




Urban Design

How do Cities plan for Heavy vehicles?

Chris Carr, IRTENZ, Rotorua August 21, 2019

- 
- As a passing after-thought
 - How many truck trips for a Ham, Cheese and Tomato sandwich?

Comments largely Auckland focused

- Wellington:
- Oriental Parade
- Melling Intersection

- Christchurch
- Build from scratch

Engineering Works

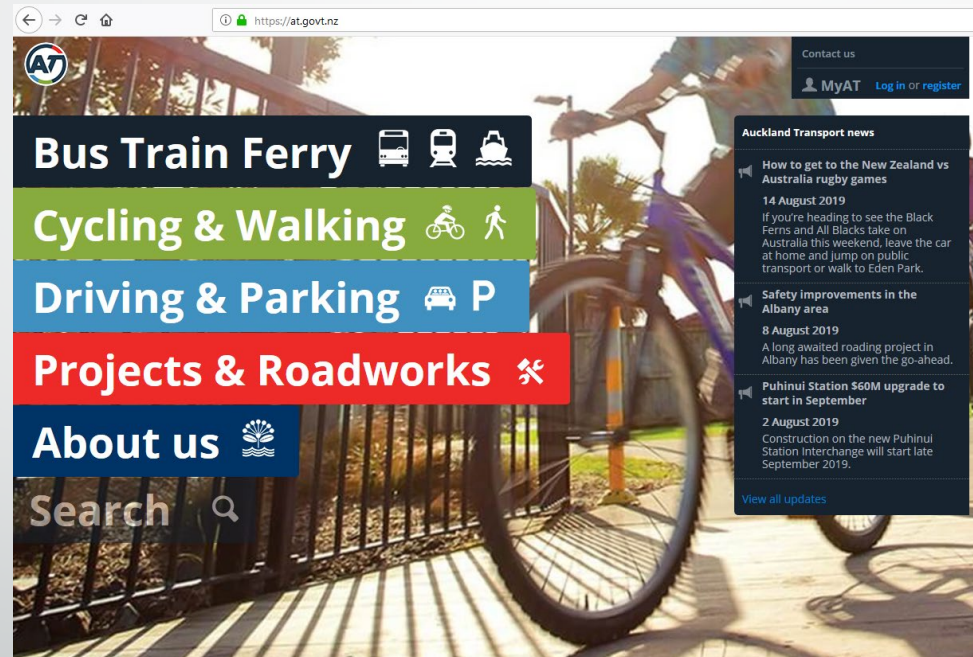
- Engineers displaced by planners and Urban Designers
- Captured by walking and cycling zealots
- Bereft of reality (in our terms)

- By that I mean they have no idea what a truck is or does
- But they understand buses
- And operationally a bus is a truck with windows

Auckland

- Because everything that happens in Auckland comes your way
- Transport looked after by Auckland Transport:
 - Public Transport
 - Walking & Cycling
 - Other stuff (like freight?)

