

**MINUTES OF MEETING – Construction Reference Group (CRG)
Murdoch Drive Connection
Meeting 2**

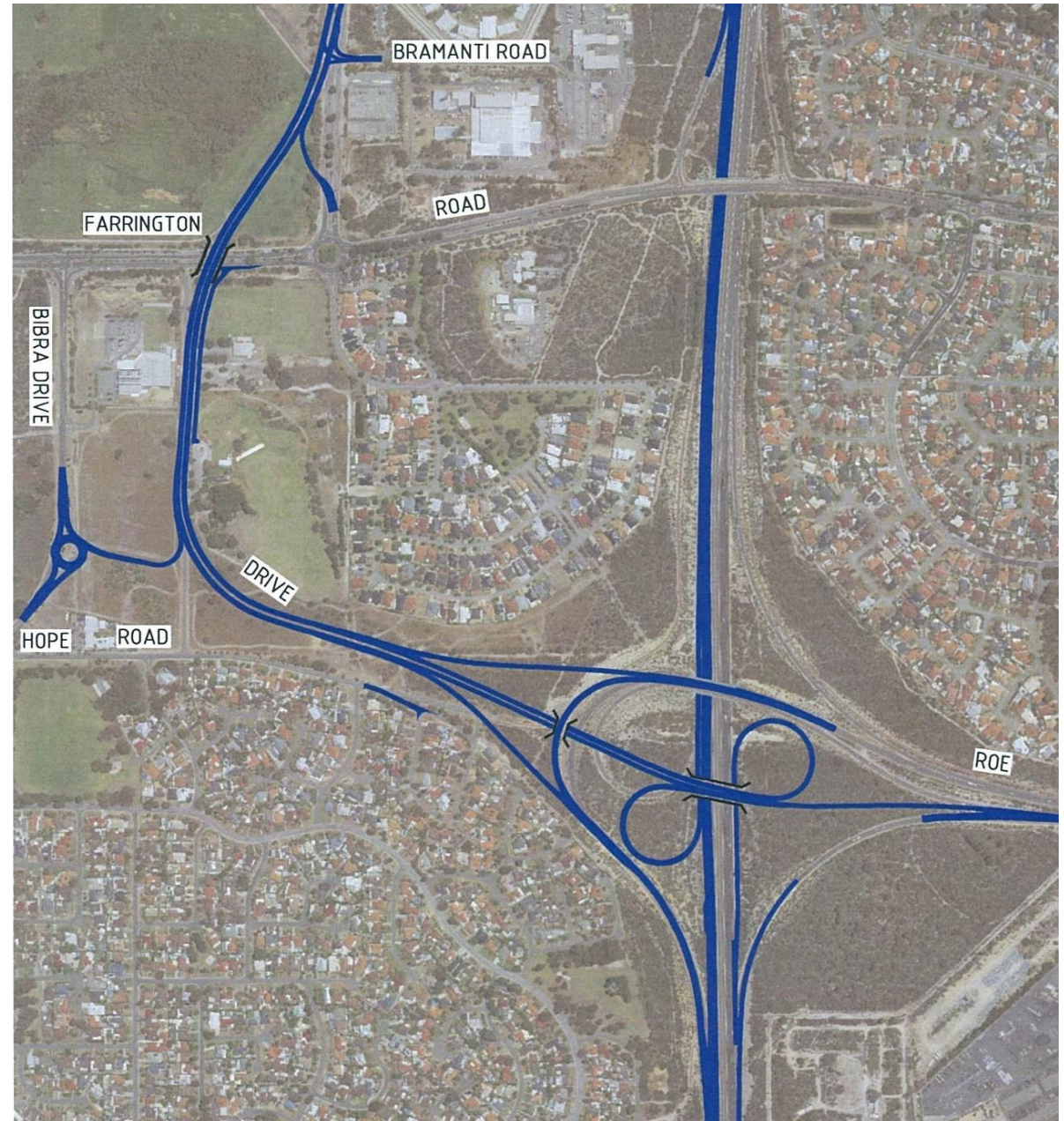
Date:	Monday 29 th January 2018	Time:	18:00-20:00	Location:	Lakeside Recreation Centre, Cnr Farrington Road and Bibra Drive, North Lake	
Distribution:	All CRG members and meeting visitors					
Attendees:	Nicole Foxton	NF	Elected member, City of Melville	Con Abbott	CA	Leeming resident
	Mark Ashby	MA	Principal, Kennedy Baptist College	Chris White	CW	Executive member, Transport Infrastructure Council of Western Australia
	Phil Glew	PG	Bateman resident	James (Jim) Nicholson	JN	Booragoon resident
	Michelle Barnett	MB	Bibra Lake Residents Association	Felicity Bairstow	FB	Cockburn Community Wildlife Corridor Inc – Committee member
	Decima Johns	DJ	Bibra Lake resident	Cam Bartram	CB	Ardross resident
	Charles Sullivan	CS	Director of Engineering, City of Cockburn	Christine Cooper	CC	President, Bibra Lake Residents Group
	Mick McCarthy	MMc	City of Melville	Kevin Wragg	KW	Bibra Lake resident
	Kim Sadlier	KS	Success Residents Group	Jorelle Little	JL	CRG Executive Officer
	John Amantidis	JA	Bibra Lake resident	Linton Pike	LP	CRG Chairperson
Visitors:	Padraic Murphy	PM	Design Manager, MRIA	Jarrid Burton	JBu	Construction Manager, MRIA
	David Goodram	DG	Project Manager, MRIA/Main Roads WA	Terry Pearce	TP	Project Director, MRIA/Main Roads WA
Apologies:	Kimberley Broztl	KB	Manager Engineering, City of Melville	James Nicholson	JN	Booragoon resident
	Dr Jonathan Tan	JT	Bateman resident, local General Practitioner			

NO.	ITEM / DETAILS
1	WORKSHOP PURPOSE AND PROCESS
	<p>LP (workshop facilitator) welcomed participants explaining that the workshop purpose was to:</p> <ul style="list-style-type: none"> • Raise awareness of the project; • Understand associated stakeholder and community aspirations and concerns; • Encourage stakeholder and community input to the design and construction; • Collaborate with project stakeholders to deliver the best possible solution. <p>The workshop agenda is provided at Attachment One. A list of workshop participants and apologies is provided at Attachment Two. Each participant provided a brief personal introduction</p>
