

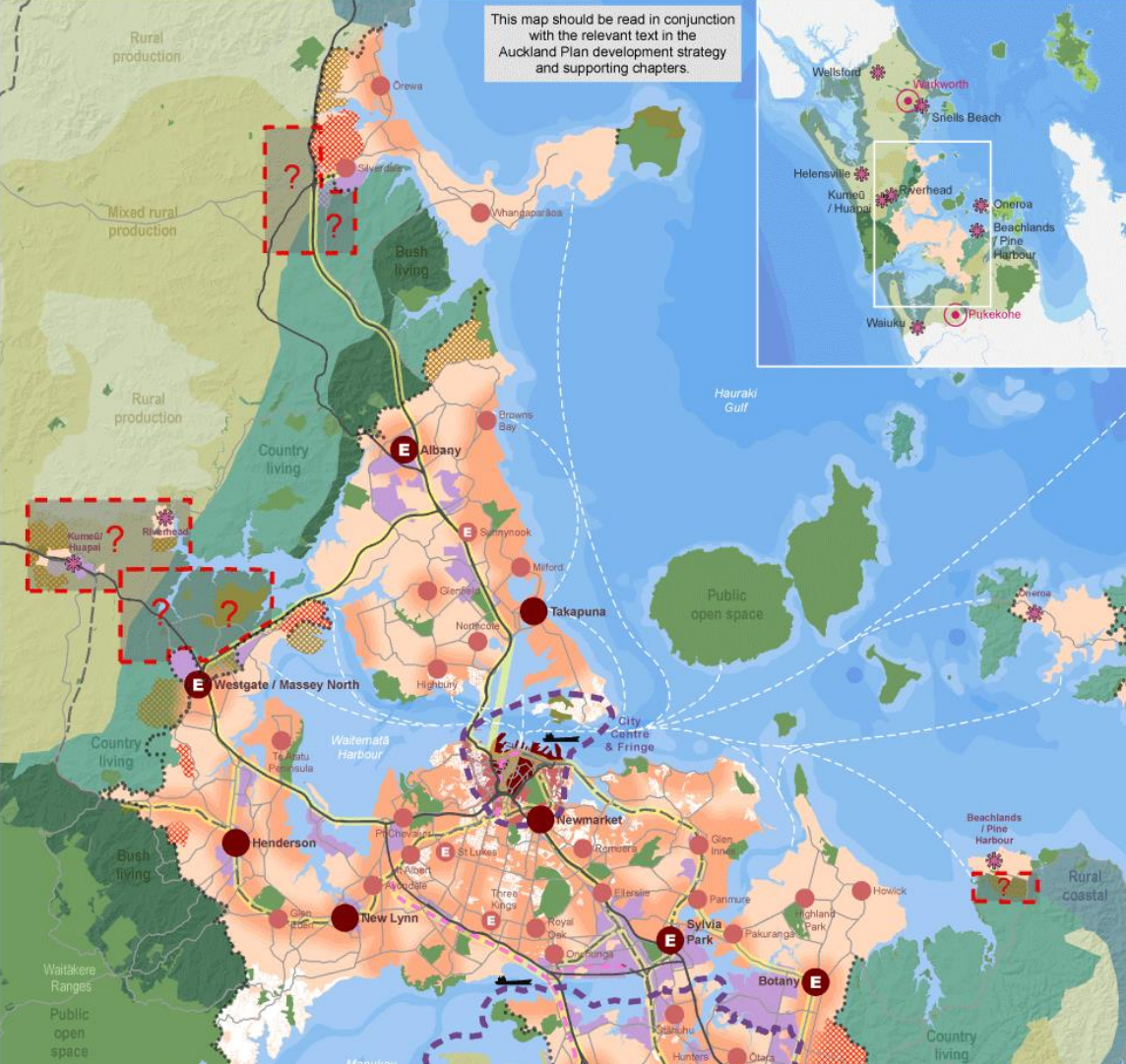
Transport and growth at the corridor level

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8 March 2016

P/T and growth

- Available evidence supports the principle that less need for transport = more sustainability
 - Less household income and energy spent travelling;
 - Less carbon and other emissions;
 - Much less congestion on already optimised networks
- You are all familiar with what spatial solutions have been promoted to support such outcomes...

This map should be read in conjunction with the relevant text in the Auckland Plan development strategy and supporting chapters.



D.2 DEVELOPMENT STRATEGY MAP (URBAN CORE)

Urban development

- Most change
- Significant change
- Moderate change
- Some change
- Least change

- Metropolitan centre
- Town centre (varying degrees of change)
- Emergent centre
- Satellite town

- Ferry routes
- Existing rail network
- Proposed rail network
- Strategic road network
- Arterial roads
- Rapid Transit Network (RTN)
- Baseline 2010 Metropolitan Urban Limit
- Bush living
- Country living
- Mixed rural production

*“This data shows that the Expansive Scenario is **considerably more expensive** [\$10 billion] than the Compact Scenarios in terms of **transport infrastructure capital expenditure...**”*

*“In general, it was found that the Expansive Scenario is likely to be **more expensive and need more new infrastructure** whilst the more Compact Scenarios could **utilise the current infrastructure more efficiently...**”*

*“For Wellington, benefits are **greatest** when most new growth is directed to areas that are **already well-connected, offer high levels of amenity, and have some (or all) of the supporting infrastructure.** These conditions exist around the **central city, some suburban centres, key transport routes, and in specific parts of the City’s northern suburbs....”***

P/T and growth

- Centres and corridors
 - Much more cycling and walking
 - Requires density, diversity and design (and destination)
 - Costs of widening generally prohibitive
 - Very different approach to using available transport corridor space including sometimes removing capacity from already busy corridors
- Communities have thus far struggled to always accept the medicine.

“North Shore City Council could face a protracted and potentially costly legal battle over the controversial Lake Rd cycle lane.

