Receive Update on Caltrain Safety Performance and Trespasser and Suicide Prevention Safety Plan

JPB TOPS Committee July 23, 2025





## Overview

- Safety First and Always is Caltrain's #1 Core Value
- Safety Culture Enhancements
- Caltrain Safety Dashboard
- Grade Crossings
- Partnering/Outreach
- Security Calls for Service



## 2025 Commuter Rail Safety Gold Award

- Awarded at APTA Rail Conference last month in San Francisco
- Presented to one agency each year that has demonstrated the best overall safety achievement
- Prestigious public recognition of Caltrain's efforts and commitments to safety





## Safety Culture

- Created Safety First and Always as our primary core value
- Safety Moments at all Caltrain meetings and briefings
- Safety Leaders recognition
- Safety Survey
- Safety Award
- Safety Roadshow
- Risk Based Decision Making/Assessments



|                         | Severity     |          |          |            |
|-------------------------|--------------|----------|----------|------------|
|                         | 1            | 2        | 3        | 4          |
| Frequency of Occurrence | Catastrophic | Critical | Marginal | Negligible |
| (A) Frequent            | 1A           | 2A       | ЗА       | 4A         |
| (B) Probable            | 1B           | 2В       | 3B       | 4B         |
| (C) Occasional          | 1C           | 2C       | 3C       | 4C         |
| (D) Remote              | 1D           | 2D       | 3D       | 4D         |
| (E) Improbable          | 1E           | 2E       | 3E       | 4E         |



## Injuries

| Days Without a Reportable Injury as of<br>7/10/2025 |                     |                     |  |  |
|---|---------------------|---------------------|--|--|
| <u>Department</u>                                   | Days Without Injury | Date of Last Injury |  |  |
| OPS   | 274                 | 10/9/2024           |  |  |
| MOE   | 3                   | 7/7/2025            |  |  |
| MOW   | 20                  | 6/20/2025           |  |  |
| OTHER   | 1,870               | 5/27/2020           |  |  |



## Vehicle Track Incursions



# **Reportable Accidents/Incidents**

Reportable Rail Equipment Incidents YoY CY2020 – CY2025



#### Reportable Rail Equipment Incidents CY2020 - CY2025





### Reportable Accidents/Incidents Monetary Threshold

Reportable Rail Equipment Incidents Exceeding Monetary Threshold YoY CY2020 – CY2025



#### Reportable Rail Equipment Incidents Exceeding Monetary Threshold CY2020 - CY2025





## **Efficiency Testing**

Operations Core Program Tests Completed vs. Quota



#### **Operations Testing Requirements:**

- Flags
- Trains/Engines/Cars Left Unattended
- Speed Requirements
- Delayed in the Block
- Communication of Signals
- Block Signal Drop
- Running Brake Test
- Conduct Proper Job Briefing

#### MOE Core Program Tests Completed vs. Quota



#### **MOE Testing Requirements:**

- Separation During Travel and Work
- Multiple Work Groups Using Same Authority
- Protection of Track, Car, Men, or Machines
- Blue Signal MOE
- Crossing Warning Devices



## **Employee Engagements**





## **Vehicle Track Incursions**

- Over 70% of the 230+ vehicle track incursions since 2020 have occurred at 8 grade crossings.
- The decrease in some values vs Q1 2025 is due to a measurement change: Q2 shows confirmed vehicles on the tracks instead of *all* vehicles stalled on the tracks, as measured by RailSentry.
- The following slides highlight Caltrain's efforts to enhance safety at crossings.



#### Vehicle Track Incursions by Crossing, CY2020 to Present



### Grade Crossing Enhancements Corridor Wide Strategy

- Pavement Markings
- Solar Lane Markers
- Delineators
- Signage
- Lighting
- Technology
- Trespasser Panels
- GO-88 Process



### Grade Crossing Enhancements Technology - Intrusion



- Pilot Testing at high-risk crossings
- LIDAR
- CCTV
- Analysis and Alert (AI)
- DATA behavior, traffic control, etc.
- Broadway / Churchill



### Grade Crossing Enhancements Technology and Enforcement

- CCTV/Video Analytics
- Intrusion/AI
- GPS Application Enhancements
- Detection/Deterrent
- Transit Police Enforcement



## **Fencing and Barriers**

- Full alignment risk assessment in progress
- PCEP and general fencing repairs continuing (risk-based)
- Multiple fence funding sources/projects
- Fence replacement project Palo Alto (Completed)



### Trespasser/Suicide Prevention Safety Plan Overview - The Why

- Caltrain is a regional railroad operating in a dense corridor, with 31 stations and 71 at-grade crossings on an unsealed corridor.
- Trespasser and vehicle strikes, including suicides, are a serious issue for Caltrain operations and communities.
- These incidents cause tremendous negative impacts on family members, friends, train crews, passengers, witnesses, emergency responders and rail operations through delays and damage to property and reputation.







### **Trespasser/Suicide Prevention Safety Plan** *Approach*

- Evaluate near term and potential long-term programs and rank for consideration according to cost /benefit (risk reduction) analysis.
- Caltrain is committed to developing this plan to reduce trespasser suicide and the broad ranging impacts following the documented best practice of the "Three E's" of rail safety: Education, Engineering, and Enforcement.