2	ROLE OF THE CRG
	<p>Linton explained that the role of the CRG is to:</p> <ul style="list-style-type: none"> • Discuss and provide input into the detailed design development and construction process for the project • Help identify and respond to project issues and opportunities identified by project stakeholders • Communicate project matters to and from relevant stakeholder groups • Governance / membership • Upcoming community engagement activities <p>Linton noted that the timing and life of the CRG has been extended to reflect the changing and current project status.</p>
3	BACKGROUND
	<p>Terry Pearce provided a brief project update and approved concept design explaining that:</p> <ul style="list-style-type: none"> • The delivery team has consulted with LGA's, the Minister for Transport and the local MP with regard to project scope inclusions with a focus on connectivity. During this period broader community consultation was put on hold; • Since then we have engaged further with key project stakeholders and now have a Ministerial decision regarding the final scope of work for inclusion in this initiative. The design has now been further developed to reflect these outcomes and construction has now commenced. We have also continued to engage directly with affected residents and key stakeholder groups; • The project is supported by federal, state and local government who want to see it go ahead. Connectivity issues still exist and will be addressed further • Our governance model include the input from this Construction Reference Group to assist in managing the impacts of construction on the community. We will continue to seek feedback from you on key elements including input to various design elements – landscaping, aesthetics, etc • It has been difficult to hold further CRG's in that period for that reason and Terry apologised for the limited stakeholder contact in recent months.