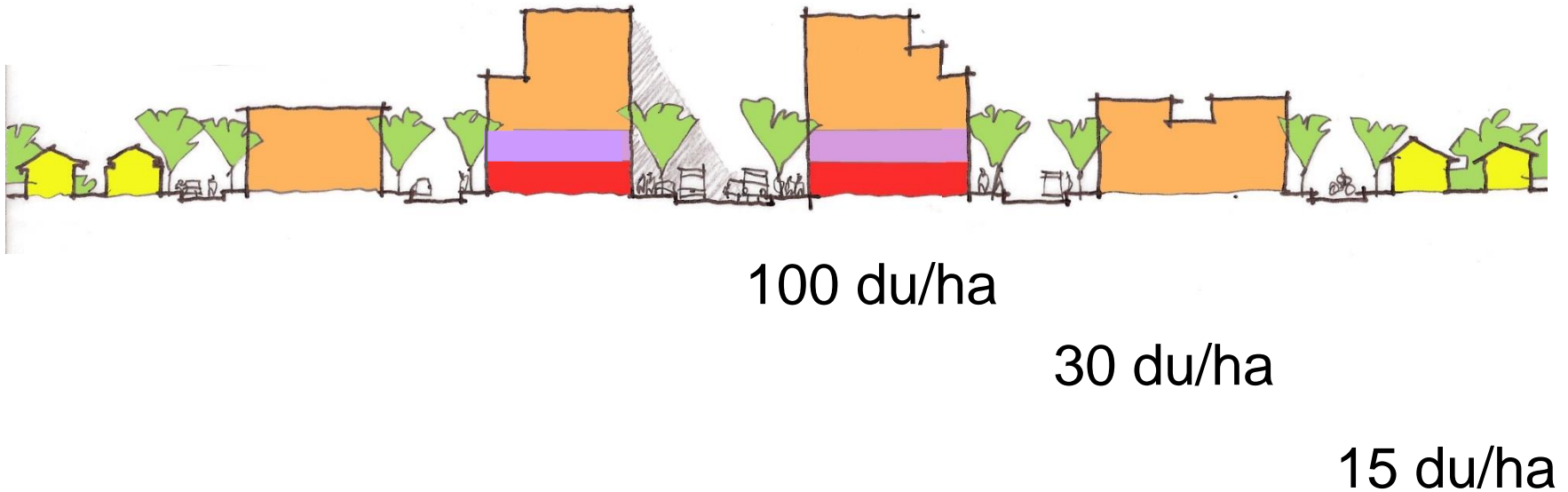
*A petition calling for the **removal of the cycle lanes** has been **signed by 2714 Belmont, Bayswater and Devonport residents** who have formed the Cycle Lane Action Review Association.*

*And they will **take the council to court** if the petition isn't supported, says group spokesman John Reynolds.”*

Density along corridors

- Arterial road networks spatially important
- Auckland and other cities have numerous constraints that limit alternative routes
- Planning responses often focus everything to the arterials:
 - Bus lanes and more (e.g. Dominion Rd light rail plans)
 - Cycle lanes
 - wide spacious footpaths and street vegetation
 - high density housing

