

**MONTEREY ROAD**

# Pothole-free paradise



KAREN T. BORCHERS/STAFF

Road crews are using a cold in-place recycling process to resurface part of Monterey Road near the Caltrain Station Park in San Jose.

## Repaving method a model in recycling, cost reduction

By Gary Richards

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An innovative and environmentally friendly paving technique is being tried on one of San Jose's most pothole-infested roads, and cities across the Bay Area are watching to see if the same method could save them millions of dollars and allow them to repave dozens of other roads.

Monterey Road — a busy, bumpy, crack-riddled street that has come to symbolize the sorry condition of roads across the region — is being resurfaced with a process called "cold in-place recycling." It is one ray of hope for agencies facing huge funding shortfalls while

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needing to maintain a vast network of streets.

"This is pretty cool," said John Goodwin of the Metropolitan Transportation Commission, which recently invited 47 public works officials to view a pilot project in Napa. "It's more than a small glimmer of light."

Crews on Monterey Road are ripping out the current pavement, but that's where the old method ends. In-

### Road work

Monterey Road is being repaved from Blossom Hill Road to Bernal Road.



- **Cost:** \$2.4 million
- **Completion:** End of year
- **Hours of work:** 8:30 a.m. to 3:30 p.m. At least one lane in each direction will remain open.

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# Road

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stead of trucking the broken-up asphalt to landfills, a train of machinery chews it up four inches deep and recycles every pebble back onto the road.

The impact: More than 1,400 truck trips and about 10,000 tons of material will be saved. And the new road can be driven on almost immediately, even though the job isn't done yet. The final step is adding a two-inch layer of fresh asphalt made from 17,000 recycled tires.

Best yet, the tab: While this project would cost \$3.1 million to pave the conventional way, it's \$2.4 million this way — a 23 percent cut in cost.

"Monterey Road is about as bad as it gets," said Mike Witkovski with the city's Department of Transportation. "It needed to be repaired, and we have to be greener with fewer dollars. That's what led us to this."

The process has been used in Southern California for more than a decade, but a lack of equipment and training for contractors delayed trying the recycling process until recently in the Bay Area. Contractor FMG of San Jose has focused on the new technology and has worked on five Bay Area projects.

"We're familiar with the machines, we know how to work on them, we know how to maintain them, and we know how to operate them," said FMG spokeswoman Emily Perniz. "It's a natural progression. And now is the time. The technology is here, the cities are looking to save money, and the green and recycling factor is huge."

Gilroy used the new paving process on Rossi Lane, trimming a \$200,000 project by \$80,000. Santa Clara County is testing it on a mile-long section of Holsclaw Road at a cost of \$350,000 — at least \$100,000 less than projected. Foster City is using the technique on Catamaran, Spinnaker and Cutter streets.

Redwood City used the new paving method on the northbound side of East Bay-



KAREN T. BORCHEHS/STAFF

Department of Transportation director Hans Larsen watches the Monterey Road repavement process, which uses recycled tires as part of the top layer of the road.

## COLD IN-PLACE RECYCLING

■ Machines grind and resurface up to four inches of the pavement, recycling all old material.

■ A convoy of machinery performs the work. A milling machine at the front chews up the existing pavement down to base rock, typically two to four inches deep. This material is then conveyed to a machine where the material is crushed to the size needed.

■ The asphalt is mixed with a recycling emulsion that binds it together. It's laid on the road and picked up again by what is called a shuttle buggy. Then it's put in the hopper of a paving machine and laid down as a fresh layer, ready to handle traffic in 90 minutes.

■ Two inches of rubberized asphalt is added to the top.

■ Cost: 23 percent less on Monterey Road than a conventional paving method.

shore Road and will compare the results with the southbound side, which was paved the old-fashioned way.

"After seeing the product during installation, I was pleased," said Redwood City engineer Kevin Fehr. "However, only several years' time will tell if the product performs better than traditional methods from an engineering standpoint, and at that point a long-term economic analysis can be done."

City road officials in Alameda, Contra Costa, Santa Clara, San Mateo, Santa Cruz and San Francisco counties all say the new approach deserves a hard look.

"We are definitely keeping a close eye on what results are for Monterey Road," said Gloria Chan of the San Fran-

cisco DOT.

San Jose transportation officials say if costs are reduced 30 percent, the new approach will really take off because they are all desperate for new funding and ways to do more roadwork with less funding.

The MTC estimates that Bay Area agencies will have \$350 million a year to spend over the next 25 years to keep roads in respectable condition. That's far less than the \$975 million a year needed.

San Jose needs \$100 million a year to maintain its streets but has only \$15 million a year. Of its 2,400 miles of streets, the city should be resurfacing about 240 miles annually. But this year, only 75 miles are being upgraded.

"We'll have to decide which

15 percent of our streets to maintain and which 85 percent to neglect," said DOT director Hans Larsen, who points out that putting off routine maintenance means higher costs later. Monterey Road is a prime example.

"Monterey Road costs \$1.5 million a mile to rehab," Larsen said. "Preventative maintenance is like changing the oil in your car. Do it on a regular cycle, and it'll cost \$50,000 to \$100,000 a mile."

Work on Monterey Road will end before Christmas, but the bad memories of a decade of potholes will linger. Motorcyclist Erin Frost remembers stopping at a red light before Blossom Hill Road and looking down.

"About six inches from my foot, I could see exposed rebar in the street," she said. "I couldn't imagine going over that in my bike."

But now?

"It's awesome," said Duane Johnson, 31, of San Jose, who went for a drive Thursday after avoiding Monterey Road for three months. "I feel I can enjoy it once again. And I'm glad the city has found a way to cut the cost of repairs and still be able to make a nice smooth road. Lovin' it."

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