4	QUESTIONS AND ANSWERS
	<p>Q. Do all LGAs really support the design? City of Melville (CoM) has concerns with some design elements including:</p> <ul style="list-style-type: none"> • The lack of a direct link to Bibra Drive to provide through traffic access. • Murdoch Activity Centre is a connected precinct with traffic load not moving efficiently; • The lack of direct access to Farrington Road without circuitous movement;

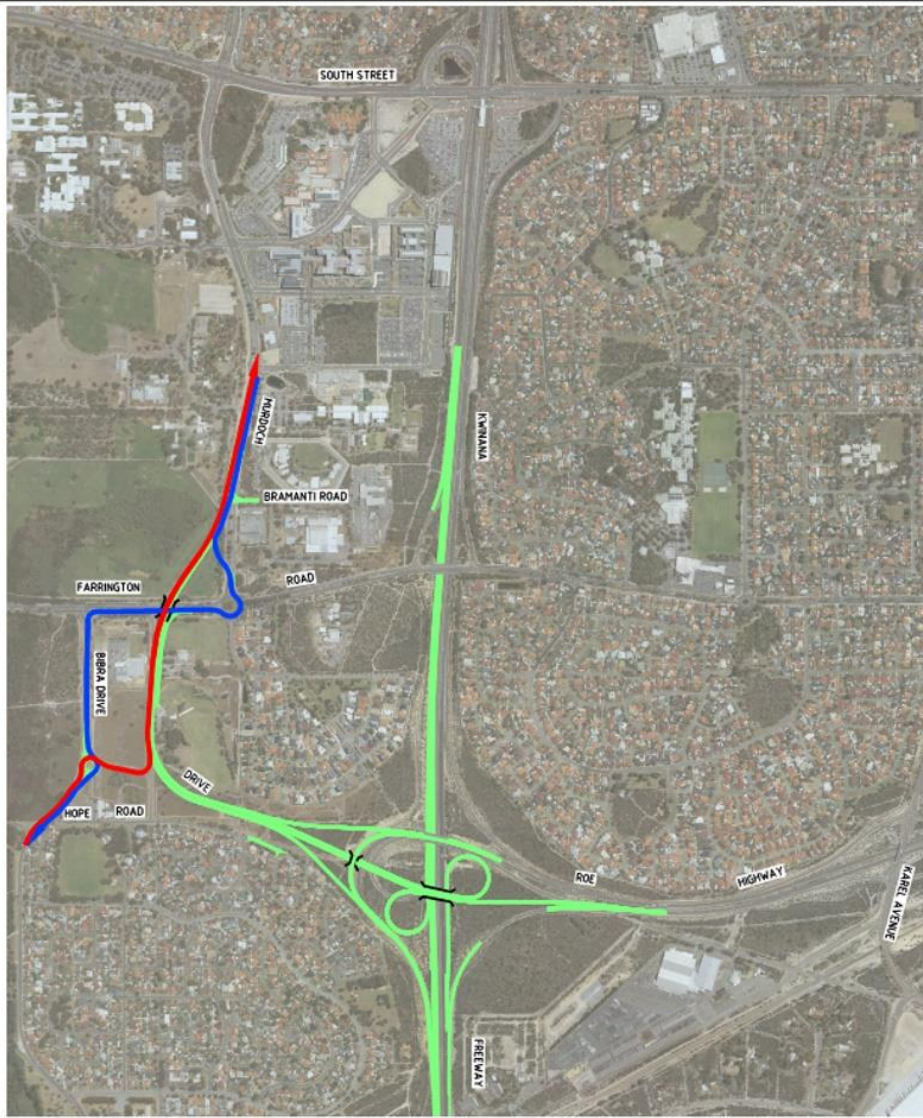
NO.	ITEM / DETAILS
	<ul style="list-style-type: none"> • The politics at play as well at the regional road network level. <p>A. The project is supported in principle by all three levels of government with some issues to be resolved including connectivity with Ministerial support for the concept to be presented this evening.</p>
	<p>Q. How long will the project run?</p> <p>A. It will run until its scheduled end of 2019 completion.</p>
	<p>Q. Why weren't MP's other than Peter Tinley consulted?</p> <p>A. Peter Tinley was present as the Minister's guest.</p>
	<p>Q. On September 29 2017, Peter Tinley was invited to site by the community and advised that the maximum possible distance to dwellings would be provided and was advised that it couldn't be done. It was suggested that the City of Cockburn (CoC) provide input to generate ideas to expand this and he is still waiting on design drawings.</p> <p>A. This action is pending Ministerial direction. The concept will better explain the constraints associated with traffic movement northbound along Kwinana Freeway and then westbound to Murdoch Drive Connection.</p>
5	CONCEPT DESIGN OVERVIEW
	Padraic Murphy explained the current design concept using the images on the following pages.

