



ERIC GARCETTI, MAYOR

BUREAU OF STREET SERVICES

2018 STATE OF THE STREETS REPORT

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KEITH MOZEE, ASSISTANT DIRECTOR ■ GREG SPOTTS, ASSISTANT DIRECTOR ■ STEPHANIE CLEMENTS, ASSISTANT DIRECTOR



Quality • Timeliness • Efficiency

CITY OF LOS ANGELES / DEPARTMENT OF PUBLIC WORKS

BUREAU OF STREET SERVICES



explore the statistical data in this report ...

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Director's Message



It is with great pleasure that we present the fifth edition of our three-year assessment of the City of Los Angeles' street network.

This new version is full of exciting news and remarkable facts. Perhaps, the most exciting of all is that for the first time in decades, the street system in Los Angeles is getting better.

With the constant and enthusiastic leadership of Mayor Eric Garcetti and the Los Angeles City Council, the Bureau has not only arrested a forty-year decline in the quality of the road network but has also increased the average pavement condition of our street system from 62 in 2015 to 68 in 2018. Within a couple of years and if we continue on this trajectory, our great city will have a street system in a State of Good Repair.

In the last four years, we have completed a historical 9,500 lane miles of Pavement Preservation and rehabilitation work which is approximately equivalent to a four-lane highway between Los Angeles and New York City.

In addition, and since the release of the 2015 State of the Streets Report, the Bureau has adopted new and exciting technologies that have allowed us to optimize resources while protecting the environment; from applying cool pavement technology on streets for the first time in California to re-activating the efficient and environmentally friendly Cold In Place Recycling technology for street reconstruction; from small asphalt repair work driven by GPS systems to building a new state-of-the-art asphalt plant capable of producing new hot mix asphalt that contains fifty percent of recycled material; and from creating cold asphalt mixes for temporary repairs to developing a new asphalt emulsion called Mix 1781 which improves ride-ability and quality of streets in poor condition until the time that they can be fully reconstructed.

As a result of the preceding, the Bureau continues to be a leader in Pavement Preservation in our country.

Lastly, I want to recognize the dedicated men and women of the Bureau of Street Services that work very hard to provide quality street services in a timely and efficient manner to the residents and stakeholders of this great city.

We all invite you to explore the statistical data in this report.

Sincerely,

A handwritten signature in black ink, consisting of a stylized 'N' followed by a horizontal line and a small flourish.

Nazario Saucedo
Director
Bureau of Street Services

This report presents the findings of a three-year assessment of every street in Los Angeles.

Using the internationally accepted Pavement Condition Index (PCI), the road surface condition for each city block was graded between 0 to 100. PCI scores of 71 to 100 indicate that the road surface is in a state of good repair. Scores of 56 to 70 indicate fair condition, and scores of 55 and below indicate poor condition.

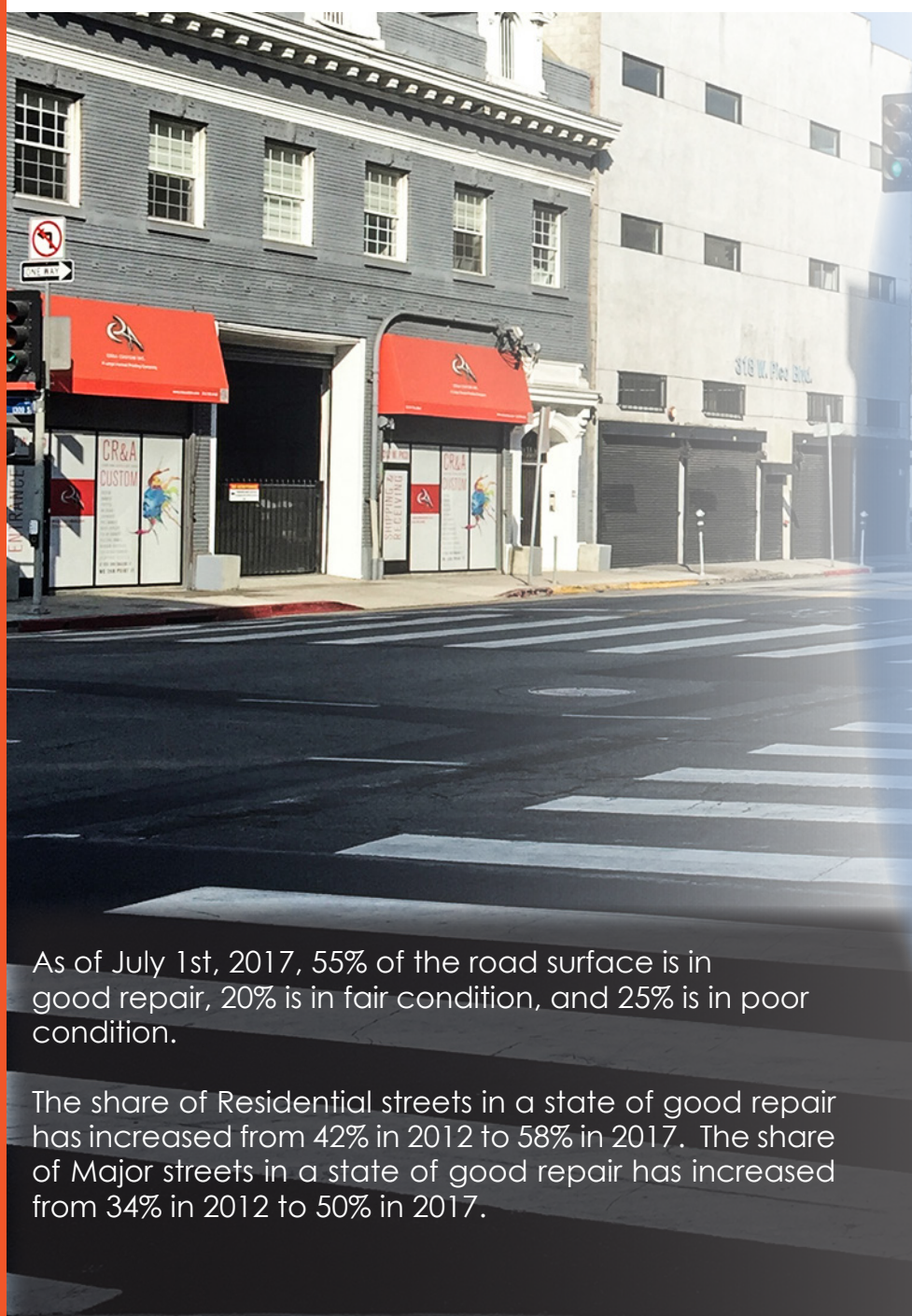
The state of the streets in the City of Los Angeles is improving.

