Urban Geography

THE ULTIMATE EXPRESSION IN INTER REGIONAL SPATIAL PLANNING, DEVELOPMENTS AND BEHAVIOURS

#VISIONWEEKNZ

Transport Begets Land Use, Land Use Begets Transport, Both Beget the User Environment (in a City)

- BEN ROSS. SOUTH AUCKLAND. 2020

About Ben Ross

The Covid-19 and (soon) Post Covid-19 era has/will presented the South Pacific with a unique opportunity to "reset" how we engage Spatial Planning to encourage more positive, friendly experience and interactions with our cities and environments (human and physical).

As a Human Experience Engineer, Urban Geographer and Spatial Planner Ben has been at the forefront of advocacy of improving such human experience in transit, urban design and spatial planning for Southern Auckland.

From large projects like Our Manukau and Airport to Botany Rapid Transit to smaller place making projects such as street calming, parklets and bus lanes. Ben through building relationships with decision/policy makers, fellow urbanists, and those who dream of wanting their urban area to be one of a human experience not a human drama - which is even more critical than era in the Post Covid era.

Ben along with Rob Mayo and Nicholas Lee recently formed Colab and Associates Limited. The Colab Mission: bringing the Human Experience Engineers in all things Transit CX/UX, Urban Design, and Spatial Planning.

With the continued rise of Human Scale and the 15 Minute City Ben and Colab will be there as Human Experience Engineers advocating for cities being a human experience not human drama!

The Covid Era - Context

Covid-19 triggered unprecedented moves including lockdowns and social distancing

Emissions and congestion had dropped in the Covid area with emissions being down by other half, traffic congestion all but eliminated

Increase in cycling and walking. People working from home

Level 3 allowed limited return to workforce under strict social distancing regime

Tactical urbanism carried out to help support upswing in Active Mode Transportation

Covid-19 presented opportunity to reflect, evaluate and look at new ways forward Post Covid

The Post-Covid Era #bounceforward (?)

Social Distancing is engrained into this generation as being frugal was to our grand parents in the Great Depression

→

Desire to use active modes, buy and support local, working from home or close by (remote office), maintain life balance that lock down reminded us of. Also desire to avoid the Super Commute

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Demand for more transit and cycling interventions. Also realisation of the benefits of mixed use zoning and local amenities

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However, Auckland reverted back to the Status Quo of super commutes, congestion and pollution. Tactical Urbanism measures were removed

