

# Sydney Trains City North Civil Team

## 2020 Alan Barham Maintenance Team Award Submission

### Review Period 1/7/19 to 30/6/20

## 1 Outline of the Team

The City North Civil Team is one of the three discipline teams that make up the City North Territory located at the Hornsby Network Base.

The City North Civil Team consists of:

- Team manager
- 2 x Team Leaders
- 4 x Work Group Leaders
- 20 x Infrastructure Workers

Diagram 1 shows the organisational structure of City North with the Civil Team shown in green.

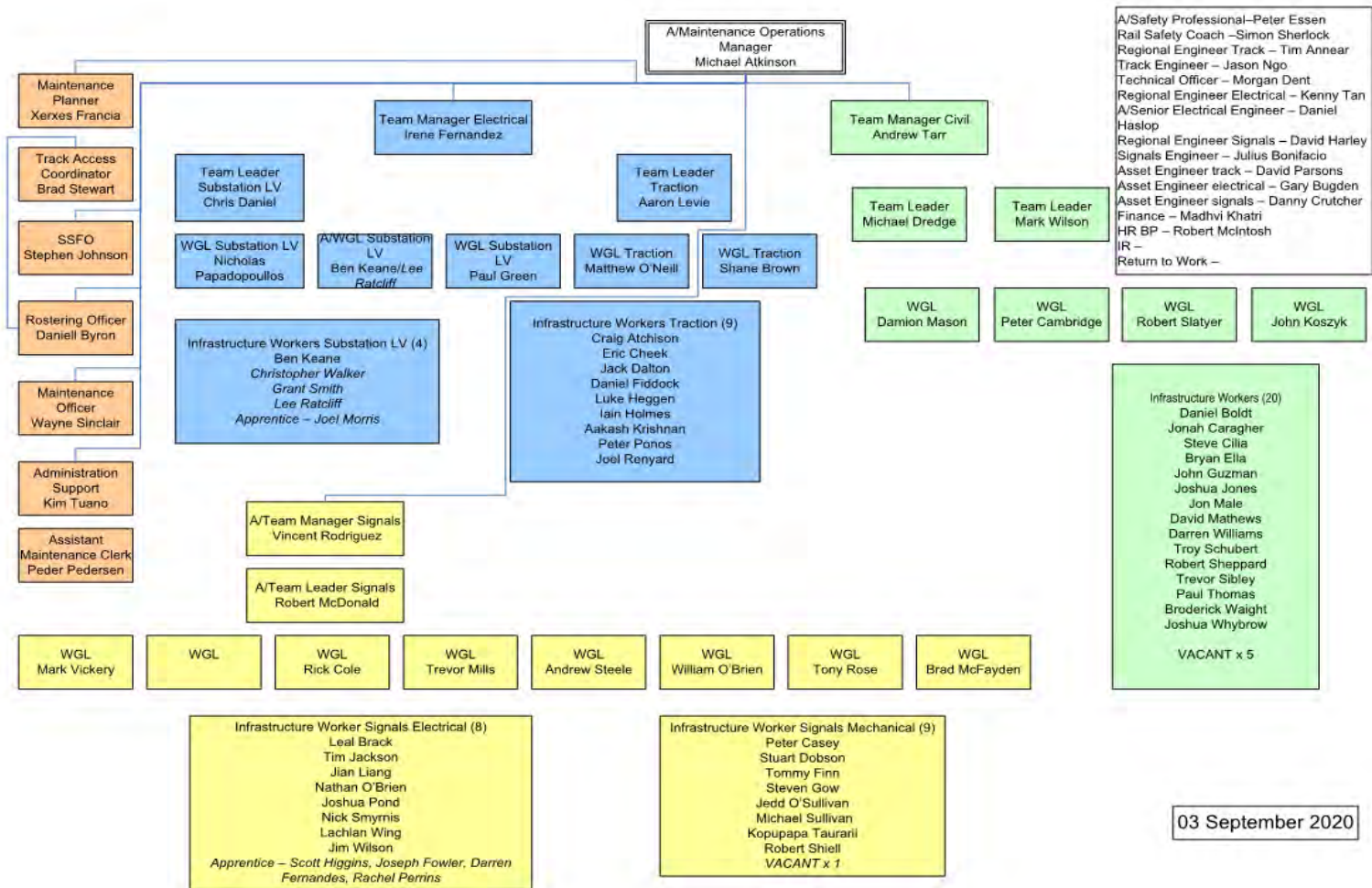
City North Territory covers from North Strathfield to Berowra on the Main North as well as Waverton to Hornsby on the North Shore and the Epping to Chatswood Rail Link. Diagram 2 shows a map of the Territory boundaries.

