2022 State of the Pavement Report

Division of Maintenance

Pavement Program

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This report is prepared by the California Department of Transportation, Division of Maintenance, Office of Pavement Management, and the Office of Pavement Programming.

This report can be downloaded from the Division of Maintenance internet page, located at:

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

EXECUTIVE SUMMARY

As the steward of the State Highway System (S.H.S.), the California Department of Transportation (Caltrans) is responsible for maintaining over 50,000 lane-miles of pavement along more than 255 state and interstate highways. The State of the Pavement Report presents the latest pavement condition of the S.H.S., recent pavement project expenditures, and financial plan for future pavement improvements.

Caltrans conducts an automated pavement condition survey (A.P.C.S.) to collect pavement data at highway speeds for all lanes along the S.H.S. A.P.C.S. vehicles are equipped with various on-board equipment, high-definition cameras, and laser sensors to collect pavement images and pavement surface profiles. Pavement condition is reported for every 0.1-mile.

The 2022 State of the Pavement Report is based on the A.P.C.S. data collected in the 2022 calendar year. The difference in the total lane-miles collected between 2022 compared to 2021 may be attributed to right-of-way relinquishments, new roadway pavement segments, new roadway re-alignments, or pavement locations where conditions could not be collected such as roadway closures for construction activities. The report presents pavement condition in accordance with two analysis methodologies:

1) The National Highway Performance Program's (N.H.P.P.) pavement performance measures codified under Title 23, Code of Federal Regulations, Part 490, Subpart C (23 C.F.R. 490, Subpart C)
2) The Caltrans pavement rating system.

The N.H.P.P. measures pavement performance as *Good*, *Fair*, and *Poor* based on an assessment of several distress metrics combined. Table 1 presents the 2021 and 2022 statewide pavement condition by roadway classification, based on federal performance measures. The percentage of *Good* pavement increased for Class 1 and Class 3, while it decreased for Class 2 in 2022 compared to 2021. The percentage of *Fair* pavement decreased for Class 1, while it increased for Class 2 and Class 3. The percentage of *Poor* pavement remained relatively the same for Class 1, increased for Class 2 and decreased for Class 3 in 2022 compared to 2021.

The Caltrans pavement rating system uses a different methodology than the federal measures. Caltrans designates *Green* for pavement with no distress or very low distress, *Yellow* for pavement with minor surface distress, and *Red* for pavement with structural distress or poor ride quality. Through this monitoring and assessment effort, Caltrans can proactively apply the most cost-effective treatments to minimize pavement deterioration and bring it to a state of good repair. Table 2 presents the 2021 and 2022 statewide pavement condition by roadway classification, based on the Caltrans rating system. The percentage of

Green pavement decreased for all three roadway classes in 2022 compared to 2021. The percentage of *Yellow* pavements increased for roadway Class 1 and Class 2 and decreased on Class 3. The percentage of *Red* pavements increased in all Class 1, 2 and 3 in 2022 compared to 2021.

TABLE 1. STATEWIDE PAVEMENT CONDITION SUMMARY BY ROADWAY CLASSIFICATION, BASED ON FEDERAL PERFORMANCE MEASURES

Roadway Class	2021 Good Lane-Miles	2021 Fair Lane-Miles	2021 Poor Lane-Miles	2021 Sub-Total	2022 Good Lane-Miles	2022 Fair Lane-Miles	2022 Poor Lane-Miles	2022 Sub-Total
Class 1	16,691 (61.1%)	10,241 (37.5%)	367 (1.3%)	27,299 (100%)	16,907 (61.5%)	10,237 (37.2%)	368 (1.3%)	27,512 (100%)
Class 2	7,231 (44.4%)	8,865 (54.4%)	193 (1.2%)	16,289 (100%)	7,035 (42.9%)	9,136 (55.7%)	224 (1.4%)	16,394 (100%)
Class 3	2,724 (41.3%)	3,765 (57.1%)	104 (1.6%)	6,593 (100%)	2,776 (41.4%)	3,830 (57.2%)	95 (1.4%)	6,701 (100%)
Statewide Total	26,646 (53.1%)	22,872 (45.6%)	665 (1.3%)	50,182 (100%)	26,718 (52.8%)	23,203 (45.8%)	686 (1.4%)	50,607 (100%)

TABLE 2. STATEWIDE PAVEMENT CONDITION SUMMARY BY ROADWAY CLASSIFICATION, BASED ON CALTRANS RATING SYSTEM

Roadway Class	2021 Green Lane-Miles	2021 Yellow Lane-Miles	2021 Red Lane-Miles	2021 Sub-Total	2022 Green Lane-Miles	2022 Yellow Lane-Miles	2022 Red Lane-Miles	2022 Sub-Total
Class 1	21,156 (77.5%)	3,675 (13.5%)	2,468 (9.0%)	27,299 (100%)	20,989 (76.3%)	3,908 (14.2%)	2,615 (9.5%)	27,512 (100%)
Class 2	8,760 (53.8%)	4,560 (28.0%)	2,969 (18.2%)	16,289 (100%)	8,479 (51.7%)	4,697 (28.7%)	3,218 (19.6%)	16,394 (100%)
Class 3	3,277 (49.7%)	1,773 (26.9%)	1,543 (23.4%)	6,593 (100%)	3,320 (49.5%)	1,760 (26.3%)	1,620 (24.2%)	6,701 (100%)
Statewide Total	33,194 (66.1%)	10,008 (19.9%)	6,980 (13.9%)	50,182 (100%)	32,788 (64.8%)	10,365 (20.5%)	7,453 (14.7%)	50,607 (100%)

In 2022, approximately 59 percent of total lane-miles collected were measured with an International Roughness Index (I.R.I.) of less than 95 inches per mile, 32 percent with an I.R.I. between 95 to 170 inches per mile, and 9 percent with an I.R.I. greater than 170 inches per mile.

Caltrans is committed to using maintenance resources effectively to prolong the service life of the pavement and maintain the S.H.S. at the lowest possible long-term cost. The A.P.C.S. data also serves as a crucial component of Caltrans' Pavement Management System (PaveM). PaveM uses pavement condition data along with other information such as traffic census, climate region, and construction history to predict future pavement condition and recommend project locations viable for cost-effective treatments.

From Fiscal Year (F.Y.) 2021/22 through F.Y. 2022/23, Caltrans delivered approximately $2.6 billion in pavement projects on nearly 4,046 lane-miles of roadway. Table 3 summarizes the total capital costs and lane-miles for Highway Maintenance (H.M.1) and State Highway Operations and Protection Program (S.H.O.P.P.) pavement projects within the last two fiscal years.

TABLE 3. AWARDED PAVEMENT IMPROVEMENTS CAPITAL COSTS AND LANE-MILES FROM F.Y. 2021/22 TO F.Y. 2022/23

Funding Program	F.Y. 2021/22 Million Dollar[1]	F.Y. 2021/22 Lane-Miles	F.Y. 2022/23 Million Dollar[1]	F.Y. 2022/23 Lane-Miles	Total Million Dollar[1]	Total Lane-Miles
H.M.1	$283	1,176	$315	1,337	$598	2,513
S.H.O.P.P. – C.A.P.M.	$167	339	$435	537	$602	876
S.H.O.P.P. – Rehabilitation	$448	234	$940	411	$1,388	645
S.H.O.P.P. – Minor A	$10	9	$4	4	$14	13
S.H.O.P.P. – Sub-Total	$624	581	$1379	952	$2,003	1,533
Total H.M.1 & S.H.O.P.P.	$907	1758	$1694	2,289	$2,601	4,046

[1] Costs associated to pavement-related contract bid items only and exclude project support costs. It also does not include on-call maintenance contracts or Director's Order contracts.

STATE HIGHWAY SYSTEM

The S.H.S. primarily consists of two types of pavements: asphalt and concrete. Asphalt pavements include pavement surfaced with conventional hot mix asphalt (either open-graded or dense-graded), rubberized hot mix asphalt (either open-graded or gap-graded), chip seal, slurry seal, bonded wearing course, or other asphaltic materials. Asphalt pavement surfaces also include composite pavements with underlying concrete pavement. Concrete pavements include pavement surfaced with concrete materials such as jointed plain concrete pavement (J.P.C.P.), continuously reinforced concrete pavement (C.R.C.P.), and precast concrete pavement.

Table 4 presents the statewide lane-miles of pavement, by type and excluding bridges and other structures, that were collected in the 2021 and 2022 A.P.C.S. cycles.

TABLE 4. STATEWIDE LANE-MILES OF A.P.C.S. DATA COLLECTED BY PAVEMENT TYPE

Pavement Type	2021 Lane-Miles Collected	2022 Lane-Miles Collected
Asphalt	36,988 (73.7%)	37,292 (73.7%)
Concrete	13,194 (26.3%)	13,315 (26.3%)
Statewide Total	50,182 (100%)	50,607 (100%)

The difference in the total lane-miles collected between 2021 and 2022 may be attributed to right-of-way relinquishments, new roadway pavement segments, new roadway re-alignments, or pavement locations where conditions could not be collected such as roadway closures for highway construction activities.

Table 5 presents the statewide lane-miles of pavement, by roadway classification, that were collected in the 2021 and 2022 A.P.C.S. cycles. For planning purposes, the S.H.S. has been classified into three roadway classifications:

- Roadway Class 1 contains route segments classified as Interstate and other principal arterials. It includes Freight Network Tier I and II, and the Strategic Highway Network (S.T.R.A.H.N.E.T.) routes. Examples of Class 1 routes are Sacramento-80, Alameda-580, Ventura-101, Los Angeles-210, and San Diego-8.
- Roadway Class 2 contains route segments classified as non-Interstate National Highway System and Interregional Road System (I.R.R.S.). It

includes Freight Network Tier 3. Examples of Class 2 routes are Mendocino-20, Napa-29, Monterey-1, Riverside-74, and Orange-73.

- Roadway Class 3 contains all other routes not included in Classes 1 and 2. Examples of Class 3 routes are Trinity-3, Humbolt-36, San Luis Obispo-58, and Mono-167.

TABLE 5. STATEWIDE LANE-MILES OF A.P.C.S. DATA COLLECTED BY ROADWAY CLASSIFICATION

Roadway Class	2021 Lane-Miles Collected	2022 Lane-Miles Collected
Class 1	27,299 (54.4%)	27,512 (54.4%)
Class 2	16,289 (32.5%)	16,394 (32.4%)
Class 3	6,593 (13.1%)	6,701 (13.2%)
Statewide Total	50,182 (100%)	50,607 (100%)

The S.H.S. includes the Interstate System, other roadways along the National Highway System (N.H.S.), and Non-N.H.S. roadways. Table 6 presents the statewide lane-miles of pavement, by highway type, that were collected in the 2021 and 2022 A.P.C.S. cycles.

TABLE 6. STATEWIDE LANE-MILES OF A.P.C.S. DATA COLLECTED BY HIGHWAY TYPE

Highway Type	2021 Lane-Miles Collected	2022 Lane-Miles Collected
N.H.S. – Interstate	14,548 (29.0%)	14,684 (29.0%)
N.H.S. – Non-Interstate	22,728 (45.3%)	22,895 (45.2%)
N.H.S. Sub-Total	37,276 (74.3%)	37,579 (74.3%)
Non-N.H.S.	12,906 (25.7%)	13,028 (25.7%)
Statewide Total	50,182 (100%)	50,607 (100%)

There are 12 Caltrans regional districts across California. Each district is responsible for managing and maintaining their respective portions of the S.H.S. network. Table 7 presents the statewide lane-miles of pavement, by district, that were collected in the 2021 and 2022 A.P.C.S. cycles.

TABLE 7. STATEWIDE LANE-MILES OF A.P.C.S. DATA COLLECTED BY DISTRICT

District	2021 Lane-Miles Collected	2022 Lane-Miles Collected
District 1	2,295 (4.6%)	2,286 (4.5%)
District 2	3,944 (7.9%)	3,961 (7.8%)
District 3	4,384 (8.7%)	4,407 (8.7%)
District 4	6,153 (12.3%)	6,165 (12.2%)
District 5	3,093 (6.2%)	3,165 (6.3%)
District 6	5,186 (10.3%)	5,208 (10.3%)
District 7	6,209 (12.4%)	6,184 (12.2%)
District 8	6,786 (13.5%)	6,858 (13.6%)
District 9	2,462 (4.9%)	2,523 (5.0%)
District 10	3,490 (7.0%)	3,504 (6.9%)
District 11	4,134 (8.2%)	4,263 (8.4%)
District 12	2,049 (4.1%)	2,082 (4.1%)
Statewide Total	50,182 (100%)	50,607 (100%)

A map of each Caltrans district's boundary is available in Appendix A.

PAVEMENT CONDITION MONITORING AND MANAGEMENT

Pavement Condition Monitoring

Historically, a team of pavement raters would conduct a manual pavement condition survey at various locations along the S.H.S. once a year. The pavement raters visually inspected the outside highway lanes for both directions of travel using systematic sampling techniques. Pavement condition assessments would be extrapolated for the entire S.H.S. based on those sample locations.

Between 2011 and 2012, Caltrans began testing and transitioning to A.P.C.S. to efficiently collect, evaluate, and analyze pavement condition for all lanes on the S.H.S. It utilizes vehicles equipped with an array of on-board high-definition cameras, laser sensors, Global Positioning System tracker, and other measurement devices that quickly collect pavement data at highway speeds. The data collected includes geographical locations of the highways, downward-looking pavement surface images, forward right-of-way images, and pavement surface profiles. For asphalt pavement and C.R.C.P., one data element is reported for every 26.4-foot section. For J.P.C.P., one data element is reported for each concrete slab. The data elements would be aggregated to calculate a weighted average of the pavement condition for each 0.1-mile segment.

Figure 1 presents the data collection methods for A.P.C.S. and manual inspection. The manual pavement inspection is now a component of the A.P.C.S. data validation process in compliance with 23 C.F.R. 490.319(c).

FIGURE 1. A.P.C.S. VEHICLE ON THE ROAD AND MANUAL PAVEMENT INSPECTION

Pavement Management System

The Pavement Management System (PaveM) is a versatile tool that assists Caltrans with analyzing existing pavement condition, predicting future pavement condition, and recommending pavement projects to achieve

targeted performance goals by data driven strategies. PaveM uses many data inputs such as pavement condition, traffic census, climate region, pavement treatments, and construction history to predict future pavement condition and recommend projects. The tool maximizes funding resources by assisting with analysis of network-wide investment alternatives.

