

State of Missouri Bridges

Dennis Heckman State Bridge Engineer Missouri Department of Transportation

February 18, 2016

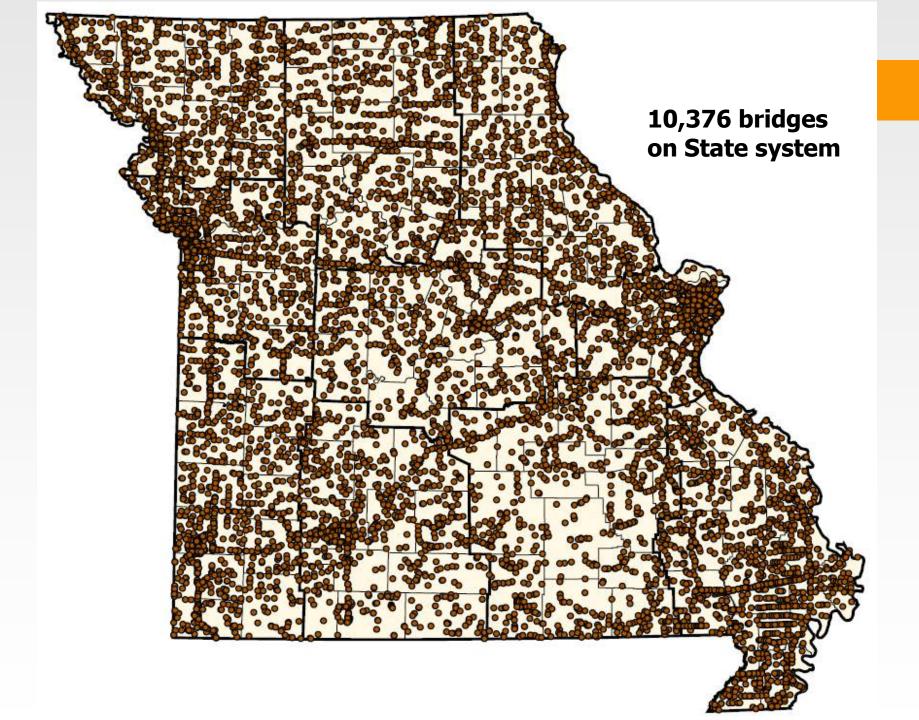


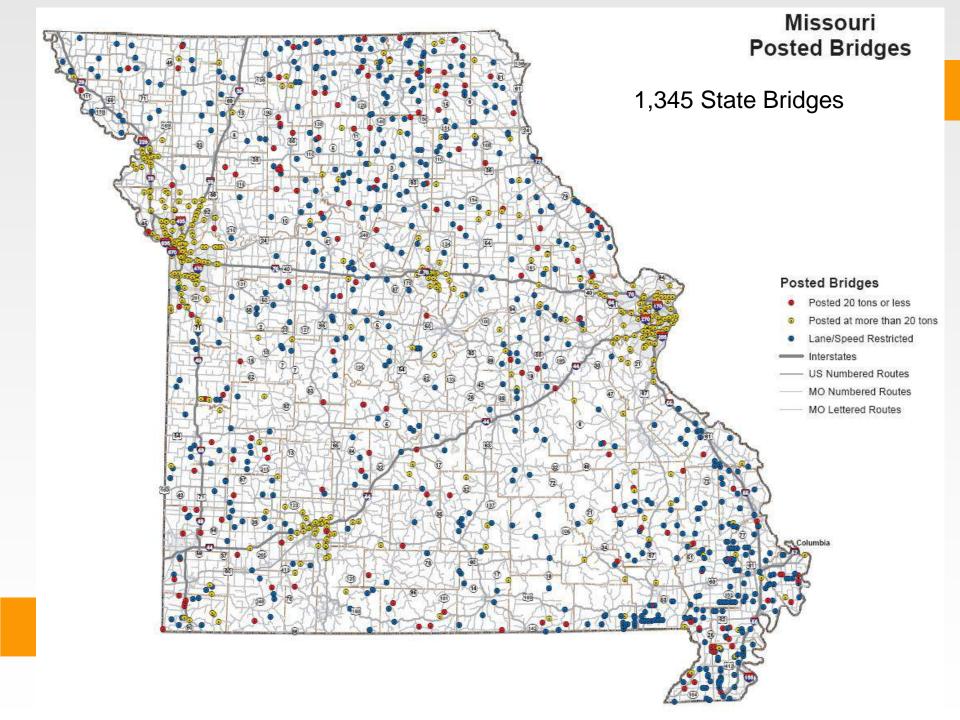
How Many Bridges Are There?