The team is responsible for the track assets and maintains 130km of track and 196 turnouts.

Key functions of the team -

- Preventative inspections
- Defect management and removal
- Incident response

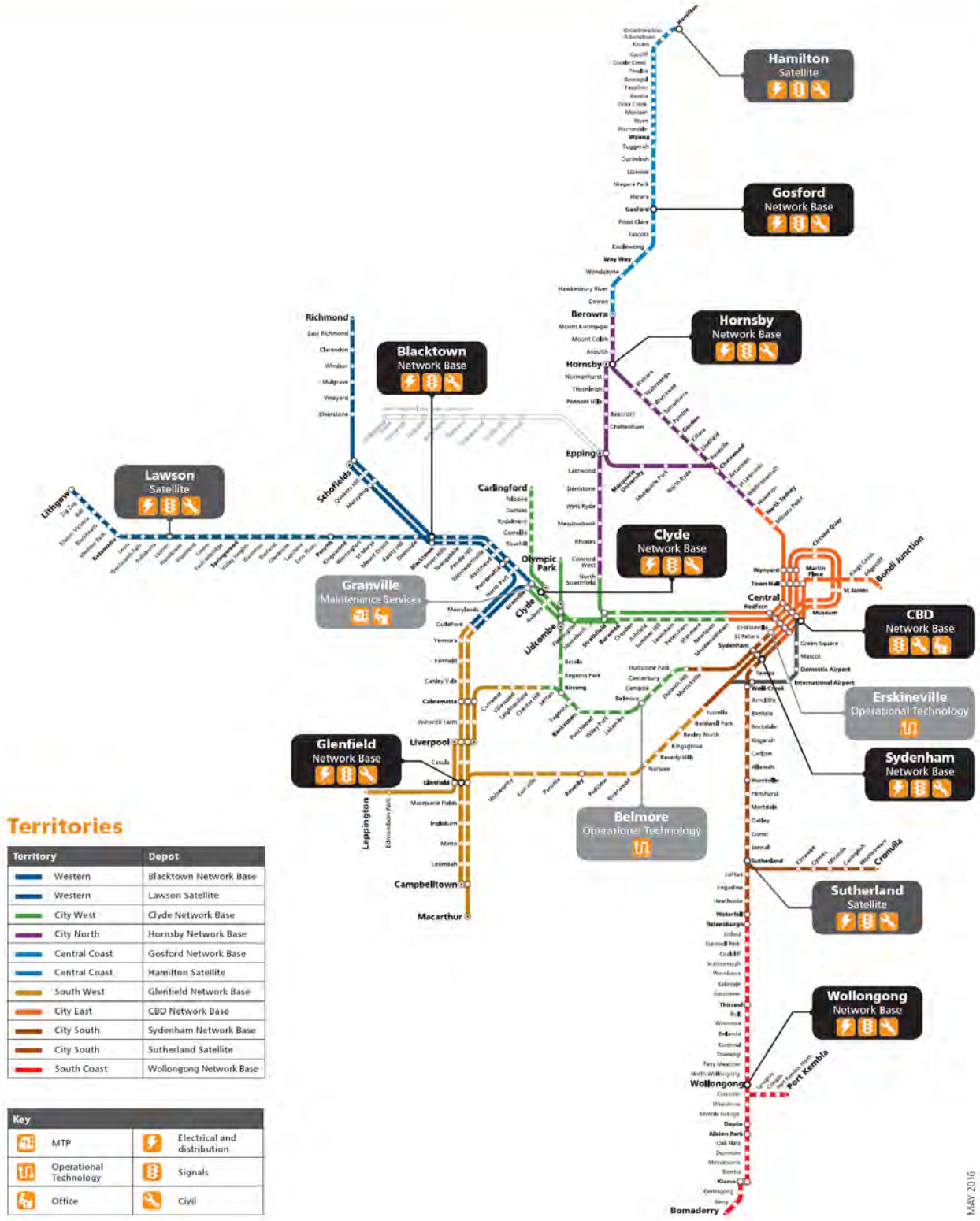
Diagram 1



03 September 2020

Diagram 2

# Network Maintenance Division – Territories 2016



MAY 2016

## 2 Team Performance

### 2.1 Safety

There was 2 LTI's and 0 MTIs for the team in 2019/20.

### 2.2 Compliance

The overall Technical maintenance Plan compliance for 19/20 for the Civil team was 100%.

Diagram 3 - Compliance data for 2019/20 left column is depots overall and right column is Track & Civil

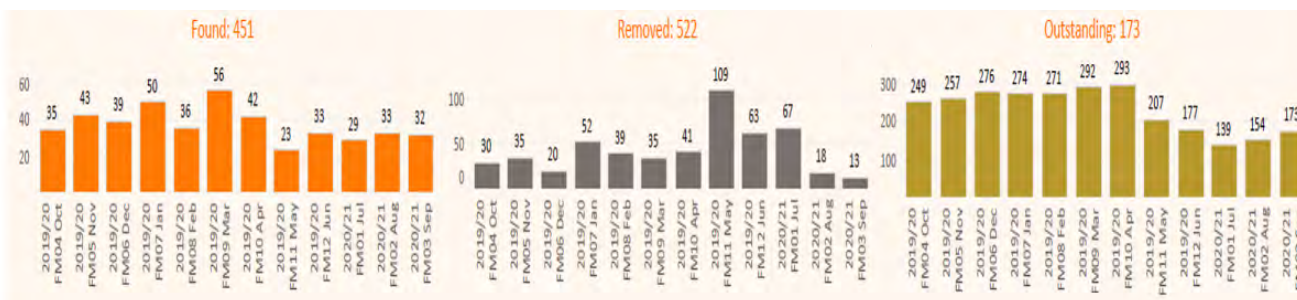
Safety Critical				Safety Critical (Track only)			
Territory	Compliant Work	Compliance %		Territory	Compliant Work	Compliance %	
City East	12,555	12,555	100.0%	City East	9,495	9,495	100.0%
Western	12,726	12,721	100.0%	Western	7,184	7,184	100.0%
South West	7,373	7,373	100.0%	South West	5,746	5,746	100.0%
Central Coast	11,085	11,085	100.0%	Central Coast	7,964	7,964	100.0%
City West	12,513	12,513	100.0%	City West	8,531	8,531	100.0%
City North	6,095	6,095	100.0%	City North	4,541	4,541	100.0%
City South	10,660	10,660	100.0%	City South	8,357	8,357	100.0%
