

## “DEADLY CROSSING: Neglected Bridges and Exploding Oil Trains”

The most complex and vulnerable point on the proposed PVCP route through the city is the rail bridge.

Trains carrying volatile oil and gas, crumbling infrastructure, and inadequate federal oversight of rail bridges threaten the safety of hundreds of thousands of Pittsburghers.

Between 2005 to 2015, the federal government estimated that 24 train accidents were caused by misalignment or failure of railroad bridges.

Norfolk Southern’s rail bridges cross every major Pittsburgh waterway, traverse highly populated areas, and present a recipe for catastrophe beyond the scale of anything we have seen – even if just one oil train derails, spills, and explodes.

Crumbling rail bridge infrastructure along Norfolk Southern’s line was common and easily visible. The most commonly identified deficiencies were:

- Missing and crumbling concrete
- Erosion of pilings
- Exposed rebar
- Loose and broken wooden/creosote beams
- Severe rusting and/or holes in structural steel
- Loose, and missing bolts
- Crossties in poor condition
- Failing retaining walls

See example images below.

Failing, undermined, and missing structural materials were most common where foundations sit in waterways, especially below the high-water mark. Also easily observed were makeshift repairs, including concrete patches and use of metal straps and brackets to reinforce failing and missing beams. According to citizen observations, in several cases when trains passed over bridges, flexing, slumping, and vibrations were observed that caused concrete to crumble and slough off, especially in Wilkinsburg.

With respect to Norfolk Southern’s Merchant Street rail bridge, the state-mandated Historic Bridge Review Analysis admits that its bridge is in disrepair and constitutes a safety hazard as follows:

“After a routine inspection in 2018, the Merchant Street Bridge was determined to exhibit extensive steel corrosion within the cross girders and columns comprising the intermediate pier as well as throughout the riveted trough system. The superstructure’s poor condition poses the potential for shifts or damage that could lead to interruption of interstate transportation within the next few years, and potentially could cause injuries or property damage. In addition, the bridge goes over a public roadway and failures may lead to interruption of roadway travel. These conditions are considered safety concerns and may pose a safety hazard to the railroad and the traveling public.”

As quoted in the Simms' comment to the Merchant Street Bridge Consulting Parties, "There are no indications that metal fatigue or any other failure modes are contributing problems causing the steel to deteriorate...just corrosion. Steel corrosion is typically a function of failed maintenance, not age." The following link provides an in-depth review of deficiencies in the Ft. Wayne Bridge to the Convention Center, and a comparison of similar age city owned and maintained bridges shows the contrast. [This link](#) provides critical additional information on these issues:

Our review of federal rail bridge safety standards shows that dangerously inadequate inspections and oversight, and lax regulations under federal law compound the already high risks posed by running double stacked trains next to oil trains on the zig zag route through 36 of Pittsburgh's most densely populated neighborhoods.

There is no Norfolk Southern inventory of rail bridges, no mandated submission of inspection records, and no required minimum engineering standard for rail bridges. Under the Rail Safety Improvement Act, enacted on October 16, 2008, and a subsequent set of regulations issued by the Department of Transportation (DOT), the federal government cedes authority for bridge inspection and oversight to the owners of rail bridges around the nation. Accordingly, Norfolk southern is left to determine safe load limits, inspection and maintenance schedules, and engineering standards with little or no independent oversight:

- Federal guidelines provide no minimum design standards for bridge construction or maintenance;
- Although state and local governments share authority to enforce federal safety standards, and can conduct their own inspections, safety officials provide little or no additional inspection, review or oversight;
- Federal regulations, which require that "competent persons" evaluate bridges and develop bridge management plans for railroads, fail to require any minimum qualifications for competence – not even an engineering degree; and
- When railroads conduct bridge inspections and do find safety issues, city, state, and federal officials do not need to be informed, and have little authority to compel rail bridge owners to make repairs;
- allows railroads to do "table top" estimates of load capacity based upon original plans and design drawings and do not have to be on-site to make inspections;
- permits railroads to discard prior safety inspection reports as soon as a new report is issued (thus eliminating the trail of documents in the event of a lawsuit);
- allows the railroad to perform its own audits (the FRA itself audited only 5% of bridges nationwide.)

