

**SWAN RIVER CROSSINGS**  
**ALIGNMENT FORUM #2: 25 NOVEMBER 2020**  
**ESPLANADE HOTEL FREMANTLE**  
**FORUM SUMMARY**

**WELCOME**

Nicole Lockwood welcomed attendees and thanked everyone for their time and commitment.

Outline of today's discussion

- Repurposing the existing bridge
- Building between the bridges
- Building to the west
- Building to the east

The team will provide feedback today on what's been done. From the presentation, we want to understand what you are comfortable / not comfortable with. We will then take the outcomes to the Minister for consideration when we meet with her next week.

**ATTENDEES**

<b>NAME</b>	<b>ORGANISATION</b>
Brad Pettit	City of Fremantle
Andrew Sullivan	City of Fremantle
Russell Kingdom	City of Fremantle
Jenny Archibald	City of Fremantle
Jim O'Neil	Town of East Fremantle
Gary Tuffin	Town of East Fremantle
John Dowson	Fremantle Society
Michael Barker	Fremantle Shipping News/Better Bridges Campaign
Kavi Gupta	Better Bridges Campaign (Fremantle Radio)
Layla Saleeba	Design Freo
Craig Ross	Fremantle Inner City Residents Association
Simon Lane	South Fremantle Resident
Gerry MacGill	North Fremantle Community Association
Peter Scott	Fremantle Arts Precinct
Ingrid Maher	North Fremantle Community Association/Better Bridges Campaign
Dancia Quinlan	Fremantle Chamber of Commerce
Peter Newman	Curtin University
Catriona Gregg	High Street Project Construction Reference Group
Greg Dale	Boating WA, Swan River Network
Alex Fletcher	Save North Freo
Gordon Melsom	Rivershores Residents Committee/Northbank Community Assn
Ian Ker	South Fremantle Resident
Nicole Lockwood	Facilitator

Lindsay Broadhurst	Main Roads
Mark Briant	DoT Marine
Ashley McCormick	DoT Urban Mobility
Sue Hellyer	Fremantle Ports
Gavin Bignell	Fremantle Ports
Neil Stanbury	Fremantle Ports
Owen Thomas	PTA
Peter Satie	PTA
Richard Thomas	PTA
Annabelle Fisher	PTA
Matthew Bowden	Electorate Officer, Representative to Member for Fremantle
Lauren Bettridge	Research Officer, Representative to Member for Bicton
Joel Kelly	Senior Policy Adviser
Anne-Marie Brits	DoT Freight
Floribert Tankam	WSP
Paul Haigh	Intermodal
Lina Valencia	Westport
Julia Summers	Arup
Gary Manning	MRWA
Lance Thomas	MRWA
Stef Erdmann	MRWA
Sonia Beros	MRWA
Carolyn Walker	MRWA
Julie Clayton	MRWA

## Slide Presentation

### Summary of Forum #1

Gary Manning provided the following summary of Forum #1:

- Held here at the Esplanade in Fremantle on 23rd October 2020
- Attended by 25 community representatives as well as stakeholders and technical experts
- Inform the community about project objectives, constraints and background
- Explain the work completed to date, and how we undertook the options assessment process to get to the project team's preferred alignment
- Share other options including City of Fremantle and Andrew Sullivan's
- Identify community drivers and preferred way forward
- What we heard at the forum:
  - Community sentiment not supportive of a bridge to the east of the existing traffic bridge. Keen to maintain as much of the heritage structure as possible
  - Need to further analyse other options:
    - Retaining the existing traffic bridge as a principal shared path
    - No new rail bridge
    - Build between the bridges (one rail line bridge and road bridge)
    - Build to the west (two rail line bridge and road bridge)

- Today: Explain/discuss the outcome of the investigations into all 4 options

Aim of today's forum:

- Explain/discuss the outcome of the investigations into all 4 options
- Compare/discuss the findings against the preferred option and project objectives
- Explain alliance contracting and process

QUESTION/ COMMENT	RESPONSE
Put new traffic bridge on port side as well. This was about all structures to the west that you could tie in with the ultimate once the port relocated.	Port will be a viable operation port for at least 12 - 27 years. The future outer harbour will accommodate the container trade. This port needs to continue to operate to facilitate all other trades that come through the port (RORO - motor vehicles, heavy equipment; break bulk - steel, scrap metal, major project materials; cruise ships and tourism). We have investigated a rail bridge to the west in the port land but not road as well i.e. two structures.
Can you do away with an additional rail bridge? If we only need one road bridge, it could potentially go on the west of existing road bridge	There are consequences that will be discussed today
Broaden scope and take into consideration traffic from north (as per Andrew Sullivan's plan). Look at how traffic comes down (not the bridge as independent project) and how it affects North Fremantle.	We understand where Andrew is coming from and that there will need to be discussions – for when the port moves on - at least 12-27 years from now. This is not in current scope as government does not yet understand what the consequences of Westport are.
Urban planning around bridge - bridge needs to be a place. Something that is an entryway into Fremantle. Inclusion of urban space – south and opposite naval store (use amazing location) appears this scope is coming back to replacing bridge. A lot of us think this is a mistake. New bridge has life for about 100 plus years. Broaden scope and budget.	We have an Urban Landscaping and Design Framework that is being developed. It has to look at how you consider future land uses, and this work is underway. Challenge is we need to know where the bridge is going before the urban and landscape needs can be addressed. There is a lot more to do in that space.

Nicole noted that we need to find a short-term solution that didn't compromise long term. We all have to be comfortable that the outcome won't compromise anything in the future.