South Coast	8,907	8,907	100.0%	South Coast	5,622	5,622	100.0%
Safety Significant				Safety Significant (Track only)			
Territory	Compliant Work	Compliance %		Territory	Compliant Work	Compliance %	
City East	7,786	7,786	100.0%	City East	6,370	6,370	100.0%
Western	12,143	12,104	99.7%	Western	6,088	6,061	99.6%
South West	6,424	6,418	99.9%	South West	4,482	4,482	100.0%
Central Coast	10,669	10,657	99.9%	Central Coast	6,576	6,574	100.0%
City West	11,587	11,587	100.0%	City West	8,872	8,872	100.0%
City North	6,374	6,366	99.9%	City North	4,051	4,051	100.0%
City South	7,919	7,916	100.0%	City South	4,353	4,350	99.9%
South Coast	8,131	8,130	100.0%	South Coast	5,035	5,035	100.0%
Other				Other (Track only)			
Territory	Compliant Work	Compliance %		Territory	Compliant Work	Compliance %	
City East	15,157	15,157	100.0%	City East	446	446	100.0%
Western	18,452	18,423	99.8%	Western	2,095	2,092	99.9%
South West	13,242	13,235	99.9%	South West	270	270	100.0%
Central Coast	15,124	15,113	99.9%	Central Coast	1,355	1,349	99.6%
City West	19,362	19,352	99.9%	City West	549	549	100.0%
City North	10,198	10,197	100.0%	City North	582	582	100.0%
City South	18,106	18,059	99.7%	City South	950	950	100.0%
South Coast	13,023	13,022	100.0%	South Coast	1,340	1,340	100.0%