As of July 1st, 2017, 55% of the road surface area was in a state of good repair, up 16 percentage points from 2012.

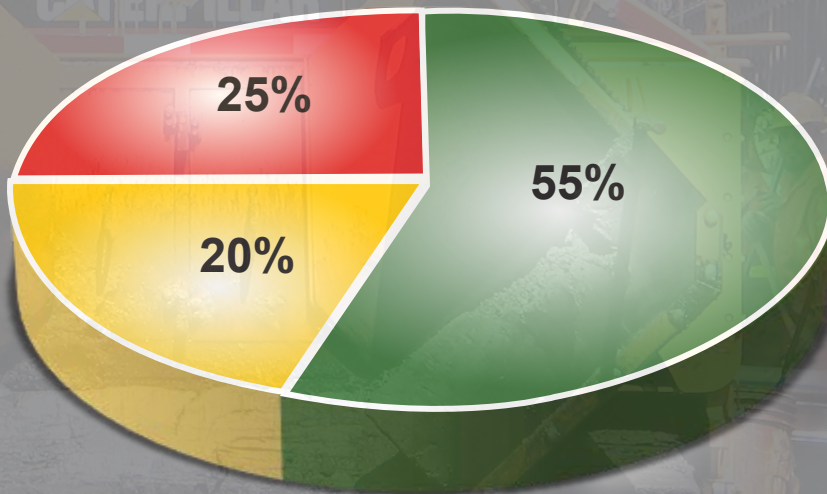
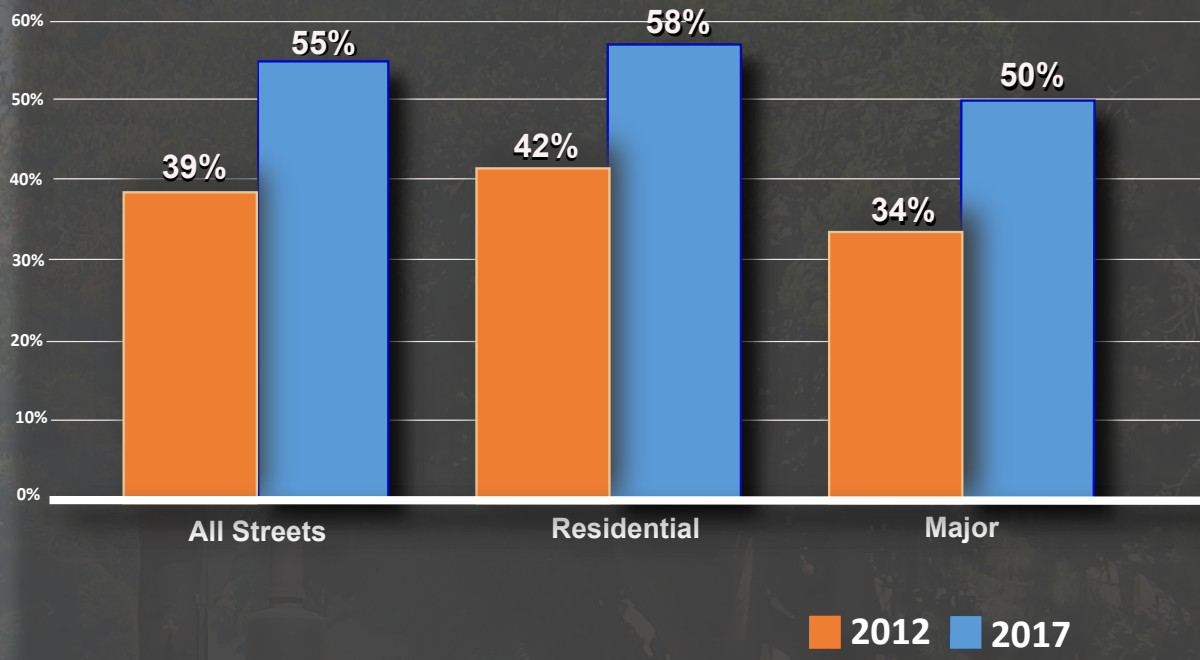
As of July 1st, 2017, 55% of the road surface is in good repair, 20% is in fair condition, and 25% is in poor condition.

