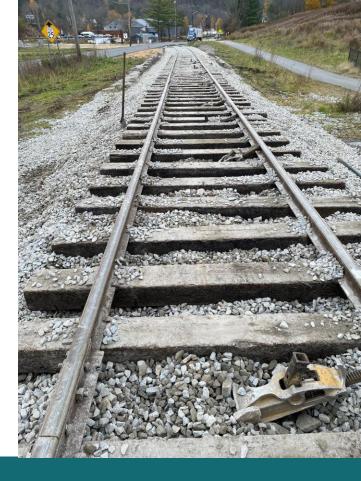
# VERMONT RAIL SYSTEM®

#### DAILY MAINTENANCE ACTIVITIES



#### **Regulatory Requirements**

#### FRA Part 213

Track Safety Standards

#### FRA Part 214

Roadway Worker Protection

FRA Part 234

• Grade Crossing Safety

FRA Part 243

• Testing & Qualification

#### **Always Training**



#### Inspection Requirements

#### Weekly Track Patrols

• Twice Per Week on Amtrak Route

#### Monthly Switch Inspections

#### Storm Patrols

Annual Rail Flaw and Track Geometry Testing

Monthly, Quarterly, and Annual Signal Inspections

#### Annual Inspection Statistics

#### Over 400 Regular Track Patrols

#### Over 150 Weather Patrols

Over 40,000 Miles of Track Patrolled

Over 2,700 Signal Inspections OVER 2700 SIGNAL INSPECTIONS IN 2022

#### **Signal Inspections**





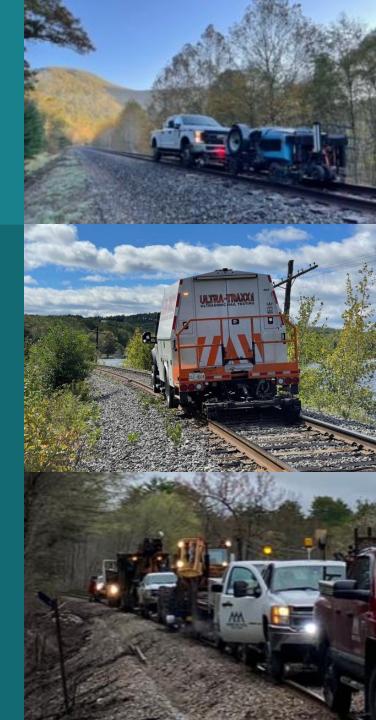
#### **Rail Flaw and Geometry Inspections**