## 2.3 Defect Management

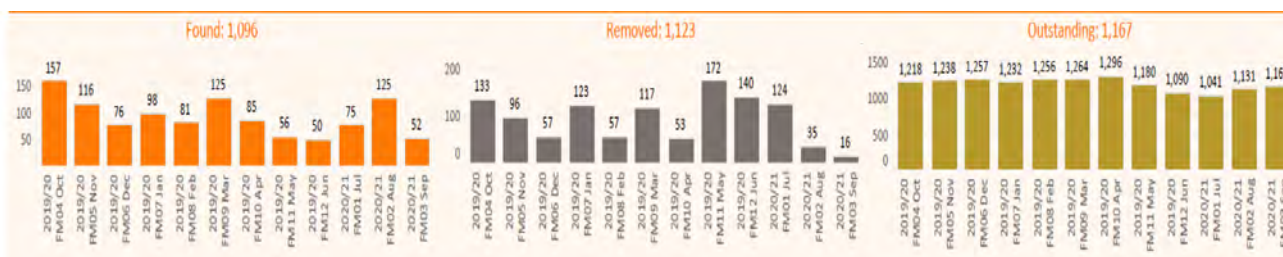
Sydney Trains classifies high priority defects as Infrastructure Action Defects (IADs) – as of the end of 2019/20 we had 177 track IADs. City North have reduced both IADS and Defect overall.

Diagram 4 -

### City North Civil IADS



### City North Civil Defects



## 2.4 City North Boghole Removals

City north removed 9 bogholes overall a total of 150m of track restored. The work method City North used to treat the bogholes was using an undercutter attachment attached to an excavator. The method allows removal and replacement of the ballast without needing to remove sleepers or cut rail. This enables efficient completion of boghole treatment in the limited track access windows. Another cost benefit of this method is the requirement for only a supervisor and protection officer in addition to the plant operator. City North use Tractex Fabric above the capping layer to prevent mud and water getting into the ballast profile.









## 2.5 Temporary Speed Restrictions

A total of 19 temporary speed restrictions were applied and lifted through 2019/20.

A Total of 8 Heat speeds were applied and lifted through 2019/20.

Diagram 5 - Table of TSRs

Corridor	TSR No.	Track Basecode/ Description	Direction	Start KM	End KM	Imposed Date	Forecast Lift Date	Freight Speed	Passanger Speed	XPT Speed	Period	Reason	Board Erected
Main North Line	1001768251	10001-Main Nth Up	UP	34.800	34.900	24.03.2020	20.04.2020	20	20	20	Always	Crossing/ Turnout	YES
North Shore Line	1001815691	10029-Nth Shore Up	UP	16.894	16.994	25.04.2020	28.04.2020	40	40	40	Always	Rail	YES
North Shore Line	1001824483	10029-Nth Shore Up	UP	20.003	20.175	01.05.2020	08.05.2020	40	40	40	Always	Track Geometry	YES
North Shore Line	1001865123	10028-Nth Shore Dn	DOWN	10.827	10.886	27.05.2020	28.05.2020	20	20	20	Always	Rail	YES
North Shore Line	1001865573	10028-Nth Shore Dn	DOWN	10.749	10.895	27.05.2020	29.05.2020	20	20	20	Always	Rail	YES
North Shore Line	1001865593	10028-Nth Shore Dn	DOWN	10.749	10.895	27.05.2020	29.05.2020	20	20	20	Always	Rail	YES

