30  | 93.22 | 93.14 | 93.06 | 92.98 | 92.90 | 92.82 | 92.74 | 92.66 | 92.58 |
| SVESHAPES | T3    | 84.50  | 84.31 | 84.13 | 83.94 | 83.76 | 83.57 | 83.39 | 83.20 | 83.02 | 82.83 |
| SVESHAPES | T4_1  | 81.40  | 81.18 | 80.95 | 80.73 | 80.51 | 80.29 | 80.06 | 79.84 | 79.62 | 79.40 |
| SVESHAPES | T4_2  | 22.00  | 21.06 | 20.13 | 19.20 | 18.26 | 17.33 | 16.39 | 15.46 | 14.53 | 13.59 |
| SVESHAPES | T4_3  | 6.80   | 5.68  | 4.57  | 3.45  | 2.34  | 1.22  | .10   | .00   | .00   | .00   |
| SVESHAPES | T4_4  | 11.90  | 10.84 | 9.79  | 8.73  | 7.68  | 6.62  | 5.57  | 4.51  | 3.46  | 2.40  |
| SVESHAPES | T4_5  | 18.70  | 17.72 | 16.75 | 15.78 | 14.81 | 13.83 | 12.86 | 11.88 | 10.91 | 9.94  |
| SVESHAPES | T4_6  | 17.70  | 16.71 | 15.73 | 14.74 | 13.76 | 12.77 | 11.79 | 10.80 | 9.82  | 8.83  |
| SVESHAPES | T4_7  | 25.80  | 24.91 | 24.02 | 23.13 | 22.25 | 21.36 | 20.47 | 19.58 | 18.69 | 17.80 |
| SVESHAPES | T5_1  | 27.20  | 26.33 | 25.46 | 24.58 | 23.71 | 22.84 | 21.97 | 21.10 | 20.23 | 19.35 |
| SVESHAPES | T5_2  | 12.30  | 11.25 | 10.20 | 9.15  | 8.10  | 7.05  | 6.00  | 4.95  | 3.90  | 2.85  |
| SVESHAPES | T5_3  | 43.80  | 43.13 | 42.45 | 41.78 | 41.11 | 40.43 | 39.76 | 39.09 | 38.42 | 37.74 |
| SVESHAPES | T5_4  | 63.60  | 63.16 | 62.73 | 62.29 | 61.86 | 61.42 | 60.98 | 60.55 | 60.11 | 59.68 |
| SVESHAPES | T5_5  | 78.00  | 77.74 | 77.47 | 77.21 | 76.95 | 76.68 | 76.42 | 76.16 | 75.89 | 75.63 |
| SVESHAPES | T6_1  | 85.60  | 85.43 | 85.25 | 85.08 | 84.91 | 84.74 | 84.57 | 84.39 | 84.22 | 84.05 |
| SVESHAPES | T6_2  | 84.60  | 84.42 | 84.23 | 84.05 | 83.86 | 83.68 | 83.49 | 83.31 | 83.12 | 82.94 |
| SVESHAPES | T7    | 82.10  | 81.89 | 81.67 | 81.46 | 81.24 | 81.03 | 80.81 | 80.60 | 80.39 | 80.17 |
| SVESHAPES | T8_1  | 92.50  | 92.41 | 92.32 | 92.23 | 92.14 | 92.05 | 91.96 | 91.87 | 91.78 | 91.69 |
| SVESHAPES | T8_2  | 93.10  | 93.02 | 92.93 | 92.85 | 92.77 | 92.69 | 92.60 | 92.52 | 92.44 | 92.36 |
| SVESHAPES | T8_3  | 93.50  | 93.42 | 93.34 | 93.27 | 93.19 | 93.11 | 93.03 | 92.96 | 92.88 | 92.80 |
| SVESHAPES | T8_4  | 92.10  | 92.01 | 91.91 | 91.82 | 91.72 | 91.63 | 91.53 | 91.44 | 91.34 | 91.25 |