Conventional corridor-density planning approach

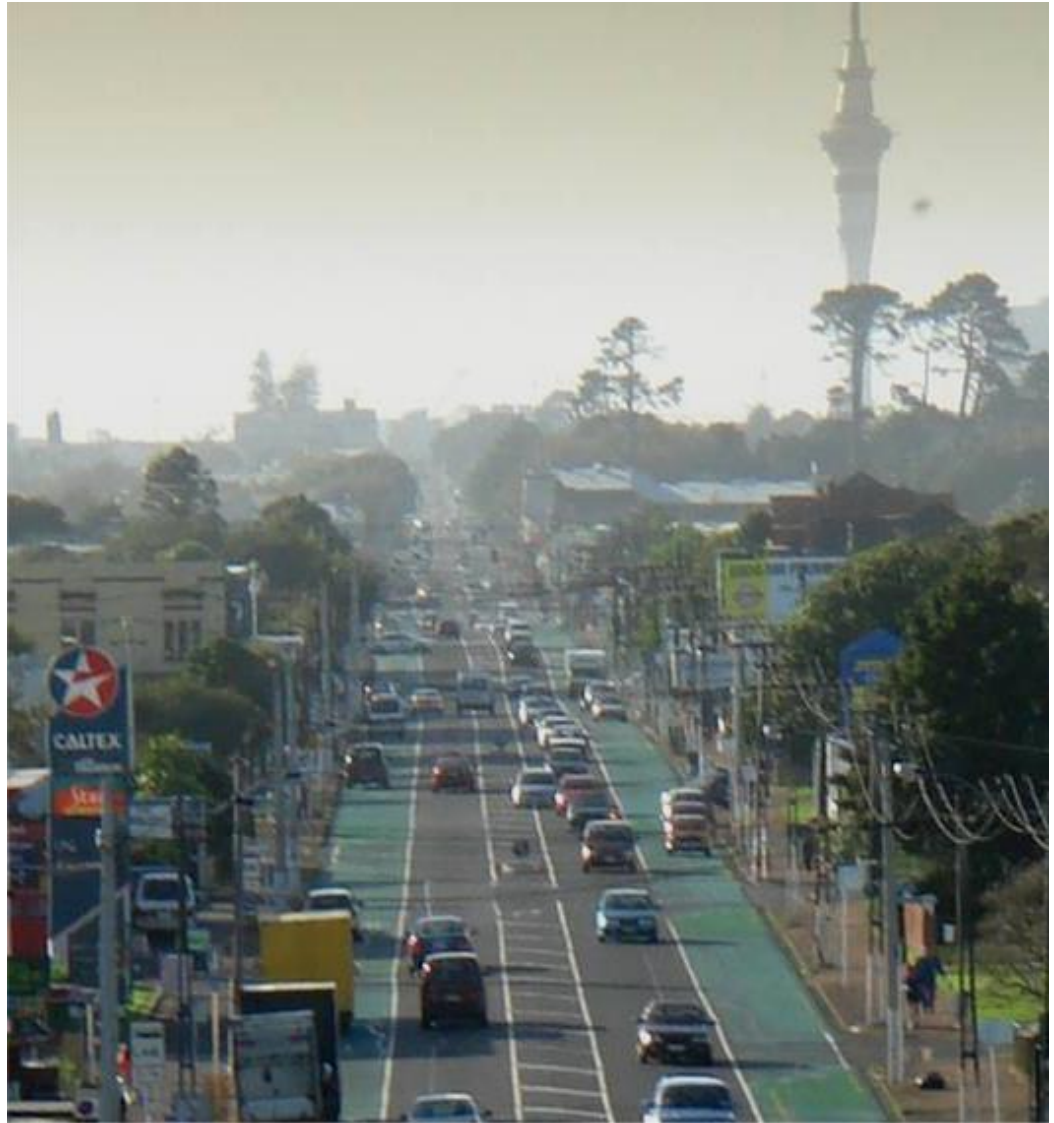


Dominion Rd, Auckland 20.1m+ wide



WIDTH + LENGTH =

*2D CROSS
SECTION IS LESS
DETERMINATIVE
OF CHARACTER
THAN
UNDERSTANDING
3D "TUNNEL
VISION"...*



WIDTH + LENGTH =

*2D CROSS
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Where did this come from?