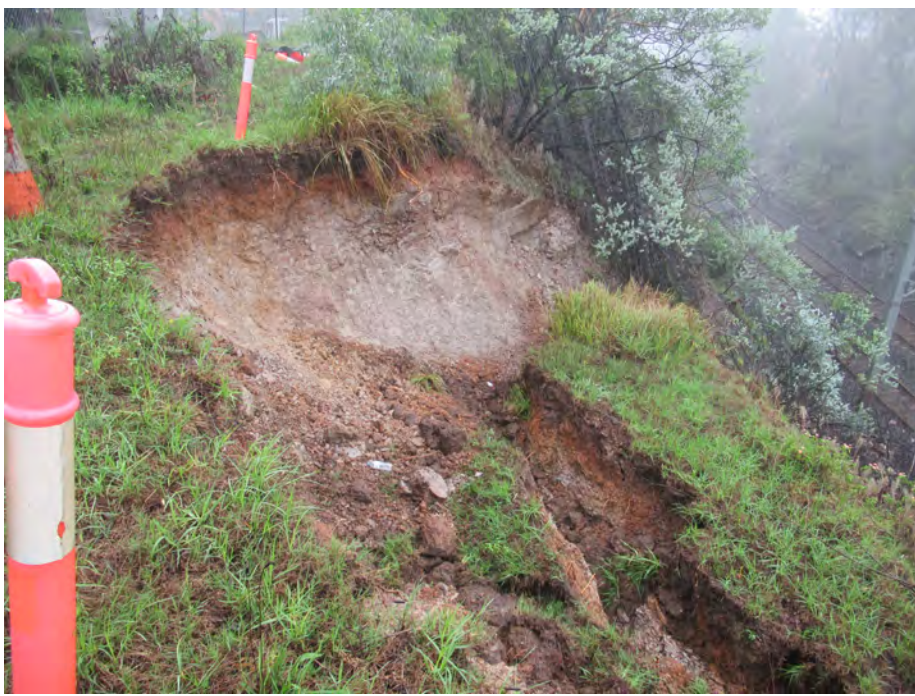
# TSR Search Results

Corridor	TSR No.	Track Basecode/ Description	Direction	Start KM	End KM	Imposed Date	Forecast Lift Date	Freight Speed	Passanger Speed	XPT Speed	Period	Reason	Board Erected
Main North Line	1001400587	10232-Strathfield to Rhodes Relief Dn	DOWN	14.825	14.934	30.07.2019	27.10.2019	40	40	40	Always	Track Geometry	YES
Main North Line	1001435058	10002-Main Nth Dn	DOWN	14.964	15.086	21.08.2019	26.10.2019	30	30	30	Always	Crossing/ Turnout	YES
Main North Line	1001445686	10002-Main Nth Dn	DOWN	23.000	23.100	29.08.2019	27.10.2019	30	30	30	Always	Crossing/ Turnout	YES
North Shore Line	1001509706	10029-Nth Shore Up	UP	20.100	20.110	01.10.2019	10.10.2019	40	40	40	Always	Crossing/ Turnout	YES
North Shore Line	1001510344	10029-Nth Shore Up	UP	20.100	20.110	01.10.2019	10.10.2019	40	40	40	Always	Track Geometry	YES
Main North Line	1001517801	10002-Main Nth Dn	DOWN	33.495	33.613	16.10.2019	30.11.2019	30	30	30	Always	Crossing/ Turnout	YES
North Shore Line	1001534574	10029-Nth Shore Up	UP	7.453	8.036	25.10.2019	27.10.2019	0	40	0	During Certain Hrs of the Day	Summer Speed	YES
Main North Line	1001570218	10013-Main Nth Suburban Dn	DOWN	20.997	21.058	18.11.2019	22.12.2019	40	40	40	Always	Rail	YES
Main North Line	1001604527	10232-Strathfield to Rhodes Relief Dn	DOWN	15.216	15.543	10.12.2019	10.12.2019	60	60	60	During Certain Hrs of the Day	Summer Speed	YES
Main North Line	1001604847	10001-Main Nth Up	UP	22.990	23.565	10.12.2019	10.12.2019	40	40	40	During Certain Hrs of the Day	Summer Speed	YES
Main North Line	1001621276	10001-Main Nth Up	UP	17.017	17.497	21.12.2019	21.12.2019	40	40	40	During Certain Hrs of the Day	Summer Speed	YES