The Pennsylvania Utility Commission (Bureau of Investigation and Enforcement), however, does have jurisdiction over highway and railroad crossings. Before the PVCP is allowed to proceed, City and Pennsylvania state representatives must call for rigorous and recent third-party safety inspections of Norfolk Southern's rail bridges along the proposed route.

Norfolk Southern must accept responsibility for, and ensure the safety of every bridge carrying higher center of gravity double stacked cars next to oil trains over the proposed through Pittsburgh's most densely populated neighborhoods. Norfolk southern should:

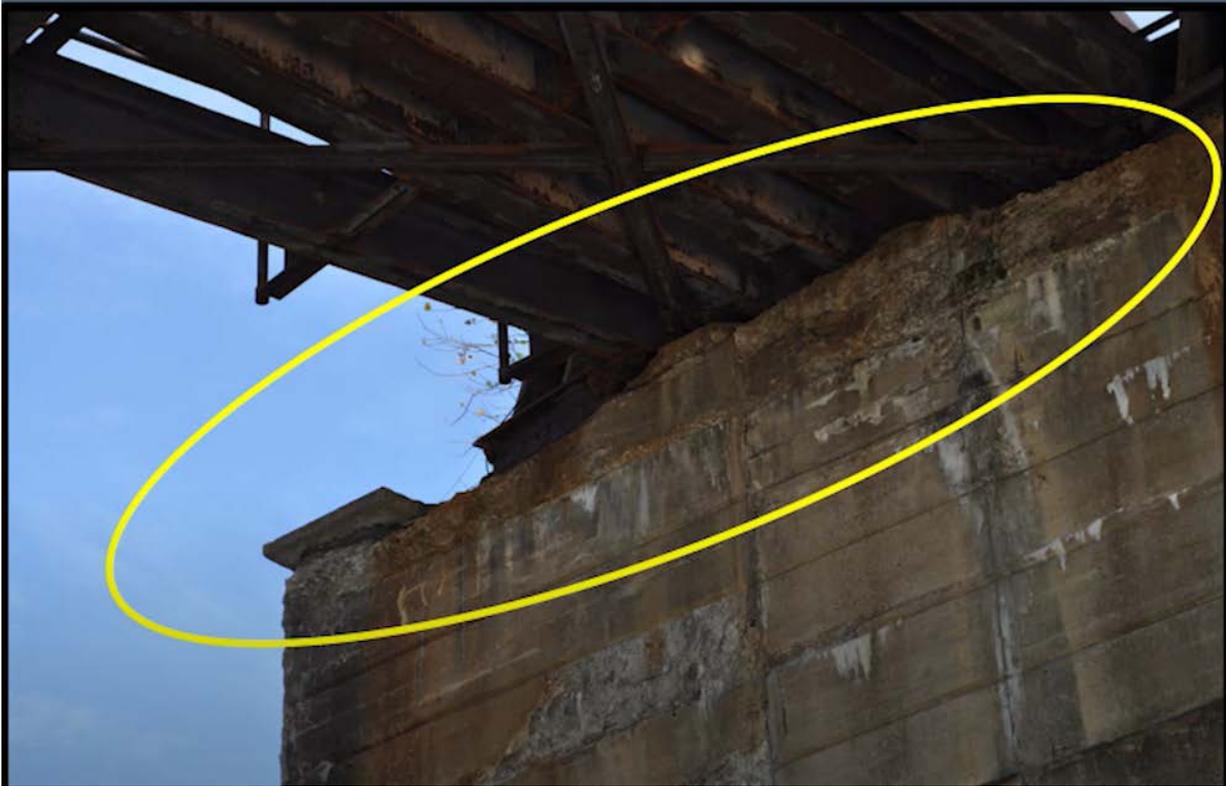
- Share existing inspection and repair information with public safety officials and the public;
- Allow rigorous, independent safety inspections of all rail infrastructure carrying oil trains; and
- Repair or replace all deficient infrastructure.

