RAIL

MOVING AMERICA FORWARD

Reducing Accidents and Fatalities at Crossings

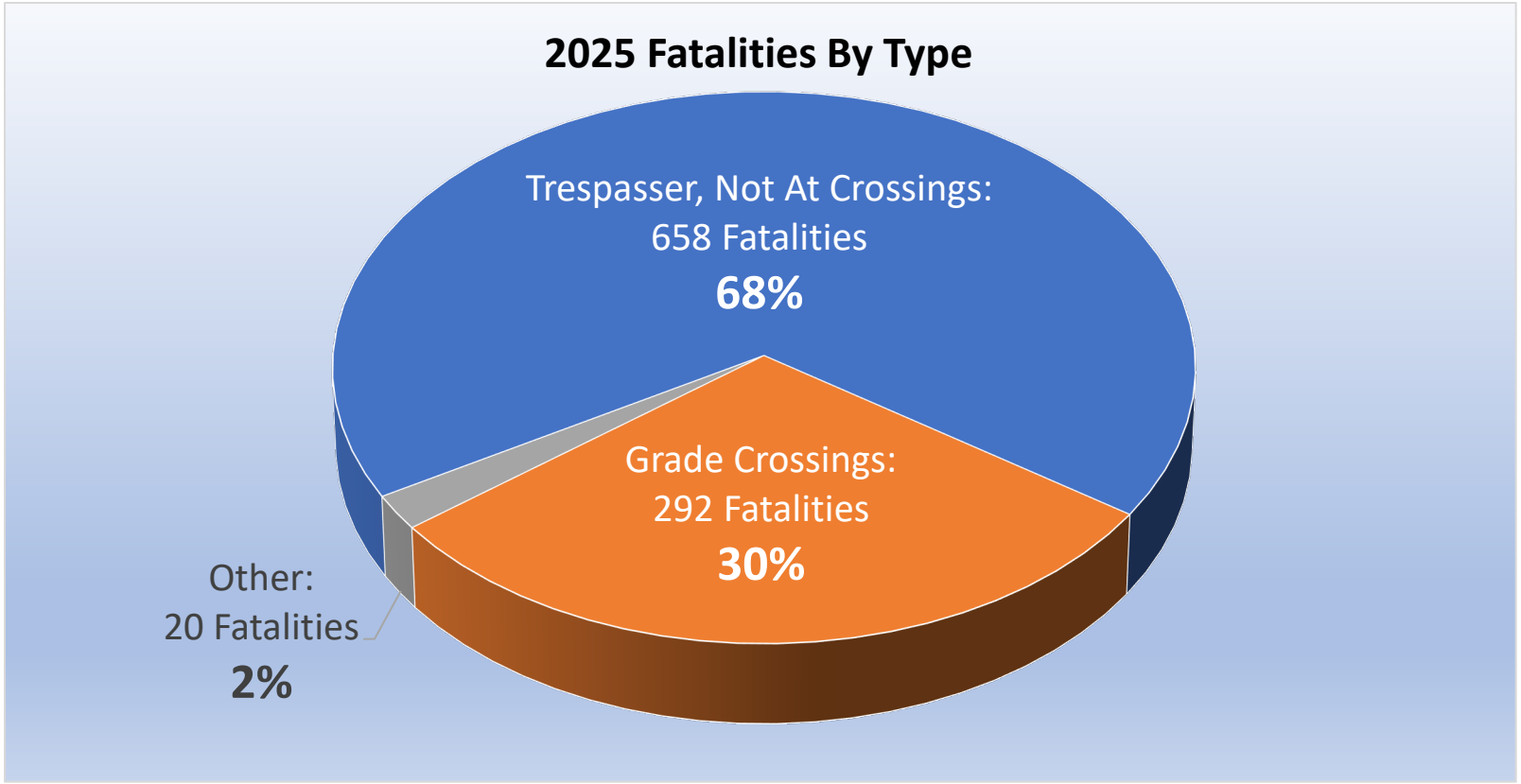
Office of Railroad Safety,
Signal & Train Control, Grade Crossing Division