Padraic added that:

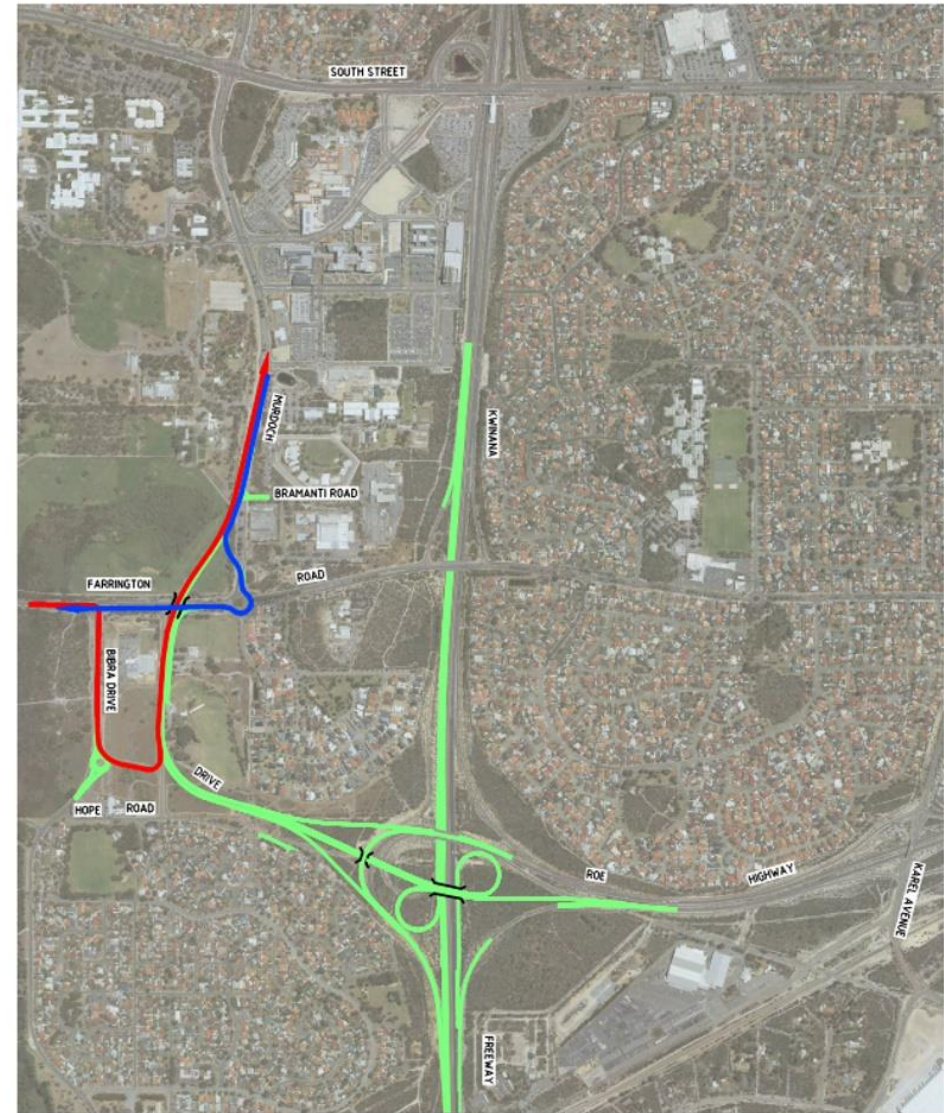
- The footbridge across Kwinana Freeway is no longer included in the scope;
- Pedestrian and cycling network linkages will remain but along different routes including Principal Shared Paths (PSP);
- Noise walls will be provided at some locations with no details available yet;
- Local area connectivity is maintained;