Environmental Justice. In connection with the PVCP, there is a startling correlation between the number of trains that will be passing through communities of economic and racial minorities. Physicians for Social Responsibility have outlined the human health impacts of chronic exposure to trains, including mental health risks, impaired cognitive function, increase in development of cardiovascular and pulmonary diseases, and heightened stress hormone levels. In connection with the PVCP, 95 physicians and medical professionals have called for a Health Impact Assessment Request before the PVCP is implemented. Since that document was signed, recent studies have demonstrated the correlation between black carbon diesel pollution (emitted by locomotives) and deficiencies in child development and a worsening of impact of Covid-19—especially in our black and brown communities.

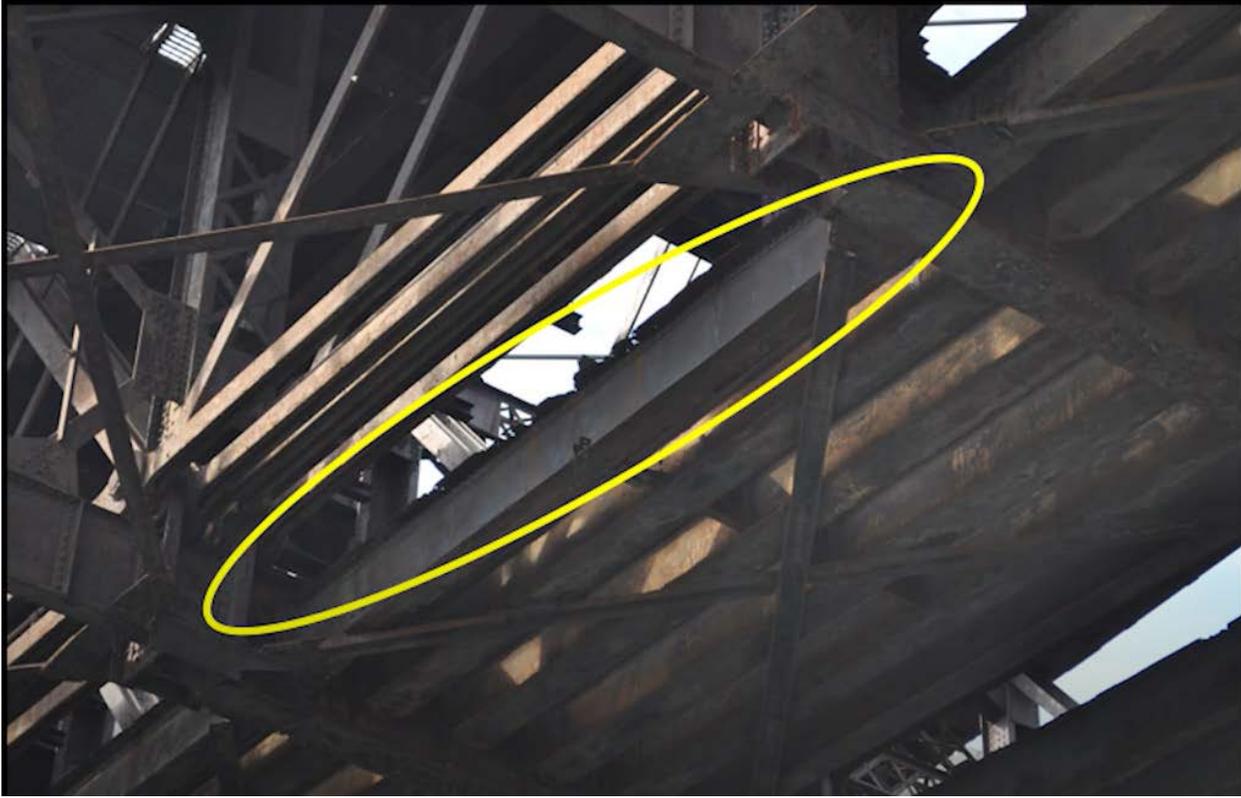
Decide how much you trust Norfolk Southern or whether you're more comfortable with some oversight. Use [this link](#) to find your City and State Representatives.