U.S. Department of Transportation
Federal Railroad Administration

April 14, 2026

Fatality Data

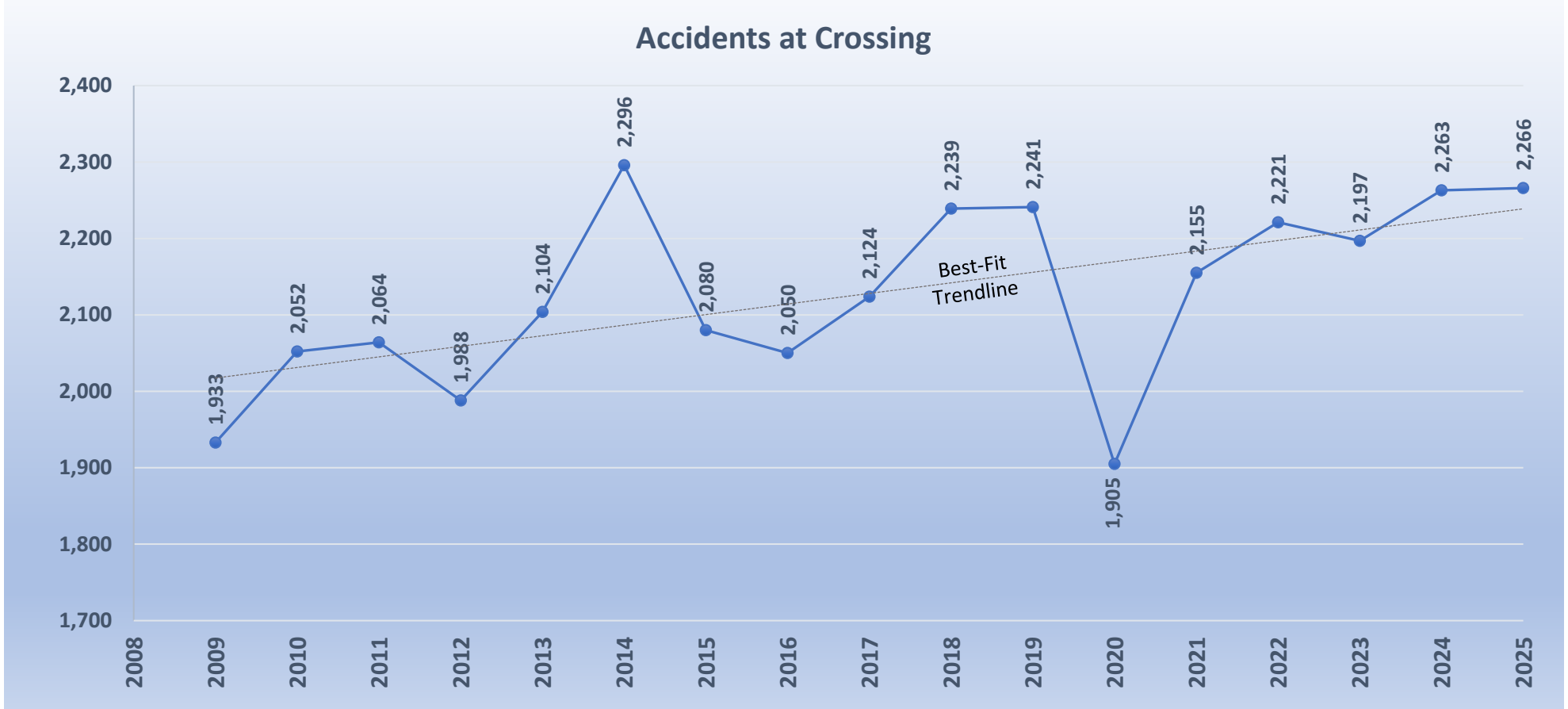
Crossing and Trespassing represent about 98% of all fatalities across the rail network in 2023