The share of Residential streets in a state of good repair has increased from 42% in 2012 to 58% in 2017. The share of Major streets in a state of good repair has increased from 34% in 2012 to 50% in 2017.

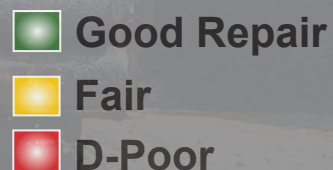
A map of PCI scores for each city street is available at bss.lacity.org



Pavement in Good Repair



Pavement Condition
as of July 1st, 2017



From July 1st, 2011 to June 30th, 2017, the maintenance efforts have extended the life of streets that are in good condition by applying approximately 1,100 to 1,560 lane miles of slurry seal per fiscal year.

In the same timeframe, the annual resurfacing program of 800 to 900 lane miles per year has focused on rehabilitating streets in fair or poor condition.

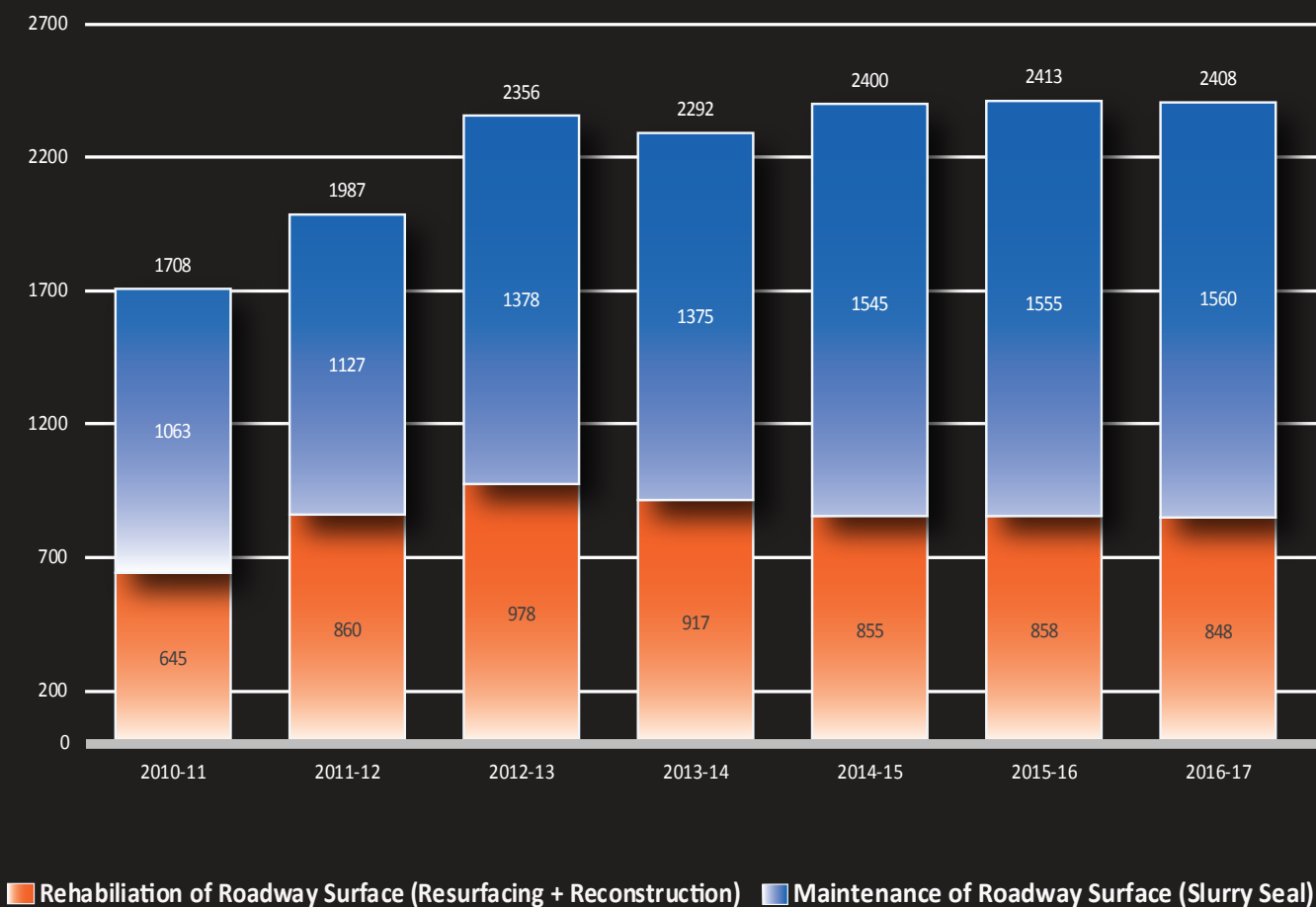
From July 1st, 2011 to June 30th, 2017, the Bureau of Street Services completed the six largest annual Pavement Preservation programs in the City's history.