1. applicable streets

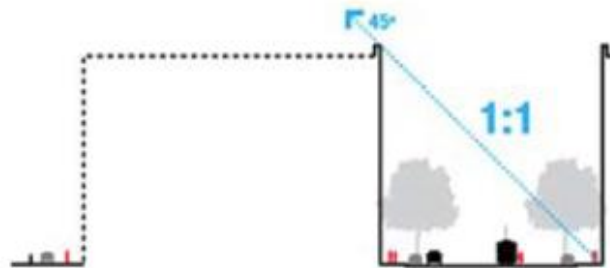


2. heritage

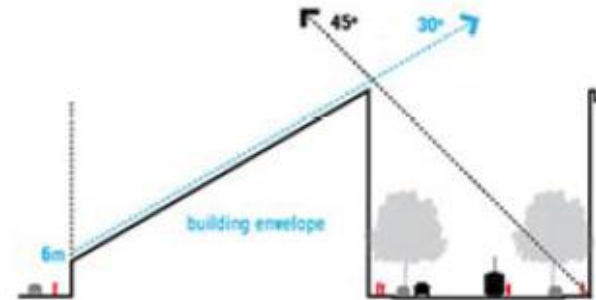


3. height limits

front



rear



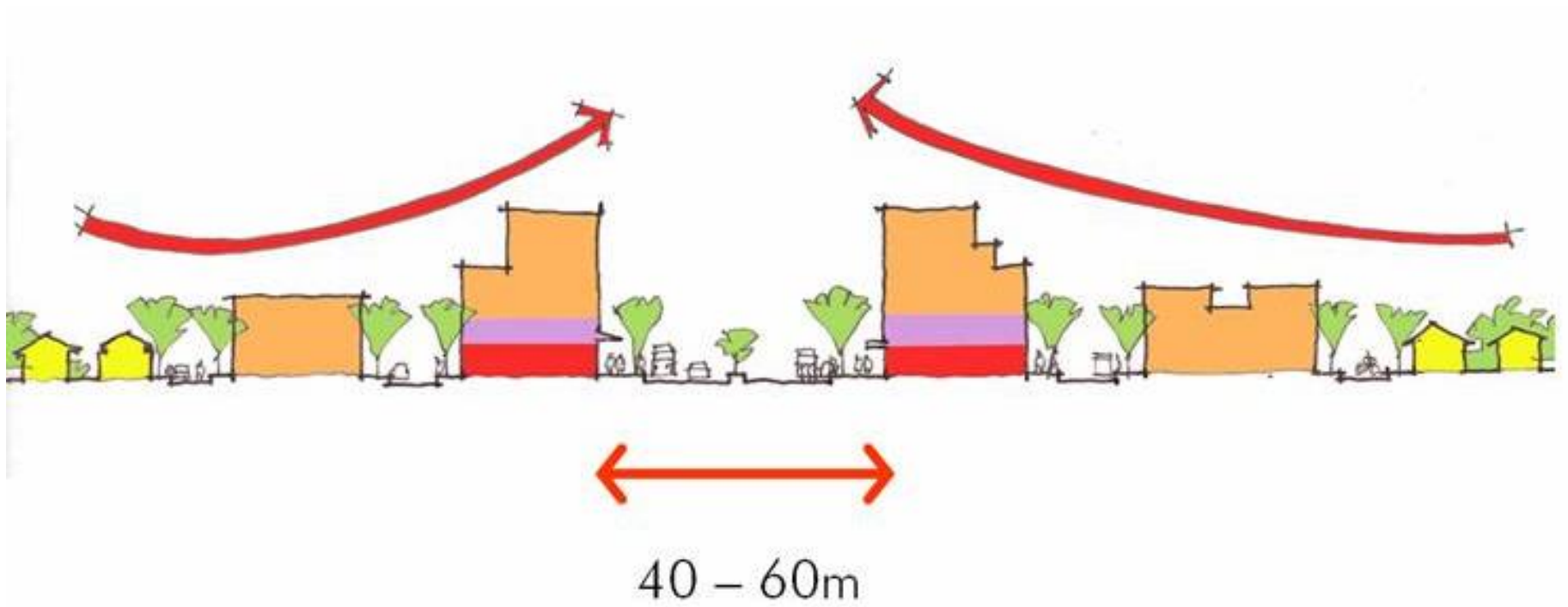
4. parking

rear access only

1:1 ratio to dwelling/
commercial unit

offsite parking within
300m of building





Northbourne Avenue, Canberra 60m wide



Passeig De Gracia, Barcelona 60m wide



Avenue Des Champs Elysees, Paris 70m wide



Chrystie & Forsythe Sts, New York 92m wide

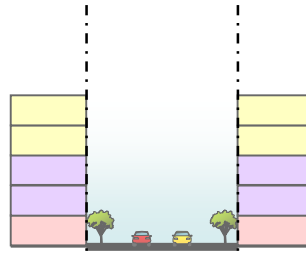
+ SARA D ROOSEVELT PARK



Avenue Foch, Paris 120m wide



DOMINION & OTHER
AUCKLAND ARTERIALS –
20.1m+



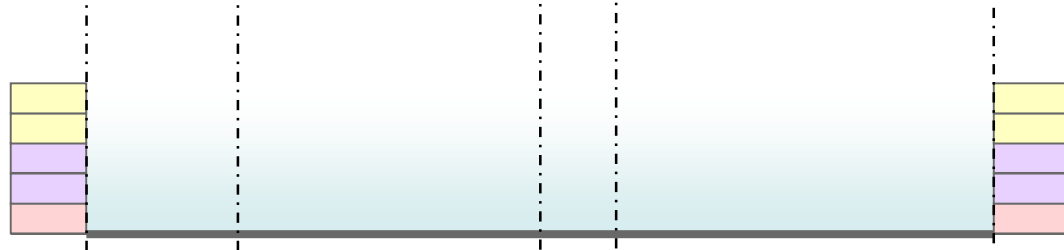
NORTHBOURNE, CANBERRA –
60m



CHAMPS ELYSEES – **70m**



FOCH – **120m**



Density along corridors

- As far as growth corridors go, NZ's and in particular many of Auckland's, do not stack up well.
 - 20.1m – 25m wide. International exemplars usually 40m – 60m and in some instances 100m+
 - Insufficient width to accommodate transport link amenity for different modes and place amenity for high density housing
 - Evidence shows that busy arterials lead to substantially greater risk of asthma and lung disease in young children and elderly
 - High density housing encouraged, but with less on-site utility due to no street parking and on-site manoeuvring etc.

IMPLICATIONS OF PROXIMITY

MINISTRY OF TRANSPORT (2007)

399 adults over the age of 30 are estimated to die prematurely from vehicle-related particulate (PM_{10}) per year

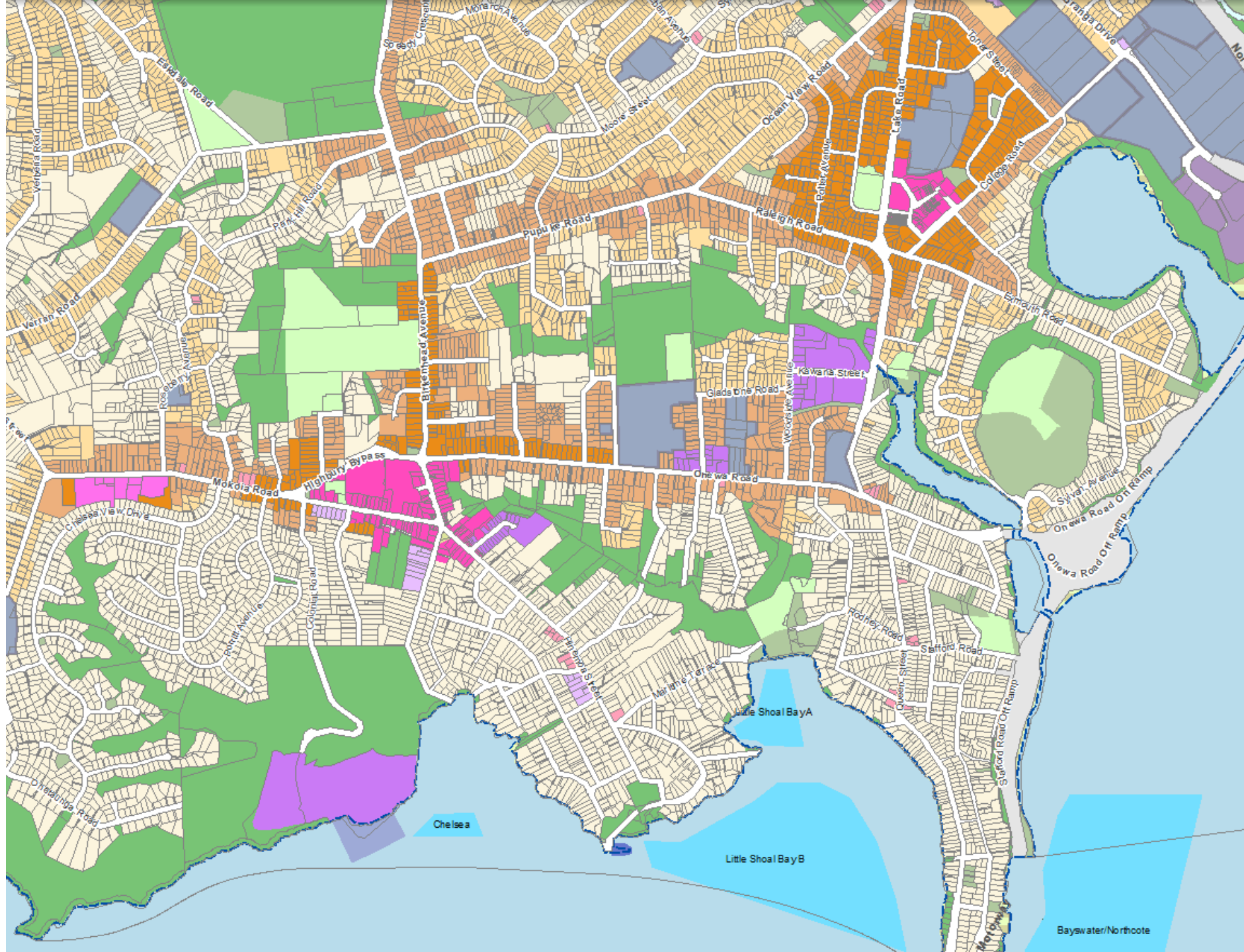
IMPLICATIONS OF PROXIMITY

AUCKLAND REGIONAL PUBLIC HEALTH SERVICE (April 2009)

