

# North West Rapid Transit Corridor Indicative Business Case

# Setting the scene

- Imagine a transportation project...

NEW ZEALAND

## Northwestern busway to get green light

15 Sep, 2016 3:22pm

3 minutes to read



A busway on the Northwestern Motorway from Westgate to Te Atatu aims to reduce congestion. Photo / Dean Purcell



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# Introducing the team

- Nalisha Kesha, Auckland Transport
- Steve Dudley, Aurecon
- Jenson Varghese, MRCagney

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# Outline

- The potential for the project
- “Noise”
- Overcoming the Noise



# Why is it important?



INVESTMENT OBJECTIVES		MEASURE (KEY PERFORMANCE INDICATOR)		ACHIEVEMENTS OF THE RECOMMENDED OPTION	
1		Substantially improve connections to and from the northwest.	KPI 1.1 	Jobs accessible within a 45 minute trip by PT from the northwest	Brings 320,000 jobs within a 45-minute public transport journey of Westgate in 2046, compared to 120,000 with the Do-Minimum.  Creates a population catchment of 580,000 people within a 45-minute public transport trip of employers in Westgate compared to 300,000 with the Do-Minimum  Increases the person throughput of the SH16 (all modes) at Waterview from 11,000/hour in the Do-Minimum to 16,000 per hour. Expected demand for travel in 2046 is 13,000/hour.
			KPI 1.2 	Size of catchment accessible from the northwest by car (30 minutes), public transport (45 minutes) and active mode (30 minutes)	
			KPI 1.3 	Corridor throughput: No. of buses, cars and trucks times the average occupancy	
2		Make public transport a realistic option for the majority of journeys to and from the northwest.	KPI 2.1 	PT mode share along the northwestern corridor: Percentage shares of people throughput, by mode	Increases bus passengers entering the city centre from the northwest from 6,800 in the Do-Minimum to 9,300 in 2046. It does this with the same number of buses entering the city centre with higher occupancy  Creates a journey time by bus from Westgate to the city centre of 32 minutes in the peak compared to an expected journey time of 50 minutes with the Do-Minimum.  Enables 40,000 people to live within walking distance of a rapid transit service on the northwest corridor compared to 23,000 with the Do-Minimum.
			KPI 2.2 	Faster, more reliable journey times: Travel time; Travel time reliability	
			KPI 2.3 	Catchment within a frequent transport network: Proportion of the population living within 500m of a frequent network bus stop and 1km from a rail or bus rapid transit station	
3		Increase the efficiency of public transport to and from the northwest	KPI 3.1 	Subsidy cost per passenger-km: Cost per passenger-km: Proportion of operating costs covered by fares for public transport services operating in Northwest corridor	Will enable a saving of \$11 million per year in operating costs. It will require \$48m/year compared with \$59m/year with the Do-Minimum.
			KPI 3.2 	Capacity in city centre terminal/stop capacity: Number of on-street bus stops in city centre operating within their practical capacity	

# The Project





# The Noise



NEW ZEALAND

## National's \$2.6 billion plan to fix Auckland's traffic chaos

4 Aug, 2017 5:00am

4 minutes to read



Transport Minister Simon Bridges was forced to reveal details of the package last night after parts of it were obtained by the Herald. Photo / Peter Meecham