Crossing Accidents and Fatalities by Year

Accidents at crossings over time

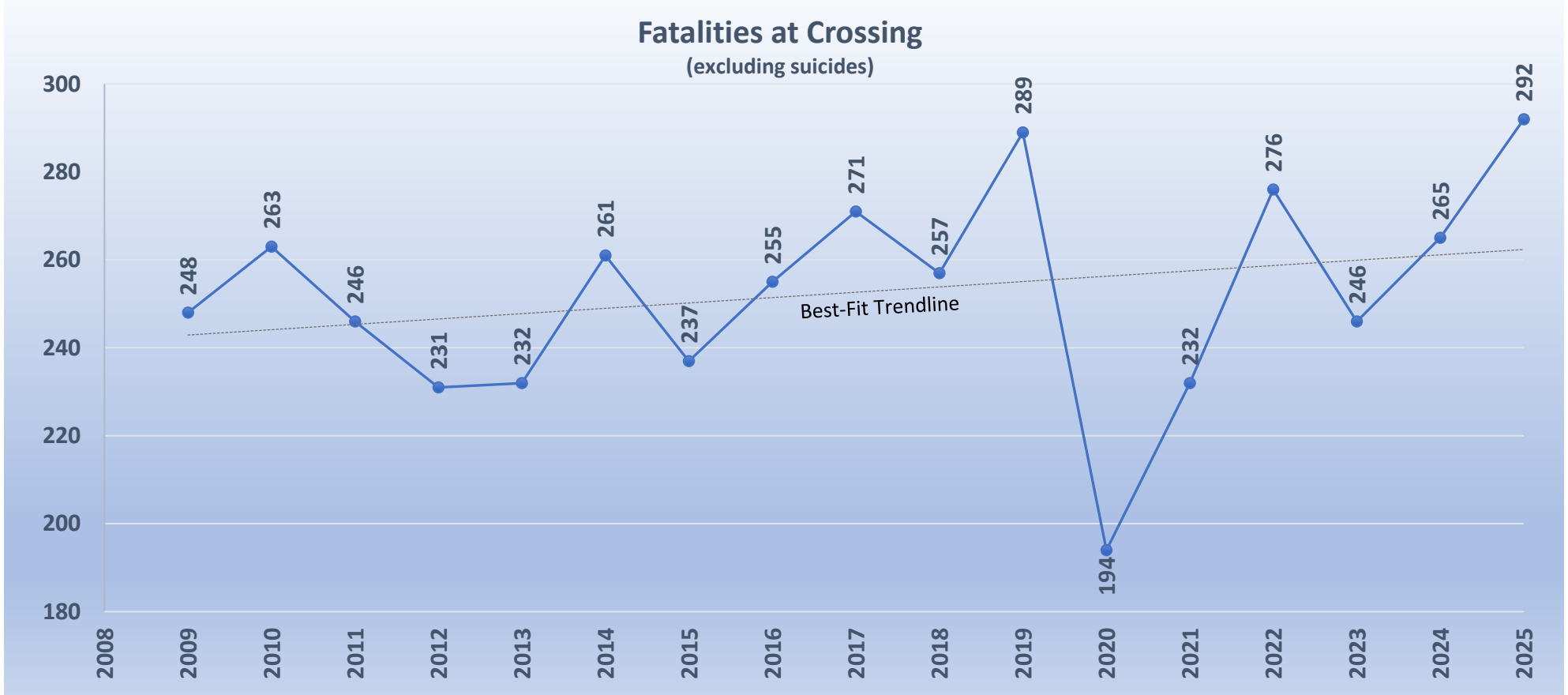
2025 had the most accidents since 2014



Crossing Accidents and Fatalities by Year

Fatalities at crossings over time (excluding suicides)

2025 had the most fatalities since 2007



Objective

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- To notify and familiarize State DOTs about the high-risk crossing locations that are identified within their state.
- To provide engineering recommendations and solutions to mitigate crossing hazards at those crossings
- To provide education on funding opportunities available