FEDERAL PAVEMENT PERFORMANCE MEASURES

The Moving Ahead for Progress in the 21st Century Act (M.A.P.-21) established a performance-based objective that directs States to make smart transportation investment decisions and work toward achieving seven national performance goals. One of the national goals is pavement performance. The National Highway Performance Program (N.H.P.P.) was enacted under M.A.P.-21 and continued under the Fixing America's Surface Transportation Act (F.A.S.T. Act) to provide guidance for States to meet the national goals. In accordance with the N.H.P.P., the federal pavement performance measures are codified under 23 C.F.R. 490, Subpart C.

The N.H.P.P. determines pavement performance measures based on a combination of different pavement distress metrics. Asphalt pavement metrics are surface roughness according to I.R.I., cracking, and rutting. J.P.C.P. pavement metrics are I.R.I., cracking, and faulting. C.R.C.P. pavement metrics are I.R.I. and cracking. The metrics are rated as *Good*, *Fair*, and *Poor* based on a set of criteria for each pavement type. Table 8 presents the performance metrics and measures criteria for each pavement type. *Good* pavement measure is represented as green, *Fair* pavement measure is represented as light-purple, and *Poor* pavement measure is represented as purple.

TABLE 8. FEDERAL PAVEMENT PERFORMANCE METRICS AND MEASURES CRITERIA

Performance Metrics	Good	Fair	Poor
I.R.I. (inches per mile)	Less than 95	Between 95 to 170	Greater than 170
Cracking (percentage) for Asphalt Pavement	Less than 5	Between 5 to 20	Greater than 20
Cracking (percentage) for J.P.C.P.	Less than 5	Between 5 to 15	Greater than 15
Cracking (percentage) for C.R.C.P.	Less than 5	Between 5 to 10	Greater than 10
Rutting (inch) for Asphalt Pavement	Less than 0.2	Between 0.2 to 0.4	Greater than 0.4
Faulting (inch) for J.P.C.P.	Less than 0.10	Between 0.10 to 0.15	Greater than 0.15

The overall condition of a pavement section will be considered *Good* if all the performance metrics for each pavement type are rated as *Good*. If two or more performance metrics are rated as *Poor*, then the pavement section is considered *Poor*. All other condition combinations are considered as *Fair*.

Table 9 presents the statewide pavement performance targets established by Caltrans for each roadway classification and performance measure.

TABLE 9. STATEWIDE PAVEMENT PERFORMANCE TARGETS FOR EACH ROADWAY CLASSIFICATION AND FEDERAL PERFORMANCE MEASURE

Roadway Class	Good	Fair	Poor
Class 1	60%	39%	1%
Class 2	55%	43%	2%
Class 3	45%	53%	2%

Pavement Condition Statewide

Overall Pavement Condition

Table 10 presents the 2021 and 2022 statewide pavement condition based on the federal performance measures. The percentage of *Good, Fair*, and *Poor* pavement increased in 2022 compared to 2021.

TABLE 10. STATEWIDE PAVEMENT CONDITION SUMMARY BASED ON FEDERAL PERFORMANCE MEASURES

Federal Measure	2021 Lane-Miles	2022 Lane-Miles
Good	26,646 (53.1%)	26,718 (52.8%)
Fair	22,872 (45.6%)	23,203 (45.8%)
Poor	665 (1.3%)	686 (1.4%)
Statewide Total	50,182 (100%)	50,607 (100%)

Condition by Pavement Type

Table 11 presents the 2021 and 2022 statewide pavement condition by pavement type, based on the federal performance measures. For asphalt pavement, the percentage of *Good* pavement decreased, and the percentage of *Fair* pavement increased, and percentage of *Poor* pavement is approximately the same in 2022 compared to 2021. For concrete pavement, the percentage of *Good* and *Poor* pavement increased, and the percentage of *Fair* pavement decreased in 2022 compared to 2021.

TABLE 11. STATEWIDE PAVEMENT CONDITION SUMMARY BY PAVEMENT TYPE, BASED ON FEDERAL PERFORMANCE MEASURES

Federal Measure	2021 Asphalt Lane-Miles	2022 Asphalt Lane-Miles	2021 Concrete Lane-Miles	2022 Concrete Lane-Miles
Good	20,724 (56.0%)	20,613 (55.3%)	5,921 (44.9%)	6,104 (45.8%)
Fair	15,959 (43.1%)	16,366 (43.9%)	6,913 (52.4%)	6,837 (51.3%)
Poor	305 (0.8%)	312 (0.8%)	360 (2.7%)	374 (2.8%)
Statewide Total	36,988 (100%)	37,292 (100%)	13,194 (100%)	13,315 (100%)

Condition by Roadway Class

Table 12 presents the 2021 and 2022 statewide pavement condition by roadway classification, based on the federal performance measures. The percentage of *Good* pavement increased for Class 1 and 3, while it decreased for Class 2 in 2022 compared to 2021. The percentage of *Fair* pavement decreased for Class 1, and it increased for Class 2 and Class 3. The percentage of *Poor* pavement increased for Class 2, and it decreased for Class 3 and is approximately the same for Class 1 in 2022 compared to 2021.

TABLE 12. STATEWIDE PAVEMENT CONDITION SUMMARY BY ROADWAY CLASSIFICATION, BASED ON FEDERAL PERFORMANCE MEASURES

Roadway Class	2021 Good Lane-Miles	2021 Fair Lane-Miles	2021 Poor Lane-Miles	2021 Sub-Total	2022 Good Lane-Miles	2022 Fair Lane-Miles	2022 Poor Lane-Miles	2022 Sub-Total
Class 1	16,691 (61.1%)	10,241 (37.5%)	367 (1.3%)	27,299 (100%)	16,907 (61.5%)	10,237 (37.2%)	368 (1.3%)	27,512 (100%)
Class 2	7,231 (44.4%)	8,865 (54.4%)	193 (1.2%)	16,289 (100%)	7,035 (42.9%)	9,136 (55.7%)	224 (1.4%)	16,394 (100%)
Class 3	2,724 (41.3%)	3,765 (57.1%)	104 (1.6%)	6,593 (100%)	2,776 (41.4%)	3,830 (57.2%)	95 (1.4%)	6,701 (100%)
Statewide Total	26,646 (53.1%)	22,872 (45.6%)	665 (1.3%)	50,182 (100%)	26,718 (52.8%)	23,203 (45.8%)	686 (1.4%)	50,607 (100%)

Pavement condition for each district by roadway classification, based on the federal performance measures is available in Appendix B and Appendix C.

Condition by Highway Type

Table 13 presents the 2021 and 2022 statewide pavement condition by highway type, based on the federal performance measures. The percentage of *Good* increased for NHS highway type in 2022 compared to 2021 and decreased for non-NHS highway type. The percentage of *Fair* pavement slightly increased for NHS Interstate highway type and increased for other highway types. The percentage of *Poor* pavement remained relatively the same for all highway types in 2022 compared to 2021.

TABLE 13. STATEWIDE PAVEMENT CONDITION SUMMARY BY HIGHWAY TYPE, BASED ON FEDERAL PERFORMANCE MEASURES

Highway Type	2021 Good Lane-Miles	2021 Fair Lane-Miles	2021 Poor Lane-Miles	2021 Sub-Total	2022 Good Lane-Miles	2022 Fair Lane-Miles	2022 Poor Lane-Miles	2022 Sub-Total
N.H.S. – Interstate	8,939 (61.4%)	5,403 (37.1%)	206 (1.4%)	14,548 (100%)	9,035 (61.5%)	5,437 (37.0%)	212 (1.4%)	14,684 (100%)
N.H.S. – Non-Interstate	12,370 (54.4%)	10,063 (44.3%)	295 (1.3%)	22,728 (100%)	12,382 (54.1%)	10,204 (44.6%)	310 (1.4%)	22,895 (100%)
N.H.S. – Sub-Total	21,310 (57.2%)	15,465 (41.5%)	501 (1.3%)	37,276 (100%)	21,417 (57.0%)	15,640 (41.6%)	522 (1.4%)	37,579 (100%)
Non-N.H.S.	5,336 (41.3%)	7,406 (57.4%)	164 (1.3%)	12,906 (100%)	5,300 (40.7%)	7,563 (58.0%)	165 (1.3%)	13,028 (100%)
Statewide Total	26,646 (53.1%)	22,872 (45.6%)	665 (1.3%)	50,182 (100%)	26,718 (52.8%)	23,203 (45.8%)	686 (1.4%)	50,607 (100%)

Pavement Condition by District

Table 14 presents the 2021 and 2022 statewide pavement condition by district, based on the federal performance measures. The percentage of *Good* pavement increased for District 3, District 6, District 7, District 8, and District 9 and decreased in the other districts in 2022 compared to 2021. The percentage of *Fair* pavement increased for most of Districts except it decreased for District 3 and District 6, and District 7. The percentage of *Poor* pavement increased for District 1, District 2, District 4, District 7, District 11, and District 12, while it is the same percentage for Districts 5, 9, and 10 and decreased for other Districts.

TABLE 14. STATEWIDE PAVEMENT CONDITION SUMMARY BY DISTRICT, BASED ON FEDERAL PERFORMANCE MEASURES

District	2021 Good Lane-Miles	2021 Fair Lane-Miles	2021 Poor Lane-Miles	2021 Sub-Total	2022 Good Lane-Miles	2022 Fair Lane-Miles	2022 Poor Lane-Miles	2022 Sub-Total
District 1	1,030 (44.9%)	1,236 (53.9%)	29 (1.3%)	2,295 (100%)	994 (43.5%)	1,261 (55.2%)	31 (1.4%)	2,286 (100%)
District 2	2,350 (59.6%)	1,576 (40.0%)	17 (0.4%)	3,944 (100%)	2,150 (54.3%)	1786 (45.1%)	25 (0.6%)	3,961 (100%)
District 3	2,457 (56.0%)	1,883 (42.9%)	44 (1.0%)	4,384 (100%)	2,572 (58.3%)	1,801 (40.9%)	35 (0.8%)	4,407 (100%)
District 4	2,804 (45.6%)	3,237 (52.6%)	111 (1.8%)	6,153 (100%)	2,790 (45.3%)	3,252 (52.7%)	123 (2.0%)	6,165 (100%)
District 5	1,786 (57.7%)	1,267 (41.0%)	40 (1.3%)	3,093 (100%)	1,774 (56.0%)	1,352 (42.7%)	40 (1.3%)	3,165 (100%)
District 6	3,098 (59.7%)	2,014 (38.8%)	74 (1.4%)	5,186 (100%)	3,151 (60.5%)	1,987 (38.2%)	70 (1.3%)	5,208 (100%)
District 7	2,441 (39.3%)	3,618 (58.3%)	151 (2.4%)	6,209 (100%)	2,540 (41.1%)	3,484 (56.3%)	160 (2.6%)	6,184 (100%)
District 8	3,589 (52.9%)	3,067 (45.2%)	129 (1.9%)	6,786 (100%)	3,710 (54.1%)	3,026 (44.1%)	121 (1.8%)	6,858 (100%)
District 9	1,812 (73.6%)	645 (26.2%)	5 (0.2%)	2,462 (100%)	1,815 (72.0%)	701 (27.8%)	6 (0.2%)	2,523 (100%)
District 10	2,162 (62.0%)	1,294 (37.1%)	34 (1.0%)	3,490 (100%)	2,152 (61.4%)	1,317 (37.6%)	35 (1.0%)	3,504 (100%)
District 11	2,159 (52.2%)	1,956 (47.3%)	20 (0.5%)	4,134 (100%)	2,113 (49.6%)	2,124 (49.8%)	26 (0.6%)	4,263 (100%)
District 12	958 (46.8%)	1,079 (52.7%)	11 (0.5%)	2,049 (100%)	956 (45.9%)	1,113 (53.4%)	14 (0.7%)	2,082 (100%)
Statewide Total	26,646 (53.1%)	22,872 (45.6%)	665 (1.3%)	50,182 (100%)	26,718 (52.8%)	23,203 (45.8%)	686 (1.4%)	50,607 (100%)

CALTRANS PAVEMENT RATING SYSTEM

The Caltrans pavement rating system utilizes a different methodology than the federal measures to integrate conditions with engineering solutions. The Caltrans pavement rating system designates *Green* for pavement with no distress or very low distress, *Yellow* for pavement with minor cracking or surface distress, and *Red* for distressed pavement that has structural distress or poor ride quality. This is referred to as the R.Y.G. (Red, Yellow, and Green) designation.

Preventive treatments would typically be applied to the *Green* pavement to maintain and prolong its good condition. *Yellow* pavement would receive corrective treatments to slow pavement deterioration. *Red* distressed pavement would need more substantial rehabilitation treatments to bring it to a state of good repair or complete reconstruction and replacement.

To determine the appropriate treatments for the distressed pavement, the *Red* pavement is further subdivided into the color *Blue* for pavement with poor ride quality, the color *Orange* for pavement with minor structural distress, and the color *Red* for pavement with major structural distress. Along with the prior *Green* and *Yellow* pavements, this is referred to as the R.O.B.Y.G. (Red, Orange, Blue, Yellow, and Green) designation. Figure 2 presents examples of the pavement condition for each category of the R.O.B.Y.G. designation.

FIGURE 2. EXAMPLES OF PAVEMENT CONDITION BASED ON CALTRANS RATING SYSTEM

Green

No Distress

Yellow

Minor Surface Distress

Blue

Poor Ride Only

Orange

Minor Structural Distress

Red

Major Structural Distress

Table 15 presents the Caltrans pavement condition rating priority matrix for asphalt pavement. Figure 3 presents examples of distress for asphalt pavement.