In addition to the proactive maintenance program, BSS responds to thousands of constituent service requests each year for potholes and other minor asphalt repairs.

In 2014, the small asphalt repair program was optimized to reduce pothole turnaround time. From April 2014 to the present, BSS completed street pothole repairs in an average of less than 3 working days.

Pavement Preservation Program

(Lane miles of road surface area, from MicroPAVER)



Since the last State of the Streets Report, BSS has received the funding requested to modernize City Asphalt Plant I. The new plant, scheduled to be online in the Fall of 2018, will include the latest technology allowing the BSS to recycle 50% Reclaimed Asphalt Pavement. It will also produce asphalt concrete at the cleanest emission rates in North America with twice the recycled content than standard recycled mixes.

“BSS to
recycle
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than standard
recycled mixes.



Mayor E. Garcetti breaks ground on the new Asphalt Plant I capable of producing hot mixes with 50% recycled content.

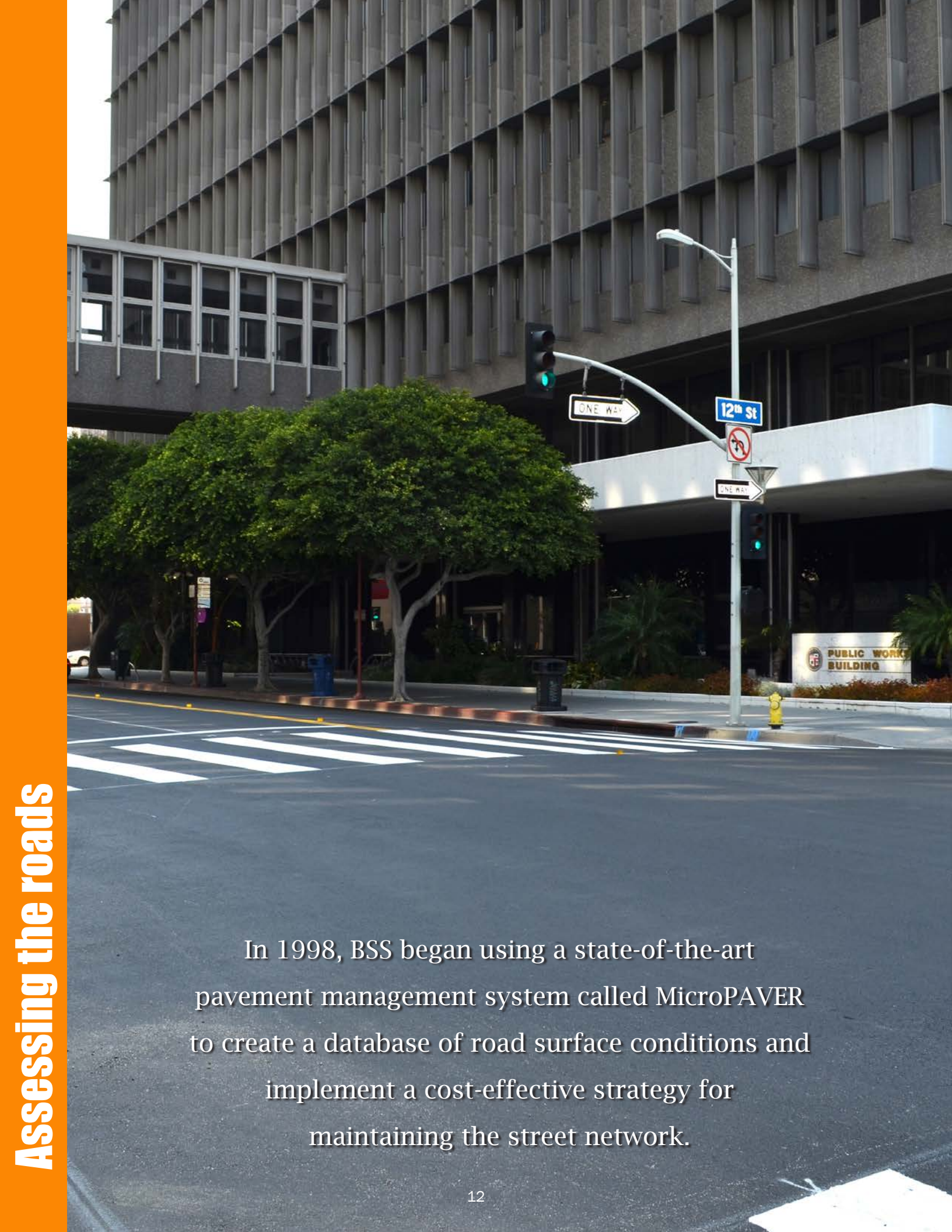
The new equipment is also designed to increase production capacity readily accepting new technologies allowing BSS to economically, efficiently and responsibly improve and maintain City streets well into the future.