My #bounceforward vision

The 20 minute City as the Mayor of Paris has touted

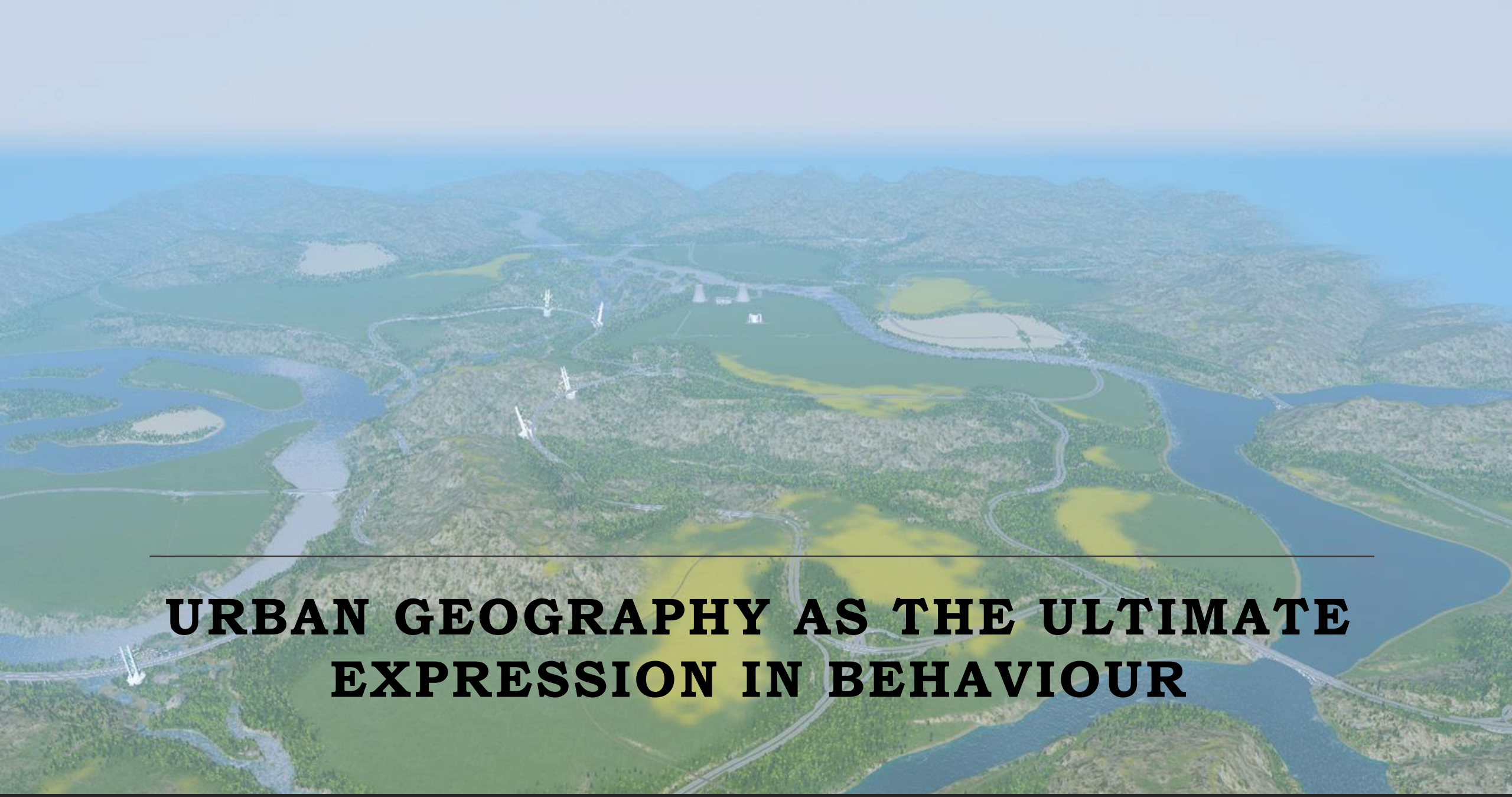
Elimination of the Super Commute

Better integration and cooperation between the Regions (particularly the Golden Triangle)

Re-Emergence of Industry after 40 years of Post Industrialisation

Walkable and Transit Orientated Environments – They Attract Jobs

This presentation runs in parallel with: **Walkable and Transit Orientated Environments – They Attract Jobs**