**Ft. Wayne Railroad Bridge next to the David Lawrence Convention Center. Built 1904, there are more than 200,000 people who live and work within the blast zone.**



**Ft. Wayne Bridge**



**Ft. Wayne Bridge**

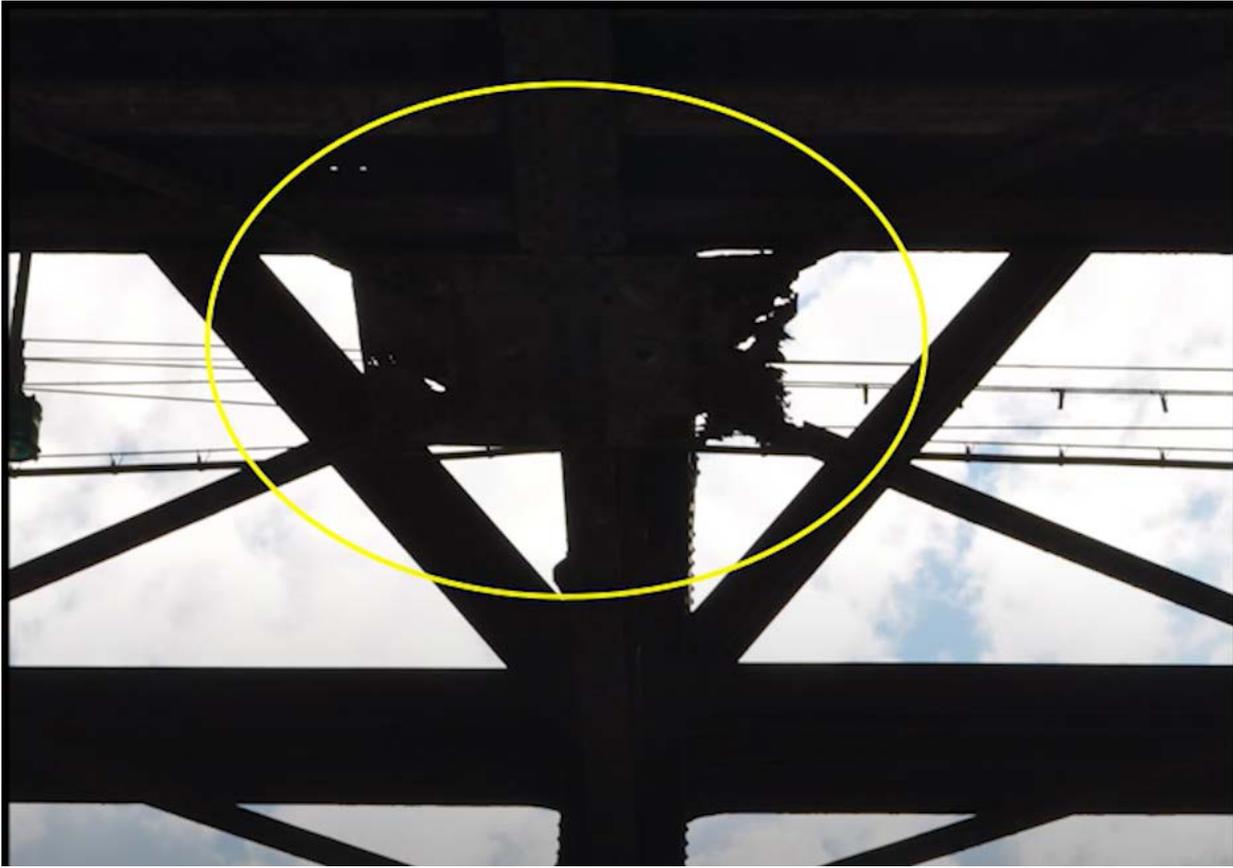


**Ft. Wayne Bridge**



**Ft. Wayne Bridge**

**Ft. Wayne Bridge**





**The David McCullough Bridge,  
commonly known as the 16th Street  
Bridge. Owned by the City; same  
age as the Fort Wayne Bridge.**