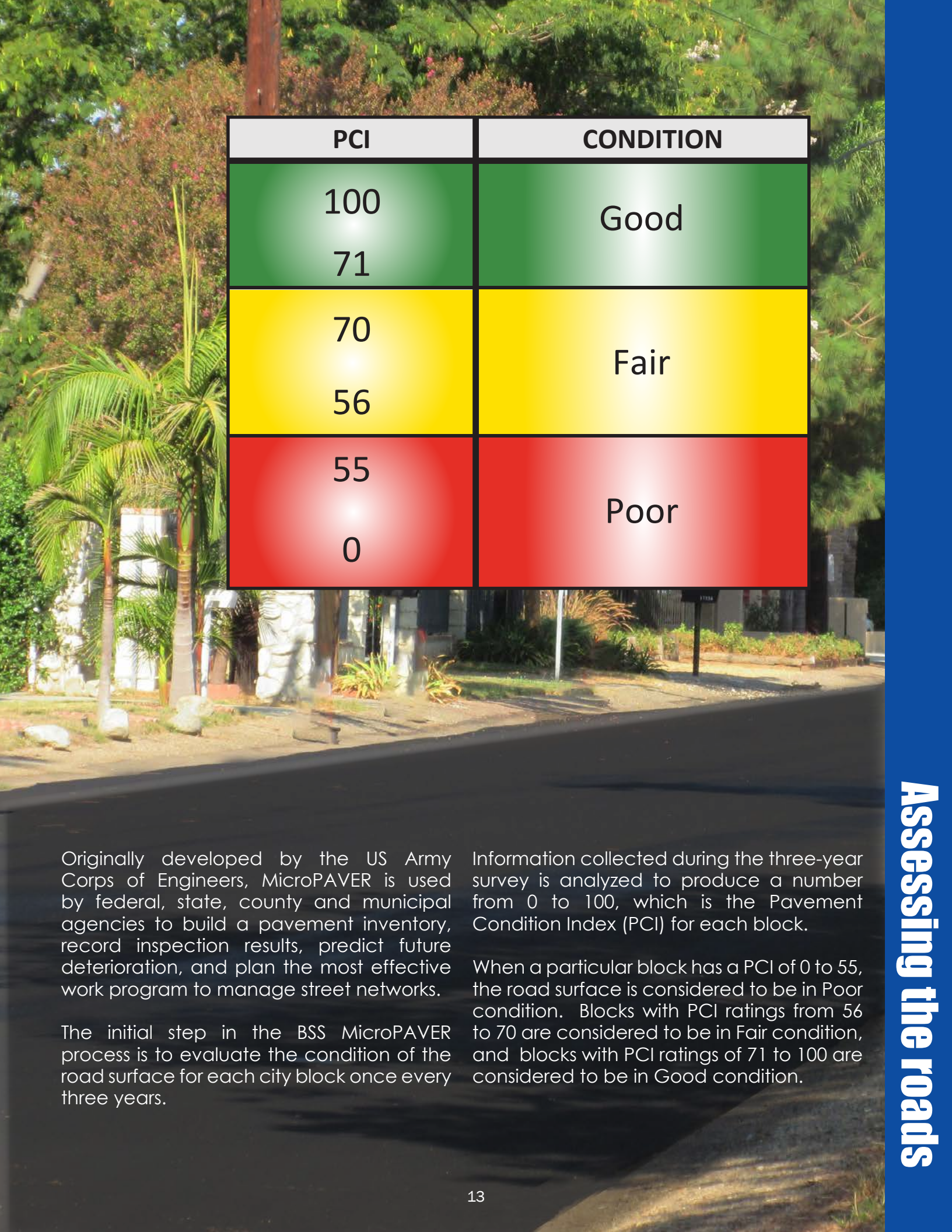
3D Plan Drawing for the future Asphalt Plant I



Old Asphalt Plant I



In 1998, BSS began using a state-of-the-art pavement management system called MicroPAVER to create a database of road surface conditions and implement a cost-effective strategy for maintaining the street network.



PCI	CONDITION
100 71	Good
70 56	Fair
55 0	Poor

Originally developed by the US Army Corps of Engineers, MicroPAVER is used by federal, state, county and municipal agencies to build a pavement inventory, record inspection results, predict future deterioration, and plan the most effective work program to manage street networks.

The initial step in the BSS MicroPAVER process is to evaluate the condition of the road surface for each city block once every three years.

Information collected during the three-year survey is analyzed to produce a number from 0 to 100, which is the Pavement Condition Index (PCI) for each block.

When a particular block has a PCI of 0 to 55, the road surface is considered to be in Poor condition. Blocks with PCI ratings from 56 to 70 are considered to be in Fair condition, and blocks with PCI ratings of 71 to 100 are considered to be in Good condition.

For the purposes of Pavement Preservation, BSS classifies streets into functional categories, Major and Residential.

Major streets are typically 45 to 100 feet wide and carry heavy volumes of traffic. Residential streets are typically between 15 to 45 feet wide, carrying lighter traffic loads.

With proper ongoing maintenance, the asphalt road surface on a Residential street is expected to last 30 to 35 years.

With proper ongoing maintenance, the asphalt road surface on a Major street is expected to last 15 to 20 years due to higher traffic volumes and heavy vehicles such as commercial trucks and transit buses.



BSS maintains all improved
and dedicated City of Los Angeles streets,
with the exception of State Highways, private streets, and
streets that have been withdrawn from public use or vacated.



Major Street - Concrete



Residential Street - Asphalt



Residential Street - Concrete

Street segments are inspected, analyzed, and graded on a three-year cycle of continuous surveys of the road network.

MicroPAVER recommends the most cost-effective maintenance or rehabilitation work at a network level.



BSS Pavement Management staff inspects the condition of every Los Angeles block in a three-year cycle, driving around the city in a van equipped with high definition (HD) video cameras and laser measuring devices.