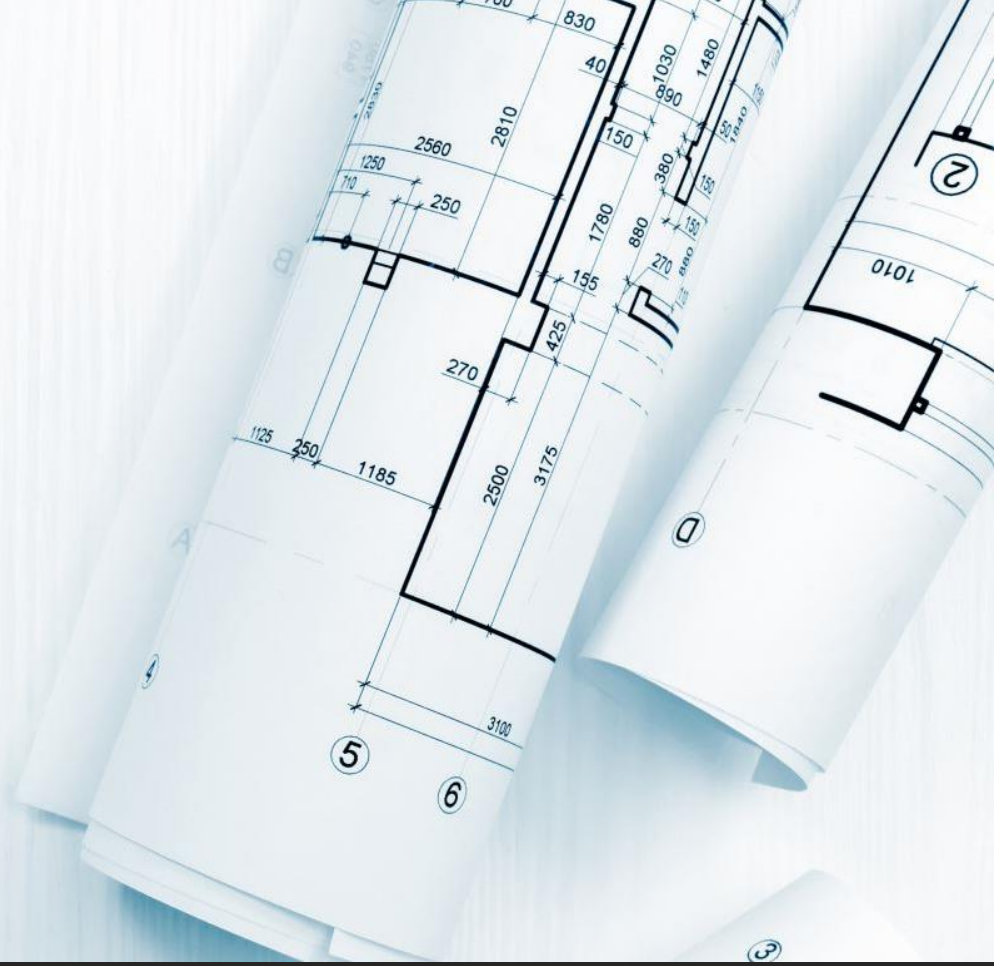
URBAN GEOGRAPHY AS THE ULTIMATE EXPRESSION IN BEHAVIOUR

Urban Geography and Spatial Planning

Urban geography is the subdiscipline of geography that derives from a study of cities and urban processes. Urban geographers and urbanists examine various aspects of urban life and the built environment. Wikipedia

Spatial planning systems refer to the methods and approaches used by the public and private sector to influence the distribution of people and activities in spaces of various scales. Spatial planning can be defined as the coordination of practices and policies affecting spatial organization. Wikipedia

We wouldn't ask a Urban Planner to produce structural engineering on a building, so why is it that we allow Engineering to dictate so many aspects of building our communities? Building places requires a more deft touch than a standards manual may "allow". #plannersshouldplan https://twitter.com/flytplan/status/987147056711004161?s=20



Planning vs Engineering how and I would approach a City matrix

Building a City Starting with Urban Geography/Spatial Planning

Urban Geography at the top: First up would be your spatial development, its variations and how we would want the City to be. By its very nature Urban Geography (or Geography as a whole) puts the physical and human geographies (also the main two sub disciplines of Geography) first thus when it comes to spatial developments itself those previous geographies come to the fore.

Effectively using the limitations and opportunities presented by the physical and human geographies in a set area how do I want my urban place and environment to evolve. Note I said evolve not build. Build is something as an Urban Geographer I am not overly “fussed with” as I have urban planners and designers who are more nuanced for this kind of stuff.

At this level it is the only time I would be dabbling with engineering matters – that is my inter-regional road, road, shipping and air connections. What are my inter-regional transport connections and how will they influence the spatial development and evolution of my City.

This is bearing in mind Form rather than Function takes priority so those connections will need to be conscious of place making. Manukau City Centre is a classic example of this with its rich inter-regional connections and its surrounding industrial complexes influencing its Form.

Manukau City Centre as of 2019

Urban Planning and macro-level Urban Design

With the spatial development road map laid out it now comes to the **Planners** to begin stage 1 of the implementation: the placement of the zones and with urban designers mapping out the placement of the civic infrastructure (parks).

Typically for a City to get going and capitalise on the inter-regional transport connections you start with industry zoning then residential and finally commercial. As a side note therefore South Auckland is functioning well in its continued urban evolution

Planners along with the Engineers will also need to map out the bulk infrastructure (water, waste-water) and storm water. Planners will also need to prepare the intra-city transport routes and hubs for the engineers to build as well.

Urban Design

Urban Design comes in at this stage of the game as place making starts right away once the zones and the infrastructure mapped out.

Why urban design now when the roads and pipes are not down yet? Remember how I said form over function? Because I am looking at 'Place Making' over just traffic movement (Level of Service) and yes this includes Place Making with Industry.

If you don't start you place making straight away even your industrial complexes end up in a mess making it harder for transport to serve them well.

As Developments tend to cluster around transport routes and hubs (passenger and freight) urban design also becomes paramount if we are to support the spatial development and urban evolution of the City. (note: given City mechanics it will need basic (main) intra city roads and rail down first to allow placement of parks and transport hubs for basic function and amenity).

Engineering

You have the maps, the zones, some basic road and rail, parks and the transport hubs. Now to back this all up and this is where engineering comes in:

To build the arteries and veins that will support the spatial development of the City and its constant evolution.

Please note: Engineers will always be involved with geo-technical matters right through the process as things like peat soils and hills will (in this instance) give physical geography limitations to what we can develop there.

Notice how I said build and not design the City and its support mechanisms – this is constant with what Flyt said and I strongly believe in.

The 2018-2021 Government Policy Statement

DEVELOPING TRANSPORT CONNECTIONS THAT ARE CRUCIAL FOR LINKING PRODUCTION POINTS WITH KEY DISTRIBUTION POINTS (INCLUDING ROUTES IMPORTANT FOR EXPORTS, AND THOSE INTRA-REGIONAL ROUTES CRITICAL FOR GETTING LOCAL GOODS TO MARKET)

The Golden Triangle

Housing will be intensified and mixed in terms of tenure, ensuring that people who currently live in this area can be joined by others, including whānau.