Analyzing Data

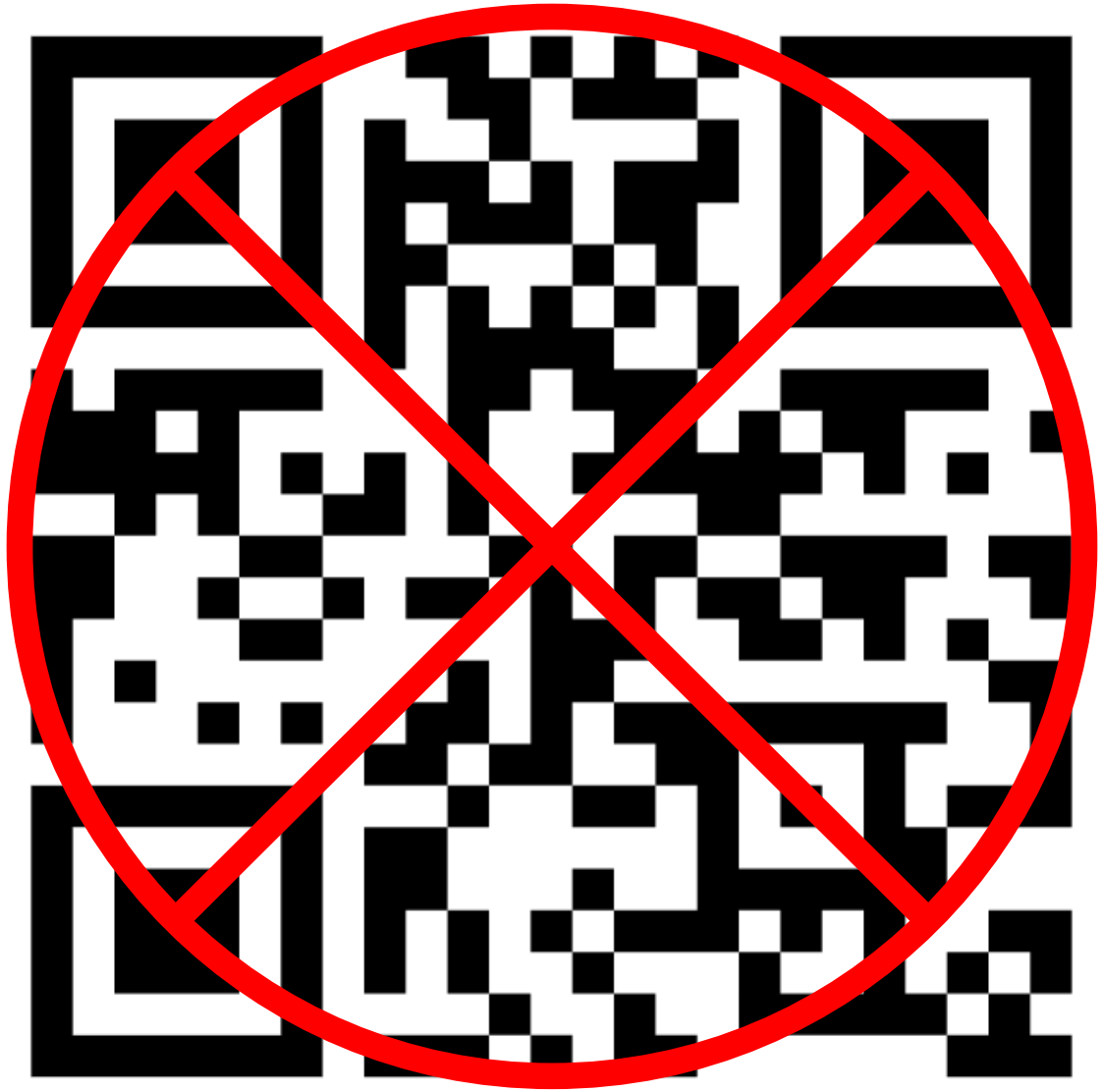
A list is generated to identify approximately 100 crossings:

- Crossings with the 6 of more accidents over a 5-year period
- Crossings with 2 or more fatal accidents over a 5-year period
  - Note that injuries were not analyzed because the FRA goals focus on reducing accidents and fatalities only

Working one state at a time, we meet with the State DOT to inquire about these crossings in their state. We discuss which crossings may already have a programmed a project (or recently completed construction) to improve safety.