- The major interchange (Kwinana and Roe) geometry is dictated by loop ramps which have been established at the minimum radius for road trains and semi-trailers with a 70kph speed limit to be posted;



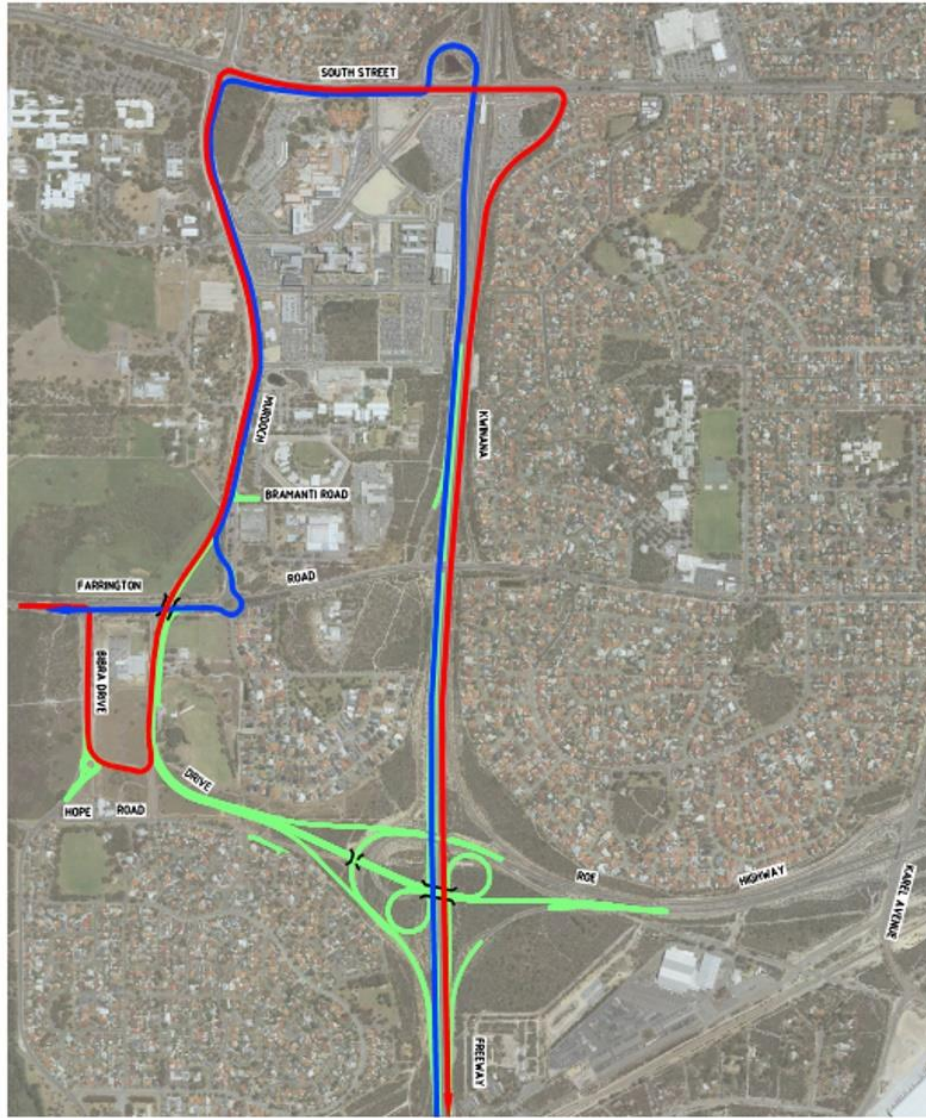
Local road connectivity movements are shown below and on the following pages with movements in and out shown as red and blue lines.