4 Step 4: Create healthy mixed-income neighbourhoods in the wider Transform Manukau area

Timeframe – medium to long term

Beyond Manukau Central, primarily to the south, the existing Housing New Zealand residential neighbourhoods (e.g. Wiri) will be revitalised as healthy neighbourhoods, with new, better quality and healthier housing that relates strongly to the local environment, safeguarding and uplifting mauri tū.

Housing will be intensified and mixed in terms of tenure, ensuring that people who currently live in this area can be joined by others, including whānau. This will help create mixed-income communities and a total residential population of 20,000 people for the Transform Manukau area by 2040.

In addition, new large-scale residential development will occur on 13 hectares of the Counties Manukau DHB's SuperClinic site (bounded by Kerrs Road and Great South Road). Across the wider Transform Manukau area, there are public sector sites capable of generating an additional 1,600 units (or 4,350 residents). Adding these people to the existing 5,300 residents will help us achieve the total target of 20,000 residents for the Transform Manukau area by 2040.

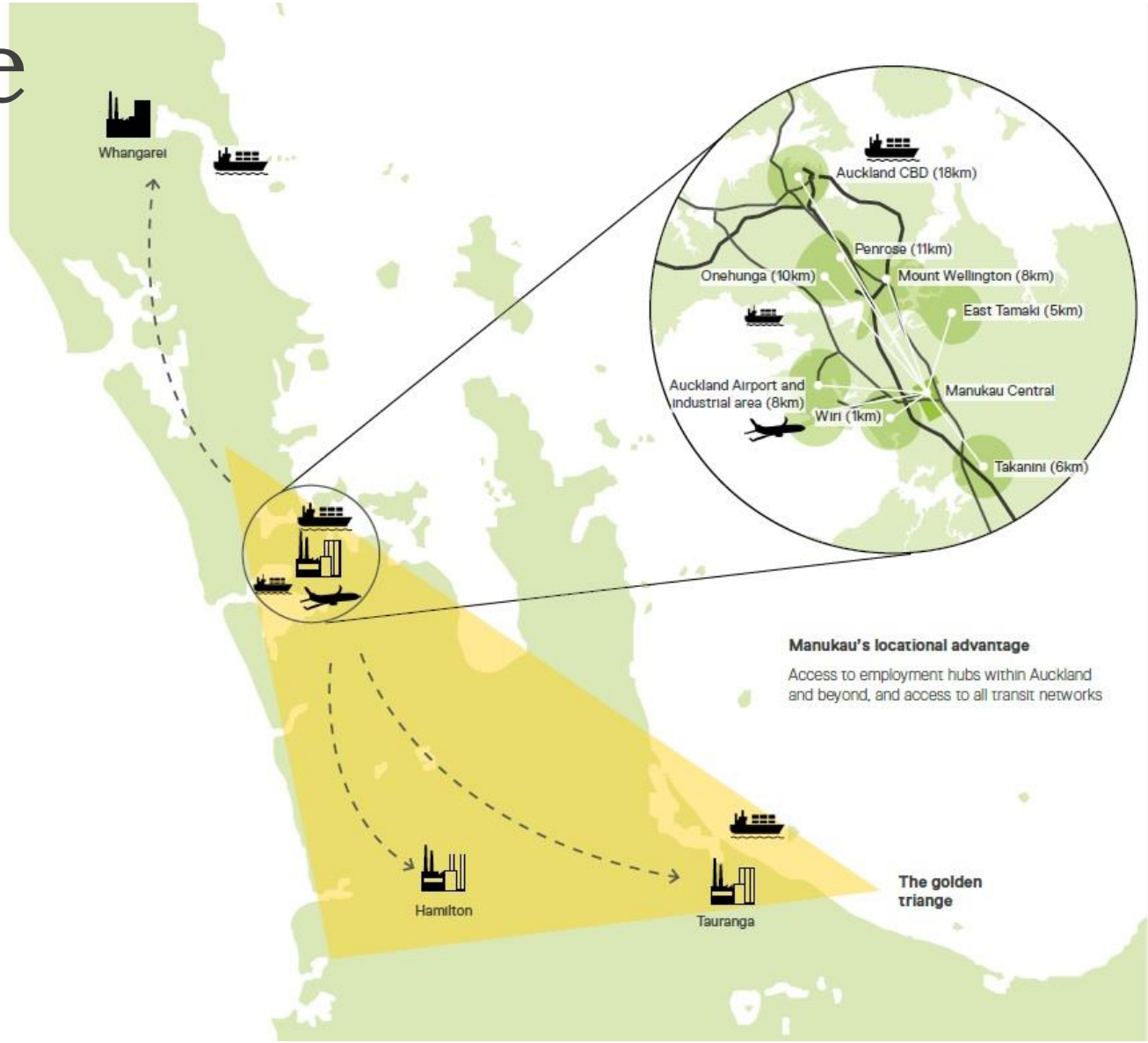
5 Step 5: Use Manukau's locational advantages to raise its regional role

Timeframe – medium to long-term

Manukau Central's strategic location is enviable because it is:

- at the centre of the rapidly expanding South Auckland region (and its employment base)
- at the confluence of the regional motorway network, and will be well-served by a rapid public transport network
- located 8 kilometres from Auckland International Airport, which has ambitious plans to develop further as an employment district
- the gateway to Auckland, as part of the economic 'golden triangle' (Auckland, Hamilton and Tauranga).