|           |      |       |       |       |       |       |       |       |       |       |       |
|-----------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| SVESHAPES | TD1  | 21.30 | 20.36 | 19.41 | 18.47 | 17.53 | 16.59 | 15.64 | 14.70 | 13.76 | 12.82 |
| SVESHAPES | TD10 | 27.90 | 27.03 | 26.17 | 25.31 | 24.45 | 23.58 | 22.72 | 21.86 | 20.99 | 20.13 |
| SVESHAPES | TD11 | 19.40 | 18.43 | 17.47 | 16.50 | 15.54 | 14.57 | 13.61 | 12.64 | 11.68 | 10.71 |
| SVESHAPES | TD12 | 29.10 | 28.25 | 27.40 | 26.55 | 25.70 | 24.85 | 24.00 | 23.16 | 22.31 | 21.46 |
| SVESHAPES | TD13 | 32.10 | 31.29 | 30.47 | 29.66 | 28.85 | 28.03 | 27.22 | 26.41 | 25.60 | 24.78 |
| SVESHAPES | TD14 | 27.20 | 26.33 | 25.46 | 24.58 | 23.71 | 22.84 | 21.97 | 21.10 | 20.23 | 19.35 |
| SVESHAPES | TD15 | 22.20 | 21.27 | 20.34 | 19.40 | 18.47 | 17.54 | 16.61 | 15.68 | 14.75 | 13.81 |
| SVESHAPES | TD16 | 40.00 | 39.28 | 38.56 | 37.84 | 37.13 | 36.41 | 35.69 | 34.97 | 34.25 | 33.53 |
| SVESHAPES | TD17 | 37.90 | 37.15 | 36.41 | 35.67 | 34.93 | 34.18 | 33.44 | 32.69 | 31.95 | 31.21 |
| SVESHAPES | TD18 | 41.30 | 40.60 | 39.89 | 39.19 | 38.49 | 37.78 | 37.08 | 36.38 | 35.68 | 34.97 |
| SVESHAPES | TD19 | 31.60 | 30.78 | 29.96 | 29.14 | 28.32 | 27.50 | 26.68 | 25.87 | 25.05 | 24.23 |
| SVESHAPES | TD2  | 23.00 | 22.08 | 21.15 | 20.23 | 19.31 | 18.39 | 17.47 | 16.55 | 15.62 | 14.70 |
| SVESHAPES | TD20 | 36.50 | 35.74 | 34.98 | 34.22 | 33.46 | 32.70 | 31.94 | 31.18 | 30.42 | 29.66 |
| SVESHAPES | TD21 | 36.10 | 35.33 | 34.57 | 33.80 | 33.04 | 32.27 | 31.51 | 30.74 | 29.98 | 29.21 |
| SVESHAPES | TD22 | 10.70 | 9.63  | 8.56  | 7.49  | 6.42  | 5.35  | 4.28  | 3.21  | 2.15  | 1.07  |
| SVESHAPES | TD23 | 5.40  | 4.26  | 3.13  | 2.00  | .87   | .00   | .00   | .00   | .00   | .00   |
| SVESHAPES | TD24 | 2.70  | 1.53  | .37   | .00   | .00   | .00   | .00   | .00   | .00   | .00   |
| SVESHAPES | TD25 | 9.60  | 8.52  | 7.43  | 6.35  | 5.27  | 4.19  | 3.10  | 2.02  | .94   | .00   |
| SVESHAPES | TD26 | 20.50 | 19.55 | 18.59 | 17.64 | 16.69 | 15.74 | 14.79 | 13.84 | 12.88 | 11.93 |
| SVESHAPES | TD27 | 21.40 | 20.46 | 19.52 | 18.58 | 17.64 | 16.69 | 15.75 | 14.81 | 13.87 | 12.93 |
| SVESHAPES | TD28 | 46.40 | 45.76 | 45.12 | 44.47 | 43.83 | 43.19 | 42.55 | 41.91 | 41.27 | 40.62 |
| SVESHAPES | TD29 | 40.30 | 39.58 | 38.87 | 38.15 | 37.44 | 36.72 | 36.01 | 35.30 | 34.58 | 33.86 |
| SVESHAPES | TD3  | 15.80 | 14.79 | 13.78 | 12.77 | 11.77 | 10.76 | 9.75  | 8.74  | 7.73  | 6.72  |
| SVESHAPES | TD4  | 19.40 | 18.43 | 17.47 | 16.50 | 15.54 | 14.57 | 13.61 | 12.64 | 11.68 | 10.71 |
| SVESHAPES | TD5  | 22.70 | 21.77 | 20.85 | 19.92 | 19.00 | 18.07 | 17.15 | 16.22 | 15.30 | 14.37 |
| SVESHAPES | TD6  | 21.30 | 20.36 | 19.41 | 18.47 | 17.53 | 16.59 | 15.64 | 14.70 | 13.76 | 12.82 |
| SVESHAPES | TD7  | 26.00 | 25.11 | 24.23 | 23.34 | 22.46 | 21.57 | 20.68 | 19.80 | 18.91 | 18.02 |
| SVESHAPES | TD8  | 16.20 | 15.19 | 14.19 | 13.19 | 12.19 | 11.18 | 10.18 | 9.18  | 8.17  | 7.17  |
| SVESHAPES | TD9  | 14.80 | 13.78 | 12.76 | 11.74 | 10.72 | 9.70  | 8.68  | 7.66  | 6.64  | 5.62  |