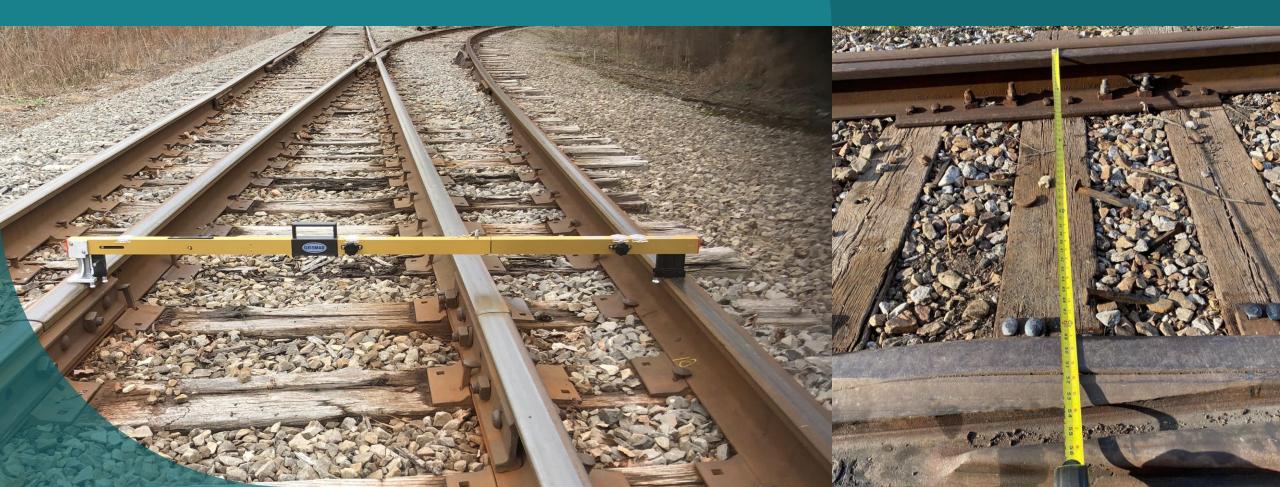


GEOMETRY TESTS IN THE SPRING AND FALL



### **Monthly Switch Inspections**

OVER 4200 SWITCH INSPECTIONS PERFORMED ANNUALLY



#### OVER 7600 TIES INSTALLED IN 2022

#### Tie Work

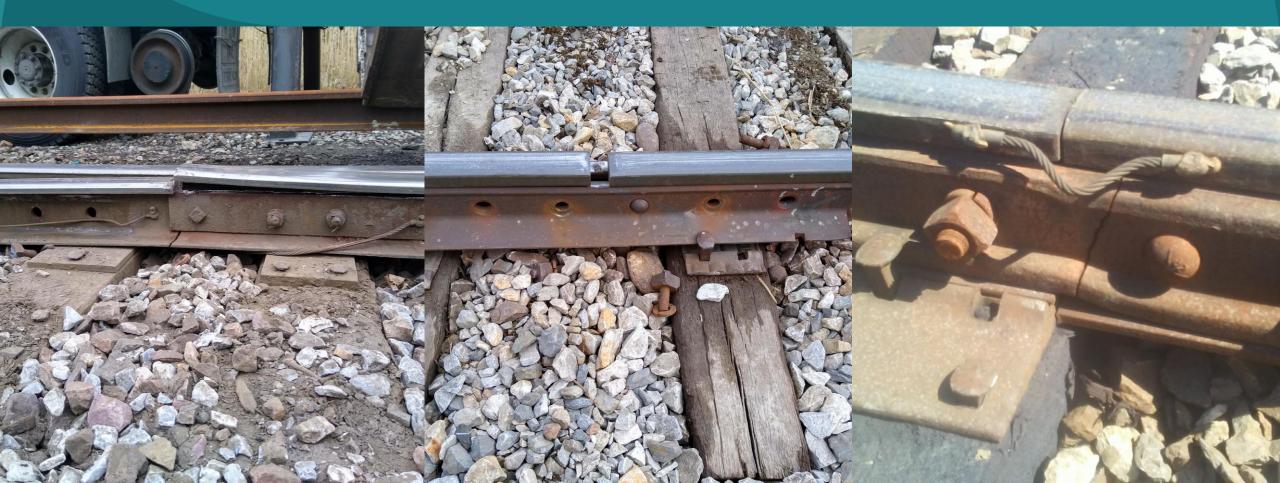




OVER 100 MILES OF TRACK SURFACED IN 2022 OVER 15,000 TONS OF BALLAST DUMPED IN 2022

### Surfacing

#### **Jointed Rail**



**Bolt Tightening** 

1.04

allin

#### **CWR – Continuous** Welded Rail

- Managing Compressive and Tensile Forces
- Rail Laid at Neutral Temperature
- One mile section of CWR will contract by roughly 43" on a cold winter day
- One mile section of CWR will expand by roughly 10" on a hot summer day
- G = (105 RT) x 0.000078 x L
  - G = Change in Length, RT = Rail Temperature, L = Length of Rail
- Forces managed with anchors, good ties, and a good ballast section