TABLE 15. CALTRANS CONDITION RATING PRIORITY MATRIX FOR ASPHALT PAVEMENT

Alligator B Cracking (percentage) Rating Criteria	Alligator A Plus Alligator B Cracking (percentage) Rating Criteria	I.R.I. (inches per mile) Rating Criteria	R.Y.G. Rating	R.O.B.Y.G. Rating	Condition Rating
Less than 5%	Less than 5%	Less than or equal to 170	Green	Green	Low I.R.I., Very Low B Cracking, Very Low A Cracking
Less than 5%	Greater than or equal to 5%	Less than or equal to 170	Yellow	Yellow	A Plus B Cracking
Greater than or equal to 5%, and less than 10%	Any value	Less than or equal to 170	Yellow	Yellow	Low B Cracking
Less than 5%	Any value	Greater than 170	Red	Blue	High I.R.I. Only
Greater than or equal to 5%, and less than 10%	Any value	Greater than 170	Red	Blue	High I.R.I., Low B Cracking
Between 10% and 30%	Any value	Any value	Red	Orange	Medium B Cracking
Greater than 30%	Any value	Any value	Red	Red	High B Cracking

FIGURE 3. EXAMPLES OF DISTRESS FOR ASPHALT PAVEMENT

Alligator A Cracking

Alligator B Cracking

Table 16 presents the Caltrans pavement condition rating priority matrix for jointed plain concrete pavement. Figure 4 presents examples of distress for concrete pavement.

TABLE 16. CALTRANS CONDITION RATING PRIORITY MATRIX FOR JOINTED PLAIN CONCRETE PAVEMENT

3rd Stage Cracking (Percentage) Rating Criteria	Faulting[2] (Percentage) Rating Criteria	I.R.I. (inches per mile) Rating Criteria	R.Y.G. Rating	R.O.B.Y.G. Rating	Condition Rating
Less than 3%	Less than or equal to 25%	Less than or equal to 170	Green	Green	Low I.R.I., Low Cracking, Low Faulting
Between 3% and 10%	Less than or equal to 25%	Less than or equal to 170	Yellow	Yellow	Medium Cracking Only
Less than 3%	Less than or equal to 25%	Greater than 170	Red	Blue	High I.R.I. Only
Between 3% and 10%	Less than or equal to 25%	Greater than 170	Red	Blue	High I.R.I., Medium Cracking, Low Faulting
Less than 3%	Greater than 25%	Any value	Red	Orange	High Faulting, Low Cracking
Between 3% and 10%	Greater than 25%	Any value	Red	Orange	High Faulting, Medium Cracking
Greater than 10%	Any value	Any value	Red	Red	High Cracking

[2] Faulting percentage is the percentage of data elements in a segment with fault height greater than 0.15 inch.

FIGURE 4. EXAMPLES OF DISTRESS FOR CONCRETE PAVEMENT

3rd Stage Cracking

Faulting

Pavement Condition Statewide

Overall Pavement Condition

Table 17 presents the 2021 and 2022 statewide pavement condition based on the Caltrans rating system. The percentage of *Green* pavement decreased; the percentage of *Yellow and Red* pavement increased in 2022 compared to 2021.

TABLE 17. STATEWIDE PAVEMENT CONDITION SUMMARY BASED ON CALTRANS RATING SYSTEM

Caltrans Rating System	2021 Lane-miles	2022 Lane-miles
Green	33,194 (66.1%)	32,788 (64.8%)
Yellow	10,008 (19.9%)	10,365 (20.5%)
Red	6,980 (13.9%)	7,453 (14.7%)
Statewide Total	50,182 (100%)	50,607 (100%)

Condition by Pavement Type

Table 18 presents the 2021 and 2022 statewide pavement condition by pavement type, based on the Caltrans rating system. For asphalt pavement, the percentage of *Green* pavement decreased, the percentage of *Yellow* pavement increased, and the percentage of *Red* pavement increased in 2022 compared to 2021. For concrete pavement, the percentage of *Green* pavement and the percentage of *Yellow* pavement decreased, and the percentage of *Red* pavement increased in 2022 compared to 2021.

TABLE 18. STATEWIDE PAVEMENT CONDITION SUMMARY BY PAVEMENT TYPE, BASED ON CALTRANS RATING SYSTEM

Caltrans Rating System	2021 Asphalt Lane-Miles	2022 Asphalt Lane-Miles	2021 Concrete Lane-Miles	2022 Concrete Lane-Miles
Green	22,442 (60.7%)	22,041 (59.1%)	10,752 (81.5%)	10,747 (80.7%)
Yellow	9,510 (25.7%)	9,867 (26.5%)	498 (3.8%)	498 (3.7%)
Red	5,036 (13.6%)	5,384 (14.4%)	1,944 (14.7%)	2,069 (15.5%)
Statewide Total	36,988 (100%)	37,292 (100%)	13,194 (100%)	13,315 (100%)

Pavement Condition by Roadway Class

Table 19 presents the 2021 and 2022 statewide pavement condition by roadway classification, based on the Caltrans rating system. The percentage of *Green* pavement decreased for Class 1 and Class 2 and increased in Class 3 in 2022 compared to 2021. The percentage of *Yellow* increased in Class1 and Class 2 and decreased in Class 3 in 2022 compared to 2021. *Red* pavement increased for all three roadway classes.

TABLE 19. STATEWIDE PAVEMENT CONDITION SUMMARY BY ROADWAY CLASSIFICATION, BASED ON CALTRANS RATING SYSTEM

Roadway Class	2021 Green Lane-Miles	2021 Yellow Lane-Miles	2021 Red Lane-Miles	2021 Sub-Total	2022 Green Lane-Miles	2022 Yellow Lane-Miles	2022 Red Lane-Miles	2022 Sub-Total
Class 1	21,156 (77.5%)	3,675 (13.5%)	2,468 (9.0%)	27,299 (100%)	20,989 (76.3%)	3,908 (14.2%)	2,615 (9.5%)	27,512 (100%)
Class 2	8,760 (53.8%)	4,560 (28.0%)	2,969 (18.2%)	16,289 (100%)	8,479 (51.7%)	4,697 (28.7%)	3,218 (19.6%)	16,394 (100%)
Class 3	3,277 (49.7%)	1,773 (26.9%)	1,543 (23.4%)	6,593 (100%)	3,320 (49.5%)	1,760 (26.3%)	1,620 (24.2%)	6,701 (100%)
Statewide Total	33,194 (66.1%)	10,008 (19.9%)	6,980 (13.9%)	50,182 (100%)	32,788 (64.8%)	10,365 (20.5%)	7,453 (14.7%)	50,607 (100%)

Pavement condition for each district by roadway class, based on the Caltrans rating system is available in Appendix D and Appendix E.

Pavement Condition by Highway Type

Table 20 presents the 2021 and 2022 statewide pavement by highway type, based on the Caltrans rating system. The percentage of *Green* pavement decreased for all highway types. The percentages of *Yellow* increased for all highway types except Non-NHS type of highway remain the same in 2022 compared to 2021. The percentage of *Red* pavement increased for all highway types.

TABLE 20. STATEWIDE PAVEMENT CONDITION SUMMARY BY HIGHWAY TYPE, BASED ON CALTRANS RATING SYSTEM

Highway Type	2021 Green Lane-Miles	2021 Yellow Lane-Miles	2021 Red Lane-Miles	2021 Sub-Total	2022 Green Lane-Miles	2022 Yellow Lane-Miles	2022 Red Lane-Miles	2022 Sub-Total
N.H.S – Interstate	11,498 (79.0%)	1,733 (11.9%)	1,317 (9.1%)	14,548 (100%)	11,446 (78.0%)	1,791 (12.2%)	1,447 (9.9%)	14,684 (100%)
N.H.S. – Non-Interstate	15,191 (66.8%)	4,569 (20.1%)	2,968 (13.1%)	22,728 (100%)	14,911 (65.1%)	4,842 (21.1%)	3,143 (13.7%)	22,895 (100%)
N.H.S. Sub-Total	26,689 (71.6%)	6,302 (16.9%)	4,285 (11.5%)	37,276 (100%)	26,357 (70.1%)	6,632 (17.6%)	4,590 (12.2%)	37,579 (100%)
Non-N.H.S.	6,505 (50.4%)	3,706 (28.7%)	2,695 (20.9%)	12,906 (100%)	6,431 (49.4%)	3,733 (28.7%)	2,864 (22.0%)	13,028 (100%)
Statewide Total	33,194 (66.1%)	10,008 (19.9%)	6,980 (13.9%)	50,182 (100%)	32,788 (64.8%)	10,365 (20.5%)	7,453 (14.7%)	50,607 (100%)

Pavement Condition by District

Table 21 presents the 2021 and 2022 statewide pavement condition by district, based on the Caltrans rating system. The percentage of *Green* pavement increased for District 3, District 5, District 6, District 8, and District 11 and decreased for the remained districts in 2022 compared to 2021. The percentage of *Yellow* pavement increased for District 1, District 2, District 4, District 5, District 7, District 9, and District 12 except for District 3, District 6, District 8, District 10, and District 11 where it decreased. The percentage of *Red* pavement increased for most of Districts except for District 3 and District 6 where it decreased in 2022.

TABLE 21. STATEWIDE PAVEMENT CONDITION SUMMARY BY DISTRICT, BASED ON CALTRANS RATING SYSTEM

District	2021 Green Lane-Miles	2021 Yellow Lane-Miles	2021 Red Lane-Miles	2021 Sub-Total	2022 Green Lane-Miles	2022 Yellow Lane-Miles	2022 Red Lane-Miles	2022 Sub-Total
District 1	1,493 (65.1%)	406 (17.7%)	396 (17.2%)	2,295 (100%)	1,417 (62.0%)	457 (20.0%)	411 (18.0%)	2,286 (100%)
District 2	2,173 (55.1%)	1,491 (37.8%)	279 (7.1%)	3,944 (100%)	1,943 (49.0%)	1,656 (41.8%)	362 (9.1%)	3961 (100%)
District 3	2,862 (65.3%)	1,001 (22.8%)	521 (11.9%)	4,384 (100%)	2,915 (66.2%)	992 (22.5%)	500 (11.3%)	4,407 (100%)
District 4	4,126 (67.1%)	788 (12.8%)	1,239 (20.1%)	6,153 (100%)	4,035 (65.4%)	850 (13.8%)	1,280 (20.8%)	6,165 (100%)
District 5	1,865 (60.3%)	711 (23.0%)	517 (16.7%)	3,093 (100%)	1,870 (59.1%)	739 (23.3%)	557 (17.6%)	3,165 (100%)
District 6	3,511 (67.7%)	1,012 (19.5%)	662 (12.8%)	5,186 (100%)	3,577 (68.7%)	1,007 (19.3%)	624 (12.0%)	5,208 (100%)
District 7	4,387 (70.7%)	572 (9.2%)	1,250 (20.1%)	6,209 (100%)	4,266 (69.0%)	609 (9.9%)	1,309 (21.2%)	6,184 (100%)
District 8	4,142 (61.0%)	1,586 (23.4%)	1,057 (15.6%)	6,786 (100%)	4,221 (61.6%)	1,551 (22.6%)	1,085 (15.8%)	6,858 (100%)
District 9	1,651 (67.1%)	698 (28.4%)	113 (4.6%)	2,462 (100%)	1,630 (64.6%)	740 (29.3%)	153 (6.1%)	2,523 (100%)
District 10	2,202 (63.1%)	936 (26.8%)	351 (10.1%)	3,490 (100%)	2,124 (60.6%)	925 (26.4%)	455 (13.0%)	3,504 (100%)
District 11	3,132 (75.8%)	616 (14.9%)	386 (9.3%)	4,134 (100%)	3,147 (73.8%)	632 (14.8%)	484 (11.4%)	4,263 (100%)
District 12	1,649 (80.5%)	189 (9.2%)	211 (10.3%)	2,049 (100%)	1,643 (78.9%)	208 (10.0%)	231 (11.1%)	2,082 (100%)
Statewide Total	33,194 (66.1%)	10,008 (19.9%)	6,980 (13.9%)	50,182 (100%)	32,788 (64.8%)	10,365 (20.5%)	7,453 (14.7%)	50,607 (100%)

PAVEMENT ROUGHNESS

Pavement Roughness Statewide

Pavement roughness correlates surface ride quality to the level of comfort that people experience while traveling along the roadway. Both the Federal Highway Administration (F.H.W.A.) and Caltrans included I.R.I. as a pavement performance criterion. It is undesirable for I.R.I. to exceed 170 inches per mile.

Figure 5 presents the 2021 and 2022 statewide I.R.I. distribution percentage. Green represents pavement with I.R.I. less than 95 inches per mile, yellow represents pavement with I.R.I. between 95 to 170 inches per mile, and blue represents pavement with I.R.I. greater than 170 inches per mile. Overall, there was a 0.4% increase of pavement with I.R.I. less than 95 inches per mile, a 0.4% decrease of pavement with I.R.I between 95 to 170 in 2022 compared to 2021.