## **APPENDIX “H”**

### **PAVEMENT MAINTENANCE AND REHABILITATION RECORD FORMS**



## ANNUAL PAVEMENT MAINTENANCE AND REHABILITATION RECORD FORM

| FACILITY | SECTION  | LOCATION WITHIN SECTION | DISTRESS TYPE | DATE | WORK PERFORMED |
|----------|----------|-------------------------|---------------|------|----------------|
| RW       | RW 11-29 |                         |               |      |                |
| TW       | T1       |                         |               |      |                |
| TW       | T2       |                         |               |      |                |
| TW       | T3       |                         |               |      |                |
| TW       | T4       |                         |               |      |                |

## ANNUAL PAVEMENT MAINTENANCE AND REHABILITATION RECORD FORM

| FACILITY | SECTION | LOCATION WITHIN SECTION | DISTRESS TYPE | DATE | WORK PERFORMED |
|----------|---------|-------------------------|---------------|------|----------------|
| TW       | T5      |                         |               |      |                |
| TW       | T6      |                         |               |      |                |
| TW       | T7      |                         |               |      |                |
| TW       | T8      |                         |               |      |                |
| AP       | A1      |                         |               |      |                |

## ANNUAL PAVEMENT MAINTENANCE AND REHABILITATION RECORD FORM

| FACILITY | SECTION | LOCATION WITHIN SECTION | DISTRESS TYPE | DATE | WORK PERFORMED |
|----------|---------|-------------------------|---------------|------|----------------|
| AP       | A2      |                         |               |      |                |
| AP       | A3      |                         |               |      |                |
| AP       | A4      |                         |               |      |                |
| AP       | AP-5-1  |                         |               |      |                |
| ATD      | TD1     |                         |               |      |                |

ANNUAL PAVEMENT MAINTENANCE AND REHABILITATION RECORD FORM

| FACILITY | SECTION | LOCATION WITHIN SECTION | DISTRESS TYPE | DATE | WORK PERFORMED |
|----------|---------|-------------------------|---------------|------|----------------|
| HELI     | H1A     |                         |               |      |                |
| HELI     | H1B     |                         |               |      |                |

**SUSANVILLE MUNICIPAL AIRPORT COMMISSION AGENDA ITEM**

**Submitted By:** Bob Godman, Public Works

**Action Date:** June 13, 2024

**SUBJECT:** Report on CAAP (Caltrans Grant)

**PRESENTED BY:** Bob Godman, Public Works Director

**SUMMARY:** In the April, 2024 meeting of the Susanville Airport Commission commissioner Heyland asked about the yearly Caltrans CAAP grant. Staff said that they would look into when it would be funded. Staff discovered in the process that the grant had not been paid for four years. Staff was able to apply for all four years of funding totaling \$40,000. This funding is granted on a reimbursement basis and so can be used for any Airport costs.

**FISCAL IMPACT:** \$40,000 to the Airport 7201 Fund.

**ACTION REQUESTED:** None information only

**ATTACHMENTS:**