*Rates of asthma and respiratory infections have been found to be **SEVERAL times** higher for children living around major transport routes*

Recommendations:

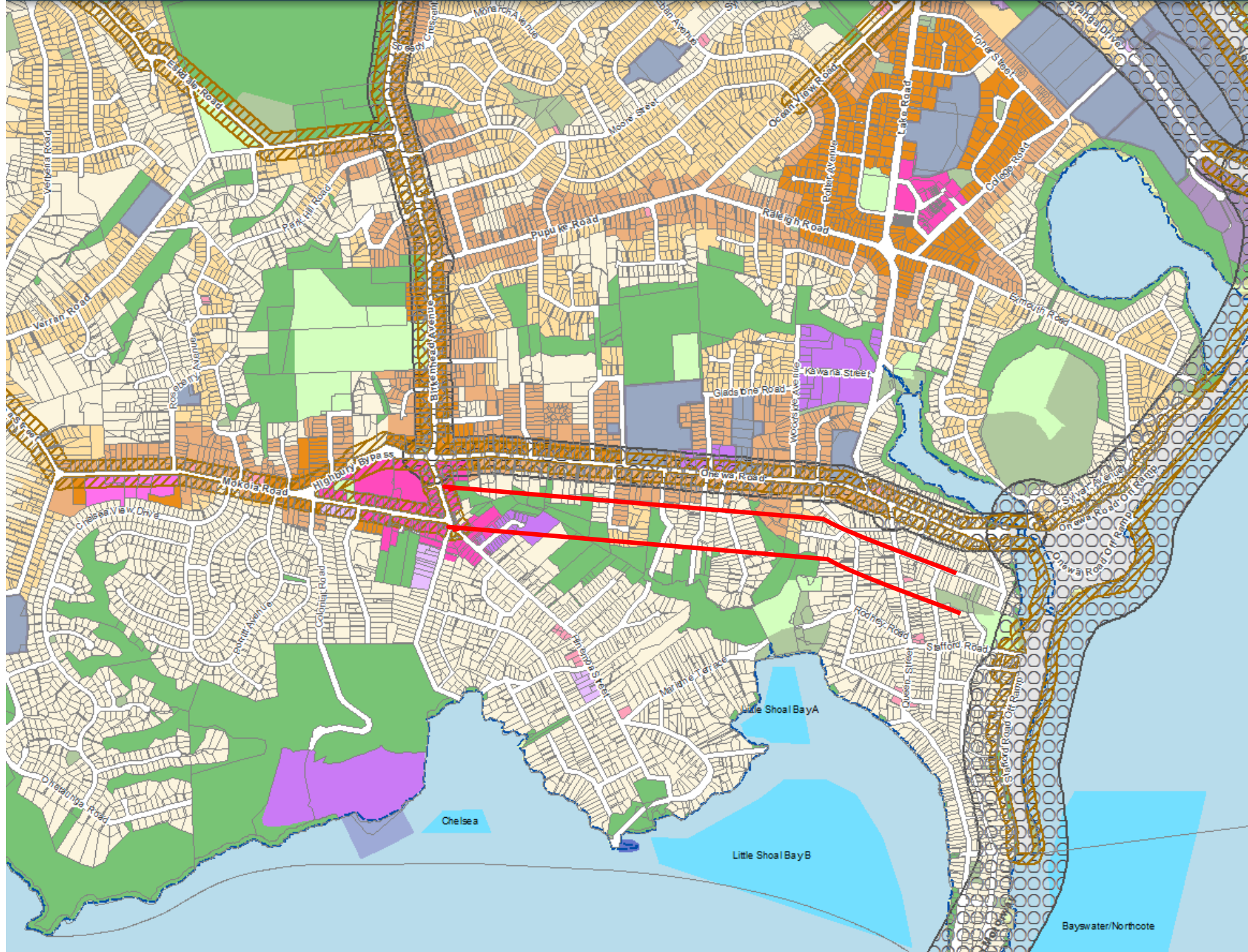
No early childhood located within 150m of a strategic route or within 60m of a district or regional arterial road.