## **CWR -Continuous Welded Rail**

#### **CWR – Continuous Welded Rail**



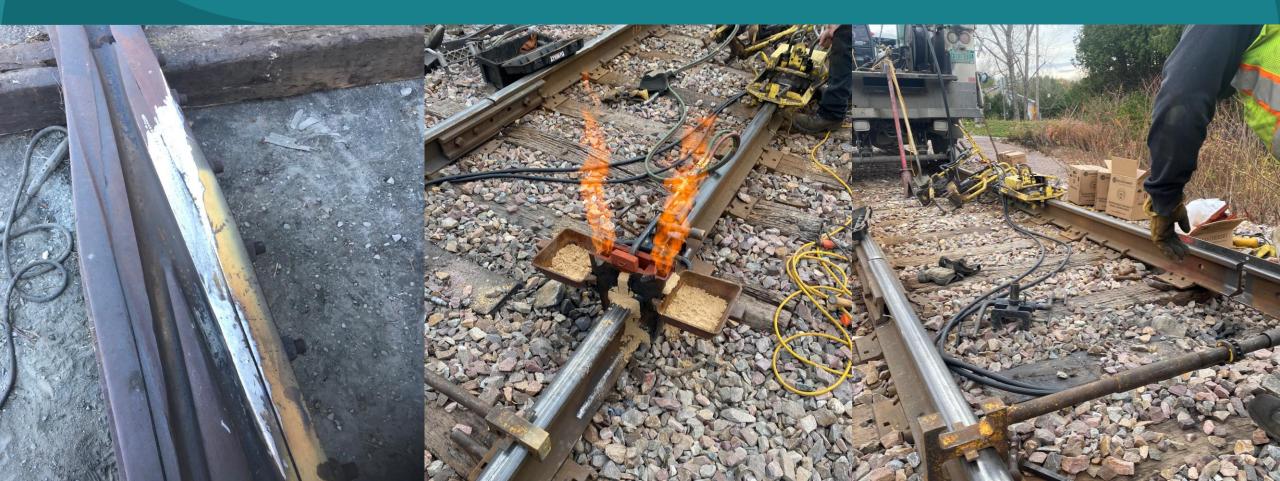


## **CWR – Continuous Welded Rail**

#### **CWR – Continuous Welded** Rail



## OVER 100 WELDS IN 2022

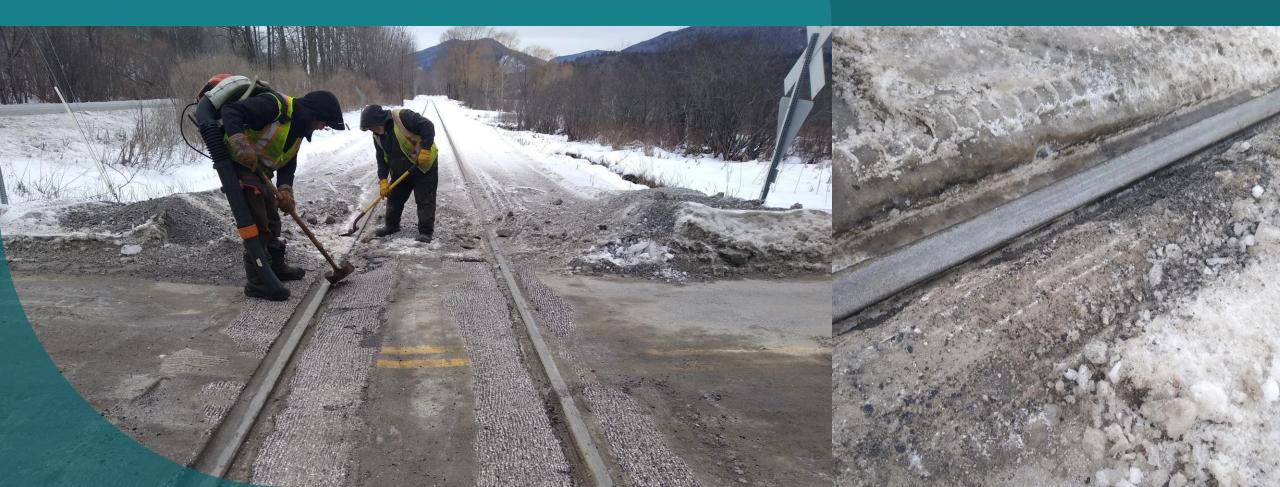