FIGURE 5. STATEWIDE I.R.I. DISTRIBUTION PERCENTAGE

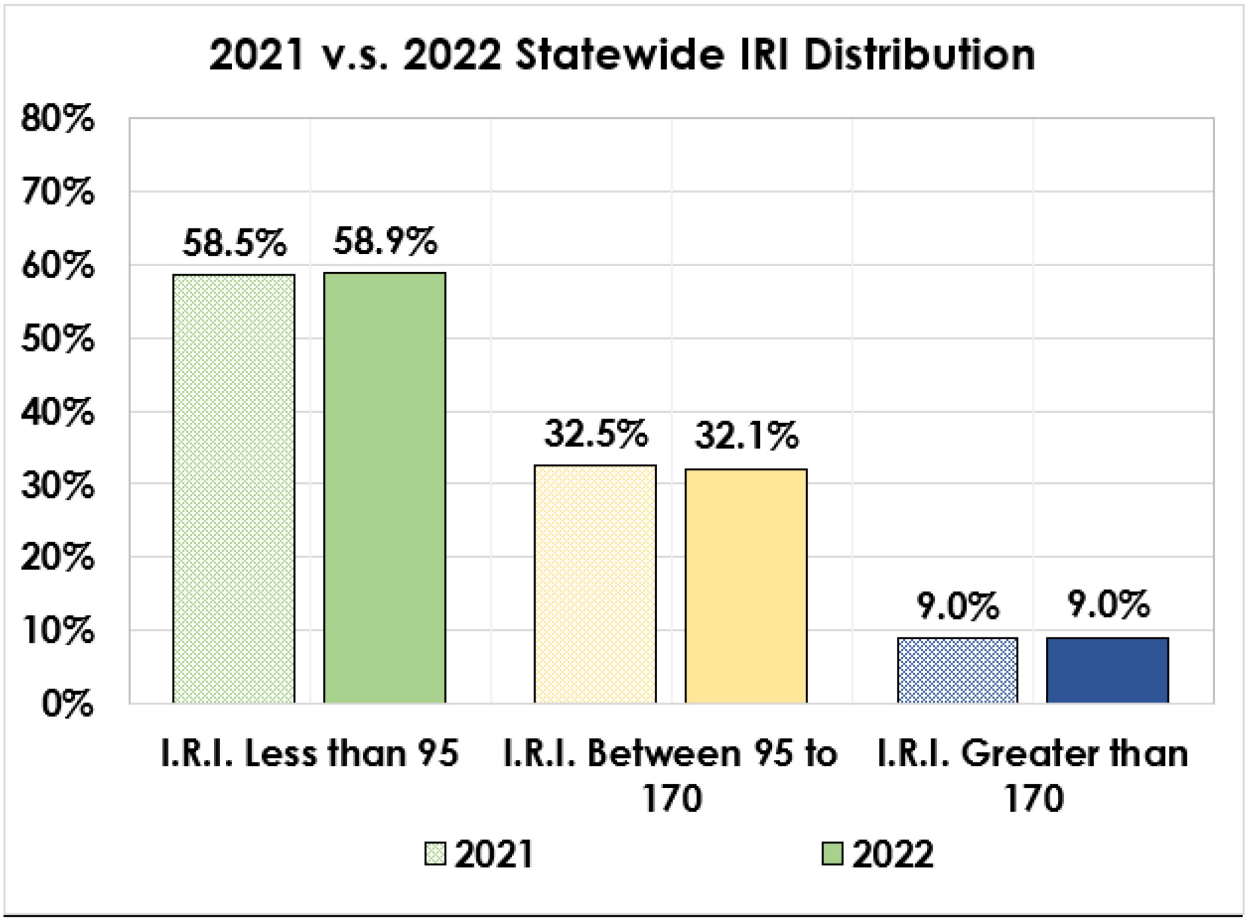
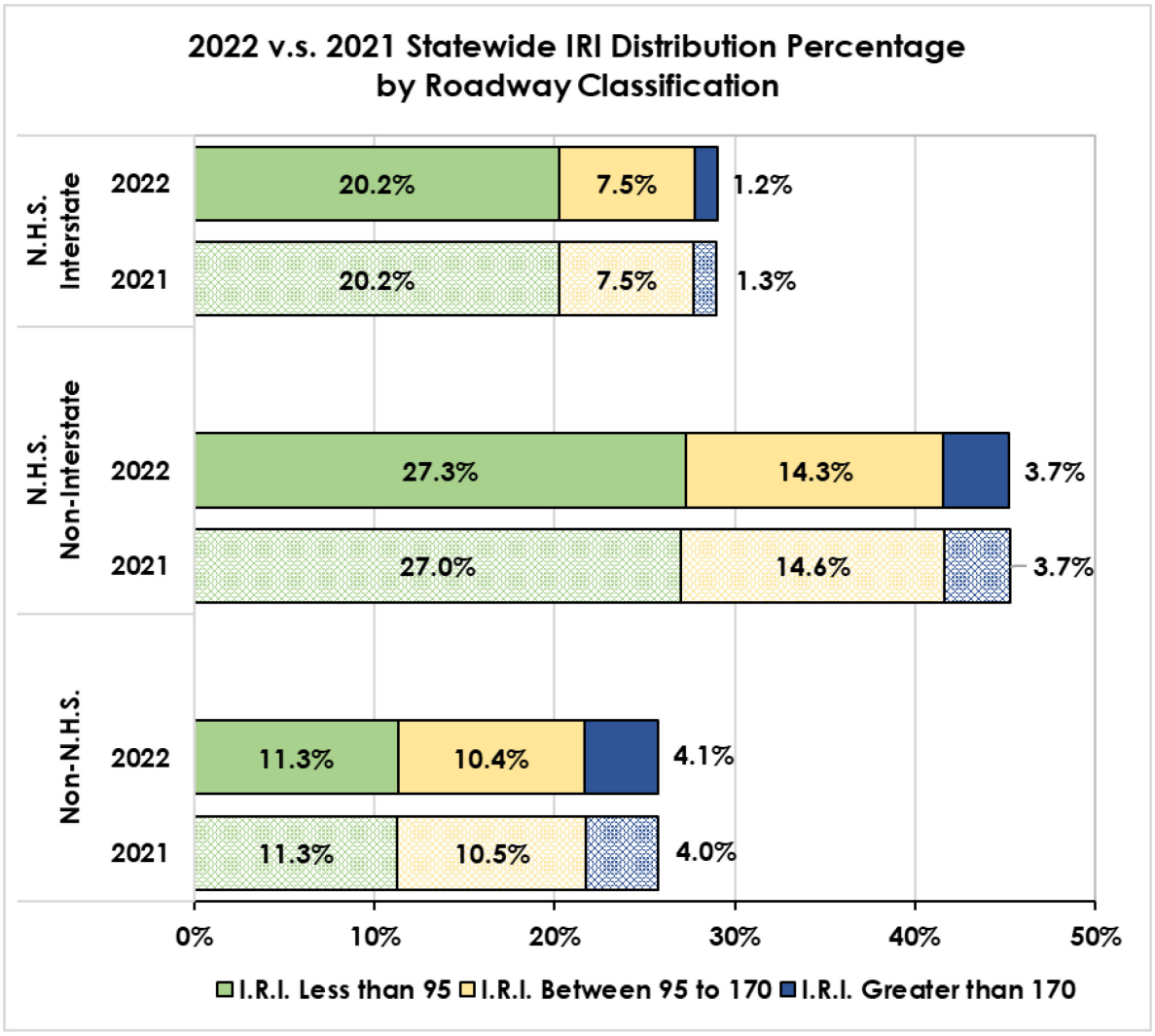


Figure 6 presents the 2021 and 2022 statewide I.R.I. distribution percentage by highway type. The percentage of pavement lane-miles with I.R.I. less than 95 inches per mile increased for N.H.S Non-Interstate highway types and remained the same for other highway types in 2022 compared to 2021. The percentage of I.R.I between 95 to 170 inches per mile remained the same for N.H.S Interstate highway type and increased for other highway types. The percentage of I.R.I greater than 170 inches per mile decreased for N.H.S Interstate highway type, remained the same for Non-N.H.S highway type and increased for N.H.S. Non-Interstate highway type.

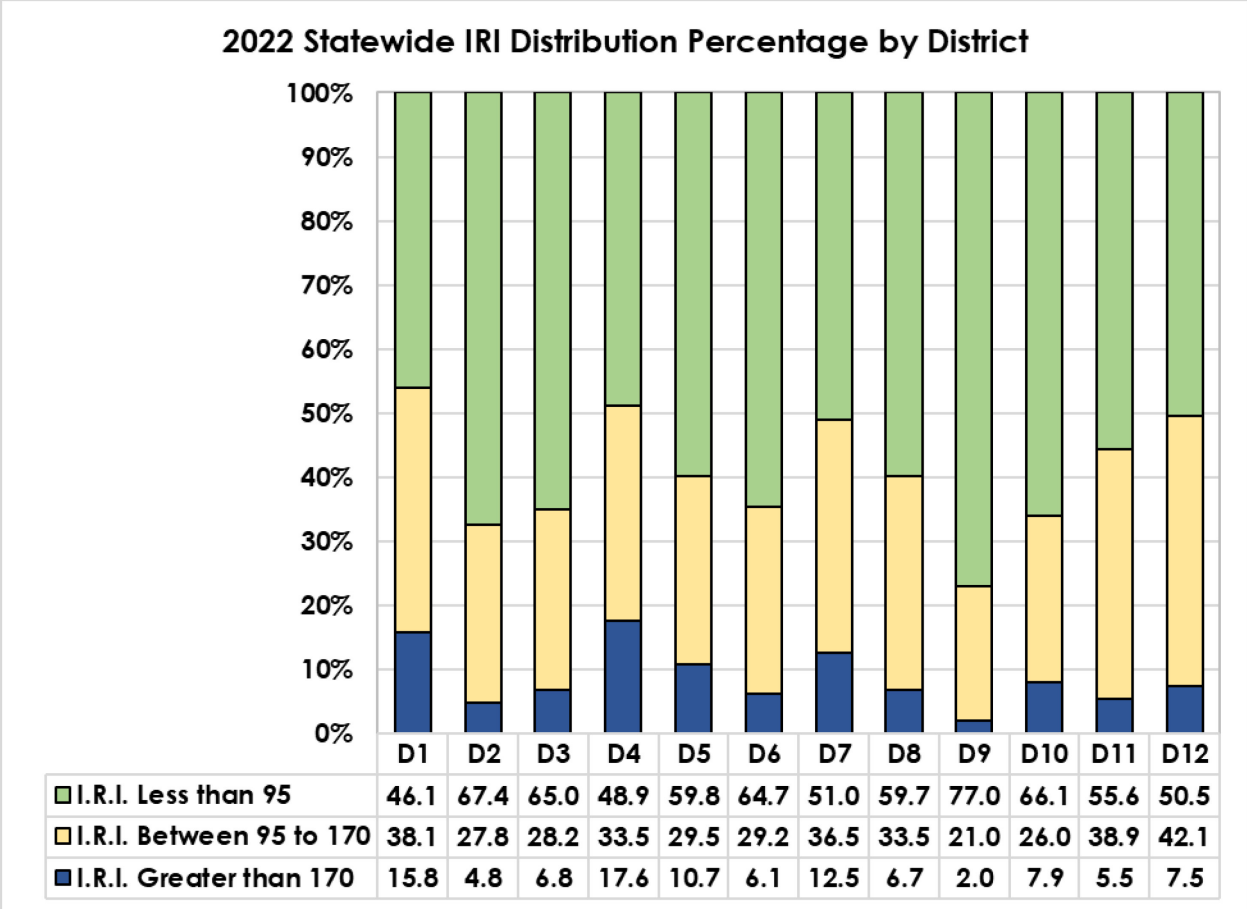
FIGURE 6. STATEWIDE I.R.I. DISTRIBUTION PERCENTAGE BY HIGHWAY TYPE



Pavement Roughness by District

Figure 7 presents the 2021 statewide I.R.I. distribution percentage by district.

FIGURE 7. 2022 STATEWIDE I.R.I. DISTRIBUTION PERCENTAGE BY DISTRICT



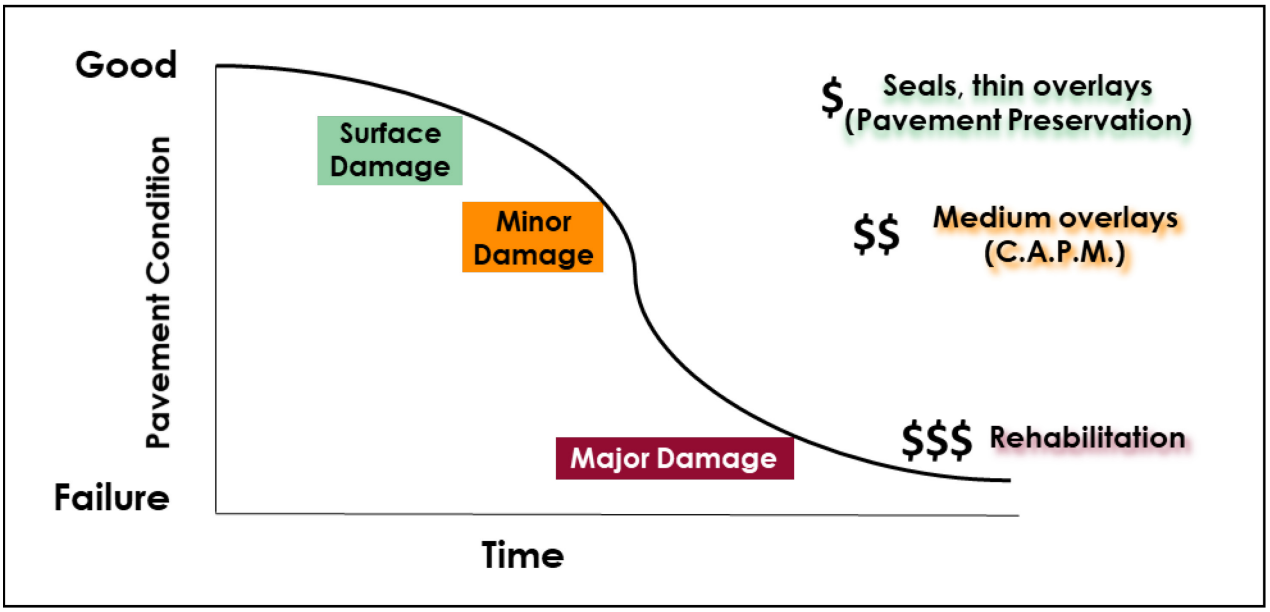
	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12
I.R.I. Less than 95	46.1	67.4	65.0	48.9	59.8	64.7	51.0	59.7	77.0	66.1	55.6	50.5
I.R.I. Between 95 to 170	38.1	27.8	28.2	33.5	29.5	29.2	36.5	33.5	21.0	26.0	38.9	42.1
I.R.I. Greater than 170	15.8	4.8	6.8	17.6	10.7	6.1	12.5	6.7	2.0	7.9	5.5	7.5

I.R.I. distribution for each district by highway type is available in Appendix F and Appendix G.

PAVEMENT TREATMENT STRATEGIES

Pavement deterioration can be represented graphically by a sigmoid curve where the rate will be slow initially before exponentially accelerating until the pavement reaches failure. By applying timely preventive treatments, Caltrans can extend the service life of the pavement and delay the need to apply more costly treatments in the future. For example, preventive and corrective maintenance costs an average of $202,000 per lane-mile, while major pavement rehabilitation could cost more than ten times higher. Figure 8 presents a typical pavement deterioration curve and the potential management strategies for each phase of the pavement's service life.

