



Presentation: Osgoode Interlocking Incident

Date: July 7, 2021
To: TTC Board
From: Chief Executive Officer

Summary

Kirsten Watson, Deputy CEO, Gary Downie, Chief Capital Officer, Betty Hasserjian, Chief Safety Officer (Acting) and Jim Ross, Chief Operating Officer will deliver a presentation concerning an operational incident that occurred on June 12, 2020 near Osgoode Station.

Financial Summary

There are no financial impacts associated with this report. Any financial impacts identified through the investigation into this incident will be included in future reports to the TTC Board.

The Interim Chief Financial Officer has reviewed this report and agrees with the financial summary information.

Equity/Accessibility Matters

There are no equity or accessibility impacts associated with this report.

Decision History

At its meeting on June 16, 2021, the TTC Board had before it a report entitled “Osgoode Interlocking Incident Report”.

Report:

[http://www.ttc.ca/About the TTC/Commission reports and information/Commission meetings/2021/June 16/Reports/15_Osgoode Interlocking Incident Report.pdf](http://www.ttc.ca/About_the_TTC/Commission_reports_and_information/Commission_meetings/2021/June_16/Reports/15_Osgoode_Interlocking_Incident_Report.pdf)

Transit Systems Engineering – Osgoode Interlocking Incident Report – February 3, 2021:

[http://www.ttc.ca/About the TTC/Commission reports and information/Commission meetings/2021/June 16/Reports/15_Transit Systems Engineering Osgoode Interlocking Incident.pdf](http://www.ttc.ca/About_the_TTC/Commission_reports_and_information/Commission_meetings/2021/June_16/Reports/15_Transit_Systems_Engineering_Osgoode_Interlocking_Incident.pdf)

Decision:

[http://www.ttc.ca/About the TTC/Commission reports and information/Commission meetings/2021/June 16/Reports/Decisions/2055 15 Osgoode Interlocking Incident Report Decision.pdf](http://www.ttc.ca/About%20the%20TTC/Commission%20reports%20and%20information/Commission%20meetings/2021/June%2016/Reports/Decisions/2055%2015%20Osgoode%20Interlocking%20Incident%20Report%20Decision.pdf)

Comments

On June 16, 2020, staff delivered a confidential presentation to the Board on the Osgoode Interlocking Incident.

In addition to adopting the staff recommendations, the TTC Board adopted two member motions on the report.

1. That TTC staff deliver a public presentation on the Osgoode Interlocking Incident at the July 7, 2021 Board meeting.
2. That the TTC Board direct the Chief Executive Officer to alert the Board when an incident meeting the identified thresholds for escalation occurs and subsequently report to the Board once a comprehensive review or investigation has been completed.

The presentation, attached to this report, responds to the first motion.

The TTC has implemented an Escalation and Notification Protocol, which requires that the Board be advised of all incidents that meet the following criteria:

1. Any Level 3 investigation.
Level 3 investigations are conducted for our most serious incidents under the supervision of Senior Management and review and approval by the Executive. For occupational incidents, these investigations will address incidents where the amount and type of hazardous energy involved would most likely result in a fatality. For customer or public incidents, the consequence would be multiple fatalities.
2. Any near miss of revenue trains on the mainline.
3. Any safety investigation involving a 3rd party review.
4. Any matter at the discretion of the CEO or Chief Safety Officer.

Contact

Kirsten Watson, Deputy Chief Executive Officer
416-393-6119
kirsten.watson@ttc.ca