The following discussion arose:

QUESTION/ COMMENT	RESPONSE
Is the MRWA preferred option inevitable?	No – building to the east is not the only option, but it is important to note that every option has compromises and some more than others.
People say there is no support for the eastern alignment, but in my local area west of Stirling Highway, there is some support. There is already a lot of freight traffic travelling through and if we don't build for rail then there will be more road freight.	This is noted and understood.
We see the technical constraints and issues, but what about social amenity –	Social aspects are very important and this will be explained today as we review the options.

QUESTION/ COMMENT	RESPONSE
what weighting does that have in deliberations?	
City of Fremantle want a separate PSP and the old bridge used as public space. You are talking about transport but need to include place.	We will cover the heritage component (how we keep heritage) and the PSP. As mentioned, place is a consideration.
Disappointed about planning. Whatever you do to bridge will determine what is possible at the next planning phase. North Fremantle community is the missing objective – the community itself and its aspirations. This is entirely back to front.	Agree the planning needs to be done but in what sequence.  The bridge is being replaced with the same function – a four-lane traffic bridge. There is a need for a crossing in this location.
I thought the next phase was to isolate the critical issue to be tested - rail possibly moved to west, testing the theory of whether it was possible. Unhelpful to bring in false analysis of road to the very west - would not contemplate. Issue is not land take from port. Issue is about what we do now impacting a future road alignment and wrecking the peninsula.	Today's materials will cover this. We have also investigated placing the rail bridge to the west of existing rail bridge.

## Repurposing the current bridge

Refer slides 7-13.

- To reiterate, if we repurposed the current traffic bridge, we would need to replace all timber piers with concrete or steel piers. This bridge needs to be demolished - even if you only replace the timber elements above the water line, the character above the water would be lost.
- Outcome: repurposing the existing timber bridge as a footbridge would be \$80-\$100 million over current budget.

QUESTION/ COMMENT	RESPONSE
Aside from maintenance, the major risk is if a ferry or boat was to strike the piers. Is it that risk that is the driving factor to replace the bridge?	Vessel impact is one of the key risks, but is not the only risk. Durability and structural capacity of exiting timber elements are also key considerations. The truss work done in 2015 bought us enough time until a new bridge is built.
It must be a reasonable risk assessment otherwise it would have been replaced a long time ago. The existing bridge has been in place for a long time. Is there a change in risk that is more a factor now than 15 years ago? If not what is the issue? Is durability and maintenance the reason? Has there been a change in the risk profile?	Durability is the issue. Scour is still an issue. Even with concrete encapsulation of the piles, borers still get in. To protect against marine organisms, you still need concrete. When you excavate around a pile, the current takes away the sand.  We are talking about the main risk. There has not been a different risk assessment – that is, 'if we do this, that will happen'. There are no more treatment measures we can implement to keep the bridge operating for a 100 years. In 2007, the justification was provided and the business case stated that the bridge needed replacement.

QUESTION/ COMMENT	RESPONSE
	Time is the change. We can take this discussion offline if people are interested in more detail.
<p>How much would it cost to rebuild the bridge with timber?</p> <p>What is the amount allocated to new PSP?</p>	<p>The current project scope includes the demolition.</p> <p>To build a new standalone concrete footbridge is approximately \$50 million.</p> <p>The new PSP costs \$15 million on the new bridge.</p> <p>To repurpose the traffic bridge into a PSP is around \$80-100 million - compared to an integrated PSP on the bridge (\$15m).</p>
<p>Can we explore less radical options? Test from a heritage perspective around how you could adapt and reuse in a softer touch. Retain and use as much of existing structure as you can. I don't think this is the only solution.</p> <p>Test lighter solutions.</p>	<p>The business case put forward and risk assessments are saying the structure as is cannot stand up. You can rebuild with timber, but the problem is the jarrah needed for the piles is difficult to get and not sustainable.</p> <p>To build a new structure you would need a piling rig. A massive piling rig can't fit under the existing traffic bridge? You could cut a hole in the current bridge deck and drive it in – but this requires the current structure to be substantially strengthened.</p> <p>So – it is possible to repurpose but it would require significant work to do so safely.</p> <p><b>ACTION:</b> Do you want a small group to assess the different options for a heritage bridge? If so, this is not what the current project is. If community strongly supports this, the Minister could consider. That would almost be a project in its own right. But we need to consider that keeping this bridge impacts other options. The work has been done, and there's a cost. This may be a question for government.</p>
<p>There is community sympathy to keep the bridge. I am unclear about the durability factor and analysis provided for the road bridge. If you did the bottom representation (refer slide 13) – made span bigger can you not keep a lot of what is left on the north and south shores and do something that keeps bridge in authentic form rather than deleting it?</p>	<p>The northern side is only 6.5m wide; it would need a lightweight structure 6.5m wide. We tested full width structure but found the lightweight steel structure is still heavier than timber and would be heavier than what was there before. You are looking at 50 plus tonnes versus the current lighter timber and stringers. This is very difficult.</p> <p>Note that the current project proposal looks at retaining part of the bridge.</p>
<p>The City of Fremantle is not taking what is left as it is minimal. It doesn't go over Beach Street and has no functional purpose. We won't take something that's not functional. We will take anything that does more than what this one does – it doesn't connect to Beach Street and south area.</p>	<p>Are you determining that in order to be functional there needs to be a connection?</p> <p>Response: Yes. Not a destination but part of a PSP. Then maybe incorporate functional elements.</p> <p>The project team has had lots of feedback, of what to do with the remnants of the old bridge</p>

