

Long Term Benefits of Fiberized Systems



VSS International, Inc.

PAVEMENT SPECIALISTS

www.slurry.com

Resurfacing with Fiber

Fiber Microsurfacing

- Benefits of Microsurfacing, plus enhanced characteristics from fiber.
- Can be applied in multiple layers to provide ultimate crack mitigation and performance.
- Fiber increases the structural integrity of the Microsurfacing without affecting curb heights.
- Fiber is automatically fed into the pug-mill allowing the length and application rate to be easily quantifiable.
- Fiber strands are cut into $\frac{1}{4}$ " - $\frac{1}{2}$ " slivers and inserted into the micro mix as it's applied by the Macropaver.



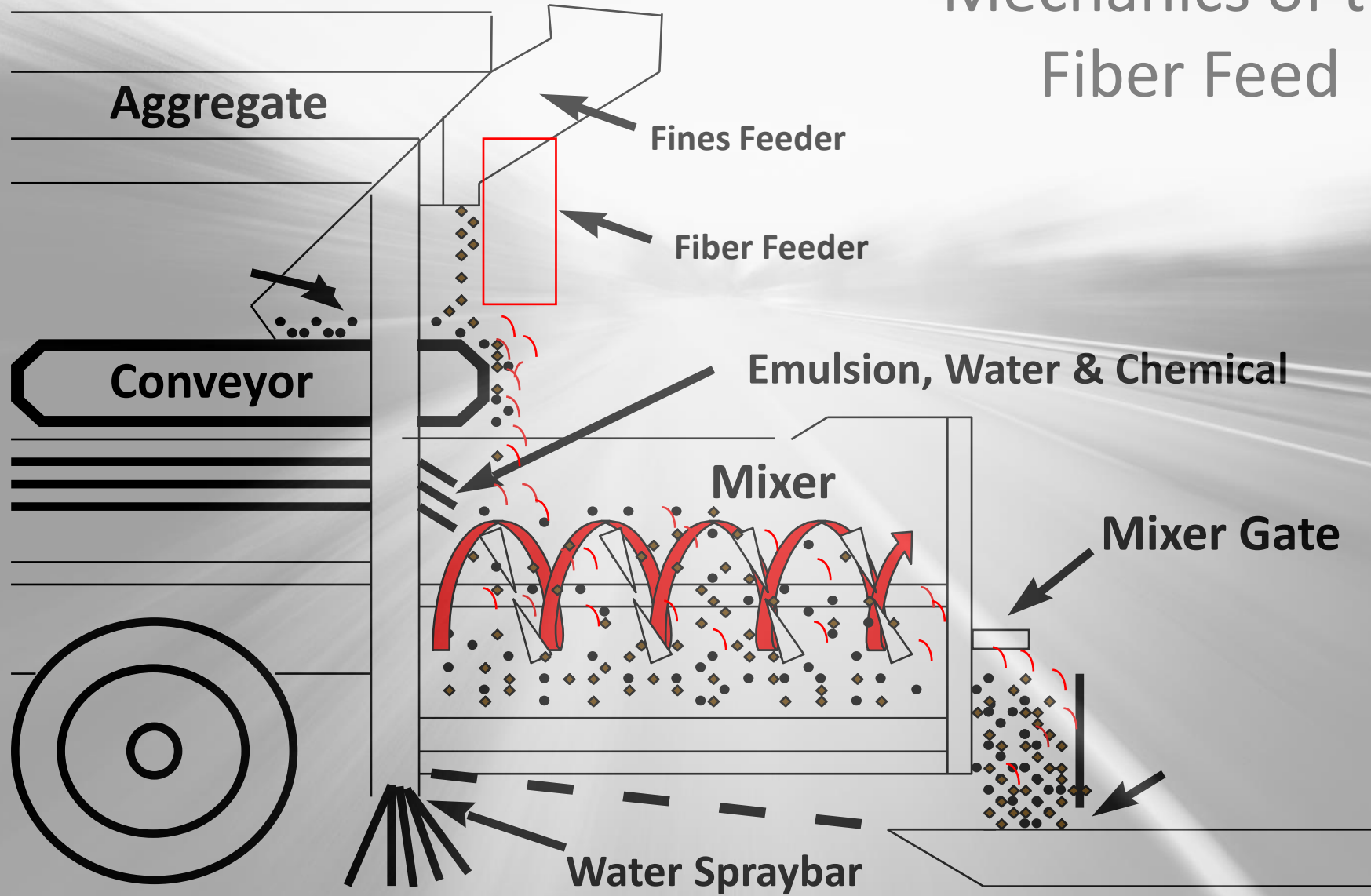
Fiberized System

Fiber Chopper:

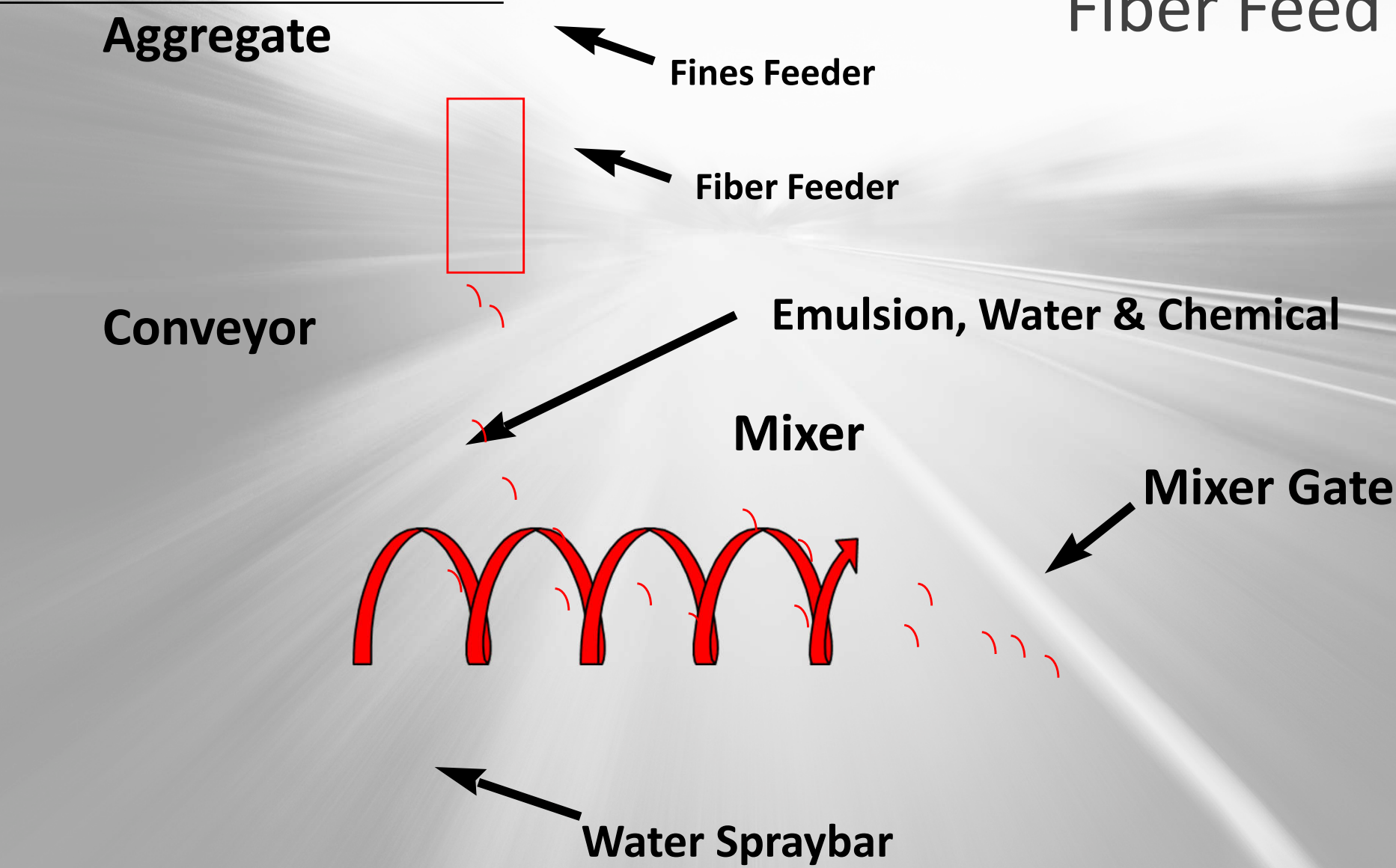
- Makes calibration simple
- Automated Feed System
 - Adjustable Rate
- 0.1% to 0.3% of mix