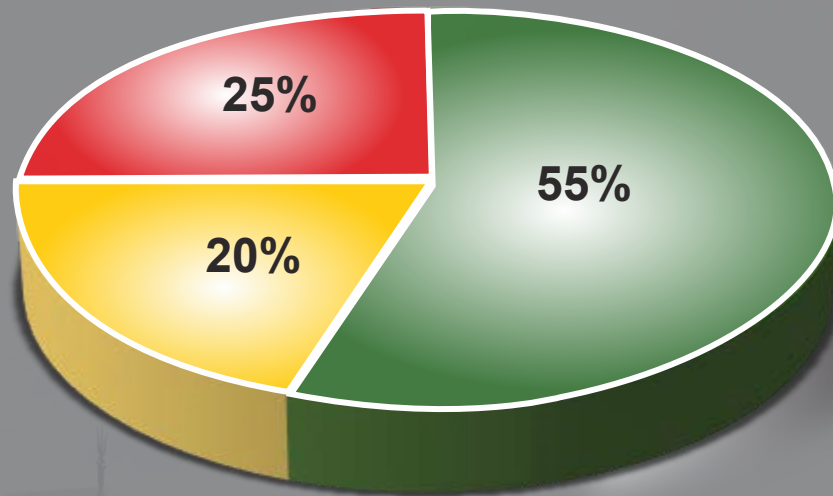
Video images and laser measurements of the road surface are captured during the survey and are subsequently analyzed at a workstation with specialized software. The type of pavement distress, severity of distress and square footage of affected area are entered in a specialized software program, which produces the PCI score. These scores are recorded in MicroPAVER database.

At a network level, MicroPAVER prioritizes maintenance and rehabilitation activities based on the most cost-effective strategy to prevent further degradation of the street.