Analyzing Data

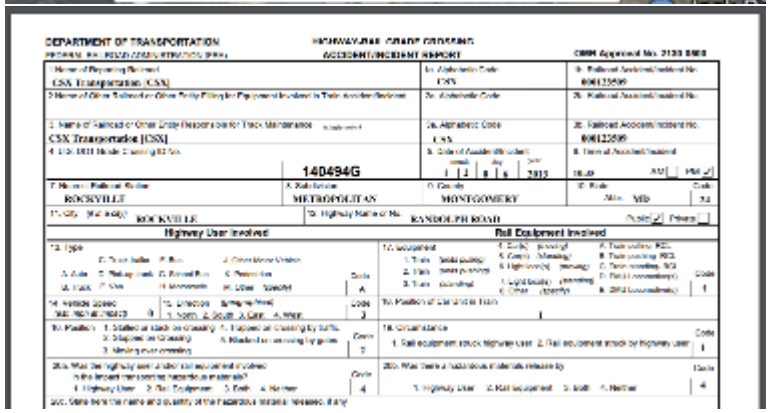
~~Scan this QR Code to see the current list:~~



See this website to view the current list:
[High-Risk Crossing List]

Detailed Analysis of Accidents at Crossings

For those that are not yet programmed for safety improvements, we begin a more detailed analysis and preparations for a diagnostic site visit.



Diagnostic Site Visit

We travel to the crossings site(s) in that state and conduct a diagnostic site visit with all relevant stakeholders:

- FRA
  - HQ Staff
  - Local S&TC Specialist or Inspector
  - GX&TP Specialist or Inspector
- FHWA
- State DOT
- Public Utility Commission
- Local agencies such as city or county staff
- Railroads
- Police and Law Enforcement
- EMS / First responders
- Any other stakeholders with interest

Diagnostic Site Visit

FRA lets the state determine whether FRA or the state leads the diagnostic

- If FRA is the lead manager of the diagnostic site visit, FRA will draft the report to document
- If the state takes the lead, then FRA will review the draft of the report that they generate and provide feedback.