FIGURE 8. ILLUSTRATION OF COST EFFECTIVENESS OF PAVEMENT STRATEGIES



Pavement naturally deteriorates over time. Locations in relatively good condition may still be candidates for preventive and corrective treatments to maintain the pavement at a state of good repair. Studies have shown that preventive and corrective maintenance treatments can extend pavement service life by four to seven years depending on traffic volumes and environmental conditions. Preventive and corrective treatments include Hot Mix Asphalt (H.M.A.) thin overlay, chip seal, slurry seal, dig-out, concrete grinding, and concrete slab replacement. These treatments would typically be completed as a part of H.M.1 projects.

Capital Preventive Maintenance (C.A.P.M.) projects are typically applied to pavement with minor structural and poor I.R.I. pavement distresses. C.A.P.M. treatments can extend the service life by approximately five to ten years.

Treatment strategies include concrete grinding, concrete slab replacement, and H.M.A. medium overlay.

Major pavement rehabilitation is a more expensive type of treatment because it typically applies to locations with extensive existing structural distress. Rather than just surface repairs, major pavement rehabilitation requires a comprehensive pavement structure design engineered for future traffic loads over a 20-year or 40-year service life. Major rehabilitation strategies include J.P.C.P. or C.R.C.P. lane replacement, full-depth reclamation, and H.M.A. thick overlays with a thickness greater than 0.25-foot.

Table 22 provides the average costs for the three primary funding programs for pavement treatment from F.Y. 2021/22 through F.Y. 2022/23. Additional details for various treatments within each program are available in Appendix H to Appendix J.

TABLE 22. AVERAGE COST PER LANE-MILE FOR DIFFERENT FUNDING PROGRAMS FROM F.Y. 2021/22 THROUGH F.Y. 2022/23

Funding Program	Cost per Lane-Mile	Expected Service Life
H.M.1 (Preventive and Corrective Maintenance)	$238,000	Four to seven years
C.A.P.M.	$687,000	Five to 10 years
Major Rehabilitation	$2,152,000	20 years or more

PAVEMENT EXPENDITURES AND FINANCIAL PLAN

Caltrans keeps track of awarded pavement projects as a part of its fiduciary responsibility. The information also allows Caltrans to extrapolate and plan for future pavement distresses based on the expected service life of the applied treatments. Table 23 summarizes the total capital costs and lane-miles for H.M.1 and S.H.O.P.P. pavement improvements from F.Y. 2021/22 through F.Y. 2022/23. As Caltrans applies asset management principles into its project planning, programming, and delivery, pavement treatments may be incorporated into projects that include work for other roadway features as well. As a result, the costs presented in Table 23 have been filtered for pavement-related contract bid items only. Project support costs were also excluded from the analysis.

TABLE 23. AWARDED PAVEMENT IMPROVEMENTS CAPITAL COSTS AND LANE-MILES FROM F.Y. 2022/23 TO F.Y. 2022/23

Funding Program	F.Y. 2021/22 Million Dollar[3]	F.Y. 2021/22 1 Lane-Miles	F.Y. 2022/23 Million Dollar[3]	F.Y. 2022/23 Lane-Miles	Total Million Dollar[3]	Total Lane-Miles
H.M.1	$283	1,176	$315	1,337	$598	2,513
S.H.O.P.P. – C.A.P.M.	$167	339	$435	537	$602	876
S.H.O.P.P. – Rehabilitation	$448	234	$940	411	$1,388	645
S.H.O.P.P. – Minor A	$10	9	$4	4	$14	13
S.H.O.P.P. – Sub-Total	$624	581	$1,379	952	$2,003	1,533
Total H.M.1 & S.H.O.P.P.	$907	1,758	$1,694	2,289	$2,601	4,046

From F.Y. 2021/22 through F.Y. 2022/23, Caltrans delivered approximately $2.6 billion in pavement projects on nearly 4,046 lane-miles of roadway. Figure 9 presents a graph of the awarded pavement improvements capital costs and number of lane-miles for the four project types from F.Y. 2021/22 through F.Y. 2022/23.

[3] Costs associated to pavement-related contract bid items only and exclude project support costs. It also does not include on-call maintenance contracts or Director's Order contracts.

FIGURE 9. AWARDED PAVEMENT IMPROVEMENTS CAPITAL COSTS AND LANE-MILES FROM F.Y. 2021/22 TO F.Y. 2022/23

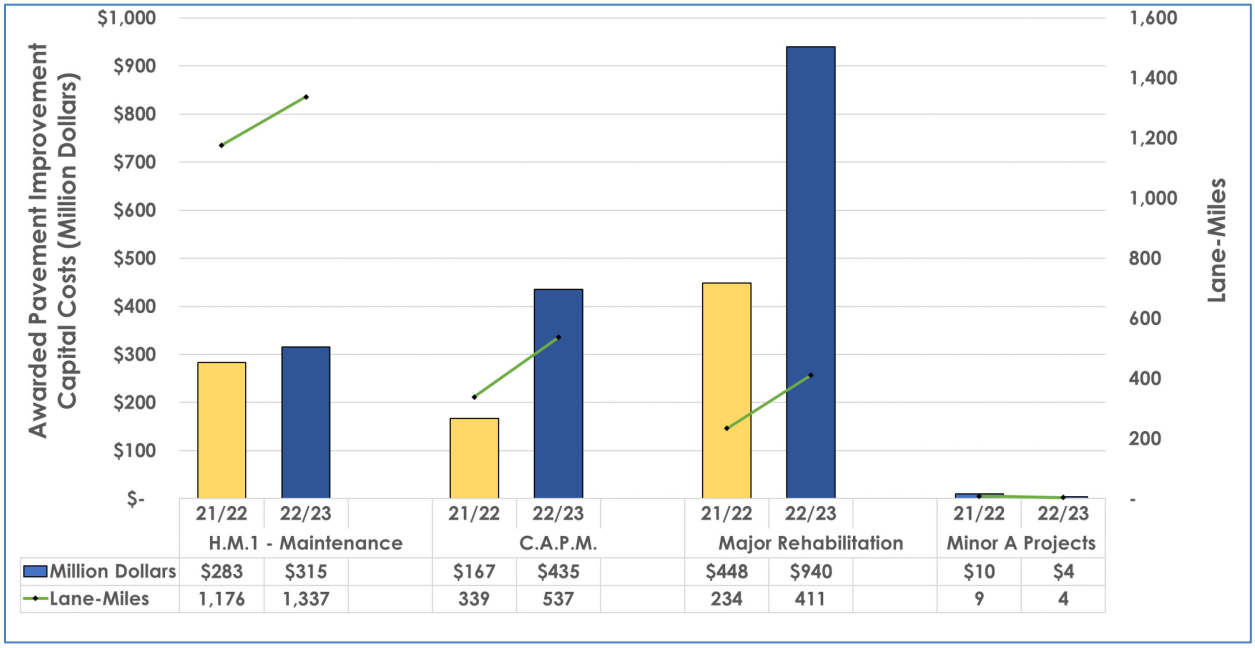


Figure 10 presents a detailed distribution of the pavement treatment strategies utilized in F.Y. 2021/22 for H.M.1 projects based on the awarded amount. H.M.A. medium overlay accounted for 33 percent of the total awarded amounts. At 21 percent, H.M.A. thin overlay was the second most awarded amount. At nine percent, Partial Depth Recycling Class 3 was the third most awarded amount.

Figure 11 presents a detailed distribution of the pavement treatment strategies utilized in F.Y. 2021/22 for C.A.P.M. projects based on the awarded amount. H.M.A. medium overlay accounted for 54 percent of the total awarded amount. At 23 percent, H.M.A. thick overlay was the second most awarded amount. Combined strategies of multiple pavement treatments in one project were the third most awarded amount, accounting for 23 percent of the total amount.

Figure 12 presents a detailed distribution of the pavement treatment strategies utilized in F.Y. 2021/22 for major rehabilitation projects based on the awarded amount. At 30 percent, combined strategies of multiple pavement treatments in one project were the most awarded amount. The second most awarded amount was for P.C.C. Overlay with 28 percent of the total amount. P.C.C. Lane Replacement was the third most awarded amount, accounting for 23 percent of the total amount.