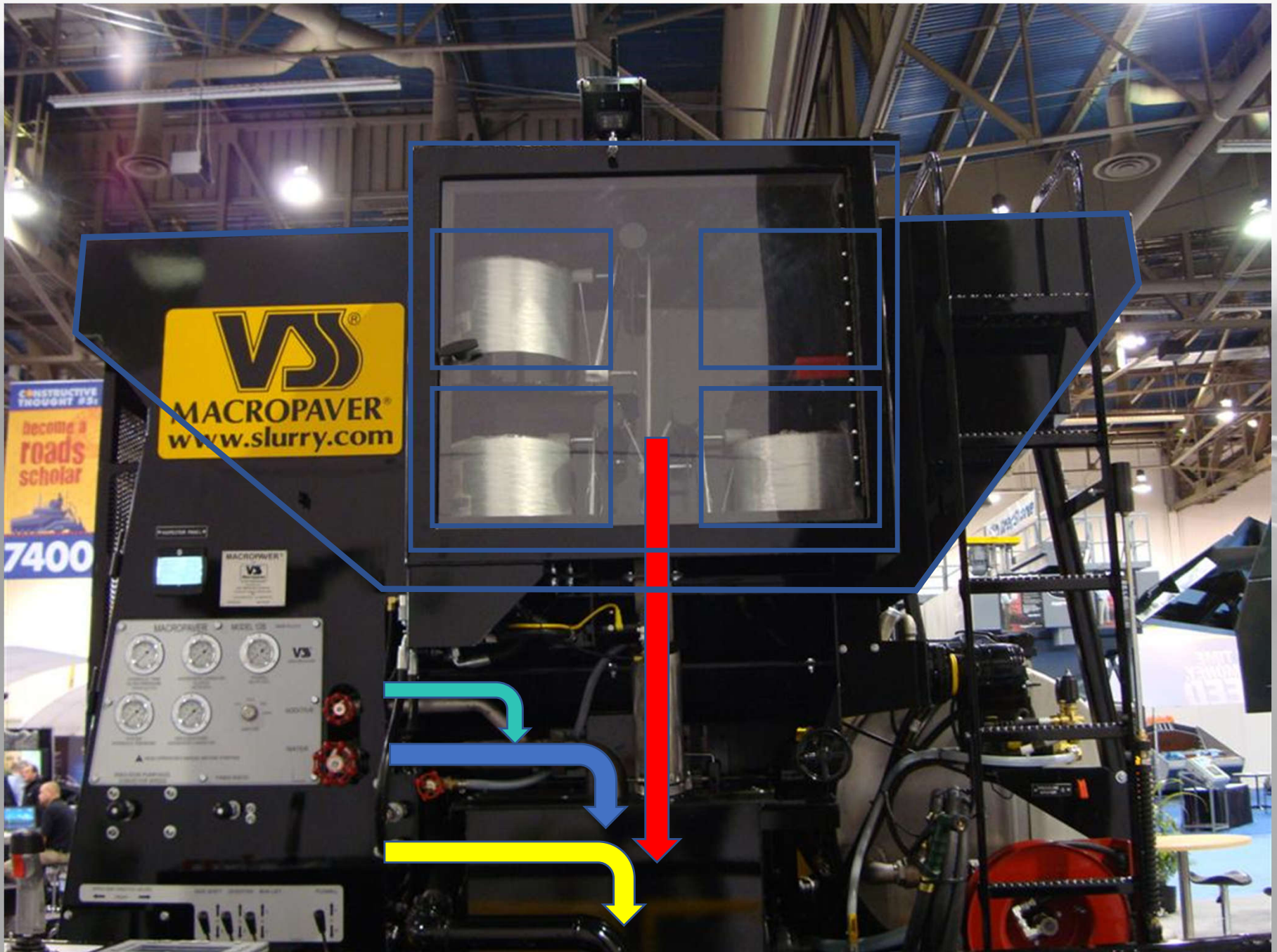


Mechanics of the Fiber Feed



Mechanics of the Fiber Feed







Visual Characteristics of Fiber in the mat

Fiber Provides:

- Interlacing
- Meshing
- Knitting affect
- Stitching Structure



Project Highlights

- Pocatello ID
 - Lompoc CA
 - Martinez CA
 - Santa Cruz County, CA
- 

Pocatello Idaho 2011-Before

City Hall Parking Lot

Severe alligator cracking

PCI 38



Pocatello Idaho 2016-After

Double Fiber

- Type 3
- Type 2
- **PCI 79**
- **5 Years Later**



Pocatello Idaho 2018-After

- 7 years later

POCATELLO
CITY HALL
911 N. 7th



**STEP 2: Apply Type 2 Slurry
Seal w/ Fiber Reinforcement**



**Type 3 Fiber
32lbs**

**Type 2 Fiber
18lbs**

Pocatello, ID Fiber Application

Rubber Tire Roller is key on 1st Step



Pocatello Fiber Application

STEP 1

Type 3 Microsurfacing

- 30 lbs / sy
 - 0.15% fiber
 - 12% CQS-1hp
 - 3% latex
 - Pneumatic Roller
-

STEP 2

Type 2 Microsurfacing

- 15 lbs / sy
- 15.5% CQS-1hp
- 3% latex



Lompoc, CA 2012-Before

Severe alligator cracking

PCI 35





Lompoc, CA 2012-After

Double Fiber

- Type 3
- Type 2

**STEP 1: Apply Type 3 Slurry
Seal w/ Fiber Reinforcement**



Lompoc CA Fiber Application

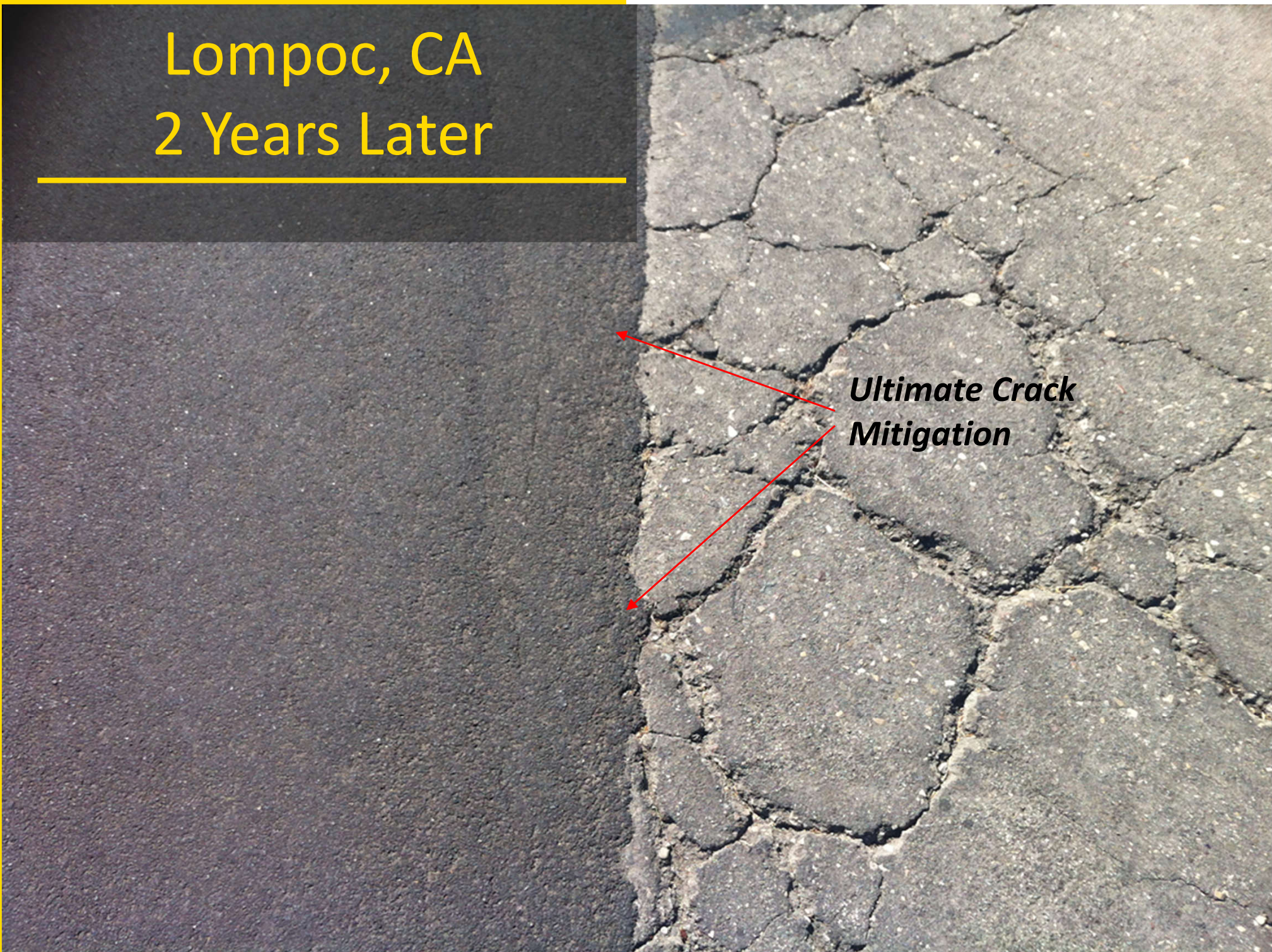
**STEP 2: Apply Type 2 Slurry
Seal w/ Fiber Reinforcement**