QUESTION/ COMMENT	RESPONSE
	including commercial activation and would be considered in the next stage of the design process.
The current proposal to have the remnant structure between the two bridges makes the remnant part redundant. No one will sit there. If the main bridge was to the west and a stub maintained and incorporated into urban design on the south it would be meaningful and easily accessed.	<p>Note the Aboriginal community fully support total removal given their objective is about minimising disturbance to water.</p> <p>We need to understand that this community wants less impact on the water environment.</p> <p>European and Aboriginal heritage have different priorities.</p>
Agree re Aboriginal. But if maintaining a stub, make it meaningful.	Noted
People who built the bridge didn't set out to build a heritage bridge. They used materials at the time to create a structure which we treasure. Focus attention on trying to do the same thing but doing something we will be happy to hand on the generations.	Noted
Have you considered repurposing a bridge within a bridge?	<p>Clarification: do you mean make 3 structures with a span across the middle that is something like a timber structure? At the moment this is what we would have to do. Predominantly, it will be a new structure. This is exactly what this option is (refer slide 13) – a bridge within a bridge. A new pier structure with deeper piles (area has 20m deep scour).</p> <p>Steel provides a greater span but we can look at alternative material.</p> <p>Lance will explain road level height increases required depending on the bridge span. It doesn't make sense to have 6m spans – causes scour (flow). A longer span will reduce costs and less impact on river flow.</p>
Did you factor in 100 year sea level rise – so navigation channel bridge would be 1.5m above the current level?	Yes – you would see more concrete than timber.
What is the purpose of the PSP?	PSP is for both pedestrians and cyclists. It is a principal "shared" path.
We have to look at this through a sanity lens. Although repurposing is a good option it is a reconstruction. Heritage Council will say this is faux heritage. It might look quaint but it sits uncomfortable with me. Even if we have a solution to keep, we don't want something that is not authentic or doesn't connect in.	
Agree – what you've explained is not a heritage bridge. Do we need to work out who is staunchly attached to keeping bridge or who wants meaningful interpretation – and then move on.	This option is not the preferred option and was only considered as an outcome from the first community forum. The team did not want to push this but we accept you would like to discuss this.
It is important to retain a sense of heritage and there are a lot of minimalist ways.	Noted

QUESTION/ COMMENT	RESPONSE
Mandurah Traffic Bridge is good – you can see where it was, and broadly where it functioned. On the northern side at Fremantle, you have former structures that could become a piece of conceptual development.	
Agree Russell regarding integrity. Bridge is so compromised, we may as well start again. The issue is impact on any new alignment and on how North Fremantle functions in relation to the City. If it's impossible to keep, I'd rather see a complete rethink.	
I want every effort made to keep the current 1A level heritage bridge. Cost currently \$400k per year. Note that Aboriginal commentary in 2006 (in Herald) said they wanted it retained. Need to know more about Aboriginal concerns. Scouring: refer large shoal impacting depths. Seems to be a serious issue. Projected traffic flow by 2041 -30000 vehicles. 2006 - 28000 vehicles. Doesn't appear to be a massive increase in traffic. 2000 over 35 years. If heavy vehicles are off the bridge you can make it for pedestrian and lighter vehicle use.	The \$400K is routine maintenance only and excludes specific maintenance works like bridge strengthening. In last 5 years we spent \$23m on specific maintenance focused on strengthening. We are undertaking consultation via the Whadjuk Working Group plus specific workshops with Elders.  To clarify – no heavy vehicles use the bridge. Queen Victoria Street is a local road maintained by Main Roads. This is not about heavy vehicles. The fact is the bridge is currently failing.
If we were concerned for Aboriginal requirements, we would build without piers. I agree it is a separate project, but the process? We know structurally it is a problem. Possibly not two separate projects because we are building up against it. Need to give the Heritage the respect it deserves - isolate bridge for heritage either side of river? The bridge needs to be considered a local road and a genuine extension of Queen Victoria Street.	The possible outcome is to go to the Minister as the heritage may need a budget within itself.
Has there been consideration of reconstructing bridge in a dry location? Is that an option? What happens to it elsewhere if it is rebuilt completely somewhere on land is this an alternative option?	
Heritage is a living thing. This is about integrating new and old. We mustn't think heritage started in 1939 and that's it.	This is a very good point.
Can you build a bridge in context of port considerations? There are major maintenance issues but could you do something in 20 years when the area becomes clearer. In this time, the precinct could look different.	This project has been delayed in the past. To keep this bridge open, an upgrade will cost \$40 million, plus future maintenance. A river crossing in this location is needed, with the location of additional crossings to be determined in the future.

## Building between the bridges – (Road Bridge Only)

Refer slides 14-18.

- Over the last month we have revisited options, challenged design standards and operational constraints.
- The PSP underpass requires a 4m raising of Queen Victoria Street.
- West facing apartments will have a retaining wall of 2.5m high in front of the properties.
- We can alternatively run a PSP on the rail bridge, but you then lose the opportunity of connecting back to the remnant traffic bridge.
- The PSP then doesn't provide access to the park land on the southern side of the river.
- This option provides no improvement in rail efficiency

QUESTION/ COMMENT	RESPONSE
Can you place the PSP on the rail bridge? Then you can ride all the way into Fremantle.	What we are explaining reflects keeping the existing traffic bridge as a footbridge which is what the previous forum asked. The PSP would be on the eastern side which means the new traffic bridge will be around 4m higher to allow for the PSP to go under the road. This will impact access to local businesses on Queen Victoria Street and have significant visual impact on west facing apartments. Our preferred option has it on the west side of the new traffic bridge. We ask how would we get people from the west of Queen Victoria Street to the bridge, and there are implications. Otherwise they have to cross a 4 lane road. The alternative is to have it on the western side which moves it away from apartments.
The PSP plan means fast connectivity goes from city to city and does not mix with pedestrians and children. Do a fast route to the city. Place activation mixes slow cyclists and pedestrians. For this crossing, pull apart high speed cyclists and finer movement.	At our connectivity workshop with City of Fremantle, DoT and others, it was advised that the PSP was not designed for 30km/hr. To cater for speed cycling you will need two crossings over river. We need to meet other requirements, and that is not making people cross a 4 lane road). How do you get people across? A shared path has more regional context in connecting city to city and is not only for cycling. A 40km high speed facility is a cycle only facility.