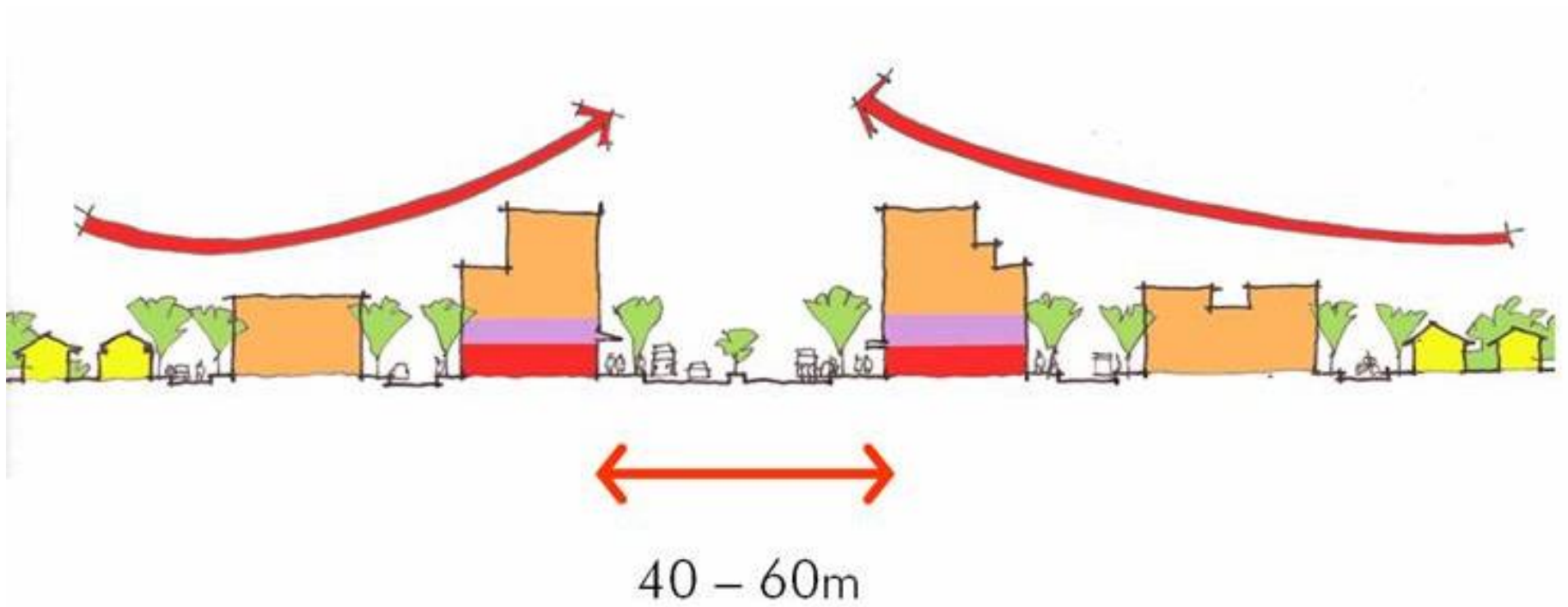
Density need unproven

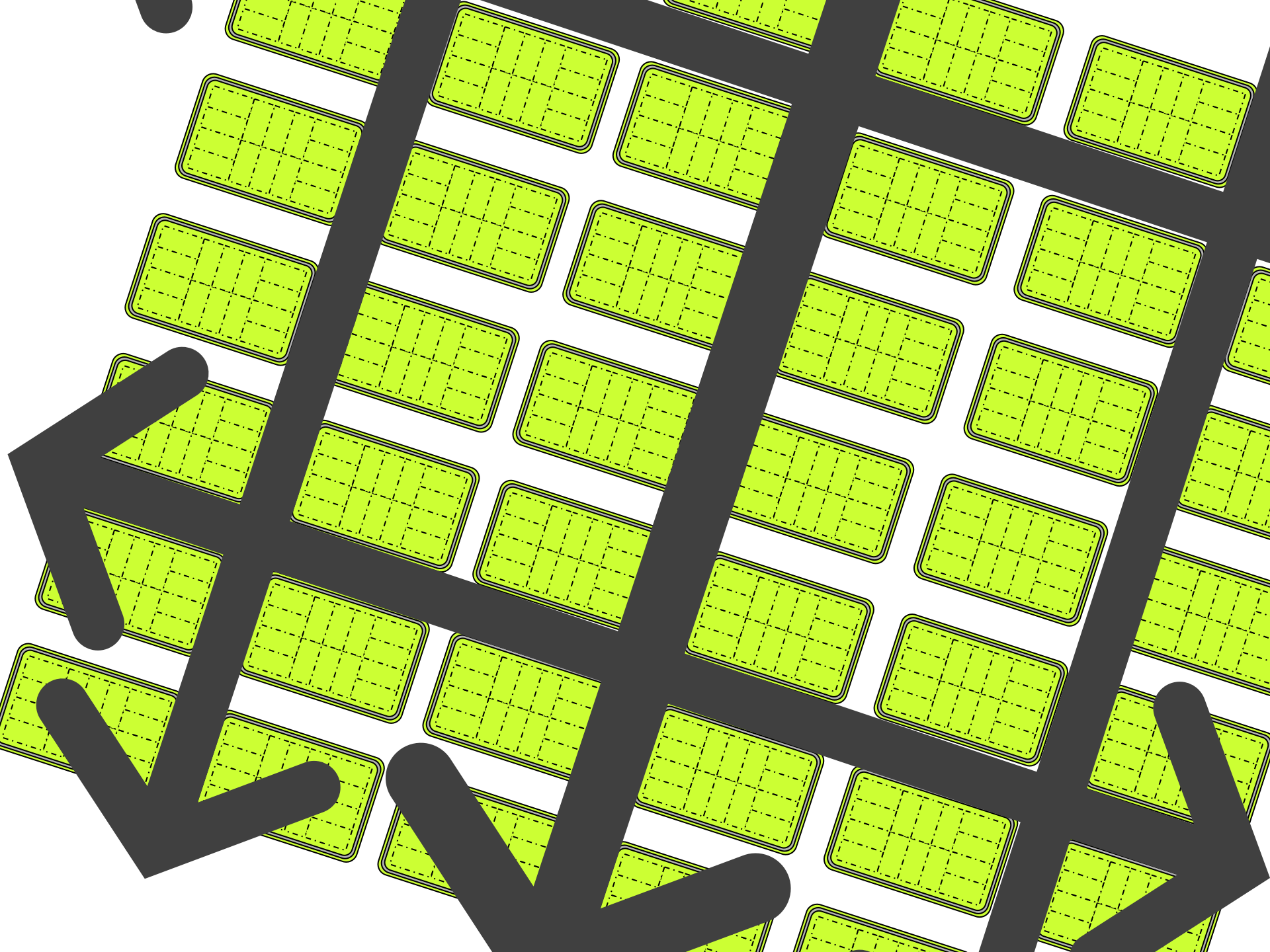
- Remember the planning approach is to promote density where there will be a transport benefit
- Passenger transport alone is not yet seen widely as a must-have amenity for residents
- Buses don't stop outside people's houses; they only stop at stops...
- So @ 400m spacing, people living 200m behind the corridor have the same access as someone living 200m along it... Only without the noise, fumes and relative lack of visual amenity