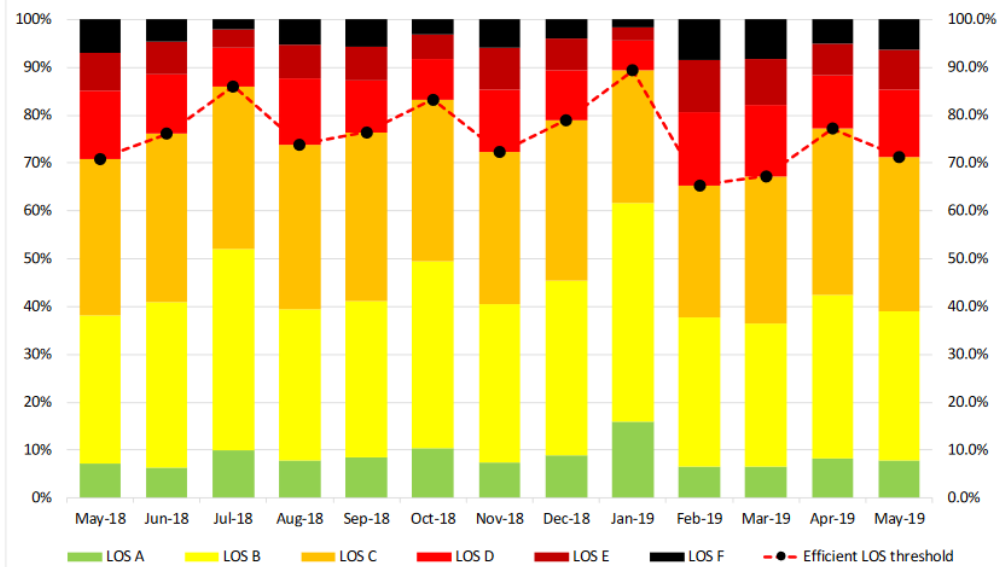
AT Website



AT Board Reports

- Business Unit Report
- 81 pages
- Key Projects:
 - PT 19
 - Urban roading tidy ups 6
 - Growth 3
 - Active Modes 13
 - **Freight 0**

Auckland arterial network LOS - May 2018 to May 2019



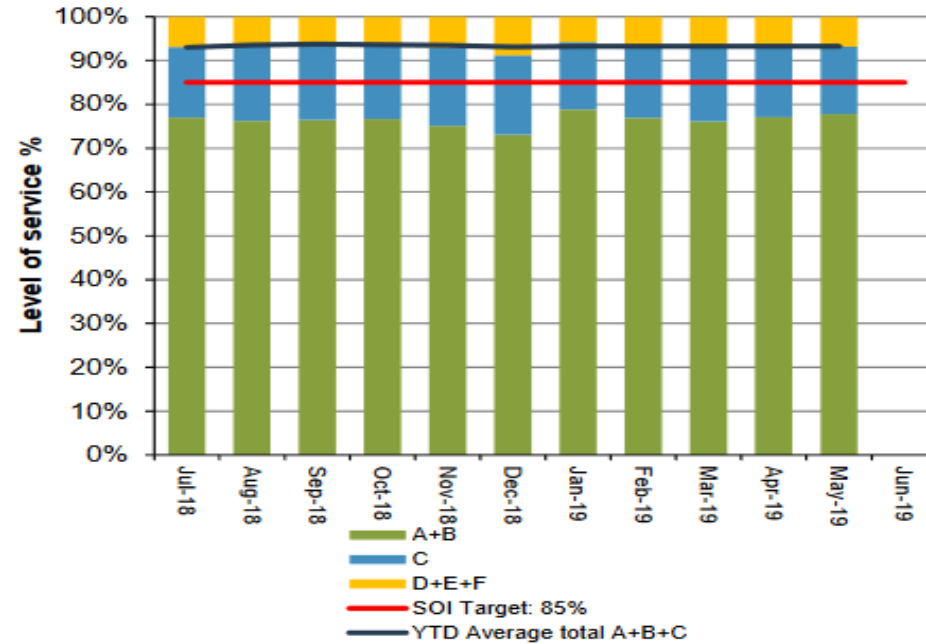
Monthly Indicators Report – May 2019

Executive summary

1. The 2018/19 Monthly Indicators Report shows performance against the Statement of Intent (SOI) measures and a range of other indicators.
2. The key highlights from May 2019 are:
 - overall public transport totalled 99.98 million boardings for the 12 months to May 2019, an increase of 8.1% on the 12 months to May 2018. This exceeds the year end SOI target for 2018/19 of 96.3 million boardings.
 - freight network efficiency totalled 93% in the year to date, exceeding the SOI target of 85%.
 - local road deaths and serious injuries in the 12 months to February 2019 totalled 532, 22% lower than for the same period the previous year. The 2018 total for local road deaths and serious injuries was 553, 137 less than the total for 2017.
 - cycle movements at selected count sites around Auckland were 3.499 million, 3.5% above SOI year to date forecasts in May 2019.

2.1 Deliver an efficient and effective transport system

2.1.21 Proportion of the freight network operating at Level of Service C or better during the inter-peak



Target exceeded.

In May 2019, 93% of the strategic freight network operated at good levels of service (LOS A-C), and 93% for the year to date.

In terms of the arterial and Motorway components of the freight network, 87% and 98% respectively operated efficiently, indicating that freight vehicles had a particularly good experience on the Motorway. Of the segments that experienced some congestion, most tended to be at Motorway interchanges or near busy activity centres such as near town centres.

This is a new measure, as the SOI target for freight routes now measures the strategic freight network rather than five select routes.