Figure 10. F.Y. 2021/22 H.M.1 Preventive and Corrective Maintenance Strategies

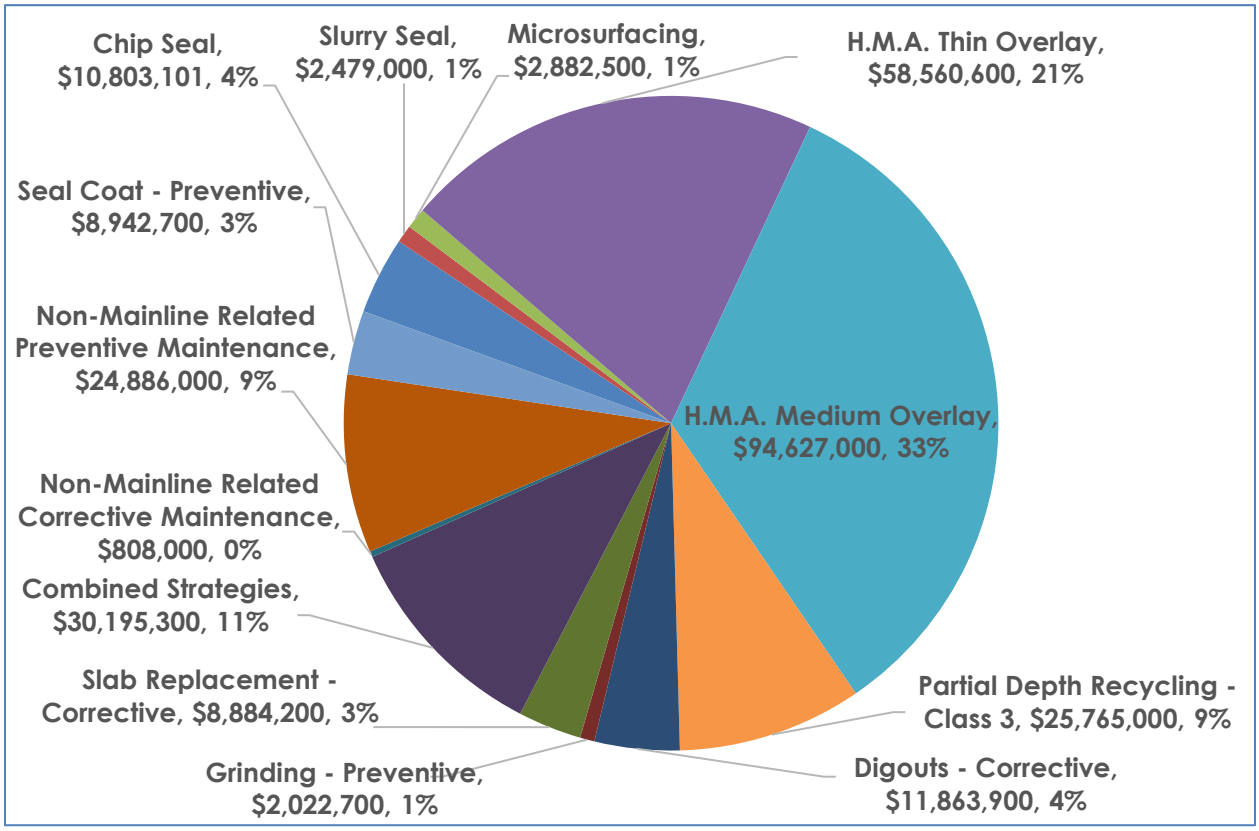


FIGURE 11. F.Y. 2021/22 C.A.P.M. STRATEGIES

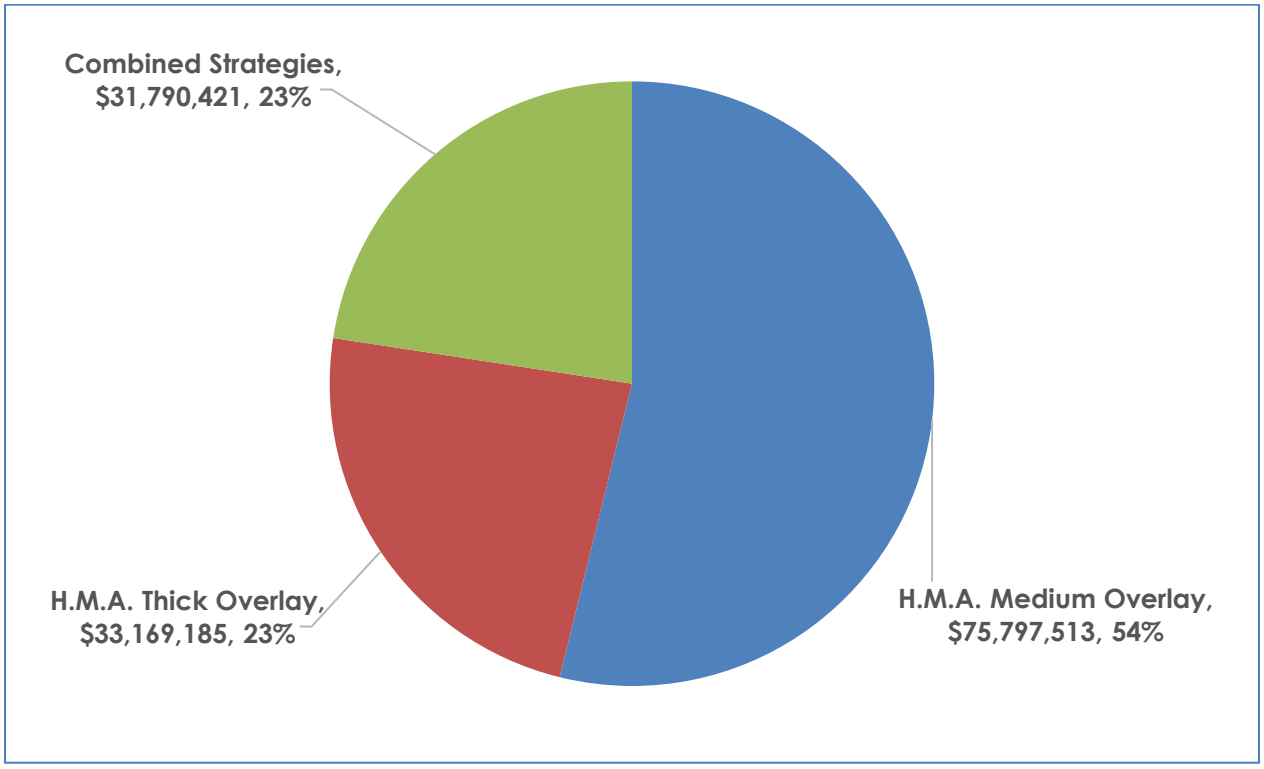


FIGURE 12. F.Y. 2021/22 MAJOR REHABILITATION STRATEGIES

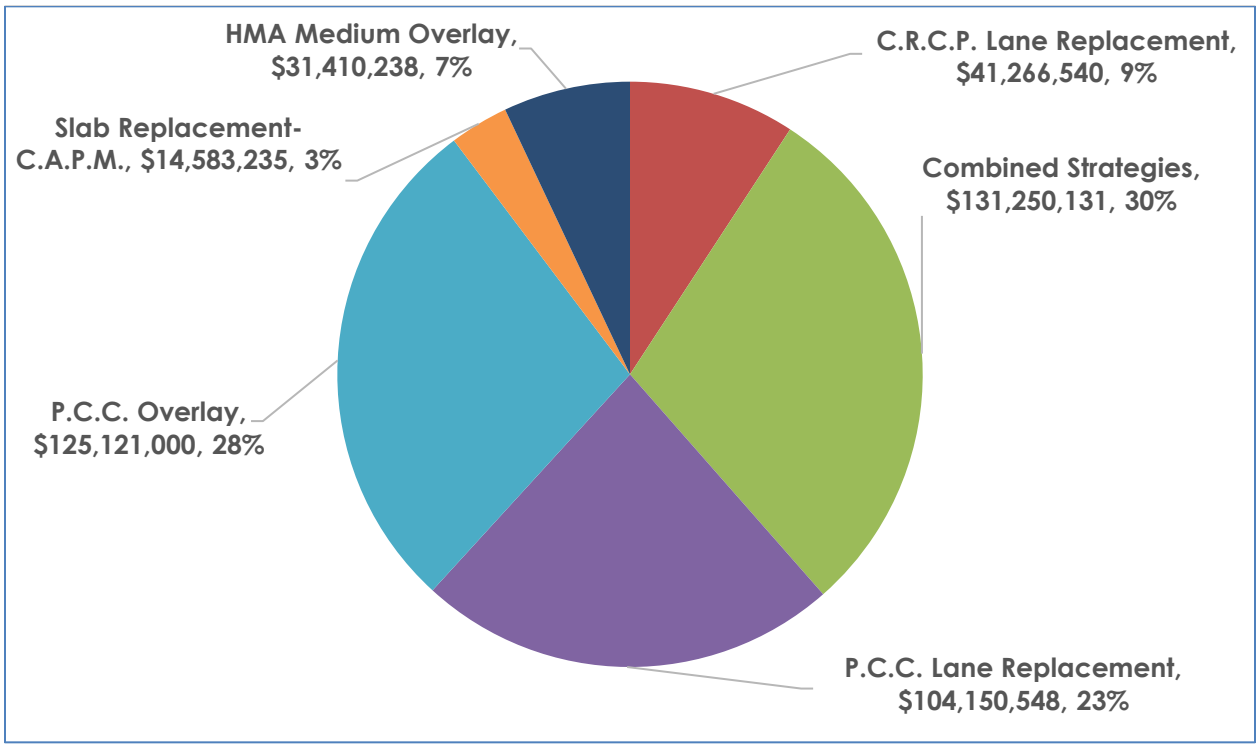


Figure 13 presents a detailed distribution of the pavement treatment strategies utilized in F.Y. 2022/23 for H.M.1 projects based on the awarded amount. H.M.A. thin overlay accounted for 25 percent of the total awarded amount. At 21 percent, H.M.A. medium overlay was the second most awarded amount. At 13 percent, non-mainline related preventative maintenance was the third most awarded amount.

Figure 14 presents a detailed distribution of the pavement treatment strategies utilized in F.Y. 2022/23 for C.A.P.M. projects based on the awarded amount. H.M.A. medium overlay accounted for 33 percent of the total awarded amount. At 33 percent, combined strategies of multiple pavement treatments in one project were the second most awarded amount. At 13 percent, non-mainline related C.A.P.M. was the third most awarded amount.

Figure 15 presents a detailed distribution of the pavement treatment strategies utilized in F.Y. 2022/23 for major rehabilitation projects based on the awarded amount. At 100 percent, combined strategies of multiple pavement treatments in one project were the most awarded amount.

FIGURE 13. F.Y. 2022/23 H.M.1 PREVENTIVE AND CORRECTIVE MAINTENANCE STRATEGIES

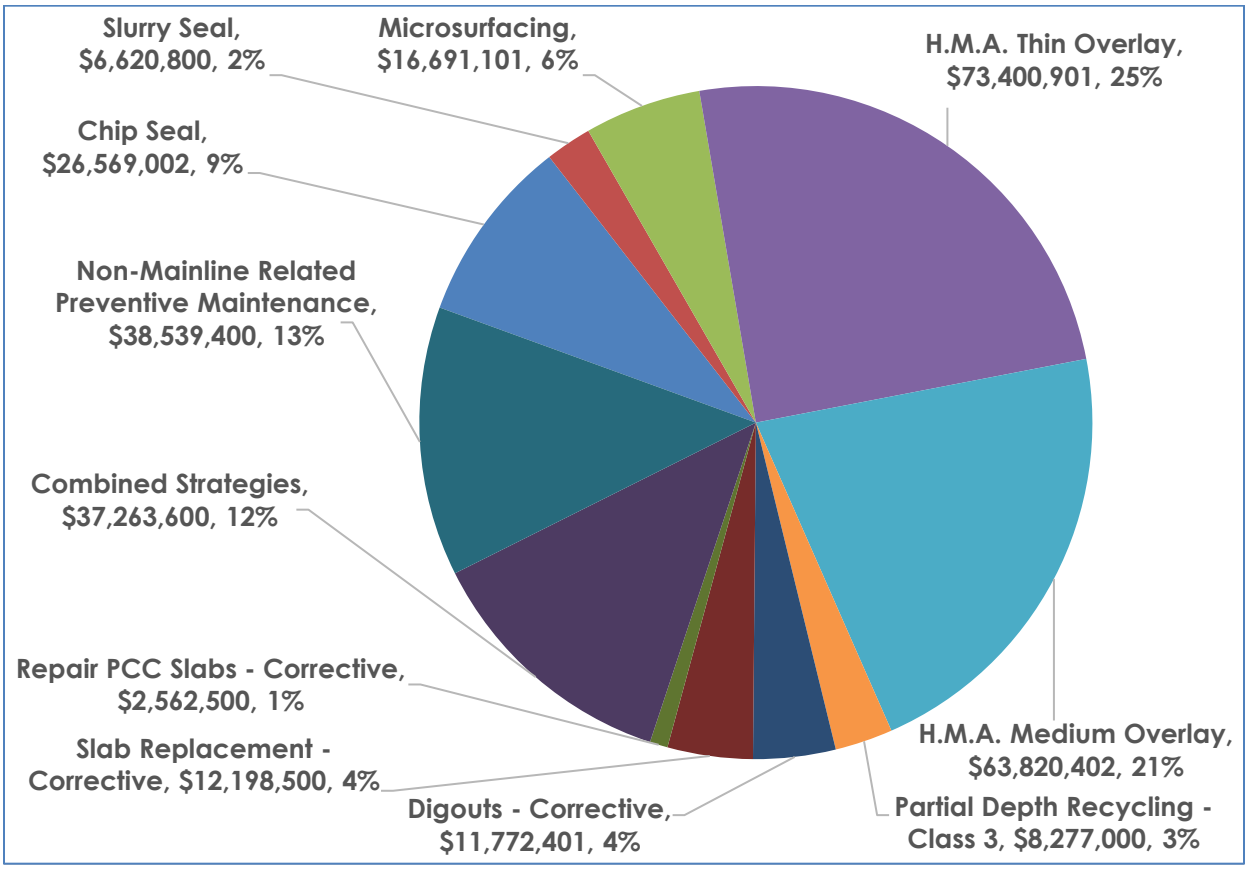


FIGURE 14. F.Y. 2022/23 C.A.P.M. STRATEGIES

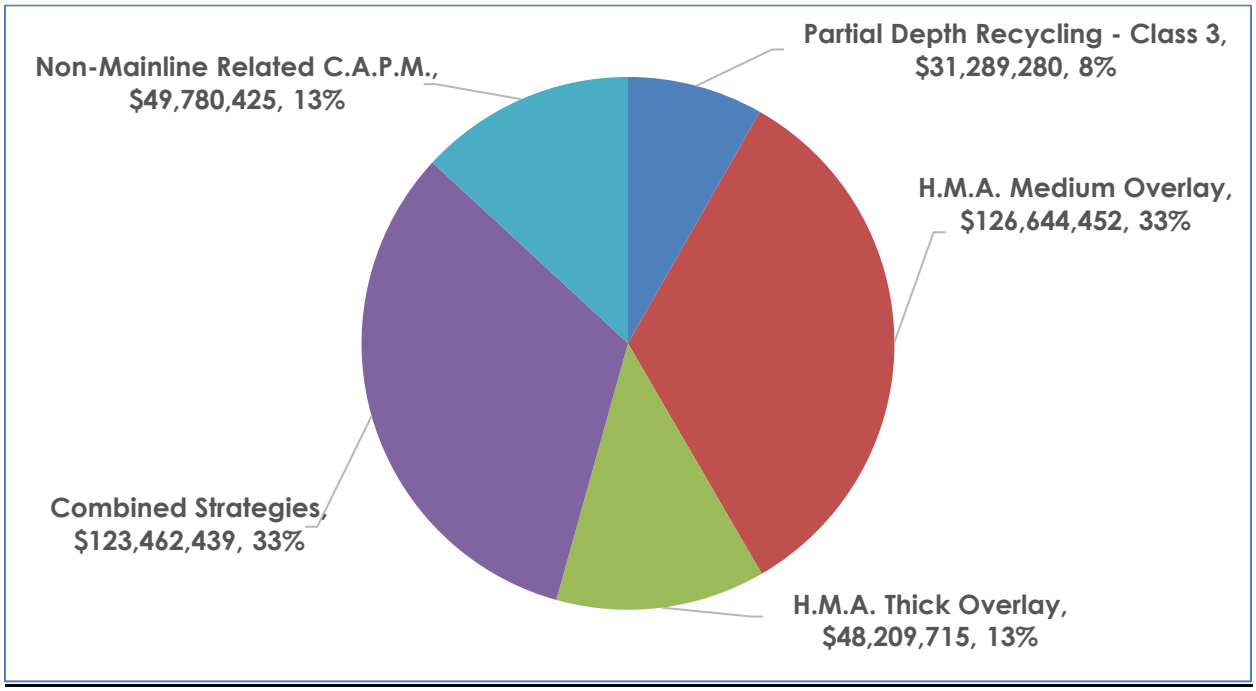


FIGURE 15. F.Y. 2022/23 MAJOR REHABILITATION STRATEGIES

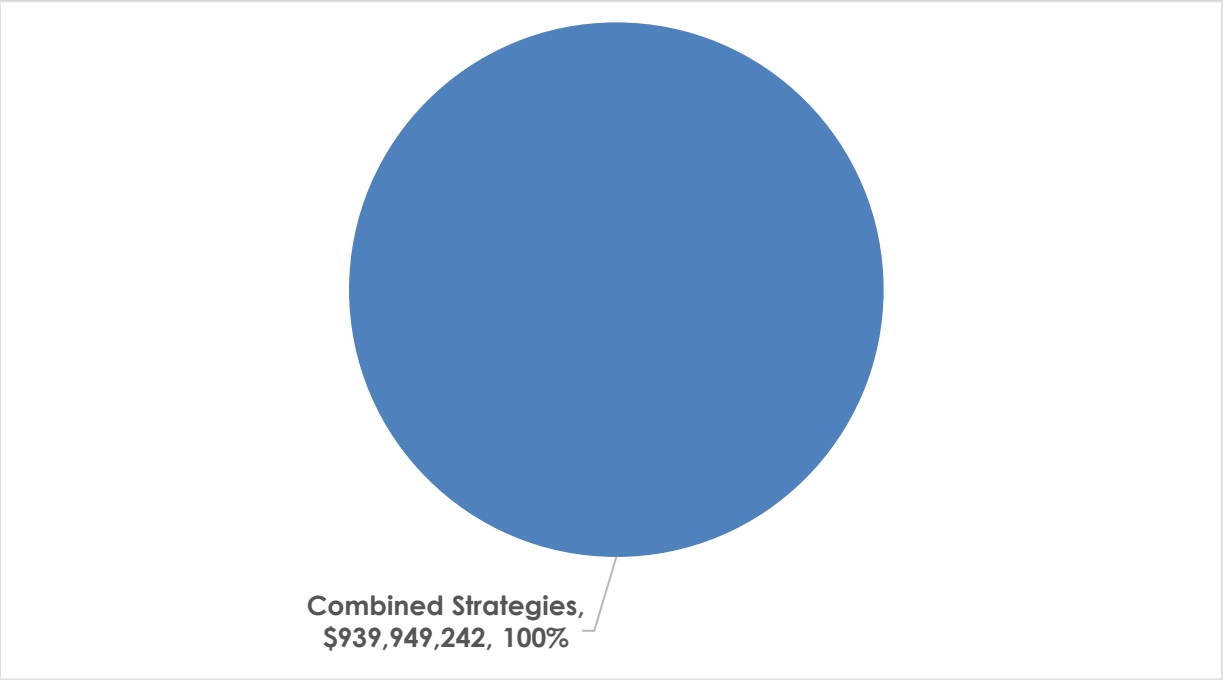
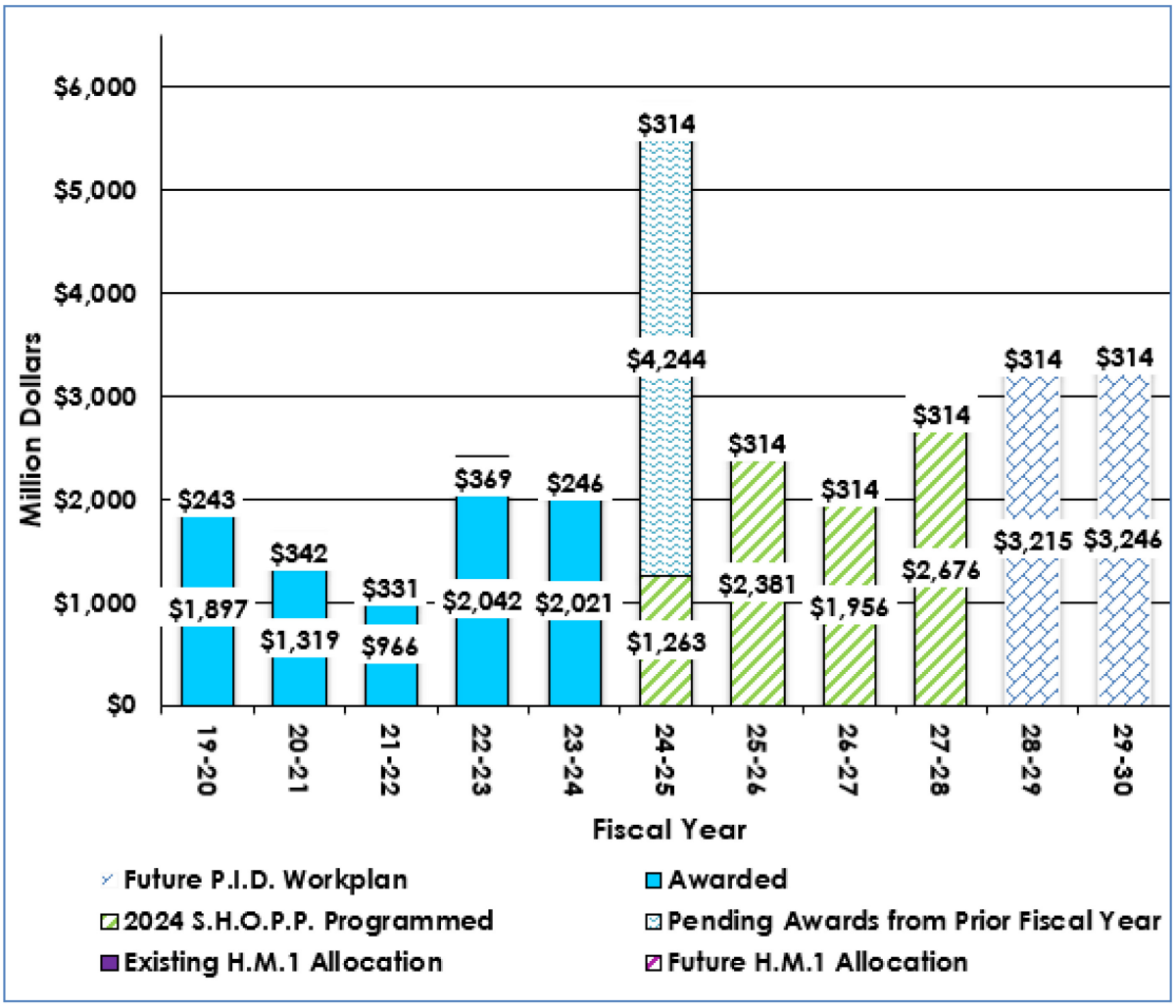