Fremantle Ports noted:

- Freight on rail will be capped at 175,000 TEU which forecasts indicate will be reached next year or earlier.
- New trucks will be needed, which is a significant investment for transport operators, and new drivers will be needed (there is currently a shortage in drivers).
- If transport operators invest in new vehicles, it is unlikely they will return to rail as they will want to utilise their assets. There are also additional impacts beyond rail.

QUESTION/ COMMENT	RESPONSE
1000 additional heavy container vehicles per day (VPD) by 2032. It's progressive but the talk of 1000 is end state.	A potential new port will be operating 12 to 27 years into future. I have seen what the impact is of not having separate rail.



QUESTION/ COMMENT	RESPONSE
<p>Critical part of decision is what will happen with port and decisions about North Fremantle, Leighton etc.</p>	<p>By 2023/24 it is an additional 60,000 heavy container truck movements per year – 230 a day. On an average year we have approximately 600,000 heavy container truck movements (based on weekdays only).</p>
<p>The work to this point after 17 years shows that freight and car movements are significant components of this project. The argument to have more road traffic doesn't add up. Any more traffic over time would be intolerable to residents along Leach and Stirling Highways. You are bringing an industrial level of road traffic through a residential area. If you are increasing the non-liveability of that space then the fabric of Fremantle is kicked to the kerb. We are already getting a noise wall with the High Street work. We need to consider the City as a place – more traffic through it is daft.</p>	<p>Nicole – will also bring forward upgrading Stirling Highway.  Gary – Stirling bridge – 36,000 on Stirling – 13% are heavies. Average network is 3%. Current planning shows Stirling needs to go from 4 to 6 lanes by 2026. We are seeing congestion now, there is not enough capacity – you add trucks and traffic growth, and you bring duplication forward.</p>
<p>By 2026 you are talking 500 truck movements per day (VPD) – this is not significant.</p>	<p>It is not just about volumes, but what it does to the network. Before we started discussing extra trucks, a need to widen was identified to cater for current growth. If you don't invest in rail, and you put trucks on road, and then build in middle of bridges, you preclude addressing rail for a long time. To confirm the volumes: By 2023/24 there will be an additional 230 trucks per day. By 2032/33 there will be an additional 1,000 trucks per day.</p>
<p>If container terminal moves in 2032, freight traffic will be accommodated. (Step function adequately acknowledged).</p>	<p>We may need to deal with freight for 27 years – this is not yet known.</p>
<p>How many current trains?</p>	<p>Generally, 4-5 services per day (in and out) 15-20 services by 1 user currently per week 5 services by another user per week currently 40-50 movements per week If a new rail bridge is built it could increase to 7-8 services per day and we can go to 14-16 movements. NQRT has 4 rail sidings. For residents, the benefit of a new track is a greater opportunity to utilise daylight hours rather than sensitive periods during the night and early morning. If no new track, rail freight would be forced to use train paths more at night. Trains are currently restricted to operations outside of peak passenger periods (6.15am-9.30am &amp; 3.15pm-6.30pm) and the PTA maintenance window (1am-5am).</p>

QUESTION/ COMMENT	RESPONSE
<p>Can we have more information about the current operation?</p>	<p>We have days where we are at capacity now. In November, we moved 13,000 TEU per month.</p> <p>We currently operate with constraints 4-5 trains per day (return trips). Yesterday and the day before we had 4.5 trains, so 1.5 train capacity gets deferred. 80% of customers are road transport companies. They want freight off the ship and in warehouse after 24 hours.</p> <p>We also have a new rail operator starting in early 2021.</p> <p>Nicole noted that this becomes a social amenity issue as rail is used only in acceptable hours. There is nowhere for rail to grow to.</p>
<p>I question the Stirling Highway time frame. You are widening in 6 years –and you increase capacity by 33%?</p>	<p>When you model the whole network, this link is failing with demand on the existing network. By 2026 current modelling shows we need to do something but it is not yet funded.</p> <p>Widening will not take pressure off the traffic bridge.</p> <p>In building new lanes, will extra capacity be needed from day 1? No it won't. There may be a slight redistribution of traffic from the traffic bridge to Stirling.</p> <p>The ultimate planning is for 2041. That can change if the port use is different. If more high rise is built, traffic demand will be different. Improvements to the network and managing traffic is a moving thing (for example, technology will impact).</p> <p>We review every 5 years. The fact is we will not remove the need for the traffic bridge – we cannot build Stirling Highway and not need this one.</p>

Nicole asked: is everyone comfortable we keep one rail? Do we keep rail in as a scope item?

The group generally agreed rail needed to be kept in the scope.