Signature

Richard J. Leary
Chief Executive Officer

Attachments

Presentation – Osgoode Interlocking Incident

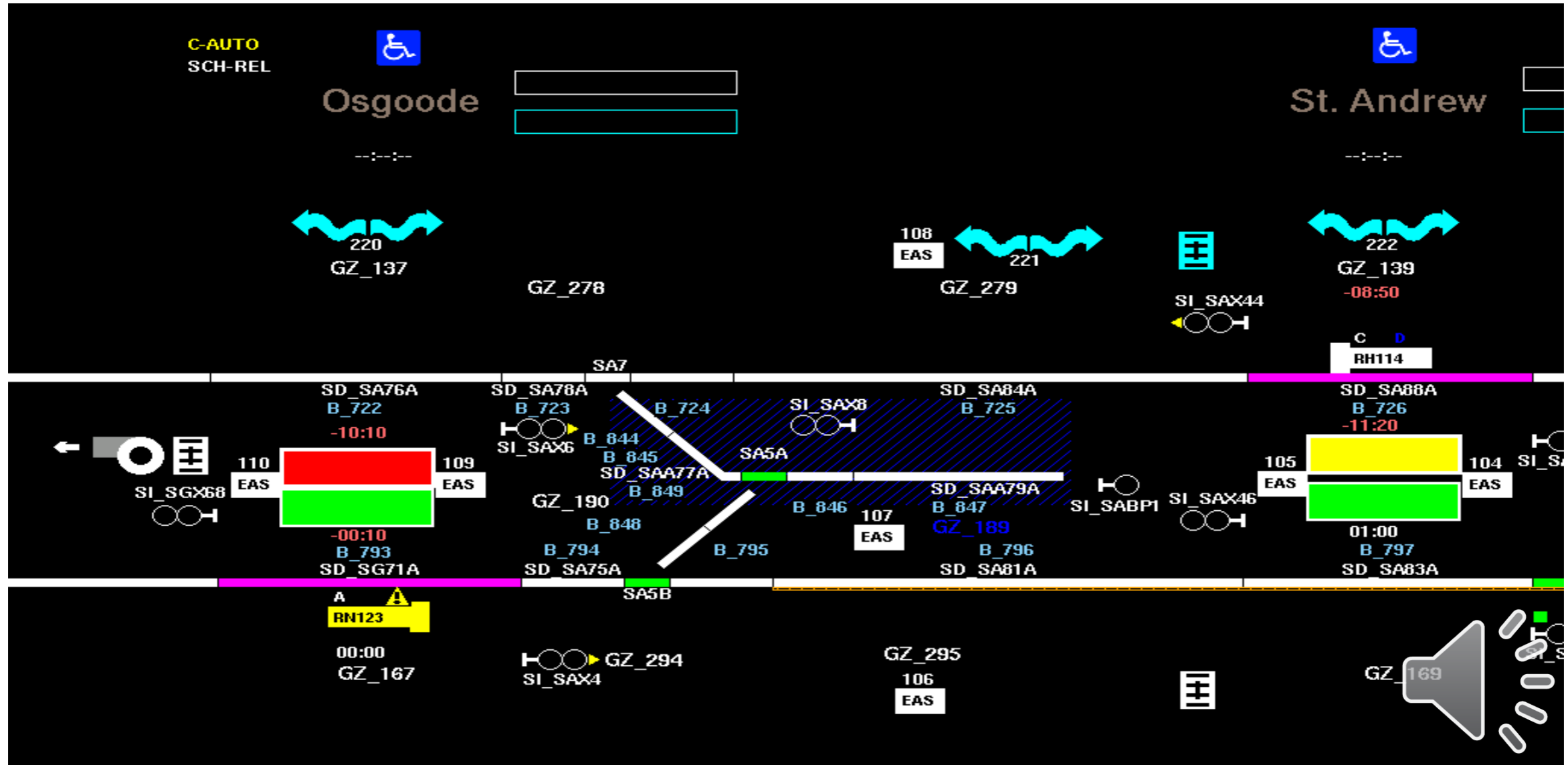


Osgoode Interlocking Incident

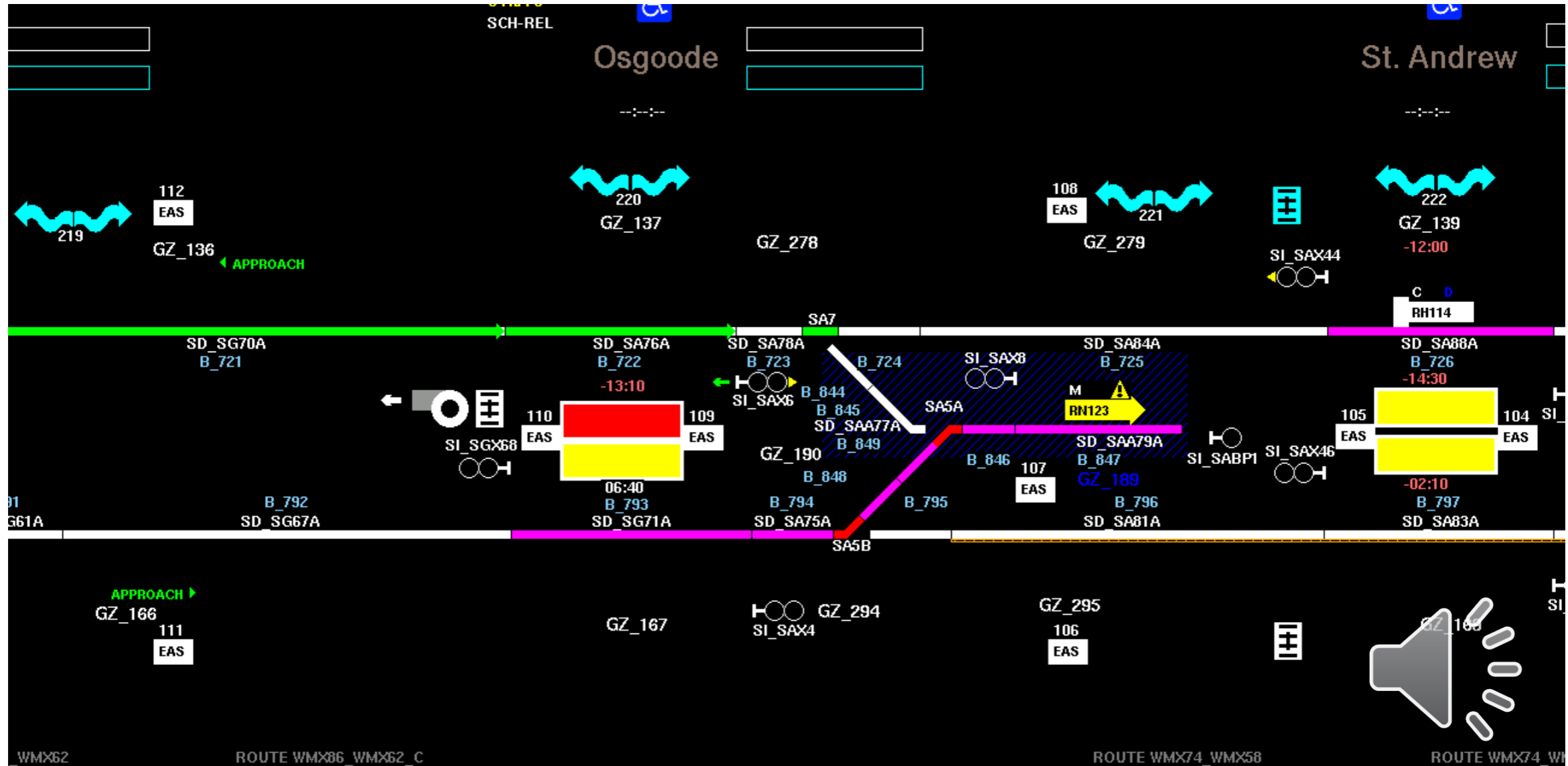
TTC Board Meeting

July 7, 2021

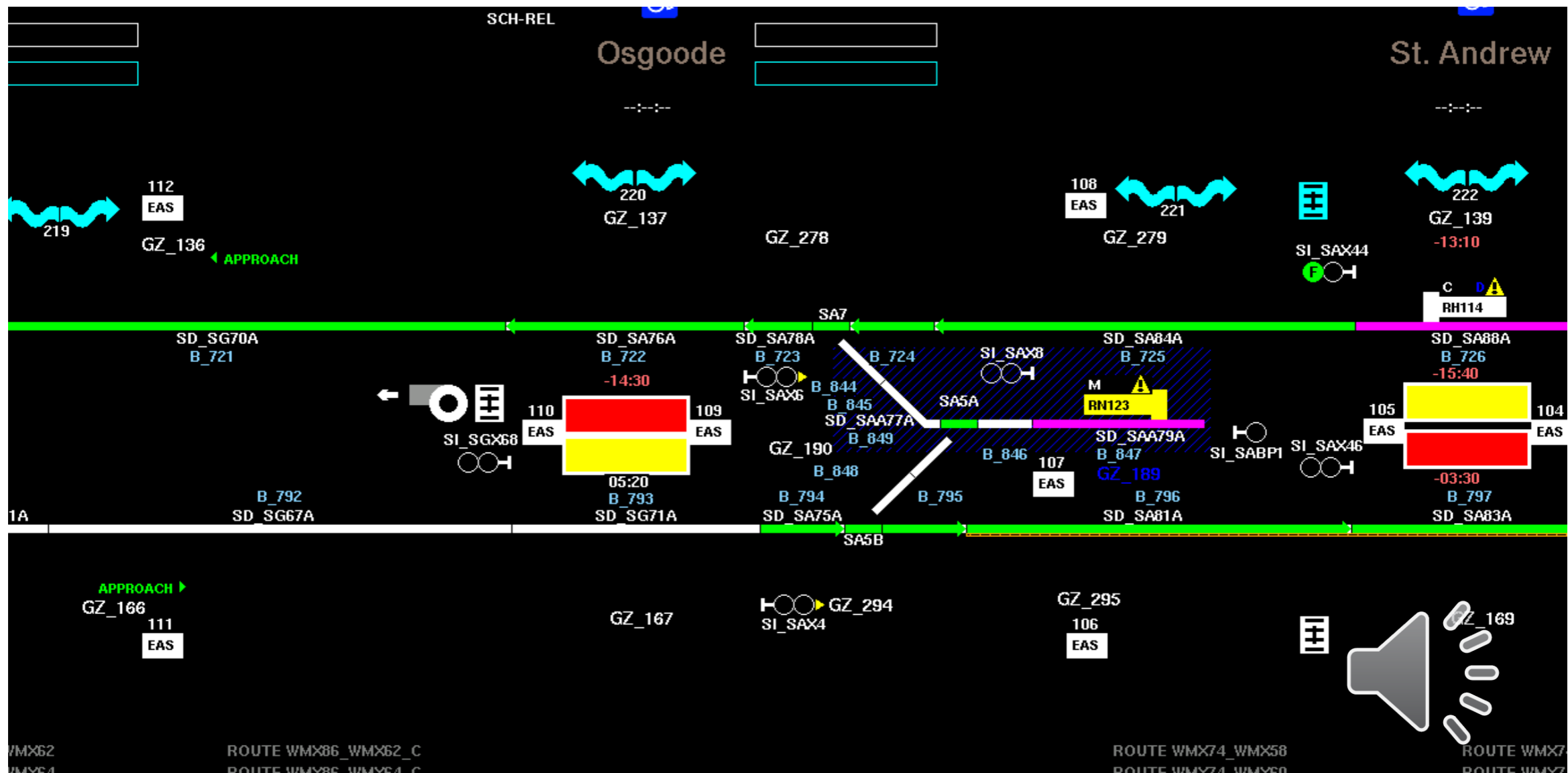
114 Holding with Emergency Alarm



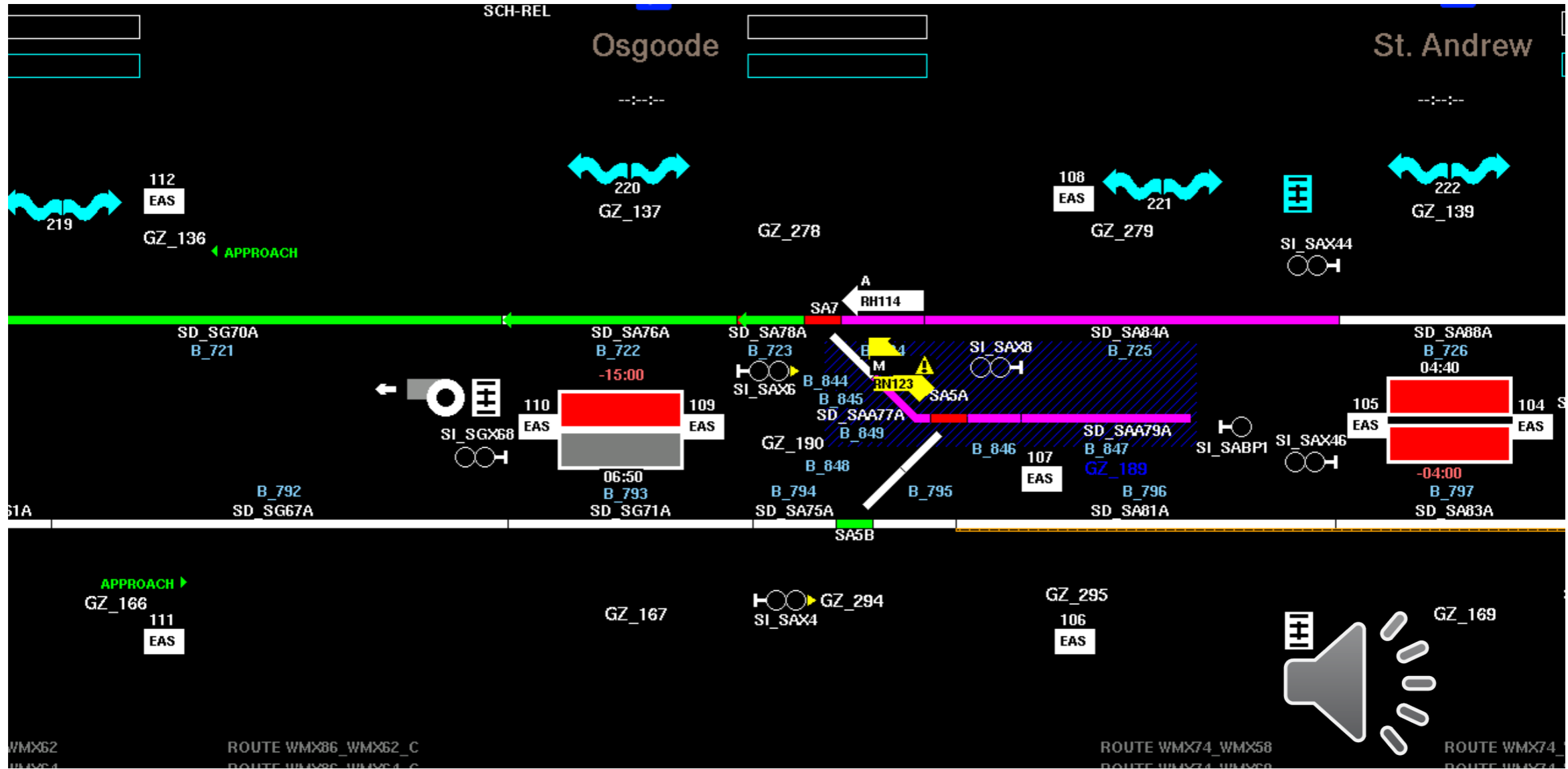