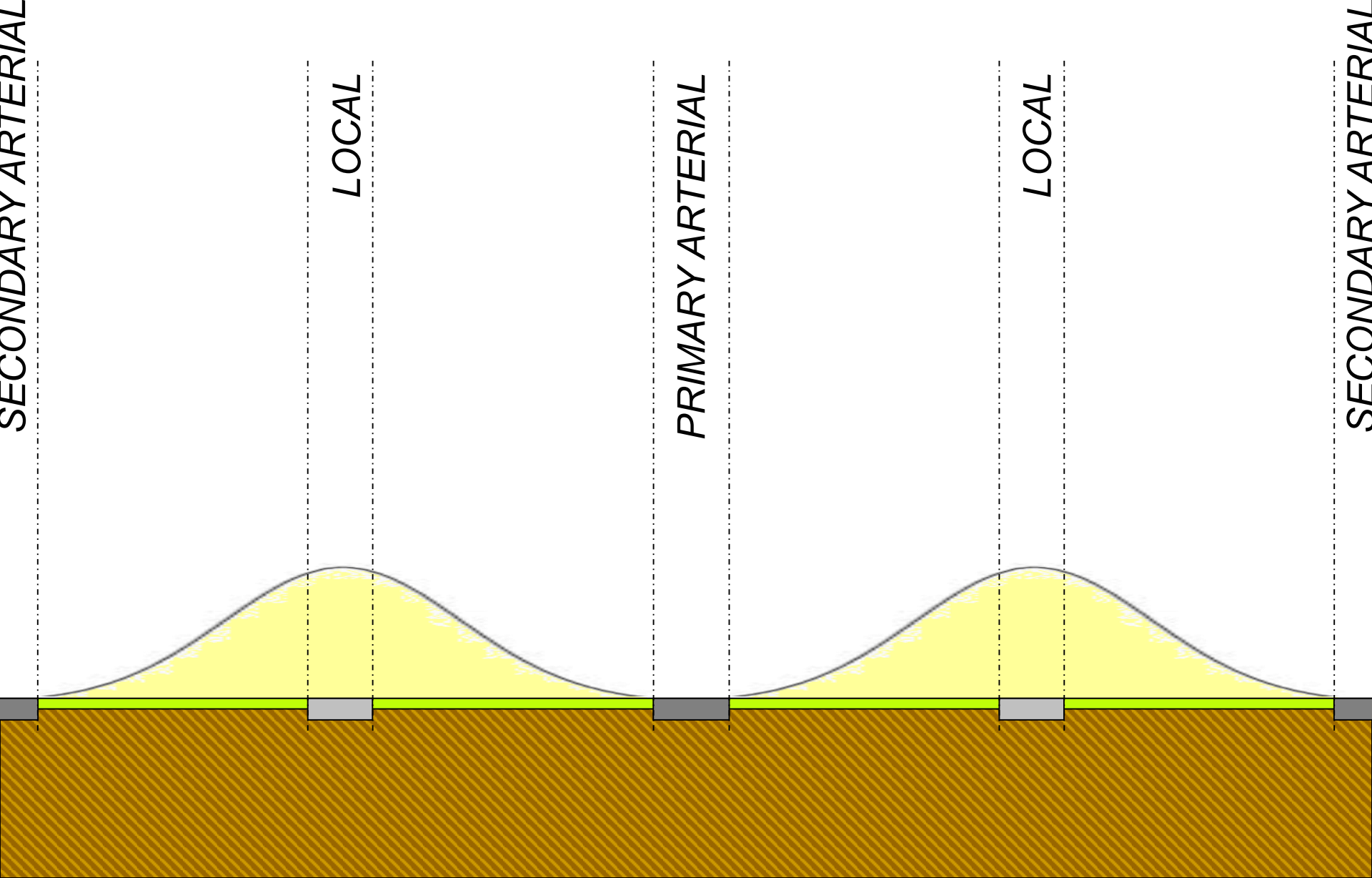
Density need unproven

- Very good access to bus stops is not exclusive to the arterial edge
- Current plans asking people to unnecessarily live in the lowest-amenity parts of the locality
- Of course growth doesn't stop after our current planning horizons...
- So finer grain subdivision at the edge now also makes any future widening even harder to achieve