QUESTION/ COMMENT	RESPONSE
<p>Not convinced rail will drive the need for extra capacity for a 6 lane Stirling bridge. There are ideas floating around in highly political arena – resolved through Westport, so freight goes around Fremantle. Hearing it could be 2049 is political stupidity. In the next 4 years decisions will be made. We are planning for 40 years of massive increases of heavy vehicles and rail and passenger vehicles and lycra clad bike riders. This gets beyond sensible discussion; I don't believe these models. This area is special and won't expand. All evidence suggests when high density development is created, they don't create</p>	<p>Noted</p>

QUESTION/ COMMENT	RESPONSE
high amounts of traffic. There are very different visions of what this area is going to be like. This port won't grow massively in containers.	
Potential train paths: (36 one operator; 10 second operator: potential operator 10 plus 10). 76 all up). Seems incredibly low?	This discussion needs to be taken offline.
Is the argument for rail that it will take some trucks off the road (existing case)?	Five trains are not a lot, but we need to consider the hours where rail is not available. A dedicated track can double it. We have a constraint with 11.5 hours where rail can't operate. It is a compressed environment we operate in.
Clarification of process?	The import container is collected from the wharf and sent to Forrestfield or Kwinana. It is then trucked to Hazelmere (or other final destinations). We have two way loading – imports and exports. Without a separate freight rail operations, we will never get to the State Government's 30% target, which will increase truck usage.
I hear that existing numbers will not be reduced. Will existing traffic be removed?	By taking away the constraint, more operators may decide to use rail. However, with the current constraints, there is not an ability to grow volumes significantly. The rest of the rail network is freight focused. We are constrained by passenger or maintenance operations in Fremantle. We need to aim for a better mode share. The mode share might stay at 20/30%, but the absolute number of containers on rail would reduce.
<p>This is not a new story. Over 5 decades the port has been chasing exponential growth. 6 lanes on Stirling will destroy North Fremantle.</p> <p>Train numbers are confusing: 175000 TEU. What is the maximum number you would accommodate? If it is costing \$8.5m per year to get containers on trains, this is a huge cost that could be spent elsewhere. What is the maximum TEU you could move in a year given 175,000 is current? Need to understand total costs - economic, social and environmental</p>	<p>We could double rail volumes to 350,000-400,000 TEU.</p> <p>Projected overall growth is from a base of 785,000 TEU; with Westport it could reach 2.1 million and possibly more.</p> <p>All three - social, environmental and economic - are considered in these projects.</p> <p>This is about managing the next decade and acknowledging there is planning to be done. This project is about finding a balance between the potential long term future and also dealing with issues people are struggling with now.</p> <p>The Manufacturers Association has stated ports are extremely important in the economy. Additionally, 80% of the community support freight on rail.</p> <p>There is a holistic benefit of putting taxpayer money into freight on rail.</p>

Gary noted - whether we achieve both rail and traffic demand in the existing area is not the issue. The issue for some representatives here is do not build the new traffic bridge upstream.

## Build the bridge in the middle – (Road Bridge & One/Two Track Rail Bridge)

Refer slides 19 - 24.

This is not future proofing and PTA has concerns.

PTA advised:

- In the short term we get productivity gains as the new bridge caters to one of the existing passenger lines towards Fremantle and the freight track is on the west.
- This option constrains maintenance activities on the ageing railway bridge and makes it a high cost requirement to build a rail line into the future.
- Fremantle is the busiest and most strategic station on the Fremantle line, servicing a large catchment to the south/east. We will see it grow given development in areas such as the Cockburn coast.
- We will need to minimise disruption during construction.
- It would be a very costly exercise if, for some reason, the future of the port and freight task did not move to Kwinana as predicted and we then had to retrofit an additional rail bridge into the space available.

MRWA discussed slide 22:

- People have asked why not have the bridge like Mount Henry Bridge with the PSP underneath. The issue is the required navigation vertical clearance requirements. We would need to build a very deep bridge structure to get the PSP below and clear of the boats beneath, with associated impacts on either side of the river to tie back into the surrounding road network and land uses.

QUESTION/ COMMENT	RESPONSE
The heritage connection to North Fremantle is traditional. To force the PSP to the east is not logical for social and heritage.	We are hearing from the group that retention of the current traffic bridge in full is disappearing.
Can you run the PSP on the new rail bridge?	Yes. However then we would need two PSPs because we would need an additional PSP on the new traffic bridge to better connect to the remnant path network.
City of Fremantle view is that you should have two paths – one for high speed cyclists on the rail bridge and another path for pedestrians and recreational cyclists.	<p>The PTA has some concerns about the practicalities of including a cycle path on a rail only bridge over the river, as a minimum it would require a 2.4m high screen barrier between the path and the operating rail line for safety. This would impact on amenity. Perceptions of personal security and access in emergencies is also a concern if pedestrians are isolated from general traffic/access.</p> <p>The cycle path would need to be separate and built as a separate structure. That would be an additional bridge and an additional risk of collision for marine traffic navigating two bridges and also requires additional dolphins.</p>

QUESTION/ COMMENT	RESPONSE
It is not pleasant having a PSP attached to a rail bridge.	MRWA preferred option has the PSP on the road bridge.

Nicole noted:

- Paths for connectivity, how many and where has been raised by CoF. We need collective agreement. Is this one of the most important aspects in any design?
- DoT urban mobility advice is that the minimum to achieve is 6.5m wide - 4m cyclist path and 2m pedestrian path.