Survey van with cameras and sensors



Analysis of Pavement Distress



Pavement Condition
as of July 1st, 2017

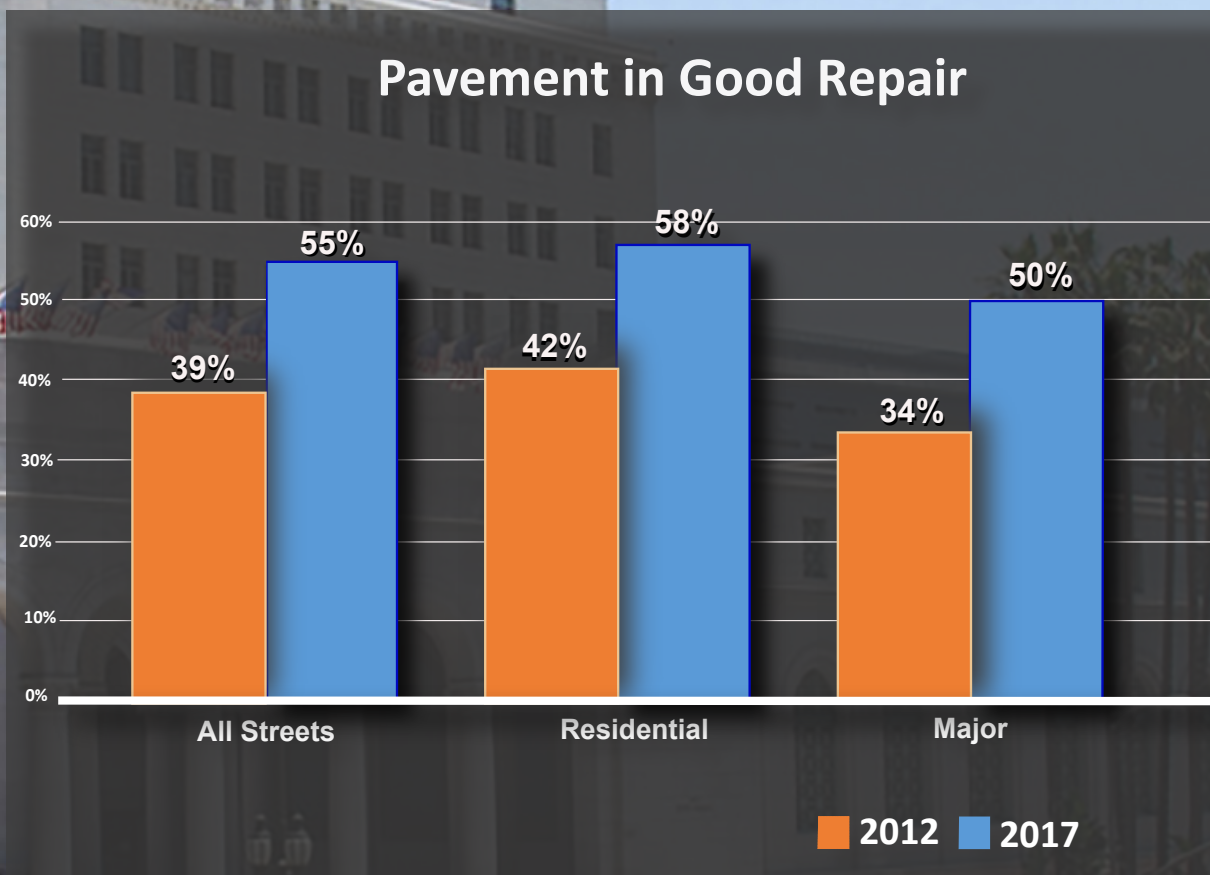
- Good Repair
- Fair
- D-Poor

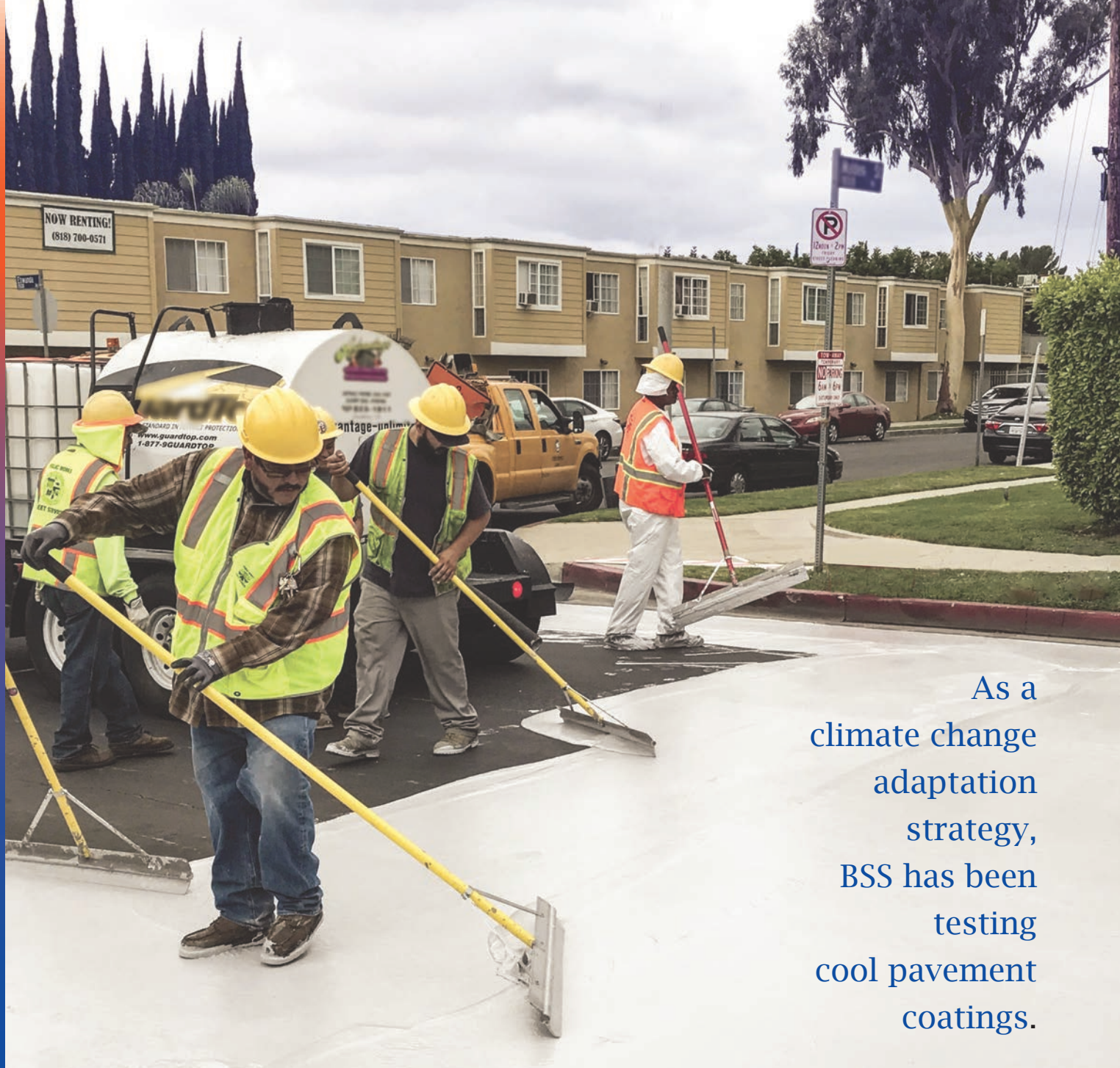
As of July 1st, 2017,
the average PCI for the Los Angeles
road network was 68. Citywide, 55% of the road
surface had a PCI of at least 71, indicating
a state of good repair.

Each year when the Mayor and Council approve a budget for resurfacing and slurry seal, BSS allocates this funding across Council Districts using a formula based on three factors: PCI, pavement area and heavy vehicle traffic.

Council Districts that have lower PCI scores, larger pavement areas and/or high levels of bus and truck traffic receive a larger portion of the citywide resurfacing funding.

Council Districts that have higher PCI scores and larger pavement areas receive a larger portion of the citywide slurry seal funding.