#### **Bridge Work**

#### REDECKED THREE BRIDGES IN 2022



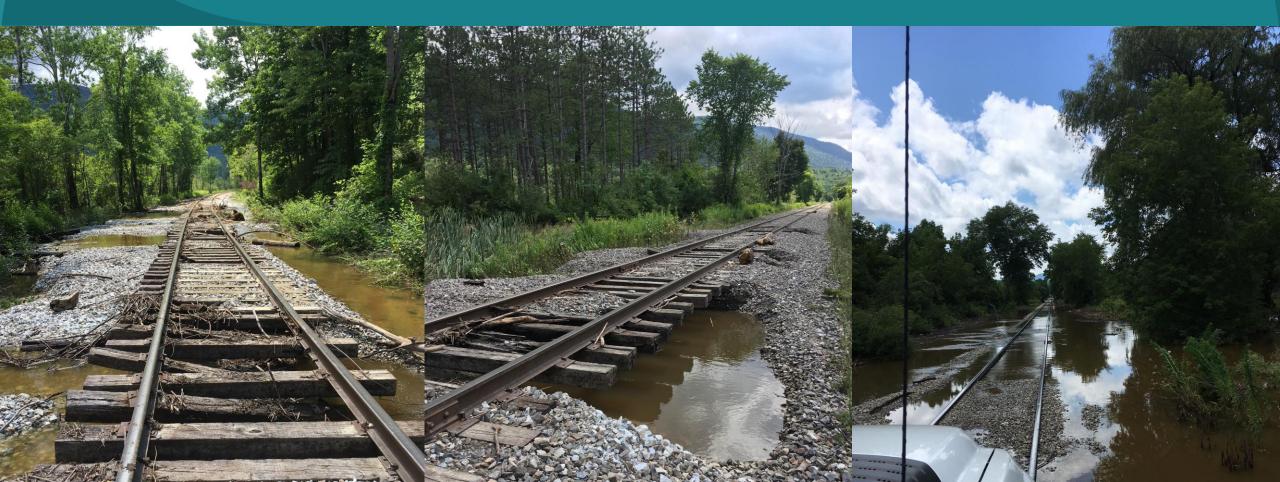
# **Crossing Maintenance**



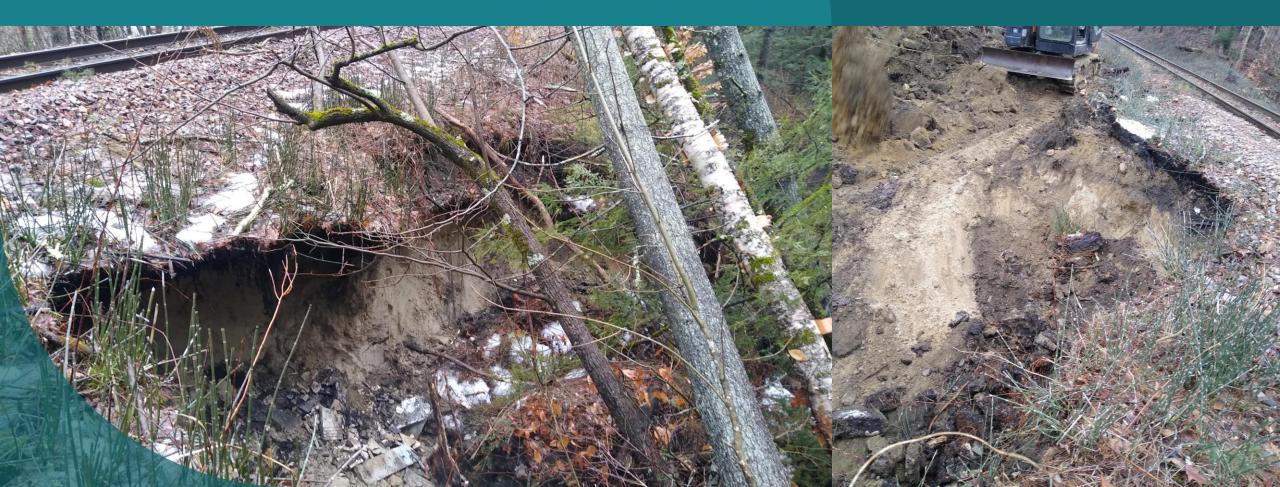
## **Storm Patrols**



#### **Storm Patrols**



## **Slope Failures**





## Shoulder Repairs

## **Culvert Repairs**



## Vegetation Management



## Vegetation Management