Engineering Report

Lake Street / CSX Crossing

155637W

Gary, Indiana

United States Department of Transportation

Federal Railroad Administration

Office of Safety

U.S. Department of Transportation Federal Railroad Administration

Indiana Department of Transportation

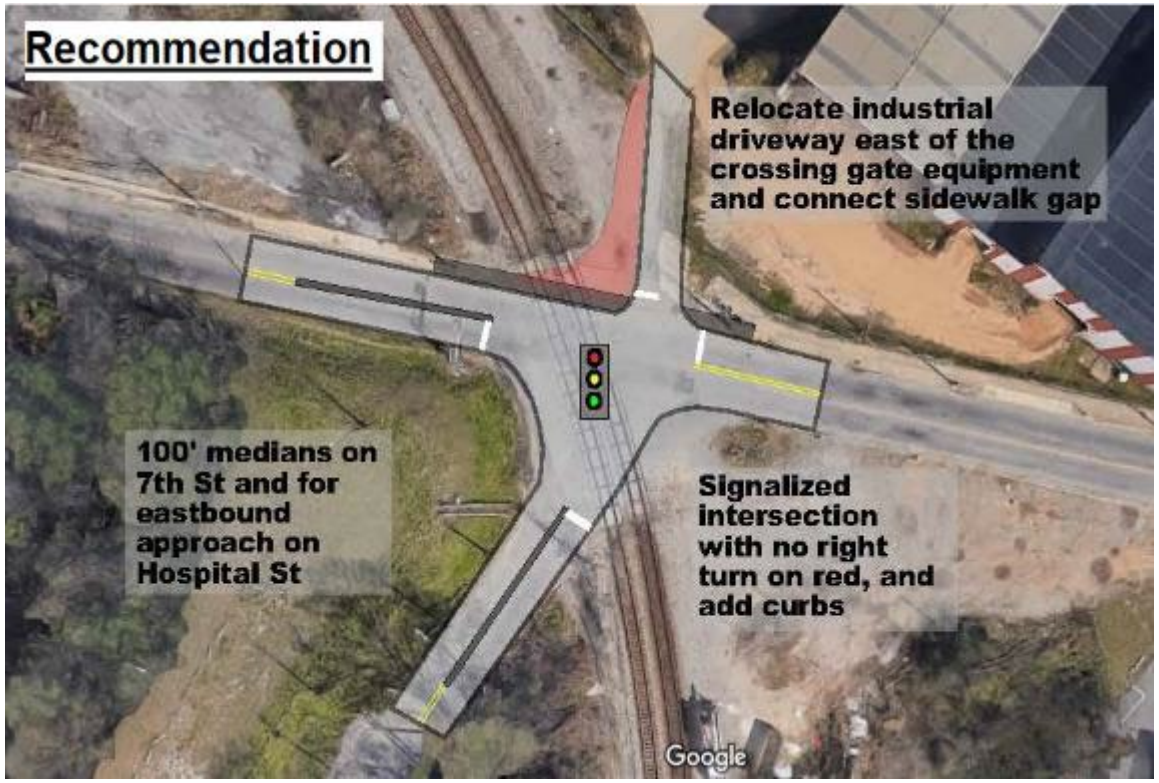
August 10, 2021

Diagnostic Site Visit

The report describes the accident history, crossing characteristics, site conditions found in the field, roadway user actions observed, and recommended improvements as determined by the diagnostic team.

- Recommended improvements may be broken down in to short, medium, and longer-term depending on the circumstances

- Photos and diagrams of the existing conditions and potential locations for improvements are included in the reports



Project programming and funding

We have no direct funding to construct improvements, and the roadway owners have the final determination on whether to implement projects

- We direct states, municipalities, and railroads towards funding opportunities (i.e. CRISI, GCE, CARSI, RAISE)
- We also encourage states to consider Section 130 funding where appropriate and assist states in working with our FHWA partners on prioritization and programming issues that may arise

Without funding, improvements to a crossing are just pictures and recommendations

Pictures from Site Visits

Debris from prior crashes

Car Parts, Richmond VA

Gate Mechanism, Bartlett IL

Trespasser fatalities

Route 139 – Holbrook, MA
MBTA

Fencing will be installed at each quadrant to channelize all pedestrians to deter trespassing along the R.O.W. or take short cuts to the station.