Figure 16 presents the financial plan for pavement improvements. It consists of existing expenditures as of the end of F.Y. 2022/23 and anticipated future expenditures for F.Y. 2023/24 and beyond. While the plan primarily focuses on pavement improvement projects, they may include work for other roadway features as Caltrans is committed to aligning its funding to effectively manage all its assets. The dollar amounts represent project capital (excluding right-of-way) and support costs that would be accrued as of the Ready-to-List date for construction contract advertisement. Existing expenditures include S.H.O.P.P. projects that have been awarded and annual H.M.1 allocations. Future expenditures include programmed projects from the prior fiscal year that have not been awarded, approved projects from the 2022 S.H.O.P.P plan to be programmed for F.Y. 2024/25 through F.Y. 2027/28, future H.M.1 allocations, and future projects that have been identified in the S.H.O.P.P. Project Initiation Document (P.I.D.) Workplan for F.Y. 2028/29 through F.Y. 2029/30.

FIGURE 16. FINANCIAL PLAN FOR PAVEMENT IMPROVEMENTS



APPENDIX A – CALTRANS DISTRICT BOUNDARY MAP

APPENDIX B – 2022 PAVEMENT CONDITION BY DISTRICT AND ROADWAY CLASSIFICATION, BASED ON FEDERAL PAVEMENT PERFORMANCE MEASURES

TABLE 24. 2022 PAVEMENT CONDITION BY DISTRICT AND ROADWAY CLASSIFICATION, BASED ON FEDERAL PAVEMENT PERFORMANCE MEASURES

District	Class 1 Good	Class 2 Good	Class 3 Good	Class 1 Fair	Class 2 Fair	Class 3 Fair	Class 1 Poor	Class 2 Poor	Class 3 Poor	Sub-Total
District 1	614 (26.8%)	302 (13.2%)	78 (3.4%)	406 (17.8%)	427 (18.7%)	428 (18.7%)	15 (0.6%)	2 (0.1%)	14 (0.6%)	2,286 (100%)
District 2	779 (19.7%)	809 (20.4%)	561 (14.2%)	243 (6.1%)	964 (24.3%)	579 (14.6%)	0 (0%)	6 (0.2%)	19 (0.5%)	3,961 (100%)
District 3	1,216 (27.6%)	1,081 (24.5%)	274 (6.2%)	617 (14.0%)	777 (17.6%)	407 (9.2%)	7 (0.2%)	13 (0.3%)	14 (0.3%)	4,407 (100%)
District 4	2,285 (37.1%)	475 (7.7%)	30 (0.5%)	1,417 (23.0%)	1,512 (24.5%)	323 (5.2%)	61 (1.0%)	51 (0.8%)	11 (0.2%)	6,165 (100%)
District 5	943 (29.8%)	682 (21.5%)	149 (4.7%)	288 (9.1%)	602 (19.0%)	462 (14.6%)	10 (0.3%)	14 (0.5%)	15 (0.5%)	3,165 (100%)
District 6	1,554 (29.8%)	771 (14.8%)	826 (15.9%)	525 (10.1%)	895 (17.2%)	567 (10.9%)	39 (0.7%)	23 (0.4%)	8 (0.2%)	5,208 (100%)
District 7	2,074 (33.5%)	438 (7.1%)	28 (0.5%)	2,331 (37.7%)	951 (15.4%)	201 (3.3%)	126 (2.0%)	34 (0.5%)	0 (0%)	6,184 (100%)
District 8	2,897 (42.3%)	666 (9.7%)	147 (2.1%)	1,831 (26.7%)	1029 (15.0%)	166 (2.4%)	77 (1.1%)	35 (0.5%)	9 (0.1%)	6,858 (100%)
District 9	1,204 (47.7%)	392 (15.5%)	220 (8.7%)	335 (13.3%)	196 (7.8%)	170 (6.7%)	4 (0.2%)	2 (0.1%)	0 (0%)	2,523 (100%)
District 10	960 (27.4%)	882 (25.2%)	311 (8.9%)	308 (8.8%)	728 (20.8%)	281 (8.0%)	4 (0.1%)	30 (0.9%)	1 (0%)	3,504 (100%)
District 11	1,630 (38.2%)	332 (7.8%)	152 (3.6%)	1,155 (27.1%)	722 (16.9%)	247 (5.8%)	14 (0.3%)	8 (0.2%)	4 (0.1%)	4,263 (100%)
District 12	752 (36.1%)	204 (9.8%)	0 (0%)	781 (37.5%)	332 (15.9%)	0 (0%)	10 (0.5%)	4 (0.2%)	0 (0%)	2,082 (100%)
Statewide Total	16,907 (33.4%)	7,035 (13.9%)	2,776 (5.5%)	10,237 (20.2%)	9,136 (18.1%)	3,830 (7.6%)	368 (0.7%)	224 (0.4%)	95 (0.2%)	50,607 (100%)

APPENDIX C – 2021 PAVEMENT CONDITION BY DISTRICT AND ROADWAY CLASSIFICATION, BASED ON FEDERAL PAVEMENT PERFORMANCE MEASURES

TABLE 25. 2021 PAVEMENT CONDITION BY DISTRICT AND ROADWAY CLASSIFICATION, BASED ON FEDERAL PAVEMENT PERFORMANCE MEASURES

District	Class 1 Good	Class 2 Good	Class 3 Good	Class 1 Fair	Class 2 Fair	Class 3 Fair	Class 1 Poor	Class 2 Poor	Class 3 Poor	Sub-Total
District 1	652 (28.4%)	303 (13.2%)	75 (3.3%)	374 (16.3%)	425 (18.5%)	437 (19%)	15 (0.7%)	2 (0.1%)	12 (0.5%)	2,295 (100%)
District 2	802 (20.3%)	971 (24.6%)	578 (14.7%)	207 (5.2%)	811 (20.6%)	558 (14.2%)	0 (0%)	3 (0.1%)	13 (0.3%)	3,944 (100%)
District 3	1,164 (26.6%)	1,048 (23.9%)	244 (5.6%)	664 (15.1%)	796 (18.2%)	422 (9.6%)	9 (0.2%)	13 (0.3%)	23 (0.5%)	4,384 (100%)
District 4	2,290 (37.2%)	481 (7.8%)	33 (0.5%)	1,424 (23.1%)	1,493 (24.3%)	320 (5.2%)	57 (0.9%)	44 (0.7%)	10 (0.2%)	6,153 (100%)
District 5	957 (30.9%)	685 (22.1%)	144 (4.7%)	268 (8.6%)	567 (18.3%)	432 (14.0%)	7 (0.2%)	13 (0.4%)	20 (0.6%)	3,093 (100%)
District 6	1,553 (29.9%)	768 (14.8%)	777 (15.0%)	528 (10.2%)	894 (17.2%)	592 (11.4%)	34 (0.6%)	23 (0.4%)	17 (0.3%)	5,186 (100%)
District 7	1,962 (31.6%)	448 (7.2%)	30 (0.5%)	2,471 (39.8%)	947 (15.3%)	199 (3.2%)	123 (2.0%)	27 (0.4%)	0 (0%)	6,209 (100%)
District 8	2,764 (40.7%)	671 (9.9%)	154 (2.3%)	1,897 (28.0%)	1,007 (14.8%)	163 (2.4%)	92 (1.4%)	32 (0.5%)	5 (0.1%)	6,786 (100%)
District 9	1,194 (48.5%)	407 (16.5%)	211 (8.6%)	298 (12.1%)	185 (7.5%)	162 (6.6%)	3 (0.1%)	1 (0.1%)	0 (0%)	2,462 (100%)
District 10	925 (26.5%)	904 (25.9%)	334 (9.6%)	326 (9.4%)	715 (20.5%)	252 (7.2%)	9 (0.2%)	25 (0.7%)	0 (0%)	3,490 (100%)
District 11	1,675 (40.5%)	339 (8.2%)	144 (3.5%)	1,044 (25.3%)	685 (16.6%)	226 (5.5%)	10 (0.2%)	6 (0.2%)	3 (0.1%)	4,134 (100%)
District 12	753 (36.7%)	206 (10.0%)	0 (0%)	739 (36.1%)	340 (16.6%)	0 (0%)	9 (0.4%)	2 (0.1%)	0 (0%)	2,049 (100%)
Statewide Total	16,691 (33.3%)	7,231 (14.4%)	2,724 (5.4%)	10,241 (20.4%)	8,865 (17.7%)	3,765 (7.5%)	367 (0.7%)	193 (0.4%)	104 (0.2%)	50,182 (100%)

TABLE 26. 2022 PAVEMENT CONDITION BY DISTRICT AND ROADWAY CLASSIFICATION, BASED ON CALTRANS PAVEMENT RATING SYSTEM

District	Class 1 Green	Class 2 Green	Class 3 Green	Class 1 Yellow	Class 2 Yellow	Class 3 Yellow	Class 1 Red	Class 2 Red	Class 3 Red	Sub-Total
District 1	760 (33.3%)	435 (19.0%)	222 (9.7%)	199 (8.7%)	170 (7.4%)	88 (3.9%)	75 (3.3%)	126 (5.5%)	210 (9.2%)	2,286 (100%)
District 2	675 (17.1%)	723 (18.3%)	544 (13.7%)	315 (8.0%)	910 (23.0%)	431 (10.9%)	32 (0.8%)	146 (3.7%)	184 (4.7%)	3,961 (100%)
District 3	1,373 (31.2%)	1,193 (27.1%)	349 (7.9%)	364 (8.3%)	462 (10.5%)	166 (3.8%)	103 (2.3%)	217 (4.9%)	180 (4.1%)	4,407 (100%)
District 4	3,028 (49.1%)	899 (14.6%)	108 (1.7%)	388 (6.3%)	407 (6.6%)	55 (0.9%)	348 (5.6%)	732 (11.9%)	200 (3.2%)	6,165 (100%)
District 5	886 (28.0%)	763 (24.1%)	221 (7.0%)	293 (9.3%)	303 (9.6%)	143 (4.5%)	63 (2.0%)	232 (7.3%)	263 (8.3%)	3,165 (100%)
District 6	1,747 (33.5%)	997 (19.2%)	832 (16.0%)	231 (4.4%)	400 (7.7%)	376 (7.2%)	140 (2.7%)	291 (5.6%)	192 (3.7%)	5,208 (100%)
District 7	3,469 (56.1%)	674 (10.9%)	123 (2.0%)	284 (4.6%)	298 (4.8%)	28 (0.4%)	778 (12.6%)	452 (7.3%)	79 (1.3%)	6,184 (100%)
District 8	3,419 (49.9%)	663 (9.7%)	139 (2.0%)	848 (12.4%)	634 (9.2%)	69 (1.0%)	539 (7.9%)	434 (6.3%)	113 (1.6%)	6,858 (100%)
District 9	971 (38.5%)	385 (15.3%)	273 (10.8%)	484 (19.2%)	161 (6.4%)	95 (3.8%)	88 (3.5%)	44 (1.7%)	22 (0.9%)	2,523 (100%)
District 10	1,060 (30.3%)	791 (22.6%)	273 (7.8%)	137 (3.9%)	585 (16.7%)	202 (5.8%)	74 (2.1%)	263 (7.5%)	119 (3.4%)	3,504 (100%)
District 11	2,304 (54.1%)	607 (14.2%)	236 (5.5%)	247 (5.8%)	277 (6.5%)	108 (2.5%)	247 (5.8%)	179 (4.2%)	59 (1.4%)	4,263 (100%)
District 12	1,296 (62.2%)	347 (16.6%)	0 (0%)	118 (5.7%)	90 (4.3%)	0 (0%)	128 (6.2%)	103 (5.0%)	0 (0%)	2,082 (100%)
Statewide Total	20,989 (41.5%)	8,479 (16.8%)	3,320 (6.6%)	3,908 (7.7%)	4,697 (9.3%)	1,760 (3.5%)	2,615 (5.2%)	3,218 (6.4%)	1,620 (3.2%)	50,607 (100%)