QUESTION/ COMMENT	RESPONSE
Where are cycle and pedestrian paths going to? We need fast cyclists onto Beach St quickly and pedestrians and slower riders to the foreshore.	The existing approach to bridge is a 4.5m PSP. We are proposing 6.5m PSP on bridge, which would connect to the path that connects to Canning Highway and Beach Street. We can't prevent cyclists from using pedestrian paths or vice versa – these are shared paths. The current path is 1.8m path it is too narrow. Fast cyclists generally ride on the road and not paths.
Looking at the demographic – there are lots of young people socialising, children learning to ride bikes, and they need to get on and off easily. Agree that lycra cyclists are on road. This path will help movement of businesses and families into and out of Fremantle.	
Is the bridge just for vehicles?	On the bridge, there will be a 6.5m shared PSP (4.5m cycle and 2m pedestrian). Whether the PSP is on the rail or road bridge, the path has to connect to local paths, Canning Highway and Beach Street. The suggestion now is do we split them i.e. 4.5m path on the rail bridge and a 2m path on the road bridge. You can't exclude one mode from the other – people will always take the fastest route.
In 2016/17 the standard width of a Principal Shared Path was increased from 3m to 4m, which is the standard of the new path recently completed to Cottesloe. The proposed path on the new bridge is 6.5 metres. Form a capacity perspective this is world's best practice. Separation of modes in high frequent multi-use environments is best practice. You can separate and delineate the two uses with different pavement types, barriers. DoT believes that as a primary route, the proposed facility is world's best. 6.5m – function today – need to understand this is not connected to existing PSP right now – once that happens, and we have fully connected PSP, volumes will increase dramatically.	

QUESTION/ COMMENT	RESPONSE
This is an environment where we should have a low speed, simple well designed civilised bridge. Generous in space.	The CoF position involves splitting the 6.5m path – with the cyclists on the rail bridge and pedestrian priority on another path, with the addition of more paths we come up against limited space on the northern abutment.
Seems to be a consensus that there is a need for a dedicated freight line that overcomes the curfew issue. Is it the most economic option to increase train paths for freight?	The project outcome is to increase freight and passenger capacity – we are looking to achieve this by providing dedicated freight and passenger rail lines over the swan river.

## Building to the West - (New Rail Bridge west of existing)

Lance summarised – working from the north to the south:

- The existing rail bridge remains. In order to maintain safety and clearance requirements any new structure would need to shift 40m away from the existing rail bridge, including the need to avoid the existing dolphins.
- If you change the bridge structure type, and compromise on 1:200 grades to no worse than the current (i.e. 1:110 grade), we can tie a new rail bridge in without raising any of the rail profile. The catch is:
  - The small craft pens facilities including refuelling facilities would need to shift to Rous Head and new infrastructure built.
  - We would need to relocate large sections of the Ports MSIC fence, Peter Hughes Drive access way and Gate 3.
  - Reconstruction of Berth 12A
  - Significant land impact at, Berth 11, 12 and J-Berth
- We would also need to install new dolphins on any new structure west of the existing bridge. Dolphins are designed to minimise the consequences of errant vessel impact. Each dolphin costs approximately \$5m (costs are from 5 years ago), and there are six of them, so it's at least \$30 million to build new ones.
- The current Dolphins are the second layer of protection, while rockmounds are the first. If the dolphins move further west it may not be possible to have a further rockmound, reducing the layers of protection to just one with a resulting increased safety risk of vessels impacting the bridge.
- So we can make grades work if there is a compromise, but:
  - Code compliant grade is not achievable.
  - No worse than the current is achievable.
  - There are land requirements from the port.

Sue explained the land requirements:

- North Quay: we lose berth 12A; could re-purpose rather than remove.
- We have seen large increases in the roll on roll off (Ro-Ro) trade in recent months, and any loss of space at Berth 11 and 12 would impact this trade.
- Everything shifts closer to the rockmound, which is removed, and the dolphins are rebuilt closer to port operations. The result is an increased risk to vessel manoeuvrability and safety. It may also impact turbidity of the river and further work is required to understand the nature and extent of the impact.
- Small craft pen would need to be relocated. We have looked at Rous Head – cost is around \$7.5million, which includes approximately \$1.5 million loss of revenue.
- At J berth there would be impact on the car trade, which would see Fremantle Ports lose around 2000 square metres of land.

- It is likely that a loss of space would result in the use of Peter Hughes Drive regularly, which would limit public use and access to Victoria Quay.
- We have previously looked at an option to create a multi-storey complex for car parking with an estimated cost between \$25-48 million.
- Any relocation of Gate 3 would need to find a way to ensure trucks carrying large oversize / overmass equipment can still be accommodated in both clearance and manoeuvrability around corners.

Gavin said the impact of losing land used for operations cannot be underestimated.

- Overall berth utilisation and capacity: more and more we are seeing bigger vessels and our ability to discharge vessels and our lay down area is reducing. Vessels are bigger and carry more cargo. This trend will continue.
- In the last 2-3 weeks, we have seen lots of constraints on Ro-Ro trade. It will categorically impact us, not on some days, but when we have vessels bunching, there will definitely be an impact.
- Small craft operations are fundamental as this is the only way we get vessels in and out with pilots.

Lance advised the cost of this option is likely to require an additional \$80 million and excludes the costs of impacts to the port's operations.

QUESTION/ COMMENT	RESPONSE
What is the loop road impact? (i.e. the current access off Canning Highway to the Gate 3 access way).	The Queen Victoria/Canning Highway intersection would move closer to the Queen Victoria/Beach St intersection, which may impact the truck turning paths and queue lengths along Beach St and Queen Victoria St.
Thank you for interrogating this option. There is a lot in there, and it clearly has major port impact. The reason we do extra tracks means more movement for freight to and from the port. Is there a philosophical solution that this addresses? Does government have the appetite to manage difficulties?	Keen to get everyone's views.
Appreciate vessel issues. RoRo vessels will probably stay post Westport so this is a long term issue.	
If you need more land, which means filling the river to the north side, would you accelerate the flow of the river?	We would need to assess this further. The current tidal impacts and safely navigating vessels in this area is significant. We would absolutely want to know this impact. It is already challenging.
Is this shallow water?	No – the port maintains a depth of 10m.
The ideal solution is a lot of free span under bridge. How far apart would dolphins need to be to protect any bridge/ structure?	Dolphins would be required at each pier structure. Increasing the span length would reduce the number of piers required but would significantly increase the depth of the structure resulting in an impact on the rail grades as discussed earlier. We would need to reconstruct freight rail on both approaches to a new freight rail bridge. This would require us to close passenger rail and freight rail services for an extended length of time, which is far from ideal.