Trespasser fatalities

Station Crossing – Brockton, MA MBTA

- Lower the flasher lights
- Zig Zag Fencing

Trespasser fatalities

Lincoln Street – Stockton, CA
BNSF and Amtrak

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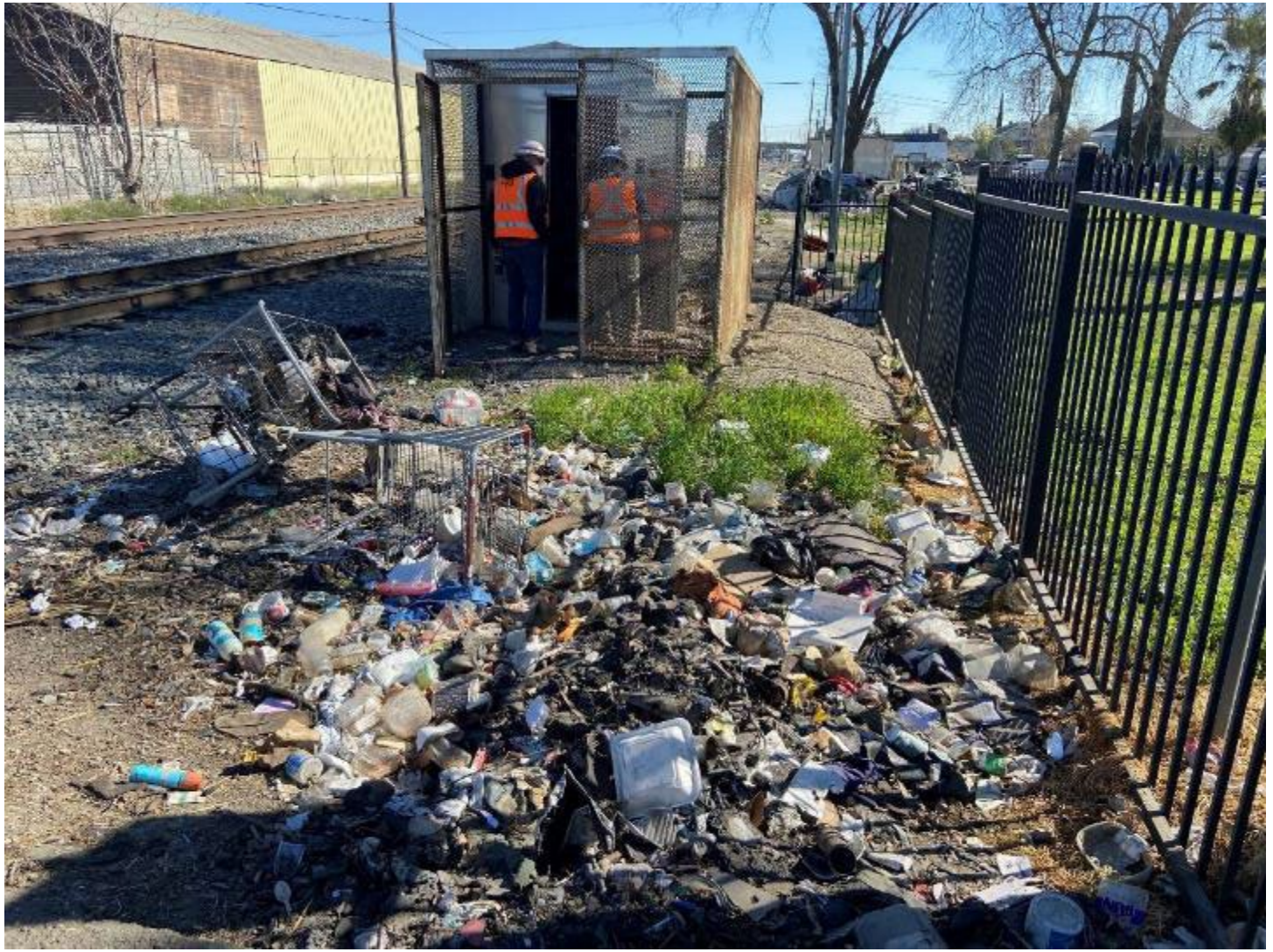

Washington St, San Diego. Transit station adjacent to commuter and freight corridor, consider pedestrian issues not just vehicle issues.

Pedestrian safety issues – Ronkonkoma, NY

High Street, Oakland CA
Lack of pavement markings, channelization bollards damaged

Randolph Rd, Rockville MD
Traffic queue onto tracks from preemption issues (witnessed near collision)

Curtis Street, Chester VA
Vehicles turning on to tracks frequently. Solution was striping and bollards.

Before

After

Phoenix – Glendale AZ BNSF Corridor
Some crossings had over 20 accidents in a 5 year period

Bethany Home Road, Arizona

Different overpass alignment appears to be a lower-risk crossing but there are still lots of accidents.

Bethany Home Road, Arizona

At red lights, vehicles would stop past the stop bar into the shadow of the bridge (Duet to Phoenix heat and sun, drivers would seek the shade). Pre-signal to be installed ahead of bridge.

Villa Park, IL

Downstream signals need lenses so motorists don’t have conflicting red and green signals

Pre-signal mounted on cantilever should have red lights in line vertically with flashing light

Challenges

What we have done so far:

- Have worked with multiple states: AZ, CA (x3), IL (x2), IN, MA, MD, NY, OH, PA, TX, UT, VA
- Upcoming work to include high risk locations in other states
- Visited over 70 crossing sites

How we can utilize inspectors and specialists:

- Leveraging the S&TC + GX inspectors and specialists can expand our “reach” to get to more states and crossings
- Value the inspectors and specialists feedback on all diagnostic reviews. You all are the boots on the ground that see issues that don’t always show up in data analysis

Lessons learned:

- Getting the right people on site

(Future) Data analysis and evaluation after construction

Evaluation of In future years an evaluation of the effectiveness may be conducted:

- An equal period of time is typically analyzed before an after construction
  - (such as a 5-year accident history before construction compared to a 5-year accident history after construction)

- Further analysis in future years may assist other agencies in determining the most cost-effective types of improvements

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