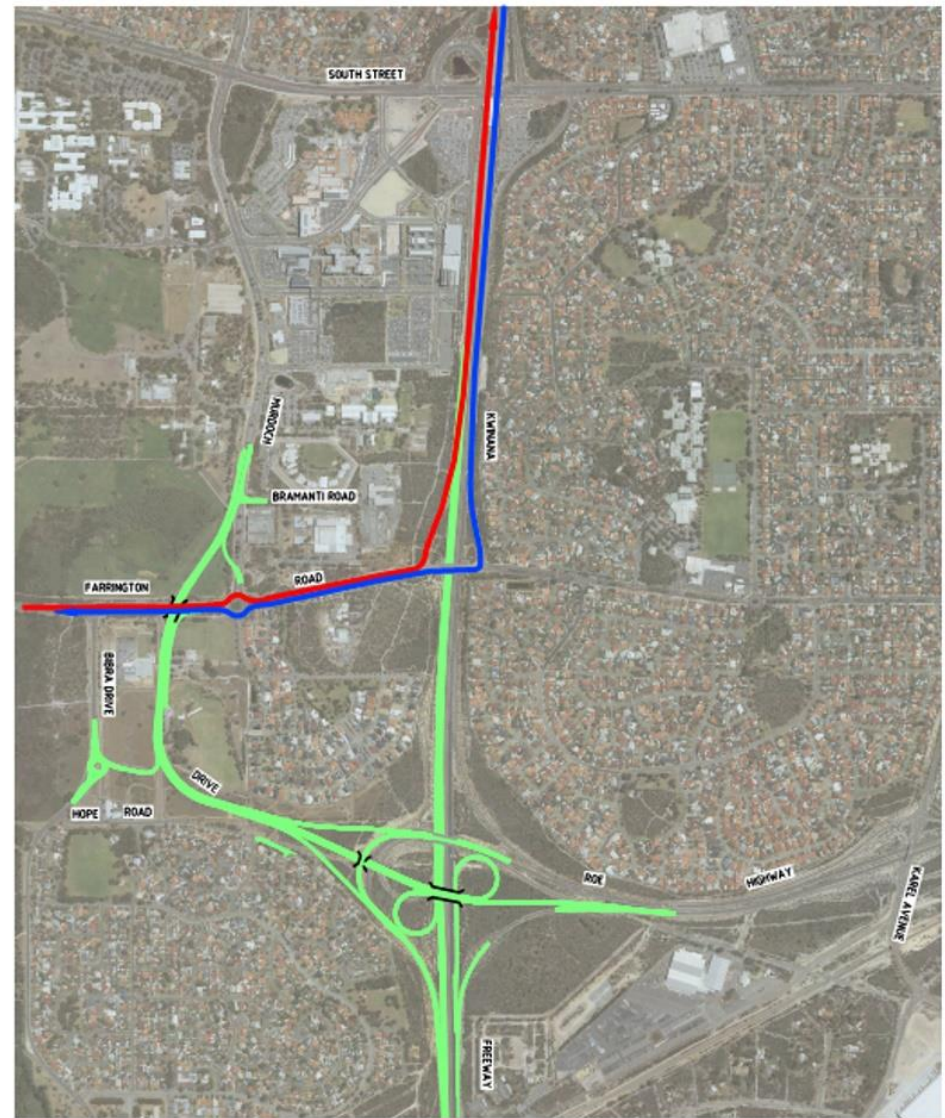
MDC TO/FROM BIBRA DRIVE



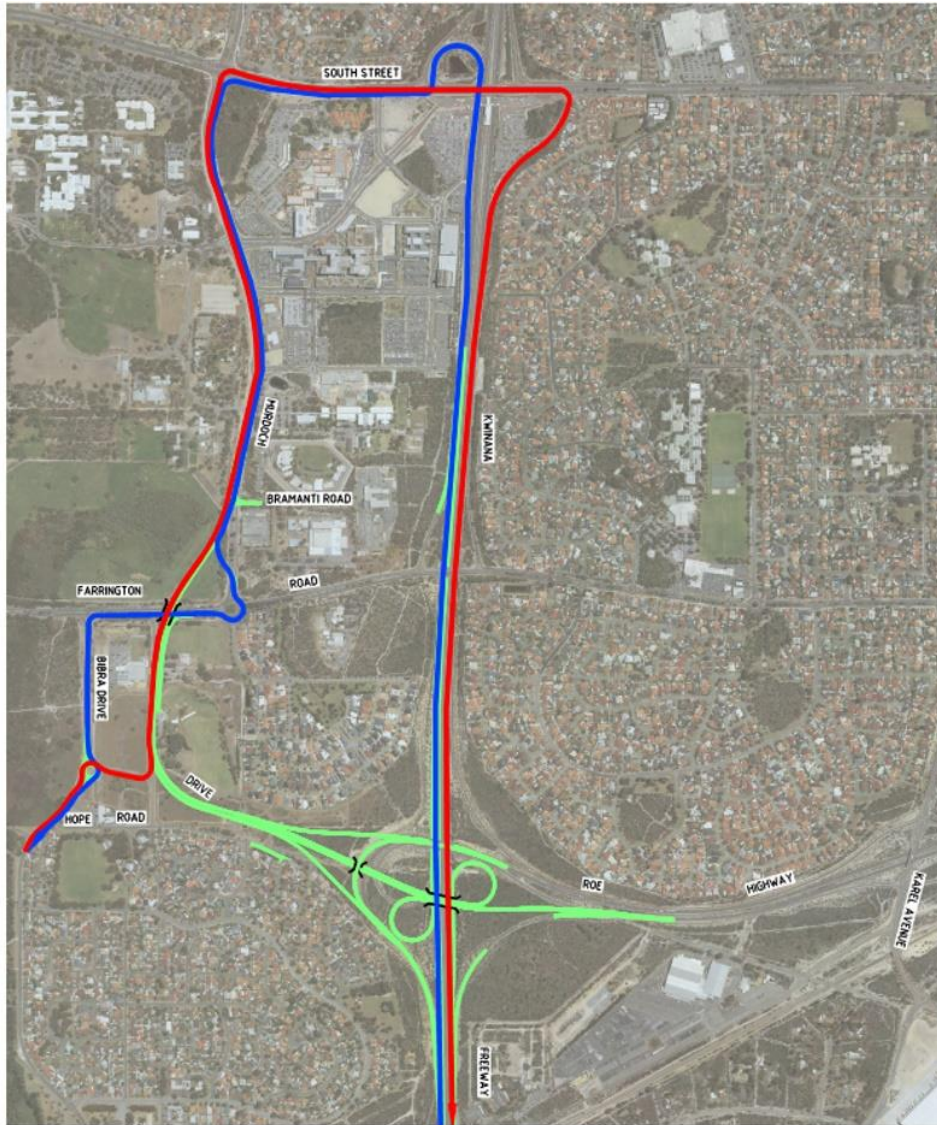