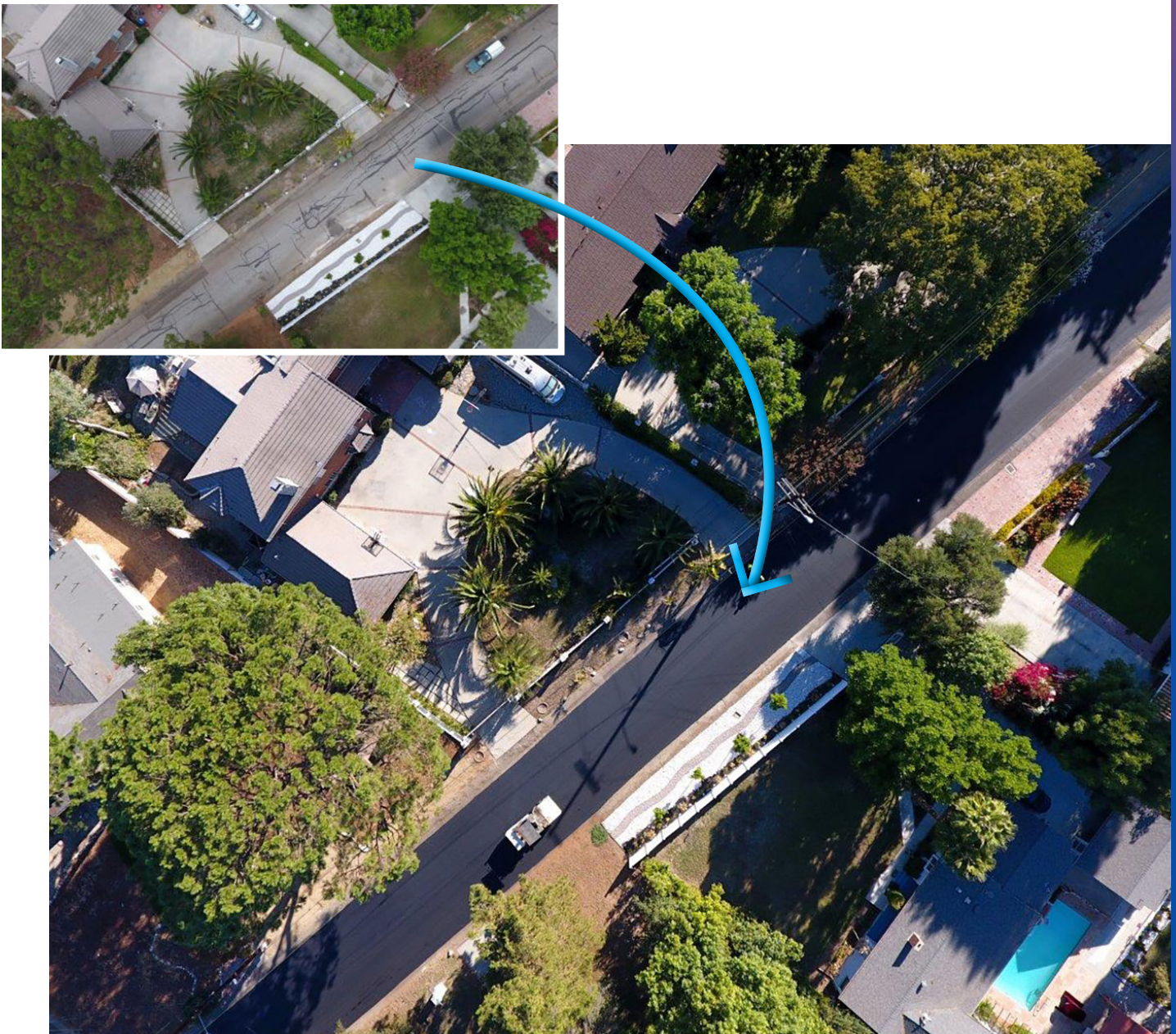


As a
climate change
adaptation
strategy,
BSS has been
testing
cool pavement
coatings.

In the summer of 2017, BSS installed cool pavement technology on public streets for the first time in the State of California. A thin, grey coating was applied on the road surface of one city block in each of the City's fifteen Council Districts. Test results suggest that cool pavement coatings can reduce the surface temperature of the asphalt road surface by approximately ten degrees Fahrenheit on a hot summer day. BSS is currently searching for sources of funding to implement a phase 2 of the cool pavement pilot.


In addition and to address streets in poor condition, BSS partnered with the City's General Services Department and Petrochem Materials Innovation, LLC to develop a mix that improves the surface and rideability of distressed pavements.

Mix 1781 is a surface treatment application designed for streets in poor condition that prevents further pavement degradation while improving wearing surface conditions. Polymer Modified Rubberized (asphalt) Emulsion cures through evaporation into a hardwearing, dense-graded asphalt/aggregate mixture that bonds to the existing pavement. Mix 1781 prevents water from entering the base materials in the roadway that causes considerable damage to our streets making them more expensive to reconstruct. This treatment also improves the current surface condition of the streets by correcting minor defects such as raveling and alligator cracking. This innovative technology will save valuable tax payer dollars now and in future years as less resources will be needed on reconstruction.





The City of Los Angeles is pursuing a variety of new initiatives to improve the quality of the road system and enhance the efficiency and environmental sustainability of street repair.



With the approval of Measure M in 2016, new and exciting opportunities to increase funding for streets in poor condition are in the near future.

The City is developing a plan to optimize Measure M funding to increase pedestrian and vehicular safety while addressing streets in poor condition.

Completion of Asphalt Plant I projected in late 2018 will allow BSS to produce 50% recycled asphalt while reducing costs and improving environmental sustainability. The new Asphalt Plant will operate with the cleanest emissions while maximizing recycling.



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MAYOR

ERIC GARCETTI

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