114 Holding with Emergency Alarm #2



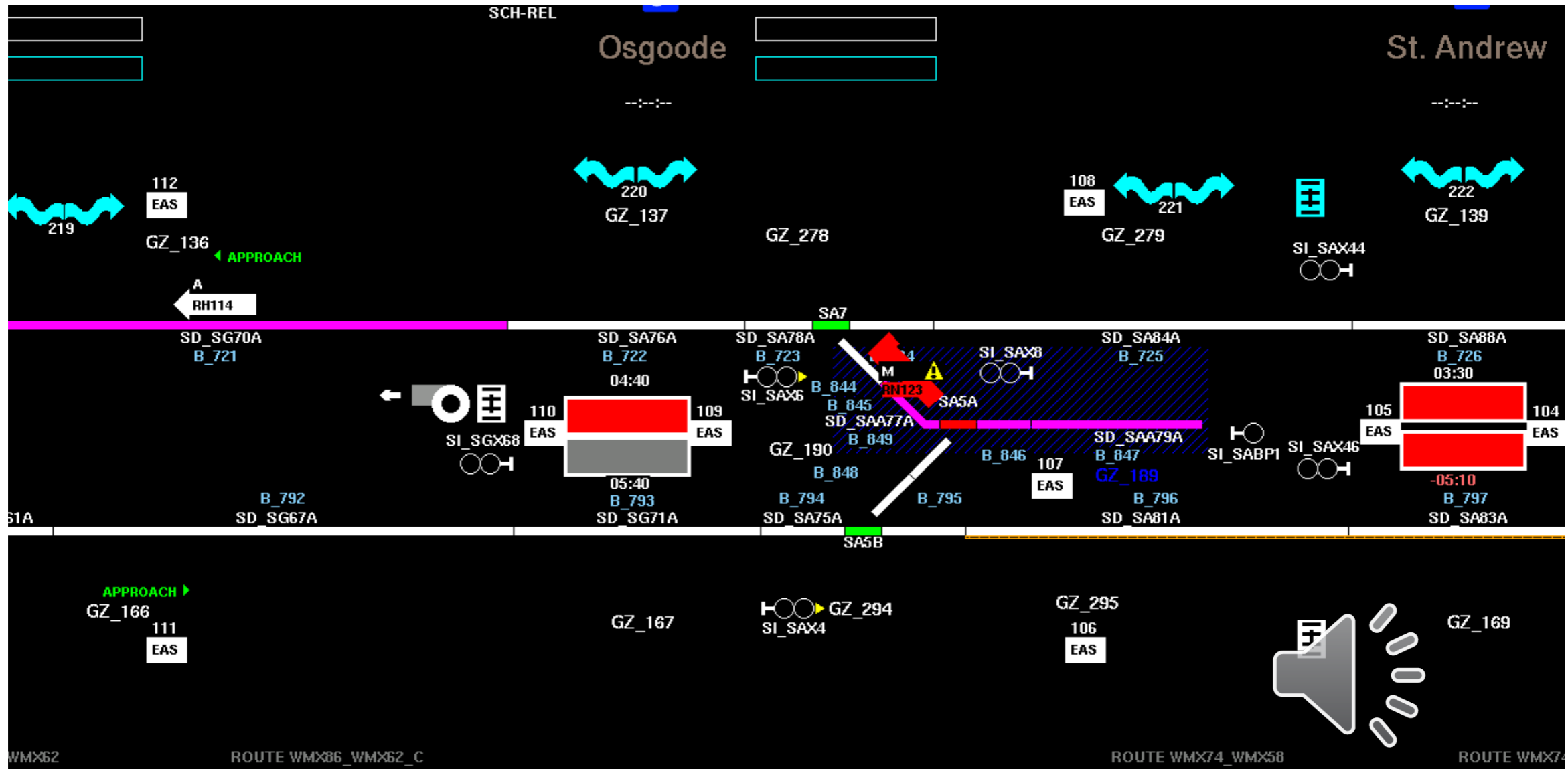
114 Cleared to Proceed



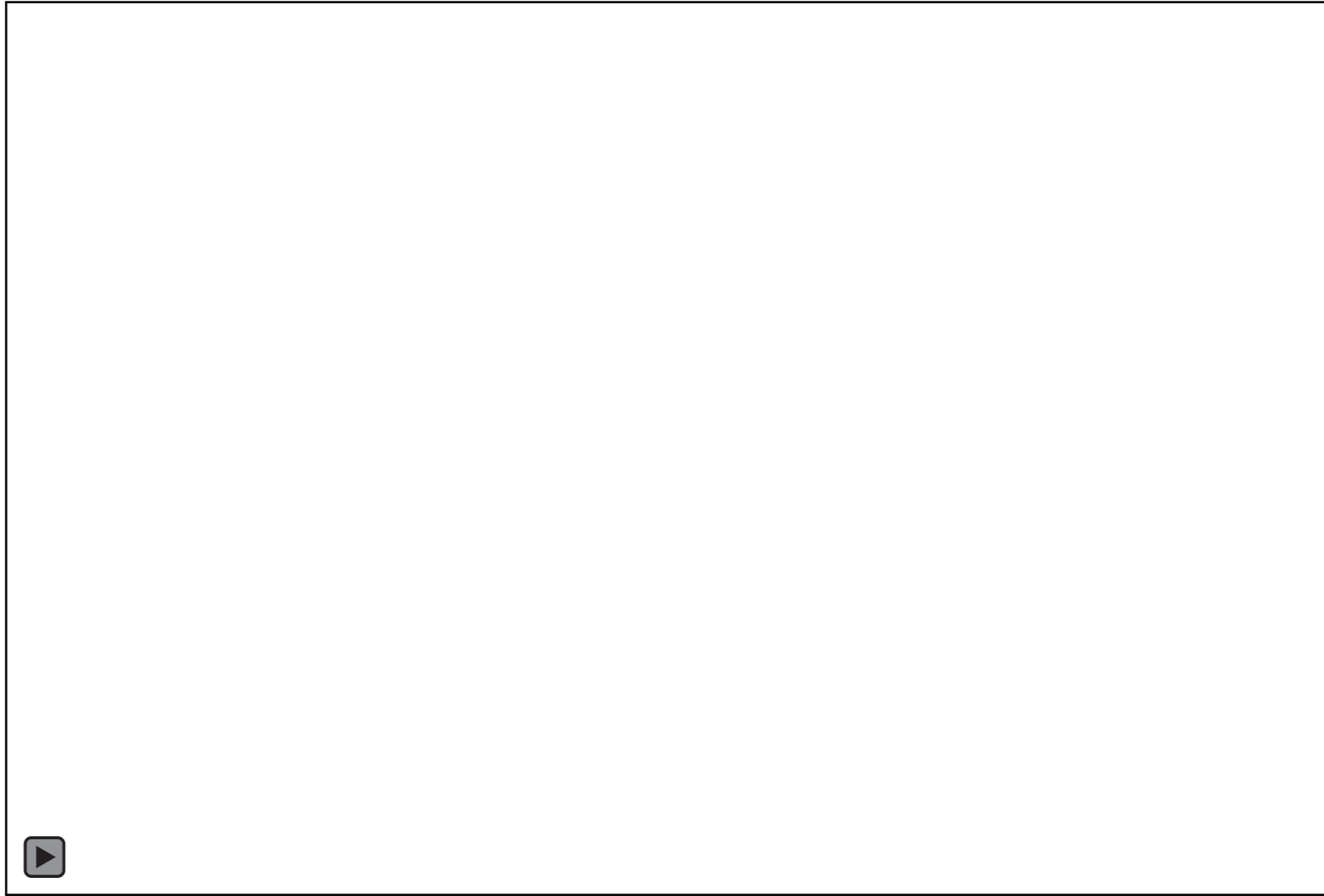
123 Unauthorized Move From Pocket Track



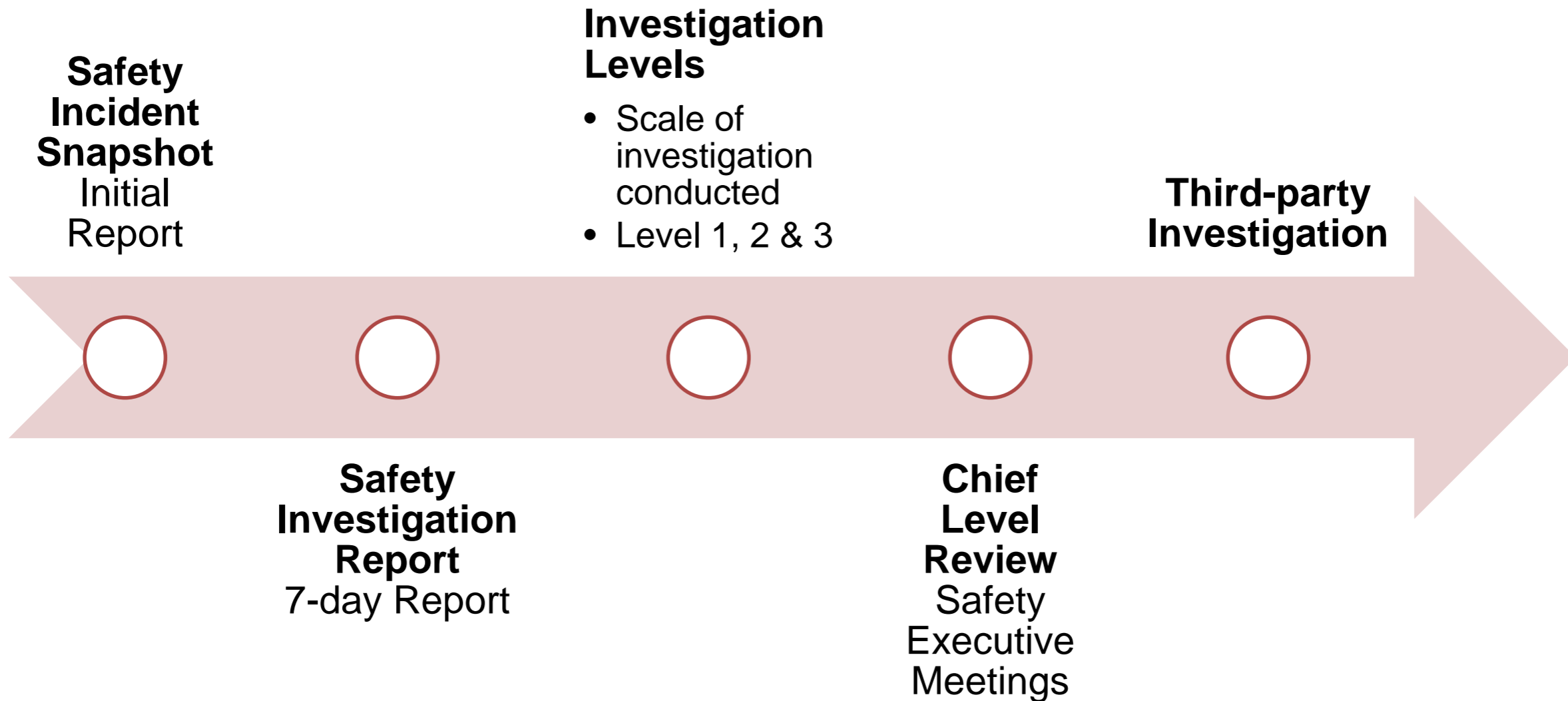
123 Begins to Reverse Into Pocket Track



| Incident Video



| Incident Review and Investigation (Process)



Incident Review and Investigation (Findings)