STATEWIDE

| Local | 13,982 |
|--------------|---------------|
| <u>MoDOT</u> | <u>10,376</u> |
| Total | 24,358 |



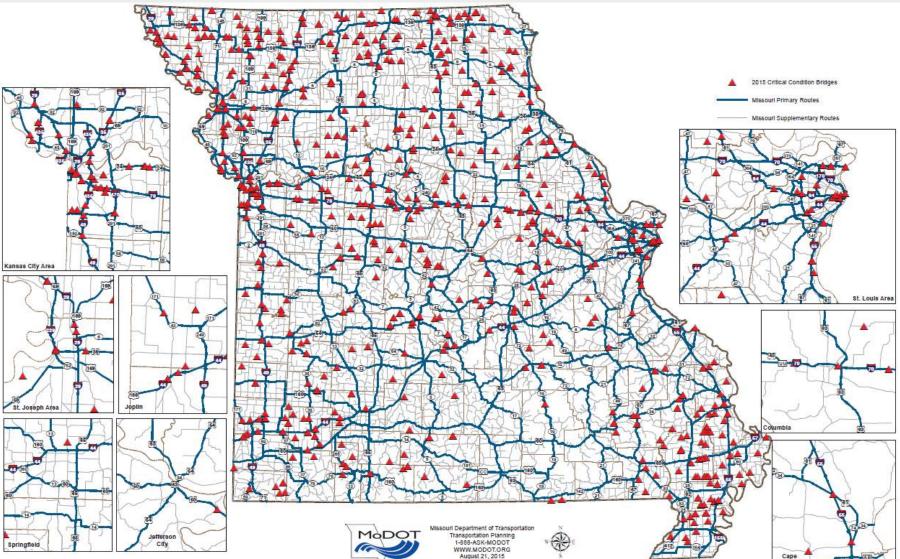




Critical Condition Bridges STATEWIDE - 641

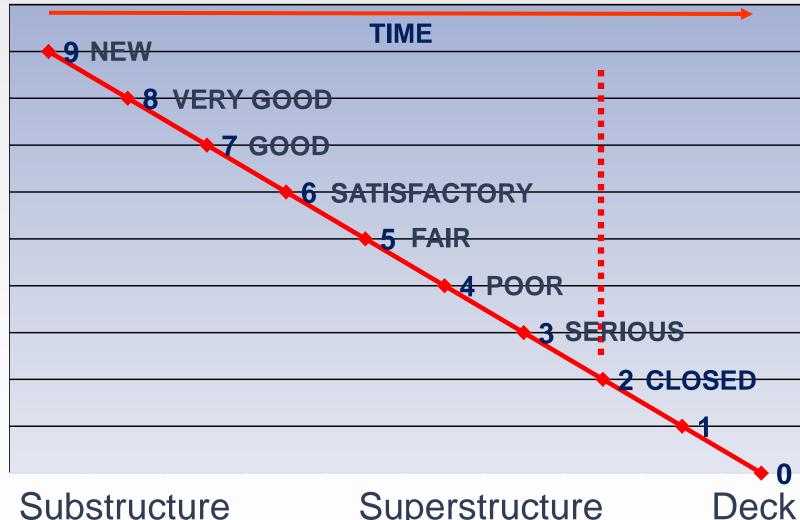


Girardeau



How are Bridges Rated?