MDC TO/FROM FARRINGTON ROAD



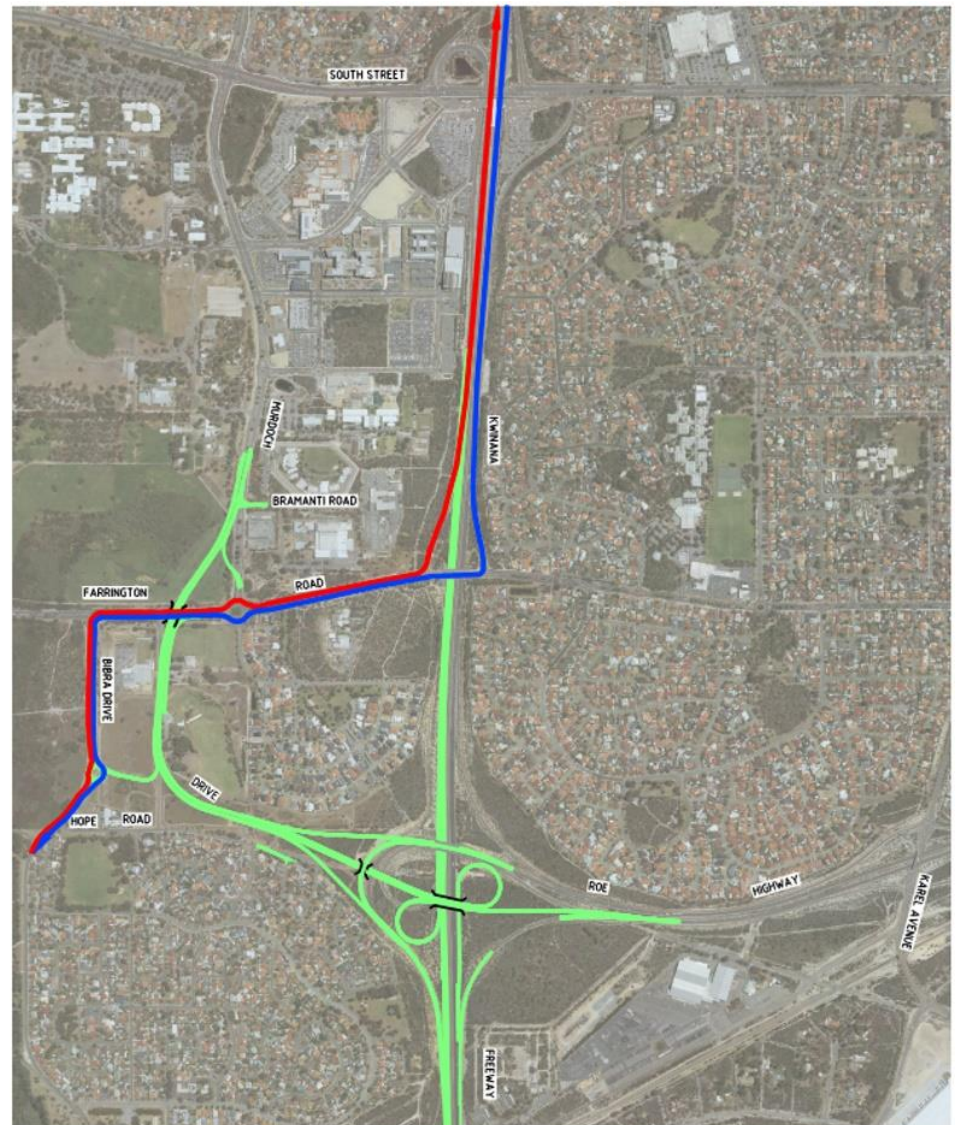
FARRINGTON RD TO