These locational strengths create longer-term opportunities to change how potential investors view Manukau Central and its regional role. However, the priority at present is to work through the previous steps (1 to 4) to ensure Manukau is ready to capitalise on these opportunities as they emerge.



The Stats

The main points of the lecture (data given is as of August 2017):

Cities and provinces since the 1990's have been in competition

Rapid urbanisation and globalisation has seen the provinces hollowed out when industry has moved to Auckland

Auckland houses 37% of GDP and 34% of the population while it was growing at 800 new residents a week, this is unsustainable

Infrastructure both in terms of transport and water are not coping

Record suicide rate of 606 for the year in part will have come from Provincial centres being hollowed out and no real chances of employment available

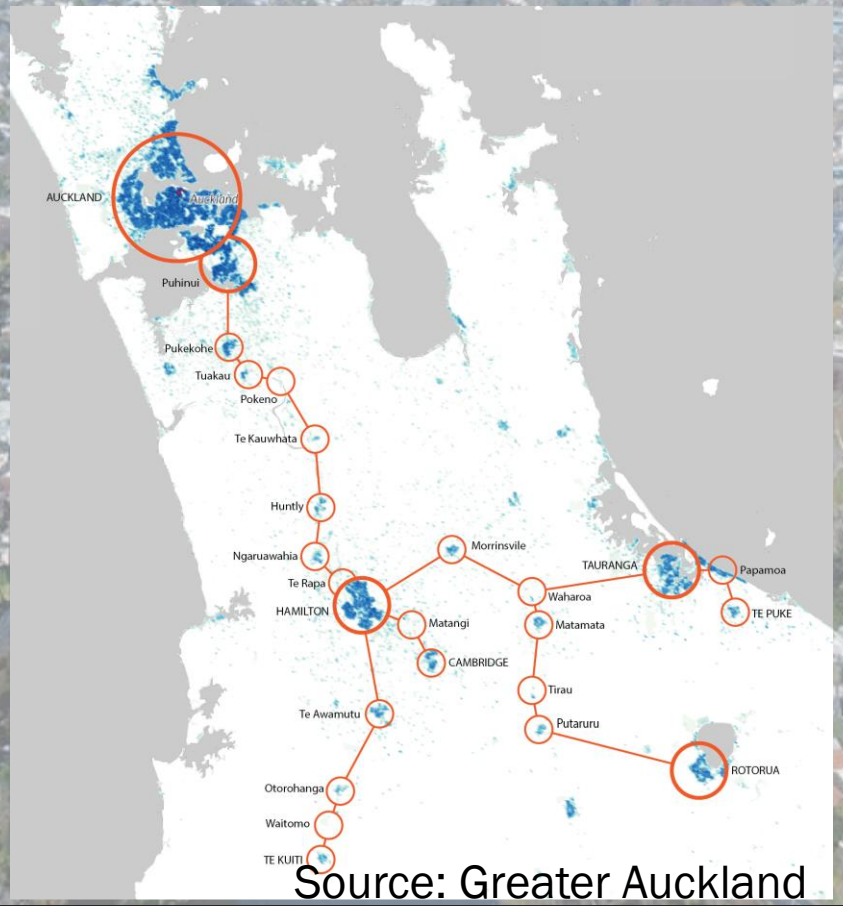
Inter-Regional Planning connects up the smaller Centres with the bigger Centres spreading the population and employment load. Acts as control rods for Auckland