Substructure

Superstructure

Gasconade Co., Route J



77 years old Timber piles One lane, load posted Detour length = 24 miles Serves local school, fire and ambulance districts If closed, would increase response times



Stoddard Co., Route 91



4 critical-condition bridges on this route All were built in 1933 – 82 years old Carry 700-800 vehicles per day Ag access to SEMO Port and I-55 Important EMS route for residents to Cape Girardeau



Phelps Co., Route B

Over the Bourbeuse River 81 years old One lane, load posted Detour length = 30 miles

Serves Walmart Distribution Center and local wineries









www.modot.org/Bridges





Route H, Scotland County North Wyaconda River

CLOSED Oct. 23, 2014







I-44 Outer Road, Laclede County Gasconade River

CLOSED Dec. 18, 2014







Route T, Macon County Thomas Hill Reservoir

CLOSED Feb. 3, 2015



What is a major bridge?



Any bridge over 1,000 feet long.

Typically over major rivers and lakes.

Also flyover ramps in large interchanges.





Why talk about major bridges?

Just 2 percent of state bridges, but 25 percent of total deck area.

To replace just these 209 bridges would cost \$7 billion.



Compare typical bridges to major bridges

- Cost to replace one bridge \$1 million vs. \$100 million
- Expected life

50-75 years vs. 75-100 years

Typical detour length

5 miles vs. 50 miles



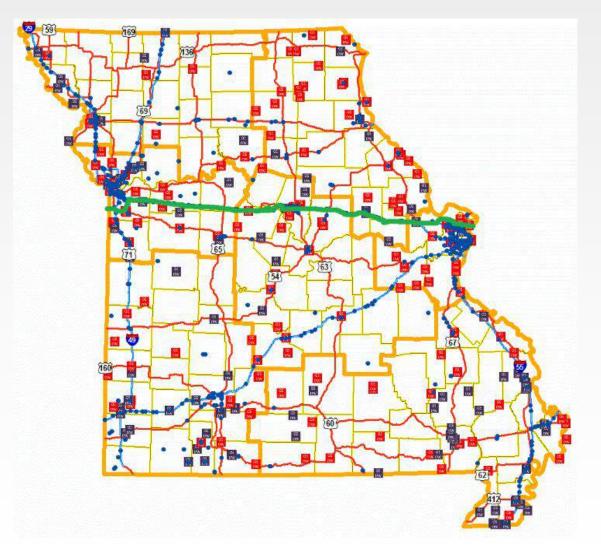


Not Your Typical "18 Wheeler"