Level of service is measured by median speed as a % of the posted speed limit and categorised as follows:

- A: 90% and greater
- B: 70 – 90%
- C: 50 – 70%
- D: 40 – 50%
- E: 30 – 40%
- F: less than 30%

Level of service D–F broadly represent "congested" conditions.

2.1.22 Map showing key freight routes



The freight network comprises key freight routes on key arterials and the Motorway network, as defined in the freight network map (above). The freight network Level of Service (LOS) is measured by average speed during the inter-peak period as a percentage of the posted speed limit for the freight network routes. LOS A, B and C represents efficient and stable traffic conditions with average travel speeds of at least 50% of the posted speed limit. At least 85% of the freight network is to operate at efficient levels.

Planning : Before improvements (Major Freight Route)





Planning : after improvements





Planning : Before improvements (Major Bus Route)



Planning : after improvements





Planning : Before improvements (Major Freight Route)



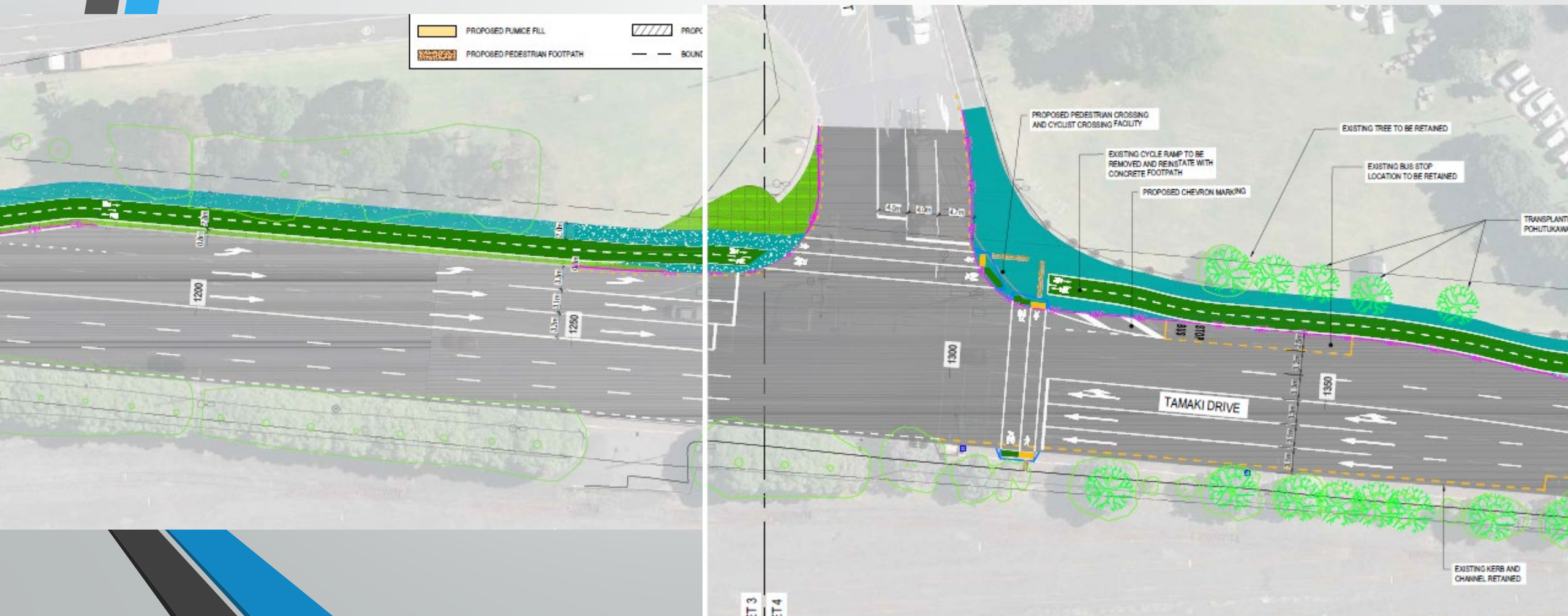
Planning : after improvements



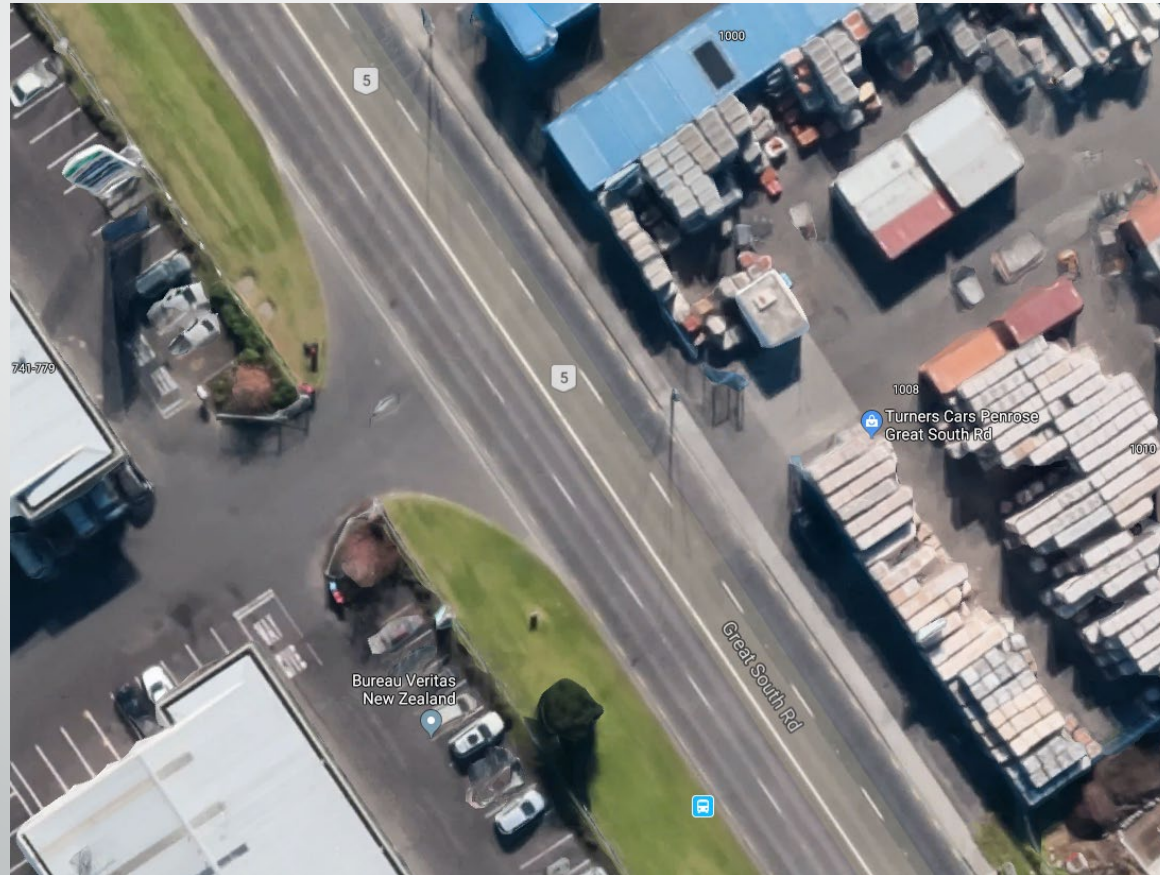
Planning : Before improvements (Auckland Port Access)



Planning: (they haven't done it yet)



Planning : Before improvements (Heavy Vehicle Access)