Main North Line	1001621465	10001-Main Nth Up	UP	23.105	23.514	21.12.2019	21.12.2019	40	40	40	During Certain Hrs of the Day	Summer Speed	YES
Main North Line	1001621491	10232-Strathfield to Rhodes Relief Dn	DOWN	15.302	15.500	21.12.2019	21.12.2019	60	60	60	During Certain Hrs of the Day	Summer Speed	YES
Main North Line	1001633127	10001-Main Nth Up	UP	15.800	15.900	30.12.2019	31.01.2020	40	40	40	Always	Crossing/ Turnout	YES
Main North Line	1001682869	10232-Strathfield to Rhodes Relief Dn	DOWN	15.216	15.543	01.02.2020	03.02.2020	60	60	60	During Certain Hrs of the Day	Summer Speed	YES
North Shore Line	1001699616	10029-Nth Shore Up	UP	18.442	18.688	09.02.2020	09.03.2020	20	20	20	Always	Geotechnical	YES
North Shore Line	1001699969	10029-Nth Shore Up	UP	10.736	10.945	10.02.2020	22.05.2020	60	60	60	Always	Geotechnical	YES
North Shore Line	1001701101	10028-Nth Shore Dn	DOWN	10.422	11.580	09.02.2020	17.02.2020	60	60	60	Always	Track Geometry	YES
North Shore Line	1001722653	10029-Nth Shore Up	UP	21.818	22.044	24.02.2020	08.03.2020	40	40	40	Always	Track Geometry	YES
Main North Line	1001747782	10013-Main Nth Suburban Dn	DOWN	23.196	23.355	10.03.2020	15.03.2020	40	40	40	Always	Track Geometry	YES
Main North Line	1001762229	10232-Strathfield to Rhodes Relief Dn	DOWN	15.216	15.543	20.03.2020	21.03.2020	60	60	60	During Certain Hrs of the Day	Summer Speed	YES

## 2.6 Emergency and on call responses

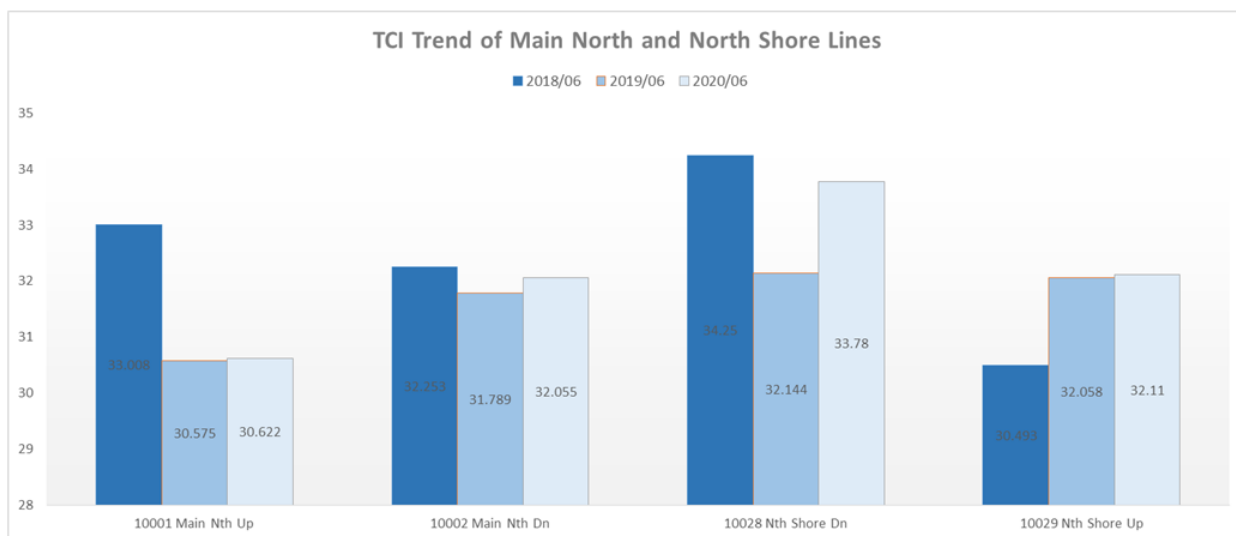
City North Civil responded to 64 callouts or extension of shifts and 13 emergencies. The most biggest being the Slip at Pymble during heavy down pours over the a weekend. City North civil with the help of Blacktown NB sourcing the blocks temp repaired North shore line operational for the first train Monday morning after slip was reported 1130 Sunday afternoon.