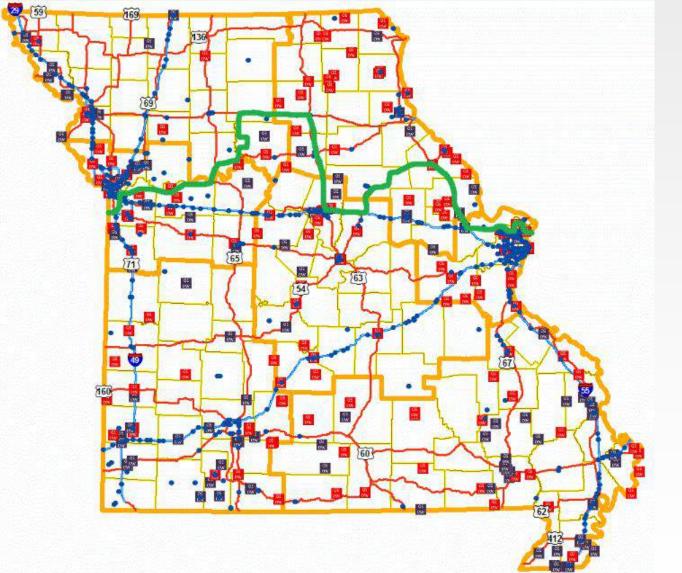


Preferred Route



271 Miles Total

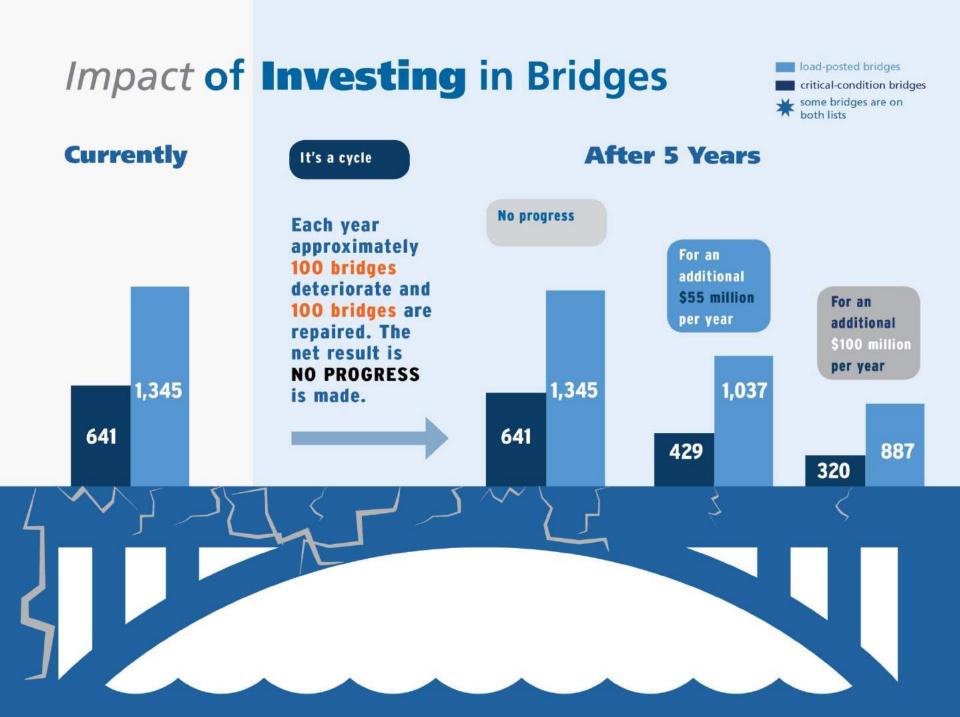
Actual Route



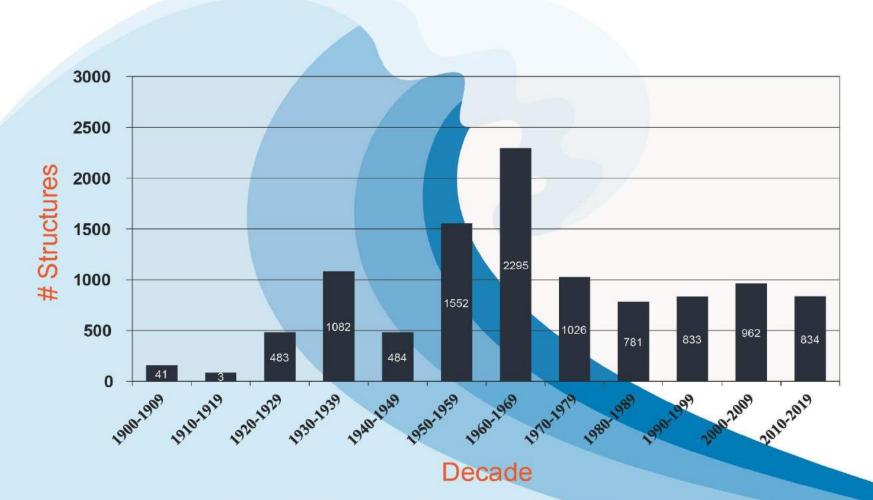


413 Miles Total

52% Increase!



Distribution by Decade



About 60% of our bridges are older than their intended useful life of 50 years (those built prior to 1965).



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