QUESTION/ COMMENT	RESPONSE
	We have fixed points on each side of the river being the Tydeman Road rail bridge and Gate 3. These are existing constraints, and no matter how we look at it, we cannot compromise. That's why we ended up with the eastern option as preferred, which minimises impacts on operating rail, road, river, port.
Is this a self-imposed government constraint?	No, it is technical. Plus costs of closing passenger and freight rail for approximately 10 months (the new track would be 2m higher than existing line so we have to reconstruct the grade through Fremantle Station to tie in). No rail means the freight being shifted by the current 4-5 trains per day (return trips) would need to be shifted by trucks via road instead.
Is the land resumption on the north bank the main constraint?	No, in addition to land resumption from the river, the port land impacts, operational impact, new dolphin structures, additional environmental implications and significant increased cost are also constraints.

## Building to the East – (New Traffic Bridge east of existing)

DoT Marine (Mark) provided a maritime perspective:

- It is a minor miracle we haven't had an issue.
- Opening up these bridges with better navigation spans opens up the river for more tourism opportunities.
- We need to provide safer space for vessels – vessels are getting larger and faster and this area needs improvements.

Slides 26-31 referred to the current Eastern alignment, which everyone is familiar with. Discussion followed.

Nicole advised:

- What you can see is a lot of work has been done and anything is possible. Options:
  - If you want to keep the current money, the next steps have to happen and this is a new process; or
  - If you have a strong view on these, what do you want to take to the Minister?
  - Big picture design ideas might suit one outcome and not another.

QUESTION/ COMMENT	RESPONSE
Is the MRWA preferred option to remove existing rail bridge?	In all these options, the rail bridge stays. It has 40 years left so it is not a good investment to remove. The eastern option retains all rail in rail reserve. There is also less impact on views with the PSP on the western side.
Did Russell (CoF)'s design have rail in the same spot? Can you combine existing bridge, keep a heritage stub on east, and a new road west of that?	This would require 50m of space to fit in and you would need to take out the existing road or rail bridges to construct it. This means a traffic impact and cost impact.
We all need to compromise – perhaps the Minister can as well?	Compromise is the point of today.



QUESTION/ COMMENT	RESPONSE
	It is always hard. The next step is to bring another set of experts, through an alliance process, to work on next phase of design. There is opportunity to bring you into the next stage, otherwise there will be further delays.
If budget is a constraint, then that component should shift. Your preferred is within existing constraints. I say that has to move.	The impacts and consequences of securing significantly more funding outside the budget is time and delays. The delay is felt by not just the local community but the regional community as well. Although the people here today might be prepared to wait, will the broader southern suburbs' commuters, businesses, freight operators be able to absorb delays and congestion for a further 12 to 27 years? For example, if the traffic bridge needs to close for over 12 months and the traffic shifts to Stirling Highway you have to remember that everyone will need to use Stirling Highway as the closest river crossing is in South Perth at the Narrows.
If Fremantle businesses lost 9 months of potential trade, this has to be taken into account. If you can't get into a place you won't go so this may send shoppers, consumers, traders elsewhere. If you close the bridge for 9 months lots of people will not be accessing Fremantle.	If we add 26,000 vehicles per day to the Stirling Bridge this would increase peak travel times. 9 months impact becomes a no, whereas 9 weeks is a maybe and 9 days is get on with it.
It's important not to take budget as too much of a constraint. In the 1930s most people didn't want timber (wanted concrete and steel). The scope of the project should be potentially looking beyond pure cost of bridge.	The outcome may be that we need more money. We have a budget but it's not the only driver. Close a freight line for 10 months and you have huge economic impacts to the state – millions. Which one of these would you choose if you had more money? Reclaiming a part of river will be an environmental challenge, and things may still not be approved.
Has the MRWA option gone through all those hurdles?	The eastern option is the most feasible within the constraints of the site and budget as it can be constructed within the existing road and rail reserves providing significantly less impact on road, rail and river operations when compared to the other options presented today.
Why not have the PSP on rail bridge?	Would be a separate structure.  PTA advised if PSP was on rail bridge it would be a slightly more hostile environment, so we would need different infrastructure, chain fencing, physical separation, and it would be more isolated. A PSP also needs to be trafficable for maintenance and emergency access.  In our preferred option (i.e. western side of traffic bridge) the path would tie in to the set of signals, which is the safest place to cross. It