## Education

Collaboration, Upstream and Crisis Intervention:

- Regional Mental Health Partnership Events
- Operation Lifesaver
- Peer Transit Agencies and Industry Committees
- MH and Suicide Awareness Training for Employees
- Expand MH messaging on trains, stations, website, social media, etc.
- 988 Suicide and Crisis Lifeline- Signage Complete
- Provide proactive Trauma Counseling Services for Employees





## Engineering

Means Restriction, Detection and Alert Technologies, and Environmental Deterrents:

- Fencing SOGR, New Fencing Projects in High-Risk Areas
- Pedestrian Channelization/Barriers
- Trespasser panels
- Grade crossings enhancements
- CCTV
- Intrusion detection technologies i.e Rail Sentry, Fiber, etc







## Enforcement

Site enforcement, training and outreach. It requires the commitment of safety and security personnel from Caltrain, and municipalities.

- Grade Crossing Enforcement blitzes ticketing
- Exploring Partnering with Municipal PD for enforcement coverage
- Increasing Transit Police Officers







## **Evaluation Criteria**

Caltrain is committed to a risk-based data-driven approach to Safety and Trespasser suicide prevention.

- Utilize Near Miss, Safety Reporting, Incident, Inspection data
- Prioritize potential trespasser/suicide areas
- Risk Assessments of identified areas (mitigation options)
- Determine most cost-effective solution(s) to reduce risk
- Present recommendations/pilots to committee
- Implement
- Monitor for effectiveness







## **Preliminary Cost Estimates**

- Fencing 9' wire mesh with winglet top installed \$410 - \$440 per linear foot General Repair and Replacement of existing \$1.5M Annually Replacement of all unfenced Caltrain owned ROW ~ \$40M
- Anti-Trespass Panels ~ \$40K \$50K per crossing
- Pedestrian Barriers / Channelization Solutions TBD
- Grade Crossing Enhancements (excluding Lidar technology) \$100K per GC



## **Preliminary Cost Estimates**

- Lidar Intrusion Technology ~\$200K per location (GC, tunnels, etc.) Exploring additional technologies
- CCTV Cameras / Analytics / Installation GC ~ \$100K Station ~ \$200K Yard/Other access areas - TBD
- Additional Transit Police (TP) Annually \$390,000 per Deputy + one time \$90K for vehicle Four additional TP ~ \$2M (first year) and \$1.5M thereafter (shared 78%) Reduce average response times to 5-7 minutes Law Enforcement Secondary Employment – option?



## **Preliminary Cost Estimates**

- MH Awareness on trains, stations, print, social media, GC, etc. TBD
- Employee MH Training TBD
- Employee MH Trauma Services TBD



## **Churchill Grade Crossing - Example**

- Rail Sentry LIDAR Intrusion technology \$200K
- Enhancements markers, delineators, \*pavement markings, \*signage ~ \$100K
- \*Anti-Trespass Panels ~ \$40K
- Miscellaneous \$10K
- Total Cost ~ \$350K
  - \* Not yet completed



## **Budget Development**

- Caltrain will recommend potential safety improvements based upon risk and cost vs expected benefit.
- Risk mitigations may include multiple solutions
- Caltrain is working with TA's on funding for some potential solutions.
- Caltrain is researching Grant funding opportunities



## **Timeline and Next Steps**

- July Update TOPS on near-term and long-term efforts
- **Oct** Risk ranking, cost benefit, resource needs, recommendations
- Nov Present Final recommended plan to TOPS for feedback
- **Dec** Present to Caltrain Board



## **Community Partnering and Outreach**

- City of Palo Alto Churchill Ave GC and Fencing
- City of Burlingame Broadway GC and Trees
- City of Redwood City Sequoia Station Fare Zone
- City of Mountain View GC and technology
- Operation Lifesaver
- GPS App Companies
- Residential/ Grade Crossing/ School Outreach continues
- First Responder Education and Trainings



## **Transit Police Calls for Safety**

### Calls for Service by County April-June 2025



### Number of Calls by Category April-June 2025<sup>1</sup>



#### April-June 2025 Service Call Data

Overall Average Response Time: **21:31** Average Response Time for **Priority 1\*: 11:54** Average Response Time for **Priority 2\*\*: 21:31** 

\*Priority 1 Calls: In Progress – Crimes Against Persons \*\*Priority 2 Calls: Just Occurred – Crimes Against Persons/ In Progress – Property Crimes

Footnote 1: Total calls for service totaled 1,967 in April-June across 21 categories. The pie chart shows the top 7 categories representing 1,431 calls or 73% of the total.



## See Something, Say Something

Do your part to keep the rails safe! **Call Transit Police at 1.877.SAF.RAIL** (1.877.723.7245) <u>immediately</u> to report any unsafe situation or suspicious activity, such as children playing near the tracks or people hanging out along the right of way.

Save the number in your cell phone for quick and easy access.





### **Questions/Comments?**

FOR MORE INFORMATION WWW.CALTRAIN.COM