Tourism potential

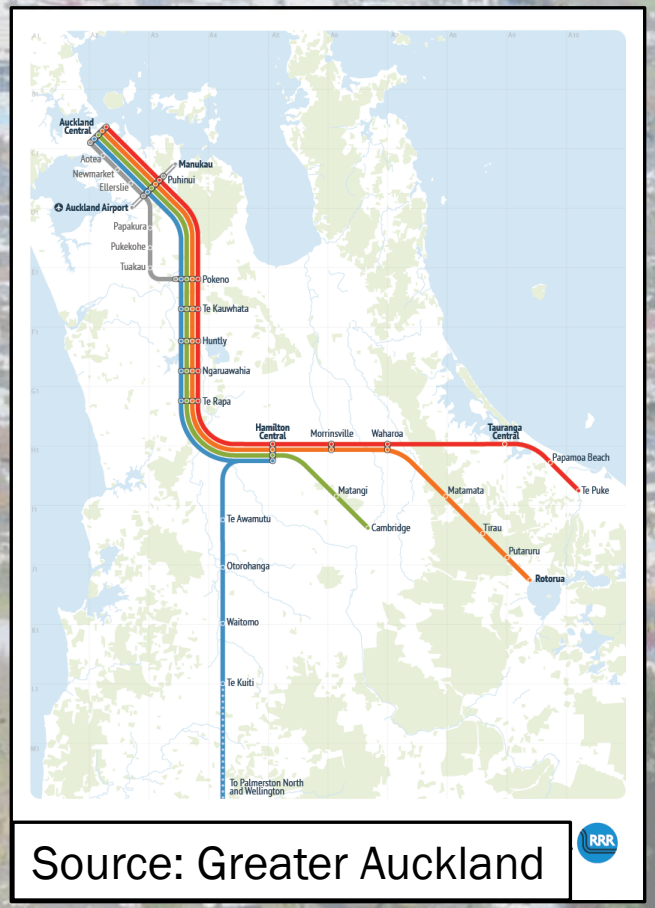
Cost to NZ Economy from road death and injuries: $4 billion/year

Auckland Economy now worth over $100 billion/year with the nearest region after that pulling in $36b/year (Source: Stats NZ)

Regional Rapid Rail and Satellite Centres



Source: Greater Auckland



Source: Greater Auckland

Travel times:

Auckland to Hamilton	90 minutes with stage two 70 minutes with stage three
Auckland to Tauranga	2:30 hours with stage two 2 hours with stage three
Auckland to Papakura with the EMUs	53 minutes pre-City Rail Link 43 minutes post City Rail Line
Auckland to Hamilton by car	90 minutes 60mins from Papakura or 70mins from Manukau

Note: Auckland = Britomart Station or Hobson Street On-ramp

It should also be noted the car travel times will get longer as population and traffic increases on the Southern Motorway and Waikato Expressway.

The central themes around this inter-regional planning

- Most urban growth both residential and industrial will be in Southern Auckland (fastest and largest growing sub-region)
- Industry is decamping from the Southdown-Onehunga complex and moving into Southern Auckland as land use competition with residential and commercial heats up on the Auckland Isthmus. Heavy industry seeks out lower land values with good connections and little land-use competition as mentioned above
- Population is spilling out of Southern Auckland and like industry will seek provincial places in the northern Waikato
- State Highways 1, 2 27 and 29 form the road spines while the North Island Main Trunk Line and the East Coast Main Trunk Line form the rail spines between Auckland, Hamilton and Tauranga
- The Golden Triangle forms 50% of the national population and 50-60%% of national GDP
- Role of Manukau City Centre into the future (as an example)

Population load spreading – saving the Provinces and Auckland at the same time

Rapid urbanisation has seen provincial centres without decent industry hollow out while the main urban centres continue boom and expand. This is not healthy for either and can create imbalances both economic and social that impair the economy.

Whether industry moves to the provincial centres or not population load spreading (that is Auckland loses some of it population to its Satellites in the south) can act as a control rod to the reactors that are our major urban centres.

Auckland to Hamilton would be 70 minutes so being in a provincial satellite between Pokeno to Te Rapa connected to the Regional Rapid Rail allows for some Aucklanders to move while still having good connectivity with their employment back in the City. **If Manukau City Centre and its big industrial complexes step up, then a commute from Huntly to Puhinui or Manukau becomes even shorter.**

So yes Regional Rapid Rail connecting both the main urban centres and the provincial satellites can give pressure relief to Auckland through population spreading.

Employment and Industry spreading

Rapid urbanisation was a catalyst in consolidating heavy industry away from small towns and into the big urban centres gutting those smaller towns. Projects like the Waikato Expressway will bypass and further harm these towns (like Huntly) so enter rail to turn things around.

Remember:

- ***Assist the creation of affordable housing supply*** that is well-connected by congestion-free transit. Use transit focused residential development to catalyse the local economies of northern Waikato towns, which face potential economic decline by being bypassed by the new Waikato Expressway.

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Source: Greater Auckland

Employment and Industry spreading

Heavy industry as Auckland continues to expand will seek out places where land-use competition is not intense.

Smaller provincial centres connected by decent passenger and freight rail would be in the box seat to receive these industries as they move around. This has two positive consequences:

Smaller urban centres increase their local employment base

Diversified employment base better protects the smaller centres from the fluctuations of the economy with Niche industries including tourism encourage to establish.