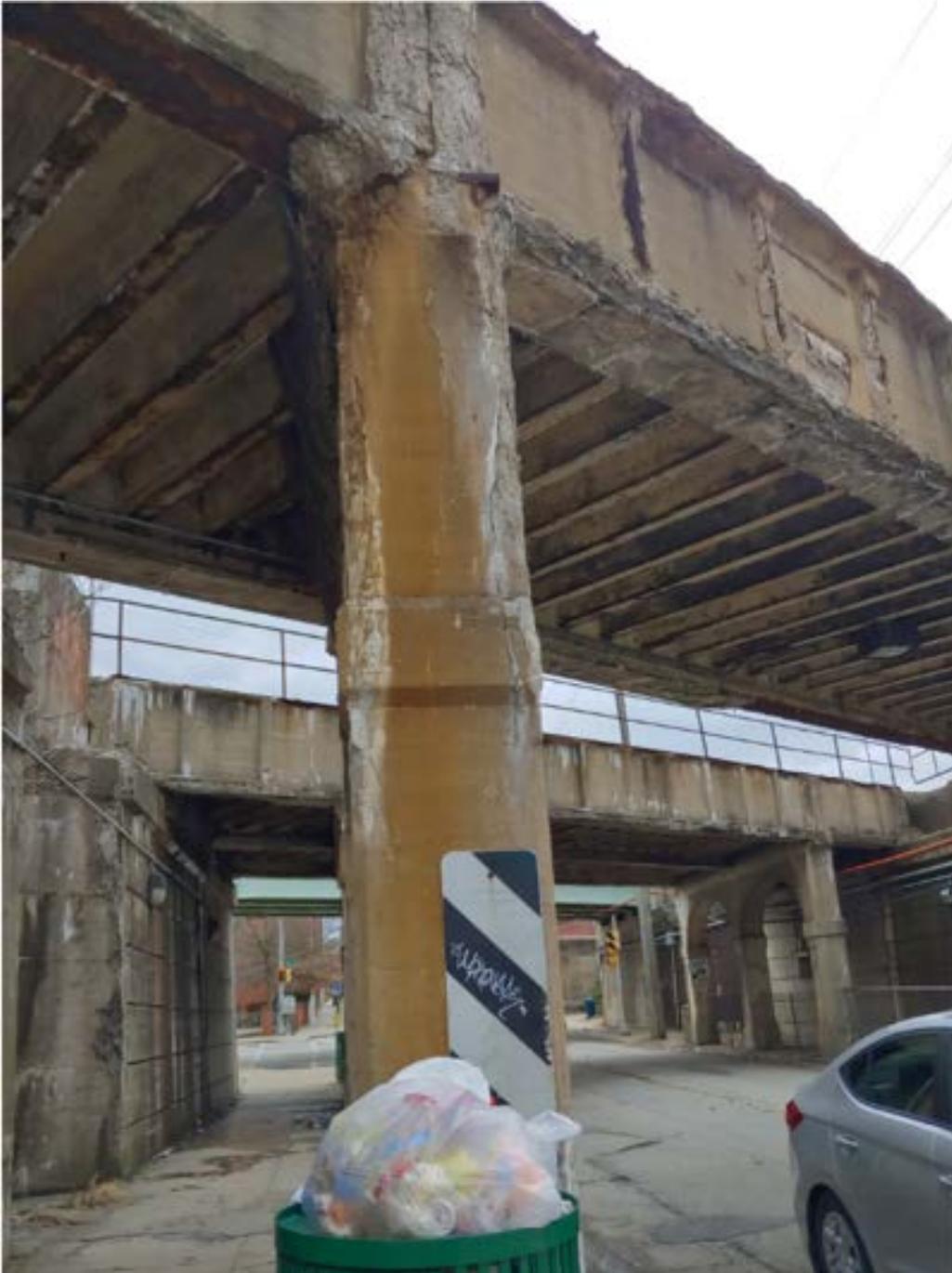
**The 16<sup>th</sup> and Chestnut Street rail bridge. Similar neglect exists throughout the proposed route**