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# ATAP

Indicative priorities for major new investments		
Early priorities (completion in decade 1)	Medium term priorities (completion in decade 2)	Longer term priorities (completion in decade 3)
<ul style="list-style-type: none"> <li>• Northwestern Busway (Westgate to Te Atatu section).</li> <li>• Address bottlenecks on Western Ring Route (SH20 Dominion Rd to Queenstown Rd) and Southern Motorway (Papakura to Drury).</li> <li>• New or upgraded arterial roads to enable greenfield growth in priority areas.</li> <li>• Protect routes and acquire land for greenfield networks.</li> <li>• Complete SH16 to SH18 connection.</li> <li>• Early Rail Development Plan priorities (see paragraph 81).</li> <li>• Upgraded eastern Airport access (SH20B).</li> <li>• Investments to enable smarter pricing.</li> <li>• Increased investment in Intelligent Network Management.</li> <li>• Progress advance works on medium-term priorities.</li> </ul>	<ul style="list-style-type: none"> <li>• Continued investment to enable greenfield growth.</li> <li>• New strategic roads to Kumeu and Pukekohe.</li> <li>• Implementation of mass transit on isthmus and then to the Airport.</li> <li>• Bus improvements Airport – Manukau – Botany.</li> <li>• Improved access to Port/ Crafton Gully.</li> <li>• Northwestern Busway extensions.</li> <li>• Improve connection between East-West link and East Tamaki.</li> <li>• Penlink.</li> <li>• Medium-term Rail Development Plan priorities.</li> </ul>	<ul style="list-style-type: none"> <li>• Continued investment to enable greenfield growth.</li> <li>• Southern Motorway improvements south to Manukau.</li> <li>• Southwest Motorway (SH20) improvements and improved northern Airport access.</li> <li>• Northern Motorway widening.</li> <li>• Waitematā Harbour crossing improvements, including mass transit upgrade of Northern Busway.</li> <li>• Longer term Rail Development Plan priorities.</li> </ul>

# Mode & Staging

NEW ZEALAND

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3 minutes to read



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### Early priorities (completion in decade 1)

- Northwestern Busway (Westgate to Te Atatu section).
- Address bottlenecks on Western Ring Route (SH20 Dominion Rd to Queenstown Rd) and Southern Motorway (Papakura to Drury).
- New or upgraded arterial roads to enable greenfield





# The Noise

BUSINESS

## Auto industry invited to test driverless cars in New Zealand

1 Jun, 2017 6:19am

3 minutes to read



A Navya driverless car is already in trials at Christchurch Airport. Photo / File

NZ Herald



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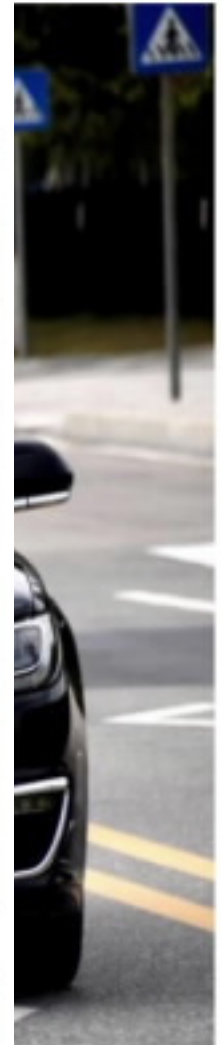
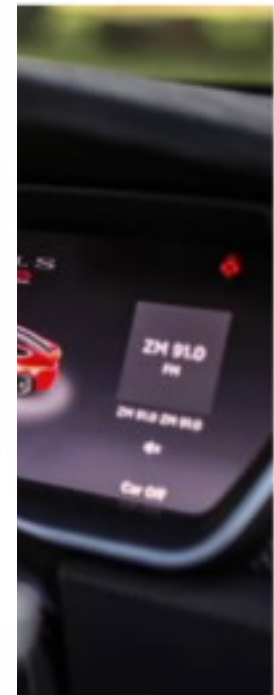
Bloomberg

By: Jessica Shankleman, Hayley Warren



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5 minutes to read



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# Overcoming the noise









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# Simplicity

# Overcoming the Noise: Service Led Options



# Defining the Problems and Success

Benefit		Investment Objective
<p><b>1</b></p> <p>Better connected city, better match for people, jobs, education opportunities</p> <p> 50%</p>	<b>1</b>	<p></p> <p>Substantially improve connections to and from the North West</p>
<p><b>2</b></p> <p>Expanded transport choices for the North West</p> <p> 35%</p>	<b>2</b>	<p></p> <p>Make public transport a realistic option for the majority of journeys to and from the North West</p>
<p><b>3</b></p> <p>Increase the efficiency of public transport to and from the North-west</p> <p> 15%</p>	<b>3</b>	<p></p> <p>Increase the efficiency of public transport to and from the North West</p>

# Defining the Problem and Success for Customers



## CITY CENTRE EMPLOYEES



### Journey Experience

"I work in the CBD but my life takes place in northwest Auckland.

Driving to the CBD in the peak hours is stressful and time-consuming, plus parking downtown is expensive.