Lompoc, CA 1 Year Later



Lompoc, CA 2 Years Later



***Ultimate Crack
Mitigation***

Lompoc, CA
2 Years Later





Lompoc, CA
3 Years Later

Martinez, California

Double Fiber Micro
Type 3
Type 2



Name	Begin Location	End Location	PCI	Length	Width	Area (SF)
Arnold Dr.	Pacheco	Starflower (E)	51	930	37	34,410
Arnold Dr.	Starflower (E)	170 ft. W/O Starflower (W)	56	1,840	47	85,480
Arnold Dr.	170 ft. W/O Starflower (W)	845 ft. W/O Starflower (W)	49	675	37	24,975
Arnold Dr.	845 ft. W/O Starflower (W)	Glacier	59	240	37	8,880
Gilrix Dr.	Morello	Escondido	33	1,075	33	35,475

Martinez, CA
Arnold Drive
Pre-Con Drive

PCI : 49



BEFORE



BEFORE



7 Years Later

Martinez, CA Arnold Drive Pre-Con Drive

PCI : 51



Martinez, CA
Arnold Drive
Pre-Con Drive

PCI : 51



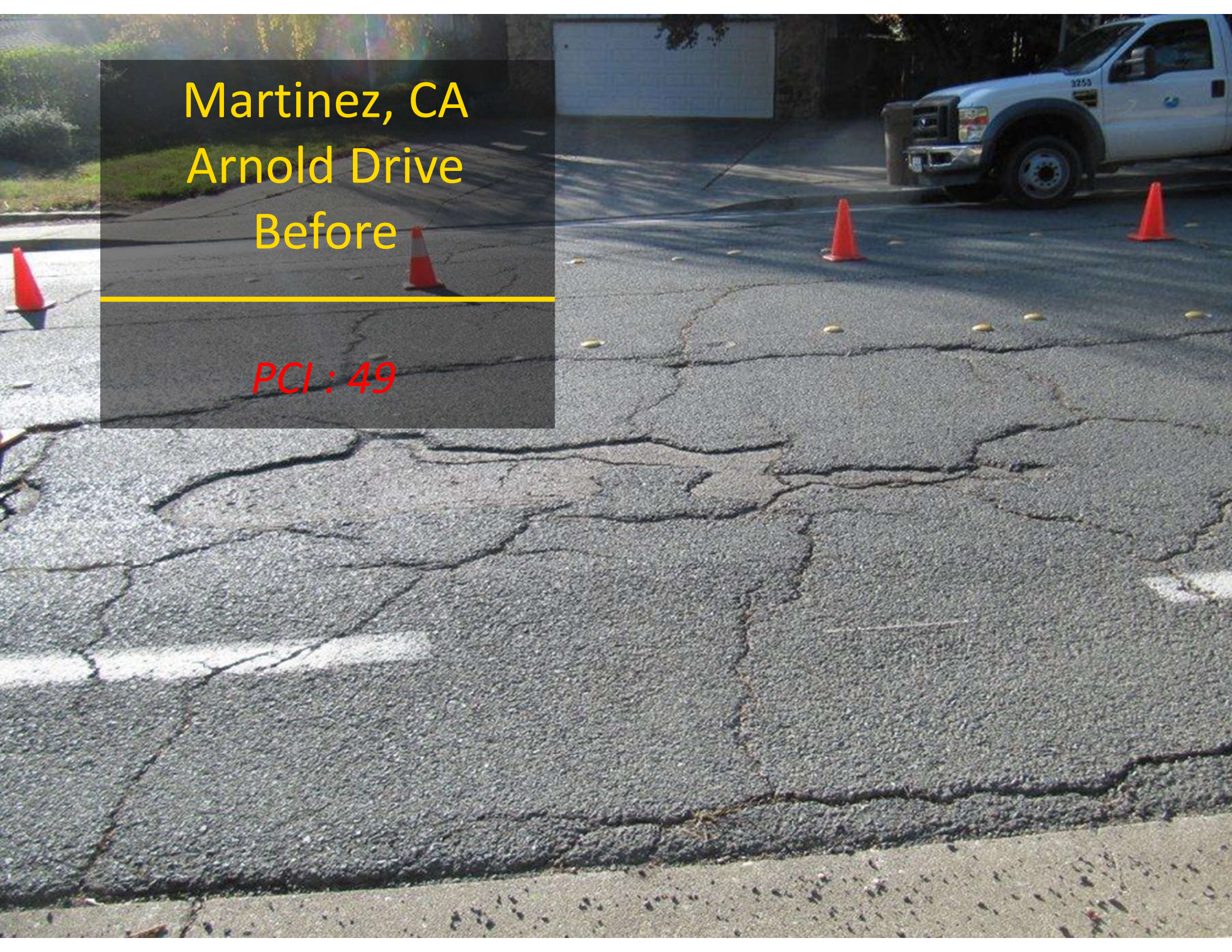
Martinez, CA Arnold Drive Pre-Con Drive

7 Years Later



Martinez, CA
Arnold Drive
Before

PCI : 49



Martinez, CA
Arnold Drive
After

PCI : 82



Martinez, CA
Arnold Drive
After

7 Years Later





1st Layer

Type 3 Micro

11.5% MSE

35 lbs. Aggregate

0.15% Fiber





2nd Layer Type 2 Micro

15.5% MSE

16 lbs. Aggregate

0.15% Fiber

Martinez, CA
Gilrix Drive
Before

PCI : 33



Martinez, CA
Gilrix Drive
After

PCI : 81



Martinez, CA
Gilrix Drive
After

7 Years Later



Fiber Chopper System


Fiber Seal can be applied in single layers or multi layers

98%
Success Rate!

Resistance of reflective cracking


Leading technology for superior flexural durability