**The 16<sup>th</sup> and Chestnut Street rail bridge.**



**South Ave. at Pennwood, Wilkinsburg**



South Ave. at Pennwood, Wilkinsburg



**Union railroad bridge at Mile Marker  
11.5- cracked concrete under  
support beams**



**Union railroad bridge at Mile Marker  
11.5- cracked concrete under  
support beams**



**Union railroad bridge at Mile Marker  
11.5.**

**Pipes on this bridge contain coke gas.**

**Rusting steel reinforcements**



**Union railroad bridge at Mile  
Marker 11.5.**

**Wood support under pipes.**

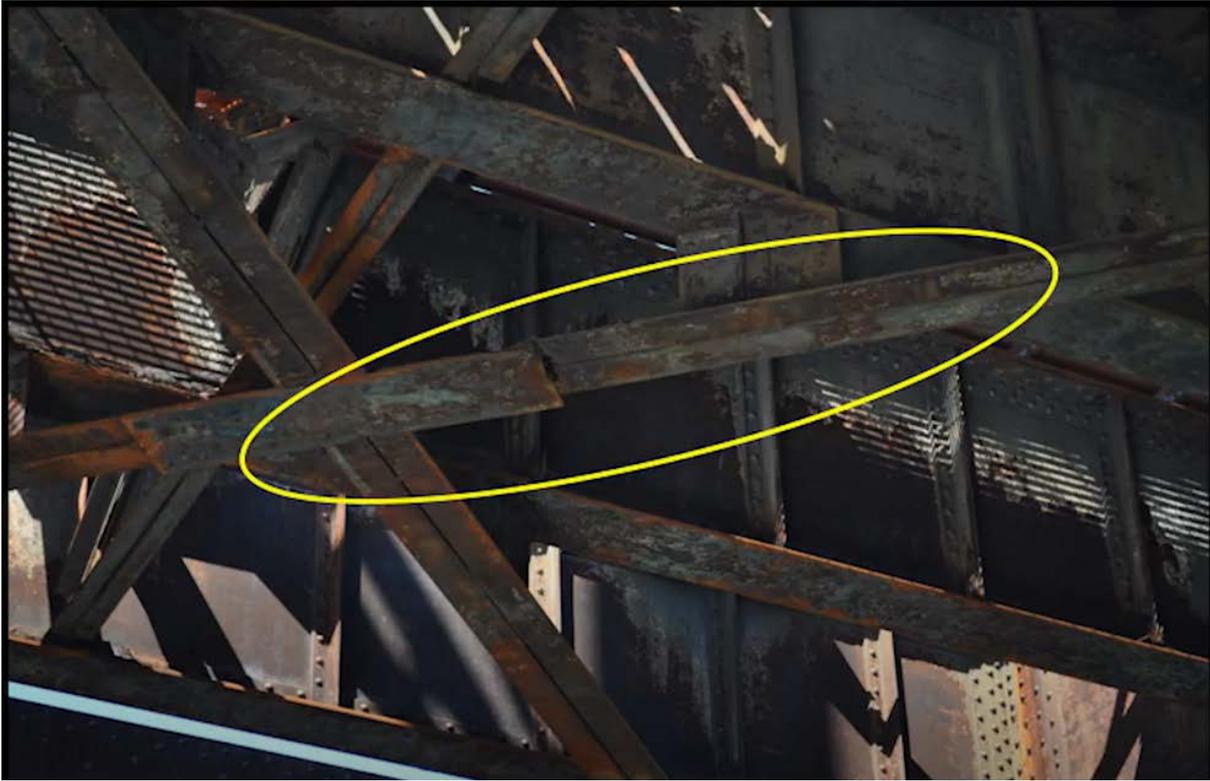


**Union railroad bridge at Mile Marker  
11.5.**

**Completely corroded cross-supports.**



**Union railroad bridge at Mile Marker 11.5.  
Missing bolts**



**Union railroad bridge at Mile Marker  
11.5.**

**Completely disconnected pieces**