APPENDIX E – 2021 PAVEMENT CONDITION BY DISTRICT AND ROADWAY CLASSIFICATION, BASED ON CALTRANS PAVEMENT RATING SYSTEM

TABLE 27. 2021 PAVEMENT CONDITION BY DISTRICT AND ROADWAY CLASSIFICATION, BASED ON CALTRANS PAVEMENT RATING SYSTEM

District	Class 1 Green	Class 2 Green	Class 3 Green	Class 1 Yellow	Class 2 Yellow	Class 3 Yellow	Class 1 Red	Class 2 Red	Class 3 Red	Sub-Total
District 1	805 (35.1%)	449 (19.6%)	239 (10.4%)	167 (7.3%)	156 (6.8%)	83 (3.6%)	68 (3.0%)	125 (5.5%)	202 (8.8%)	2,295 (100%)
District 2	730 (18.5%)	855 (21.7%)	588 (14.9%)	261 (6.6%)	831 (21.1%)	399 (10.1%)	18 (0.5%)	99 (2.5%)	161 (4.1%)	3,944 (100%)
District 3	1,356 (30.9%)	1,188 (27.1%)	318 (7.2%)	362 (8.3%)	466 (10.6%)	173 (3.9%)	118 (2.7%)	203 (4.6%)	199 (4.5%)	4,384 (100%)
District 4	3,086 (50.2%)	925 (15%)	115 (1.9%)	334 (5.4%)	400 (6.5%)	54 (0.9%)	352 (5.7%)	694 (11.3%)	193 (3.1%)	6,153 (100%)
District 5	917 (29.6%)	747 (24.2%)	201 (6.5%)	259 (8.4%)	302 (9.8%)	150 (4.8%)	55 (1.8%)	216 (7.0%)	246 (7.9%)	3,093 (100%)
District 6	1,737 (33.5%)	972 (18.7%)	803 (15.5%)	243 (4.7%)	414 (8.0%)	356 (6.9%)	135 (2.6%)	299 (5.8%)	229 (4.4%)	5,186 (100%)
District 7	3,552 (57.2%)	724 (11.7%)	111 (1.8%)	263 (4.2%)	270 (4.3%)	39 (0.6%)	741 (11.9%)	429 (6.9%)	79 (1.3%)	6,209 (100%)
District 8	3,295 (48.6%)	699 (10.3%)	148 (2.2%)	889 (13.1%)	628 (9.3%)	70 (1.0%)	570 (8.4%)	383 (5.6%)	104 (1.5%)	6,786 (100%)
District 9	1,013 (41.2%)	400 (16.3%)	237 (9.6%)	425 (17.2%)	161 (6.5%)	113 (4.6%)	58 (2.4%)	32 (1.3%)	23 (0.9%)	2,462 (100%)
District 10	1,056 (30.3%)	844 (24.2%)	302 (8.7%)	141 (4.0%)	561 (16.1%)	234 (6.7%)	62 (1.8%)	239 (6.8%)	50 (1.4%)	3,490 (100%)
District 11	2,319 (56.1%)	599 (14.5%)	214 (5.2%)	237 (5.7%)	277 (6.7%)	102 (2.5%)	174 (4.2%)	155 (3.7%)	58 (1.4%)	4,134 (100%)
District 12	1,290 (63.0%)	359 (17.5%)	0 (0%)	94 (4.6%)	95 (4.6%)	0 (0%)	117 (5.7%)	94 (4.6%)	0 (0%)	2,049 (100%)
Statewide Total	21,156 (42.2%)	8,760 (17.5%)	3,277 (6.5%)	3,675 (7.3%)	4,560 (9.1%)	1,773 (3.5%)	2,468 (4.9%)	2,969 (5.9%)	1,543 (3.1%)	50,182 (100%)

TABLE 28. 2022 N.H.S. INTERSTATE I.R.I.

District	Lane-Miles of I.R.I. Less Than 95	Lane-Miles of I.R.I. Between 95 to 170	Lane-Miles of I.R.I. Greater Than 170	Sub-Total
District 1	0	0	0	0
District 2	688	44	3	734
District 3	960	337	38	1,334
District 4	1,625	586	125	2,335
District 5	0	0	0	0
District 6	630	109	38	777
District 7	1,507	845	224	2,577
District 8	2,441	919	105	3,464
District 9	0	0	0	0
District 10	532	87	16	635
District 11	1,487	526	39	2,052
District 12	373	357	44	775
Statewide Total	10,242	3,809	632	14,684

TABLE 29. 2022 N.H.S. NON-INTERSTATE I.R.I.

District	Lane-Miles of I.R.I. Less Than 95	Lane-Miles of I.R.I. Between 95 to 170	Lane-Miles of I.R.I. Greater Than 170	Sub-Total
District 1	825	414	58	1,297
District 2	1,069	359	28	1,456
District 3	1,294	339	73	1,706
District 4	1,245	1,118	540	2,903
District 5	1,392	402	80	1,873
District 6	1,730	795	134	2,659
District 7	1,585	1,208	411	3,204
District 8	967	766	199	1,932
District 9	1,353	237	14	1,603
District 10	1,096	494	143	1,733
District 11	585	590	84	1,259
District 12	676	494	100	1,270
Statewide Total	13,818	7,216	1,862	22,895

TABLE 30. 2022 NON-N.H.S. I.R.I.

District	Lane-Miles of I.R.I. Less Than 95	Lane-Miles of I.R.I. Between 95 to 170	Lane-Miles of I.R.I. Greater Than 170	Sub-Total
District 1	228	457	304	989
District 2	911	698	162	1,771
District 3	610	567	189	1,367
District 4	141	362	424	927
District 5	502	531	260	1,292
District 6	1,009	616	147	1,772
District 7	60	203	141	404
District 8	690	613	159	1,461
District 9	589	294	36	920
District 10	687	331	118	1,136
District 11	297	545	111	952
District 12	1	24	12	37
Statewide Total	5,726	5,240	2,061	13,028

TABLE 31. 2021 N.H.S. INTERSTATE I.R.I.

District	Lane-Miles of I.R.I. Less Than 95	Lane-Miles of I.R.I. Between 95 to 170	Lane-Miles of I.R.I. Greater Than 170	Sub-Total
District 1	0	0	0	0
District 2	676	51	3	730
District 3	940	364	43	1,346
District 4	1,651	553	109	2,313
District 5	0	0	0	0
District 6	608	101	40	750
District 7	1,438	908	236	2,582
District 8	2,407	907	121	3,436
District 9	0	0	0	0
District 10	521	95	16	632
District 11	1,522	455	32	2,008
District 12	390	322	40	752
Statewide Total	10,152	3,755	641	14,548

TABLE 32. 2021 N.H.S. NON-INTERSTATE I.R.I.

District	Lane-Miles of I.R.I. Less Than 95	Lane-Miles of I.R.I. Between 95 to 170	Lane-Miles of I.R.I. Greater Than 170	Sub-Total
District 1	833	409	62	1,305
District 2	1,088	344	22	1,454
District 3	1,252	345	76	1,673
District 4	1,198	1,179	537	2,914
District 5	1,373	395	80	1,848
District 6	1,744	804	134	2,682
District 7	1,515	1,296	411	3,223
District 8	860	796	235	1,891
District 9	1,327	219	10	1,557
District 10	1,112	488	118	1,719
District 11	577	550	76	1,204
District 12	676	489	95	1,260
Statewide Total	13,557	7,314	1,857	22,728

TABLE 33. 2021 NON-N.H.S. I.R.I.

District	Lane-Miles of I.R.I. Less Than 95	Lane-Miles of I.R.I. Between 95 to 170	Lane-Miles of I.R.I. Greater Than 170	Sub-Total
District 1	227	471	293	990
District 2	936	672	153	1,760
District 3	580	566	218	1,364
District 4	154	357	415	925
District 5	491	507	247	1,245
District 6	945	615	194	1,754
District 7	64	203	137	404
District 8	692	619	148	1,459
District 9	589	282	35	906
District 10	687	400	53	1,139
District 11	293	534	95	922
District 12	1	25	11	37
Statewide Total	5,660	5,249	1,997	12,906

APPENDIX H – H.M.1 MAINTENANCE STRATEGY COST PER LANE-MILE AND LANE-MILES TREATED FOR F.Y. 2021/22 THROUGH F.Y. 2022/23

TABLE 34. H.M.1 MAINTENANCE STRATEGY COST PER LANE-MILE

H.M.1 Treatment Type	F.Y. 2021/22 Cost[4] per Lane-Mile	F.Y. 2022/23 Cost[4] per Lane-Mile	Weighted Average of Cost[4] per Lane-Mile
Chip Seal	$112,818	$96,166	$100,452
Slurry Seal	$122,966	$102,822	$107,625
Micro Surfacing	$72,569	$109,309	$101,725
H.M.A. Thin Overlay	$187,738	$216,542	$202,738
H.M.A. Medium Overlay	$271,546	$297,643	$281,487
Partial Depth Recycling - Class 3	$451,764	$344,875	$420,106
Dig Outs - Corrective	$599,187	$888,483	$715,168
Grinding - Preventive	$109,929	N/A	$109,929
Slab Replacement - Corrective	$1,293,188	$2,545,597	$1,807,812
Repair PCC Slabs - Corrective	N/A	$4,418,103	$4,418,103
Seal Coat - Preventive	$64,690	$113,272	$90,298
Combined Strategies	$252,203	$400,413	$317,022

TABLE 35. H.M.1 MAINTENANCE STRATEGY LANE-MILES TREATED

H.M.1 Treatment Type	F.Y. 2021/22 Lane-Miles Treated	F.Y. 2022/23 Lane-Miles Treated	Average of Lane-Miles Treated
Chip Seal	96	276	186
Slurry Seal	20	64	42
Micro Surfacing	40	153	96
H.M.A. Thin Overlay	312	339	325
H.M.A. Medium Overlay	348	214	281
Partial Depth Recycling - Class 3	57	24	41
Dig Outs - Corrective	20	13	17
Grinding - Preventive	18	N/A	18
Slab Replacement - Corrective	7	5	6
Repair PCC Slabs - Corrective	N/A	1	1
Seal Coat - Preventive	138	154	146
Combined Strategies	120	93	106

[4] Costs associated to pavement-related contract bid items only and exclude project support costs. It does not also include on-call maintenance contracts or Director's Order contracts.

APPENDIX I – S.H.O.P.P. - C.A.P.M. STRATEGY COST PER LANE-MILE AND LANE-MILES TREATED FOR F.Y. 2021/22 THROUGH F.Y. 2022/23

TABLE 36. C.A.P.M. STRATEGY COST PER LANE-MILE

C.A.P.M. Treatment Type	F.Y. 2021/22 Cost[5] per Lane-Mile	F.Y. 2022/23 Cost[5] per Lane-Mile	Weighted Average of Cost[5] per Lane-Mile
Partial Depth Recycling	N/A	$469,873	$469,873
H.M.A. Medium Overlay	$444,141	$644,783	$551,500
H.M.A. Thick Overlay	$430,523	$601,059	$517,506
Slab Replacement-CAPM	N/A	$6,224,582	$6,224,582
Combined Strategies	$634,877	$668,550	$657,409

TABLE 37. C.A.P.M. STRATEGY LANE-MILES TREATED

C.A.P.M. Treatment Type	F.Y. 2021/22 Lane-Miles Treated	F.Y. 2022/23 Lane-Miles Treated	Average of Lane-Miles Treated
Partial Depth Recycling	N/A	67	33
H.M.A. Medium Overlay	171	196	184
H.M.A. Thick Overlay	77	80	79
Slab Replacement-CAPM	N/A	9	4
Combined Strategies	91	185	138

[5] Costs associated to pavement-related contract bid items only and exclude project support costs. It does not also include on-call maintenance contracts or Director's Order contracts.

APPENDIX J – S.H.O.P.P. - REHABILITATION STRATEGY COST PER LANE-MILE AND LANE-MILES TREATED FOR F.Y. 2021/22 THROUGH F.Y. 2022/23

TABLE 38. REHABILITATION STRATEGY COST PER LANE-MILE

Rehabilitation Treatment Type	F.Y. 2021/22 Cost[6] per Lane-Mile	F.Y. 2022/23 Cost[6] per Lane-Mile	Weighted Average of Cost[6] per Lane-Mile
C.R.C.P. Lane Replacement	$2,255,002	N/A	$2,255,002
H.M.A. Medium Overlay	$630,728	N/A	$630,728
H.M.A. Lane Replacement	N/A	N/A	N/A
P.C.C. Lane Replacement	$1,950,001	N/A	$1,950,001
P.C.C. Overlay	$2,525,350	N/A	$2,525,350
Slab Replacement-CAPM	$6,452,759	N/A	$6,452,759
Combined Strategies	$2,171,541	$2,285,802	$2,271,160

TABLE 39. REHABILITATION STRATEGY LANE-MILES TREATED

Rehabilitation Treatment Type	F.Y. 2021/22 Lane-Miles Treated	F.Y. 2022/23 Lane-Miles Treated	Average of Lane-Miles Treated
C.R.C.P. Lane Replacement	18	N/A	18
H.M.A. Medium Overlay	50	N/A	50
H.M.A. Lane Replacement	N/A	N/A	N/A
P.C.C. Lane Replacement	53	N/A	53
P.C.C. Overlay	50	N/A	50
Slab Replacement-CAPM	2	N/A	2
Combined Strategies	60	411	236

[6] Costs associated to pavement-related contract bid items only and exclude project support costs. It does not also include on-call maintenance contracts or Director's Order contracts.