## 2.5 Track Condition Index

Diagram 6 – TCI Data



## 2.6 Other Asset Performance Data

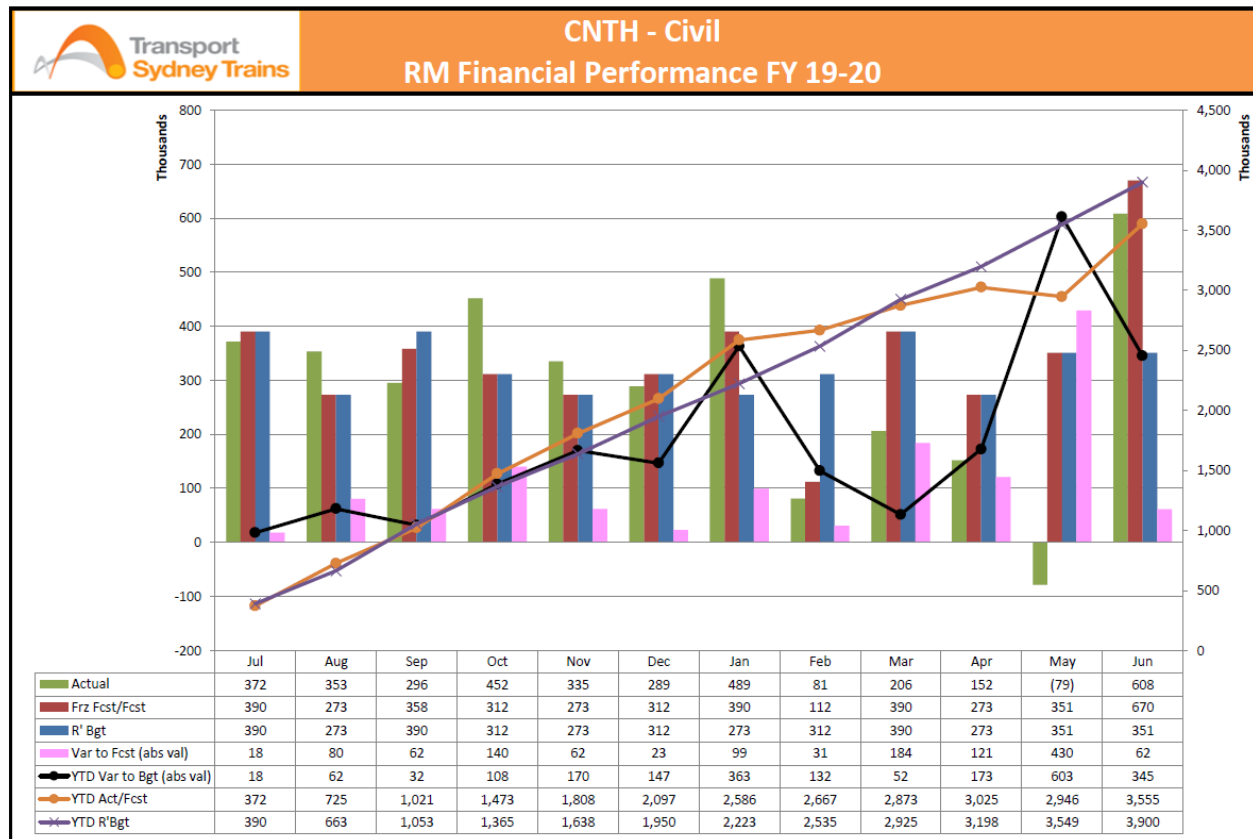
Misalignments – there were no misalignments through 2019/20.