A photograph of a residential street with a dark overlay in the top right corner containing text. The street is paved with asphalt and shows signs of wear, including a large pothole and a crack. The overlay is a dark grey rectangle with yellow text. The text reads "Santa Cruz County Double Fiber Micro" in a large, bold, sans-serif font. Below this text is a thin yellow horizontal line. Underneath the line, the word "Before" is written in a smaller, bold, sans-serif font. The background of the image shows a grassy area on the left, a wooden fence, and a house in the distance. The sky is overcast.

**Santa Cruz County
Double Fiber Micro**

Before



Santa Cruz County
Double Fiber Micro

After 3 Years Later

Santa Cruz County Double Fiber

BEFORE



After 3 Years Later

Type 3 Micro 32 lbs.
Type 2 Micro 14 lbs.



Flexural Tension Test

FIBER MAKES A DIFFERENCE

- Increases the structural integrity of micro or slurry seal.
- Helps mitigate reflective cracking



Fiberized Slurry Edge Grind Type-5



Deteriorated & Elevated Edges



Deteriorated & Elevated Edges



Deteriorated & Elevated Edges



Deteriorated & Elevated Edges



Gutter Line Correction



AFTER

Gutter Line Correction



AFTER

Gutter Line Correction



Gutter Line Correction



AFTER



Partner for Success

Are you a candidate
for Fiber?

Do you need assistance with
Engineers Estimates?

Need Specifications?

Schedule an appointment
with one of our Pavement
Specialist Today!



THANK YOU!

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VSS International, Inc.

PAVEMENT SPECIALISTS

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