QUESTION/ COMMENT	RESPONSE
	ties into Canning Highway, and a loop ramp ties into Beach Street; the City asked us to look at how the option ties into the future PSP into Fremantle.
So a bridge to the east would have least impact on Rivershores apartments.	For business and residents facing west, Queen Victoria St would be slightly higher (approximately 1m), and we would try and avoid getting any closer, despite the fact that the road reserve abuts the apartments. The road alignment starts to ramp up and towards the south facing apartments once we pass the western facing apartment. At the northern abutment, it will be 2.5m higher and 10m closer to the south facing apartments. It's important to note that we have gone for the worse possible footprint and there is still opportunity to reduce this footprint further and possibly reduce the impact on these apartments. This will be interrogated further in the next phase of the design process.
Can we challenge the speed on the new bridge, the lane widths etc.?	This can be investigated.
Elite cyclists or if you get a peloton – they won't use the PSP.	Agree, these types of cyclists prefer the road. We have considered wider shoulders, barriers, and wider lanes.
The main concerns are around the impact on amenity. Can you continue to look at the curve of the bridges?	Yes, definitely achievable.
Would love to see Curtin Ave PSP to go along the rail. It makes sense as it continues on the same side. Still like to see a pedestrian link across any proposed bridge.	
We need to be pragmatic. The City challenges retaining the old bridge. How much do we want to reconstruct or protect? How do you activate in between bridges?	This will form part of the Heritage Interpretation process and will be subject to further Community and key Stakeholder consultation.
If Queen Victoria Street is a local road, where does everything go?	
Has any thought been given to what Queen Victoria Street becomes in the future as traffic increases?	The purpose of Queen Victoria Street does not change and this project does not make any changes to Queen Victoria Street north of Tydeman Road – our project also retains the current number of lanes south of Tydeman Road (two lanes in each direction).
Can we have a prettier bridge?	We can look at a signature structure, but this is a design process that will occur in 2021.
If this option has less additional cost, and if the government had more money, perhaps they might stump up more for a signature bridge.	
Option 2 (road bridge only between bridges) is my preference. There are questions around rail curfews, and more rail	This is not just about curfews. There are a number of issues that impact the ability to increase freight on rail.

QUESTION/ COMMENT	RESPONSE
into the present system. The Port decision is not clear. It is best left with cabinet and that will change things – we may not ever need extra rail. Then reconsider PSP location and keep the old bridge longer. Option 2 is the best. You will save money on this. Put it between the bridges and no rail. Change the curfew – I can't believe the whole thing is based around curfews.	While Westport is planning the relocation of the port, it is unlikely this can be achieved within less than approximately 10 years, and potentially longer. This includes planning, major approvals particularly environmental, construction and transition of operations from Fremantle. Ultimately these decisions are for the Government to make, but we need to be pragmatic in what can be achieved and account for this in our planning.
The PSP issue applies to all options. Ask the Minister to consider extra funding – consider \$50m that was allocated to the Causeway PSP.	Noted
The port may move. Barnett said the new port was not allowed in Cockburn Sound. Minister for Defence hasn't ruled in or out what to do – they don't want Chinese ships near the Defence area. Not a done deal the port will move. Council and community and society want port to stay.	Noted

Nicole advised:

- I propose that we have no unanimous vote and take this back to the Minister advising there are range of views and options (pros and cons).
- The process is in train – with more expertise in train if the community want to stay involved. You need to trust the process and continue to be engaged. There could be a commitment that the Alliance brings in a forum to continue this work.
- The key risk is that we lose funding, time and political appetite. Everyone seems to want something to happen but also wants to be clear on a continuing involvement. Are we comfortable?

QUESTION/ COMMENT	RESPONSE
We are all here because we want a solution – we don't know what solution so we need to keep going until we are all convinced.	
Support that if I felt comfortable that all solutions are included. Is it possible to delay rail to another stage? We haven't been presented with a single bridge option. Does the Alliance have a locked in requirement to deliver both rail and road. Rail is significantly influenced by the port. Alliance can bring in expertise for managing solutions.	We can ask the Minister if she is keen to consider.  Development needs to continue. The Alliance process includes development, then design and then construction.
If scope is taken forward, you can draw a reasonable concept plan in a short time. Planning needs to be here. Open vast area for genuine community creation.	This is the start of a long term vision – and a holistic look at Fremantle.
Consider heritage and sense of place and urban design – not just A to B. Creating urban landscape and people to nicely move across. Need a nice experience, Naval Store, and parkland are opportunities. This	Alliance will progress development, which includes possibilities.

QUESTION/ COMMENT	RESPONSE
design hasn't taken this into account. Hybrid between this one and Russell's. Sense of place and community.	
Over the last 2-3 weeks, there has been incredible progress. Both have constraints. The idea of being locked into one option is challenged. We have two options now. From a business perspective it is reassuring that there is an understanding of people and travel. If heritage and place become part of the brief, the chamber is happy.	Heritage and place is part of the brief – including an Urban Landscaping and Design Framework.
If the Minister is focusing on the rectangle area (project area), it would be disappointing. Fremantle community is not just east or north, it is a bigger area.	Noted.
If Minister approves the process to continue, when is the next meeting?	We will email everyone with the outcomes of the discussion.

## OUTCOMES

- There are differing community views around the preferred location of the bridges.
- Within the next few years, more freight will continue to come into and out of the port – the preferred choice is for it to get there by rail and not by trucks on the road network. How can the project best deliver this?
- Restricting port operations or shutting down passenger rail services for long periods of time is not feasible.
- Closing roads and bridges for a long period of time will restrict access to Fremantle, and in turn significantly impact local businesses, which must be considered.
- Preserving the heritage of the traffic bridge is important. How can this best be achieved?
- How people ride, walk and connect from one side of the river to the other is important.
- The project provides an exciting opportunity to facilitate more use of the river and foreshores by locals and tourists alike. Amenity was a key point of discussing that needs to be considered through next stages of design.

## NEXT STEPS

There was general support for the project to continue to the next stage – the award of a contract to establish an Alliance team that will continue with the development of the project. However, only if a commitment could be made by Government that the Alliance team would be required to continue the community consultation to investigate the best location for the bridges with due consideration given to heritage, movement and place.

## CLOSE

Nicole thanked the project team, stakeholders and the community representatives for their involvement. Gary acknowledged the community's contribution and thanked them for taking the time to be involved in this process.

**The forum closed at 3:45pm.**