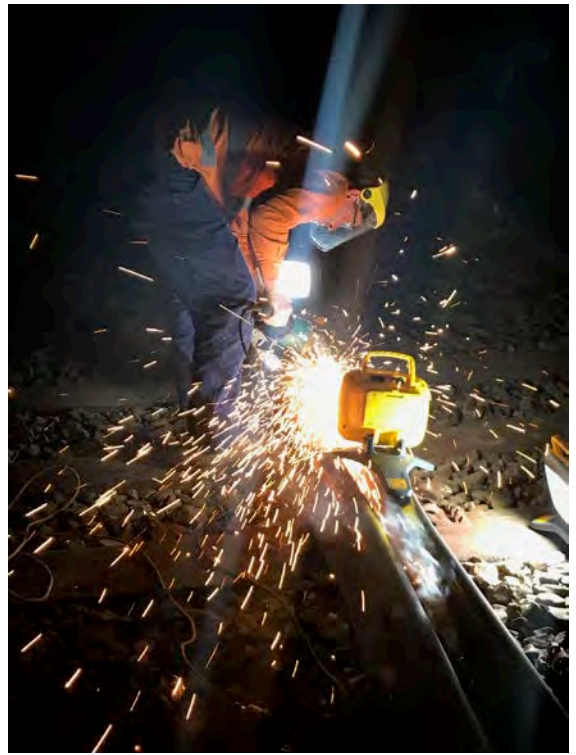
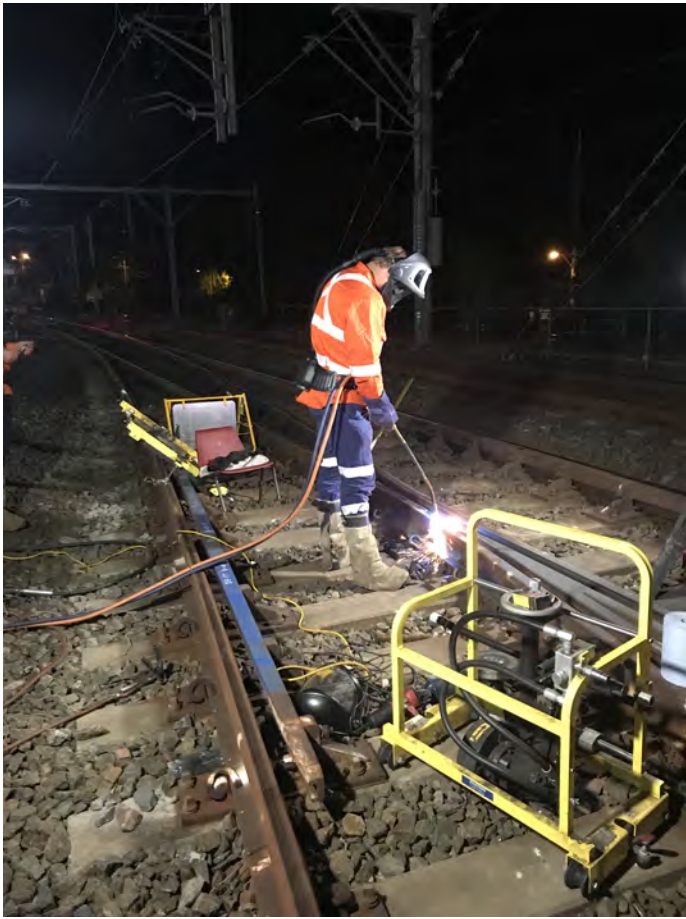
Broken Rails – there were no broken rail through 2019/20.

## 2.7 Financial Performance 2019/20

For 2019/20 the Civil Team come in under budget with an actual expenditure of \$3.7 million against budget of \$3.9 million.

Diagram 7











# Hornsby Civil 10 - 30 - 40 year services