Planning : after improvements





Vanishing Arterial Roads

- Crowded cities
- Pressure on resource
- Lack of maintenance

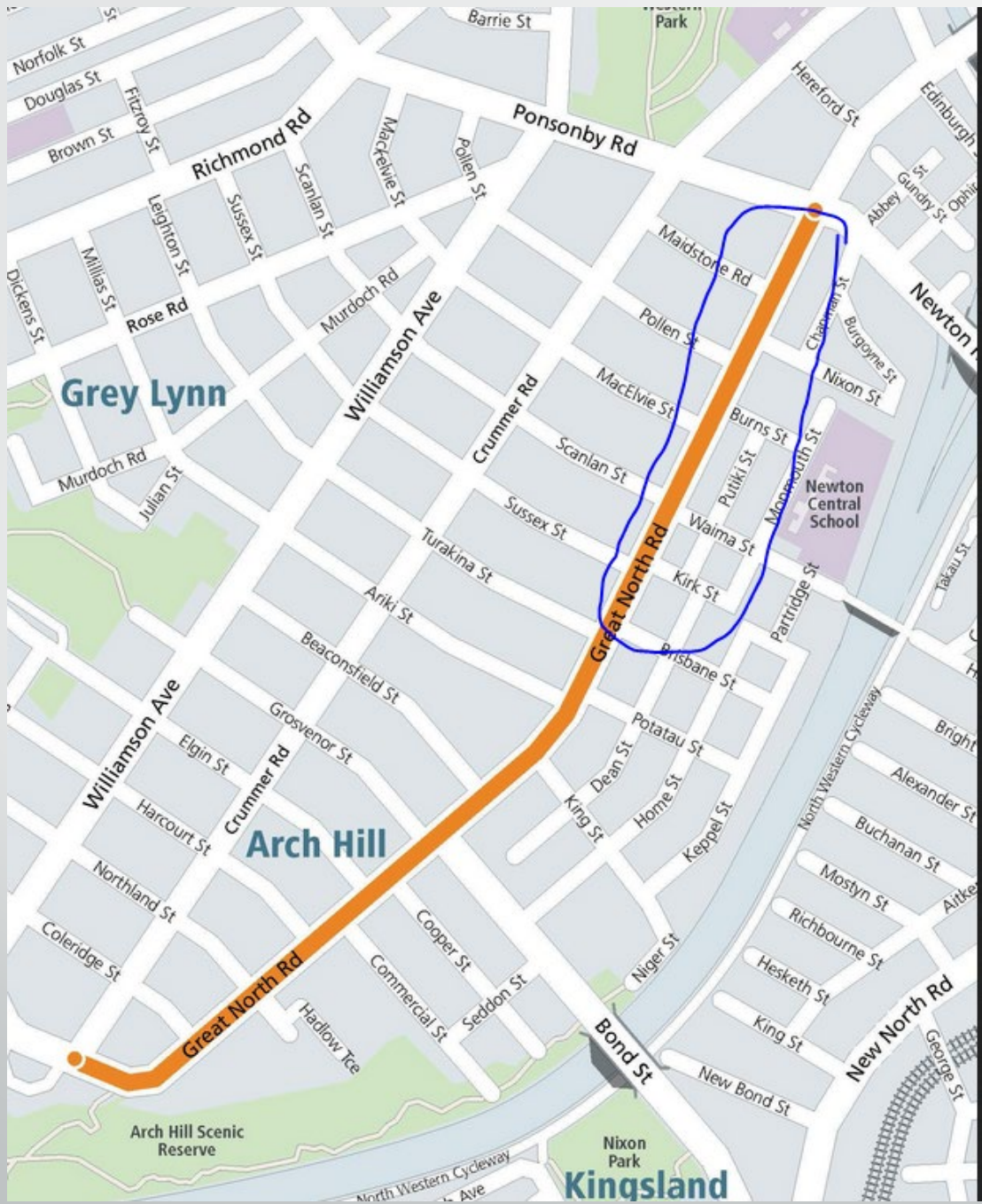


Great North Road

- 4 largest car dealerships in NZ
- Heavy concentration of motor industry outlets
- Zoned commercial
- Major arterial route
- High traffic count
- Built on a ridge from Ponsonby Road to Bond Street

Council expectation

- Room provided on site for loading
- Loading areas consented
- Loading for parts and delivered in vans
- No physical capacity to carry the weight on the sites
- Need to back into site
- Angles all wrong









Planning

- Parking ideology
- People don't need cars
- Build houses without parking
- Build roads too narrow to park in



Your part to play

- We need to help them to help us
- *Father, forgive them; for they know not what they do*

The answer.....

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Stuff that moves in Auckland

Packaged meals
deliveries/week
30,000



Construction
truck trips per day
650



Dairy products (milk)
litres /day
1,250,000



Tonnes of aggregates
85,000
(per day)




Recycling
-glass
-paper
-metals
335,000
tonnes pa



Bread ingredients
-flour
-marge/butter
-yeast
-water/milk
-salt
-sugar
-grains
equals 14 truck trips




CARS
-cars/year x wharf
250,000
-delivered to city
200,000



General waste
230,000
tonnes pa



Containers
Metro ~**400,000**
pa
POAL ~**1,000,000**
pa
2400+ per day



Fuel
8,000,000
litres/day



Supermarkets
-over
2,000,000
pits pa
-20 products FMCG
-100 pits each to each
lge supermarket/week



Couriers
-couriers AKL **1000+**
-100 calls /day
-courier calls daily
120,000+



Beer **728** pallets per day