Tourism (and Resilient Tourism)

Two hours to Tauranga by train: I will certainly take that on a Friday evening returning to Auckland late Sunday or early Monday when taking a weekend away from Auckland compared to the two-and-a-half-hour drive by car.

A Premium Service going down on Friday and returning Sunday that serves food and well fine wines and beers for a slightly higher fare.

This would tap into the large tourism potential Tauranga offers but the smaller Centres connected by Regional Rapid Rail need not miss out. Rotorua, Cambridge, Waitomo and even Huntly should be able to tap into niche tourism offerings of various sizes that the rail system would allow.

Again diversifying your employment base gives you as a smaller centre better protection from the swings of the economy (nurtures domestic tourism).

Productivity and environmental impacts – transforming and unlocking places!

Heavy Rail is the most efficient form of moving people and goods over long distances compared to road travel.

Whether it be lower emissions, able to do work on your laptop, relax on the trip or simply beat congestion on the Southern Motorway productivity and (lesser) environmental impacts are winners from Regional Rapid Rail.

Lowering the road toll (which costs the economy dearly) is another outcome of providing rail alternatives whether freight or passenger.

A rail corridor also has less environmental severance than a four-lane highway does as well as less scaring. So not only does rail promote productivity and encourage lower emissions while travelling, rail also is less visually destructive to the rural environment than a four-lane highway.

Productivity and environmental impacts – transforming and unlocking places!

The impact that might not be realised as quickly is the transformation and unlocking of potential for the Centres connected to Regional Rapid Rail network.

Being able to connect to the large residential, employment and industrial base in Southern Auckland (and the rest of Auckland) opens both the larger and smaller urban to opportunities not currently available.

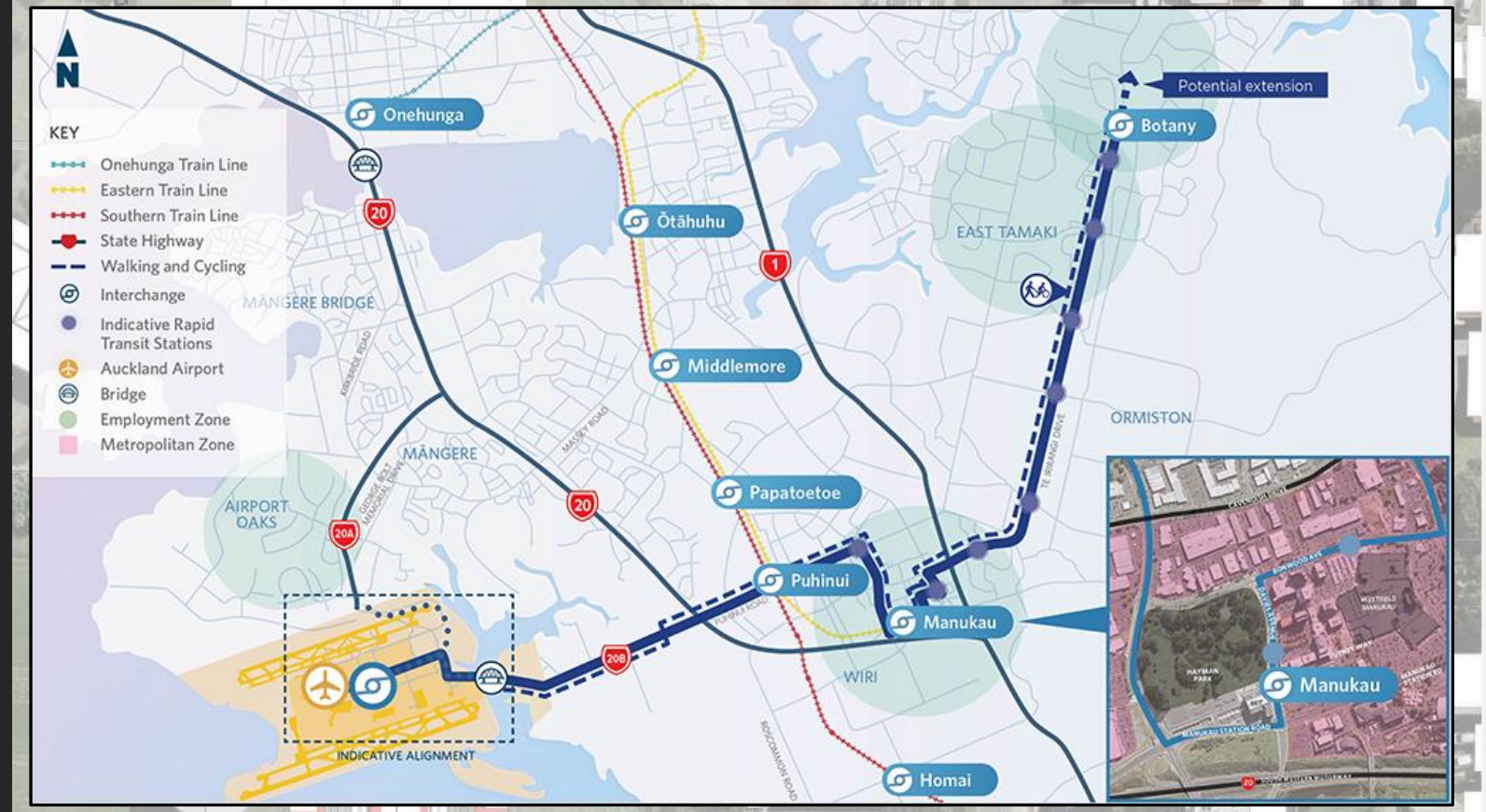
No matter what niche a provincial Centre takes up; being able to connect to a large population, employment and/or industrial basses would allow those Centres to unlock their potential and transform themselves through:

Linking regional transportation to well-planned communities with good urban outcomes. *This should not just be a rapid train network but the means to create vibrant, liveable towns and cities that are economically and socially sustainable. Source: Greater Auckland*

Vibrant places are productive and environmentally positive places.

Airport to Botany Rapid Transit

- 18.5km Bus or Light Rail Transit Line from the Airport to Botany Metropolitan Centre
- Full completion 2026 connecting to Eastern Busway
- Has Inter-Regional, Regional, Sub-Regional and Local Impacts
- Project currently siloed but has potential if full Spatial Planning applied



The Role of Manukau and Southern Auckland

Opportunities

Majority of land in public ownership

The majority of land in and around Manukau Central, and the significant greenfield areas to the south, are held by Auckland Council (95 hectares) and the Crown (100 hectares). This creates major potential for comprehensive redevelopment and transformational change, without the constraints of fragmented ownership.

Significant development opportunities

Under-development in Manukau Central leaves large areas relatively unencumbered and well-suited to comprehensive redevelopment. This is supported by a host of enabling planning provisions in the *Auckland Unitary Plan*. Together, these factors ensure there is no shortage of development opportunities in Manukau Central.

Well connected to rest of the region

Manukau Central has always been well connected to the motorway network. The opening of the Manukau rail station in 2012 represented a step-change in public transport provision for the area (40 minutes to Britomart Transport Centre). The coming bus interchange (with inter-city bus terminal) will bring a similar transformational shift, building the frequency and access of public transport to and from Manukau Central. It will also drive new foot traffic and pedestrian circulation patterns within the centre itself. Proximity to the airport further strengthens connections beyond Auckland.

Locational advantages

The location of Manukau Central, and its connections to the rest of the region, bring natural locational advantages. These include as a natural gateway to the Waikato region and the 'golden triangle' (economic zone of Tauranga, Hamilton and Auckland); through proximity and passing trade to the airport; proximity to a huge industrial and manufacturing employment base in surrounding areas; and as a sub-regional centre of choice for a vast residential catchment. This is reflected in Manukau's significant concentrations of retail, employment and educational activity.

The Ultimate Result

Example of Inter-Regional Urban Geography: Big Sleepyhead development plan for north Waikato still alive and kicking

Spatial Planning in New Zealand is often an after thought and done rarely. The Auckland Plan is an example of linked up Spatial Planning (linking all other Plans) but its lack of weight and statutory weighting means if is often ignored

Post Covid era the term Alliance Model is being touted about but Spatial Planning often missing in that model. Is there an opportunity for the Alliance Model to lead Spatial Planning

Resiliency comes through proper Spatial Planning and Industry should never be forgotten (even though it does not cut ribbons for Officialdom

My #bounceforward vision

The 20 minute City as the Mayor of Paris has touted

Elimination of the Super Commute

Better integration and cooperation between the Regions (particularly the Golden Triangle)

Re-Emergence of Industry after 40 years of Post Industrialisation

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Conclusion

The Covid era allowed a stocktake on how Urban Geography and Spatial Planning influences our urban form and its behaviours

Realisation that in the drive to #bounceforward we can not return to the status quo

Also we lack resilience in our Urban Geographic systems here in New Zealand (too much competing not enough cooperation)

Using the Golden Triangle as an example for Inter-Regional Spatial Planning including transport and satellite towns

Is the touted Alliance Model suited to allow Spatial Planning (often an afterthought in New Zealand)?

Extra information

Ben Ross

South Auckland

Human Experience Engineer / Spatial Planner

ben@colab.nz

https://www.linkedin.com/in/benrossakl/