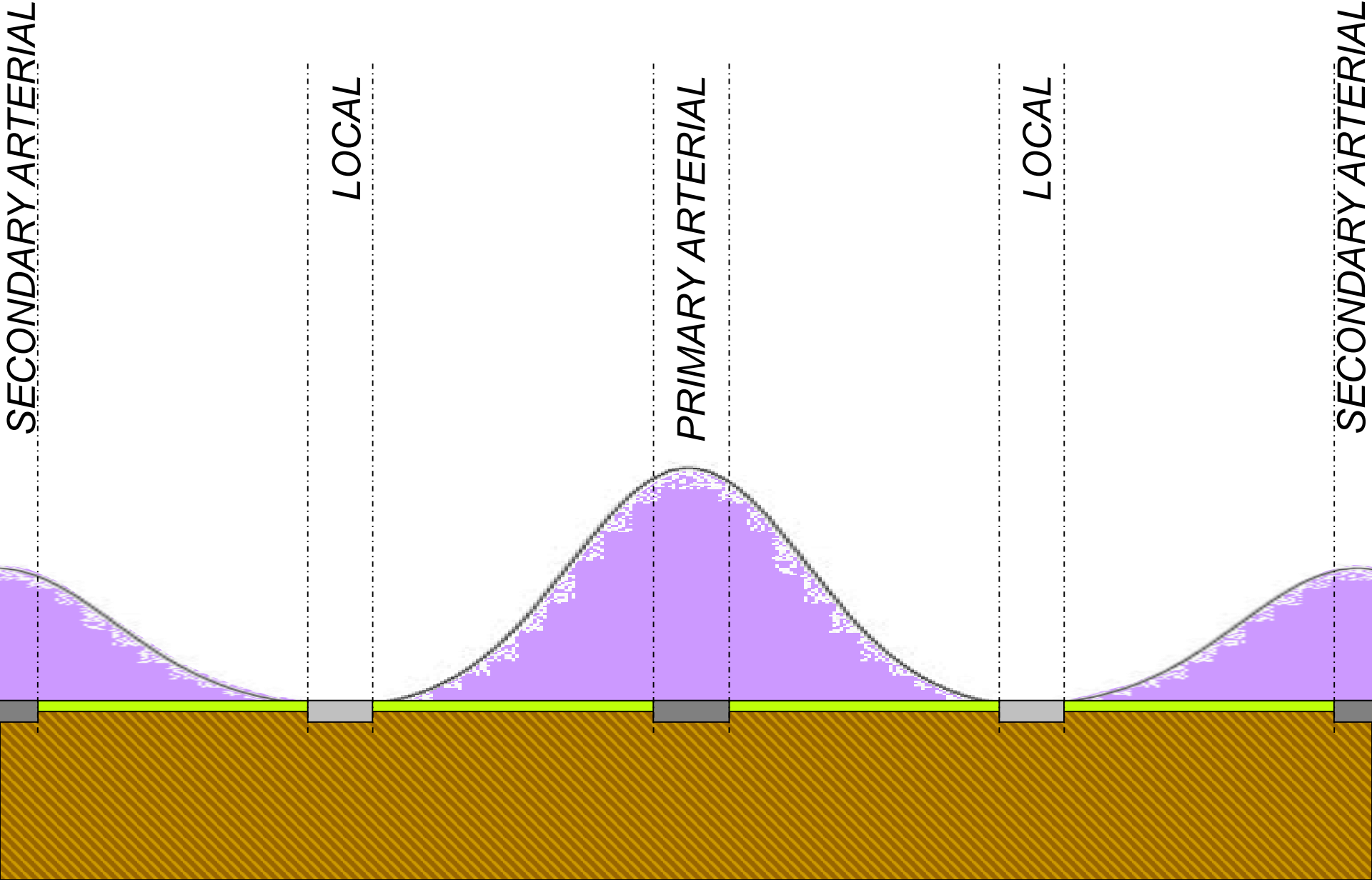




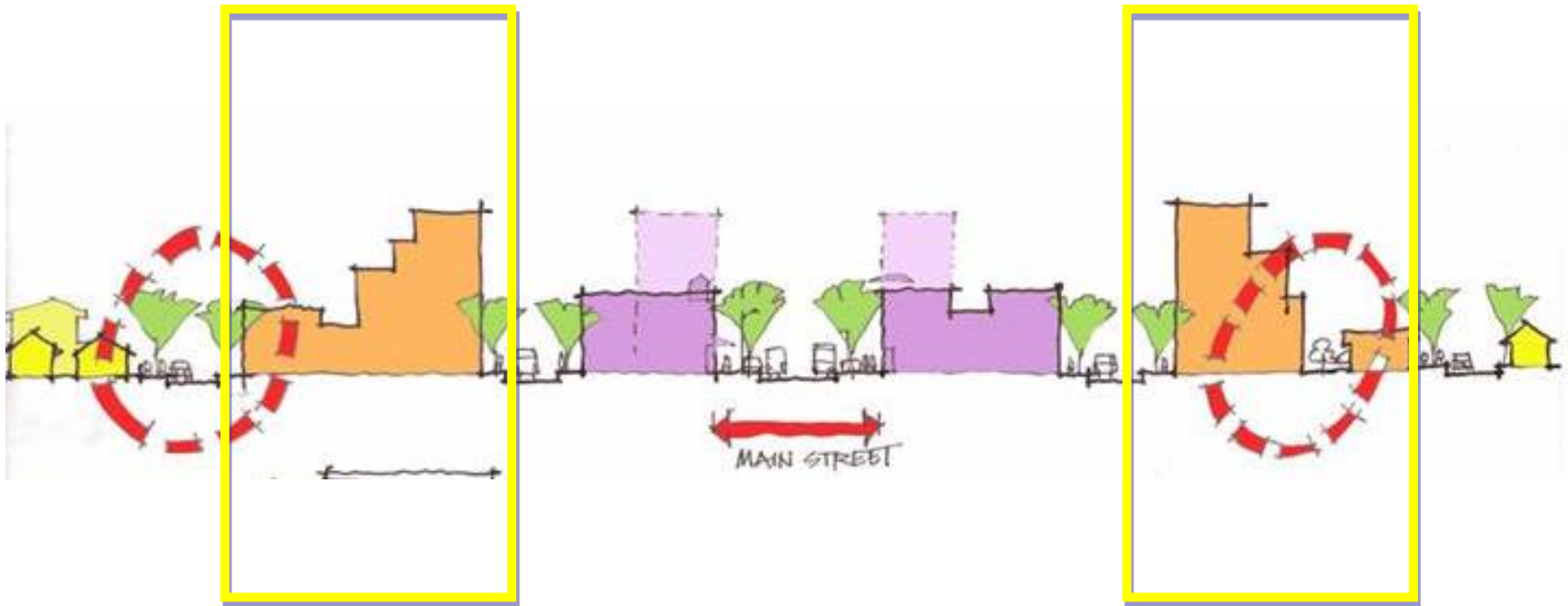
Residential Amenity Curve



Business Amenity Curve



- Often there is a lower land price;
- People still enjoy amenity advantage of the arterial;
- People avoid all of the nuisance issues.



Conclusions

- Growth strategies based on passenger transport corridors are sound and effectively here to stay.
- Arterials need to be seen as scarce resources that are finite and already under more pressures than can likely be accommodated.
- The case for locating highest densities directly at the arterial edge could to be reconsidered.
- Default thinking should change from “put it on the arterials unless we can’t”, to “**keep it close to but off the arterial if we can**”.

end

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