Immediate Cause

Operator of Run 123 did not follow Transit Control instructions to move the train out of the Osgoode pocket track once the X8 displays a favourable signal.

Contributing Factors

- Visual obstruction of the X8 signal
- Failure to follow radio communication protocol
- Insufficient familiarity and understanding of manual operation in ATC territory
- Inadequate flank protection (in mixed mode) for mainline train operation at the Osgoode Interlocking
- Movement of Run 123 northbound without ATC system protection (GAMA feature removed)



Corrective Action Plan

32 corrective actions

- Completed actions – 23
- In progress - 9

Next steps

- Provide regular updates to the Board on Corrective Action Plan
- Next update in Q4 2021

Four categories of actions:



Communication



Training and Awareness



Rules and Procedures



System Changes

| **Motions from June 16 Board Meeting**

- 1) That TTC staff deliver a public presentation on the Osgoode Interlocking Incident at the July 7, 2021 Board meeting.
- 2) That the TTC Board direct the Chief Executive Officer to alert the Board when an incident meeting the identified thresholds for escalation occurs and subsequently report to the Board once a comprehensive review or investigation has been completed.



| Identified Thresholds for Escalation

- 1) Any level 3 investigation – which is our most serious incidents.
- 2) Any near miss of revenue trains on the mainline.
- 3) Any safety investigation involving a 3rd party review.
- 4) And, of course, any matter at the discretion of the CEO or Chief Safety Officer.



Improvements and Lessons Learned



Software upgrades
to enhance Flank
Protection



Continue to review
and undertake risk
analysis

Safety analysis led by
external consultant

Internal lessons-
learned review

Peer reviews by
APTA and UITP



Peer Reviews



CBTC/ATC Around the World