I don't want to spend my time in traffic nor waiting on or in a crowded bus that meanders through suburbs.

- I need a fast, direct and reliable service with simple connection that performs especially during peak hours."



## STUDENTS



### Journey Experience

"I have several destinations (school, work, friends) across Auckland plus I am on a budget.

- I need an affordable, fast, direct and reliable service throughout the day and week."



## INDUSTRIAL EMPLOYEES



### Journey Experience

"A lot of jobs are in the industrial areas in Rosebank or Henderson where car parks are available.

I can reach my work in the industrial area via the SH16 much better than I can by public transport.

Taking the bus would save me a lot of money but the journey takes longer than by car, is unreliable and sometimes doesn't cover my shift very well. I risk my job if I don't show up on time.

- I need an affordable reliable service to and from my work place in the industrial areas at any time of the day."



## ELDERLY/MOBILITY CHALLENGED



### Journey Experience

"I want to be mobile and part of society. I travel off peak to activities, to health care facilities and to see family and friends also locally.

Using the bus can be overwhelming: tagging on/off, finding the right connection and many of the bus stops are not designed barrier-free. Services are often infrequent and connections are difficult when I travel

- I need easy connections and barrier-free facilities."

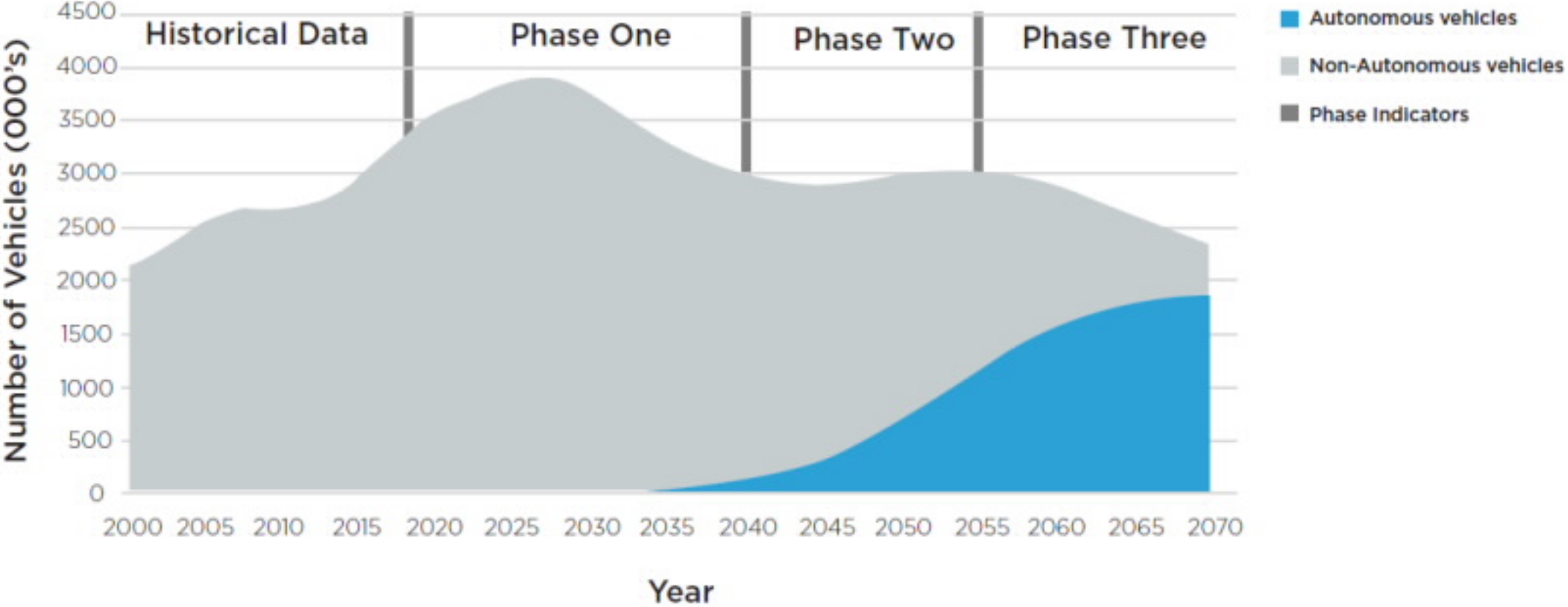


# Recommended outcome

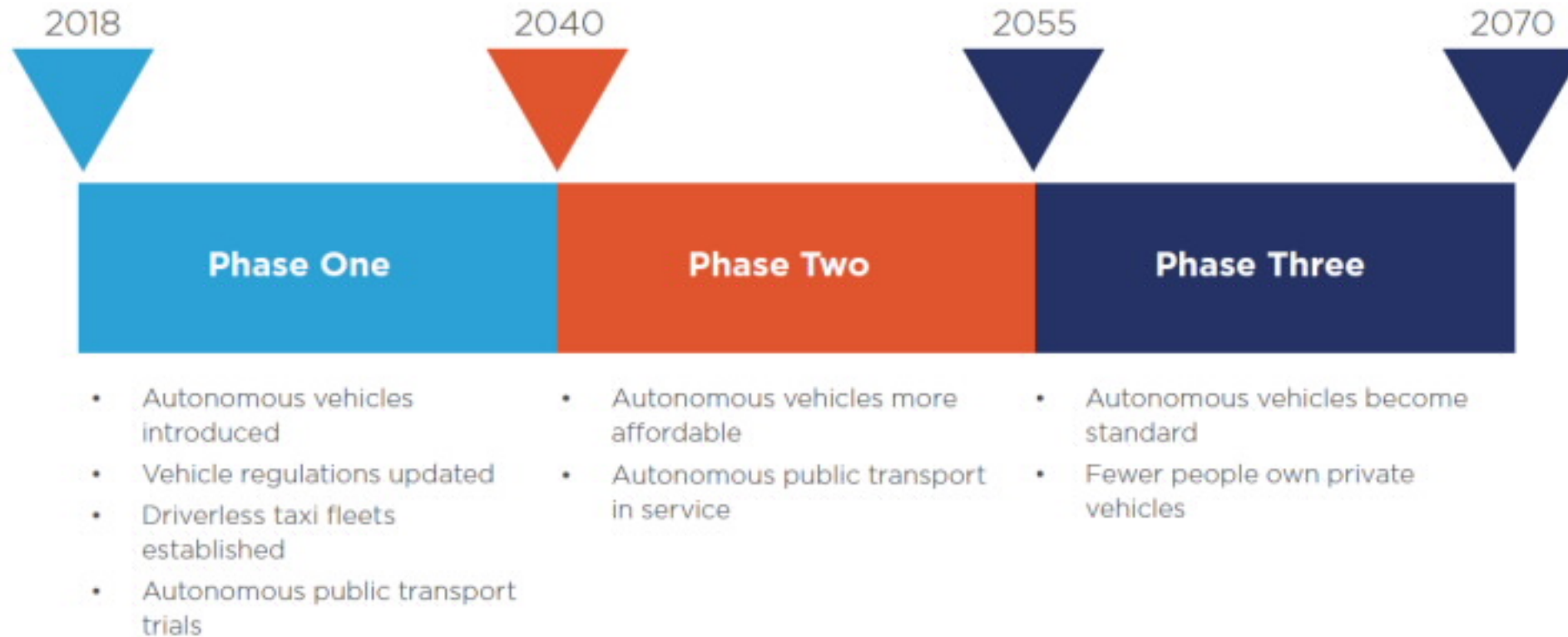


# Overcoming the Noise: Autonomous Vehicles

### SIZE OF VEHICLE FLEET



# Overcoming the Noise: Autonomous Vehicles



# Why is it important?





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# Overcoming the Noise: Team Approach

- Keep revisiting the ‘why’
- Filter the ‘noise’ at the project leadership level
- Empower your team to focus on the core objectives/activities

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# The Outcome

- Simple, independent, focused business case
- Challenges expectations
- More 'noise'

What we could achieve:

- Double the jobs accessible by PT from Westgate
- Double the people within walking distance of rapid transit in the corridor
- Reduce PT travel time from Westgate – City 50 mins to 32 mins

# Learnings

- Focus on the basics
- Don't try to predetermine the outcome

