

ROAD CONSTRUCTION  
ASPHALT

**GRANNAS BROS.**

CRUSHED STONE  
HOLLIDAYSBURG, PA



~~Gravittas Bros. Stone & Asphalt~~

## ASPHALT

I-99 Blair County—Rural Interstate North of Altoona

- Paving . . . 100% Warm Mix Asphalt, 100% Recycled Materials,

Included 15 Miles of Highway lighting & Signage Upgrades

- 80% of the project was concrete patching, 5" 0.5mm leveling, 2.5" 1 mm binder leveling and 1.5" 0.5mm SMA wearing course.

• 20% of the project was crack & seal, 1" 9.5mm SMA

base course, 2.5" 10 mm binder leveling, and 1.5" 9.5mm SMA wearing course.

- Constructed with 100% Warm Mix Asphalt

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~~Paver Road Construction~~  
~~ROAD HISTORY:~~

## ASPHALT

Original New Construction:

• 1980 4" OGS Subbase

• 6" 2A Subbase

• 1996 Concrete Pavement Patching

• 2008 Concrete

# GRANNAS BROS.

Concrete patching, crack & seat, and bituminous overlay

## CRUSHED STONE

### HOLLIDAYSBURG, PA

# ~~ROAD~~ CRACK & SEAL ~~CONSTRUCTION~~ ASPHALT

- Northbound – 2.3 miles & Southbound – 2.7 miles (10 total lane miles)

Demolition of concrete to dowel bars  
• Sawing of dowel bars (longitudinal joints transverse joints)  
Cracking of the concrete  
Roll with pneumatic tire roller  
• Reflection joints

# GRANNA'S BROS.

• 1.5" leveling course

• 4" 25mm base course

• 2.5" 13mm leveling course

• 1.5" 9.5mm SMA wearing course (6")

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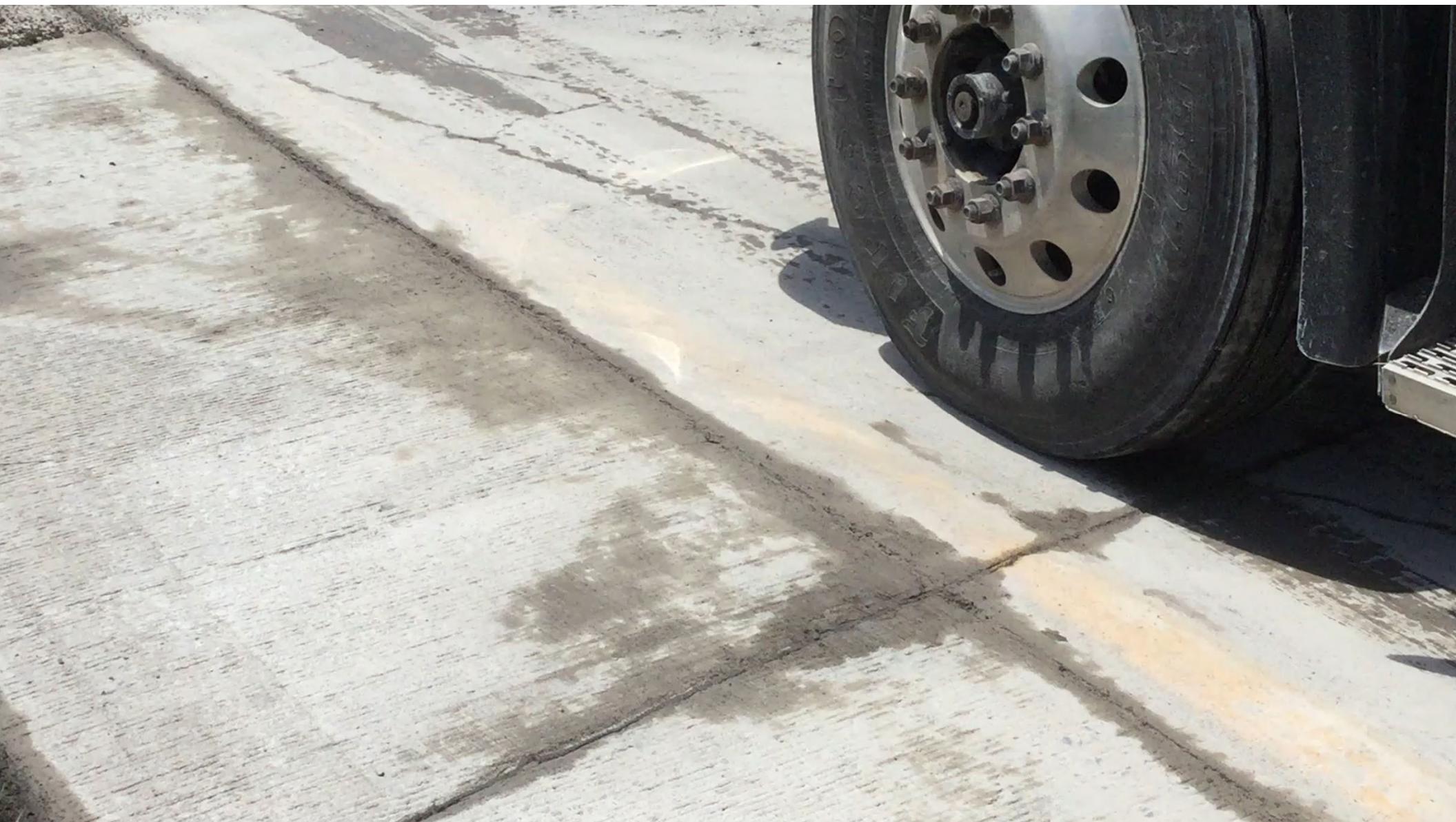












































~~After Action Review~~  
~~ROAD CONSTRUCTION~~

Faster / Less User Delays - Eliminated concrete patching on the front end  
/ healing on the back end.

**ASPHALT**

Less Cost - Cheaper than Reconstruction

Less Maintenance

Eliminated the need for joint repairs and/or concrete repairs below the new bitumen.

Eliminated the surface saw & seal joints. In turn, significantly decreased the chances of water infiltration.

- Strongly feel as though this option is cheaper from a lifecycle standpoint
- Smoother--due to no Saw & Seal joints

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