KWINANA FWY SOUTH



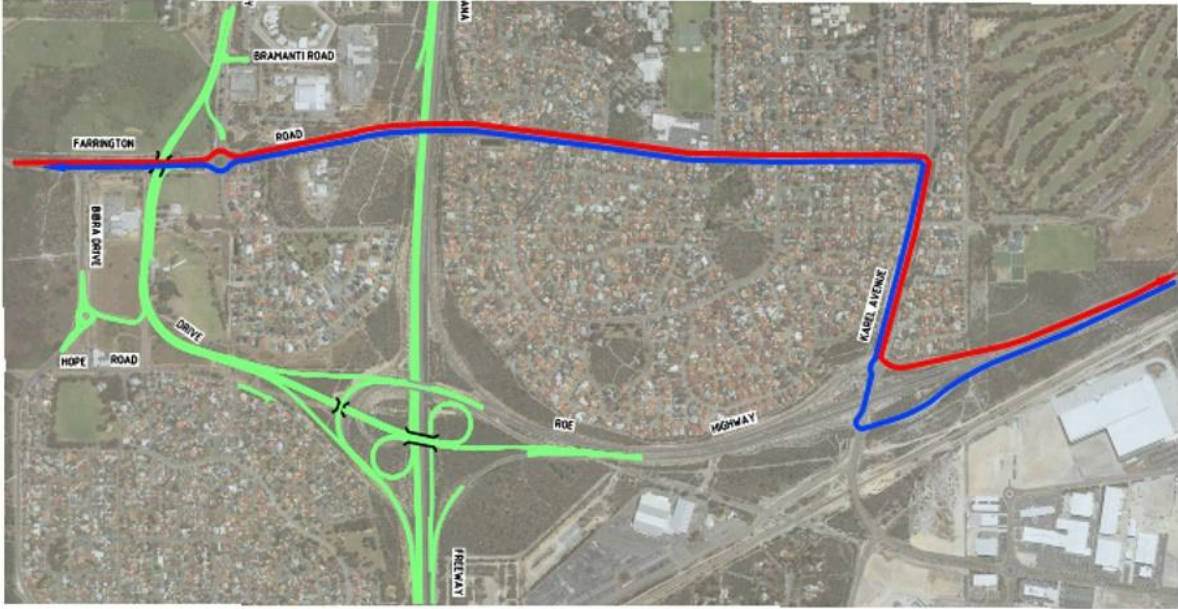
FARRINGTON RD TO KWINANA FWY NORTH



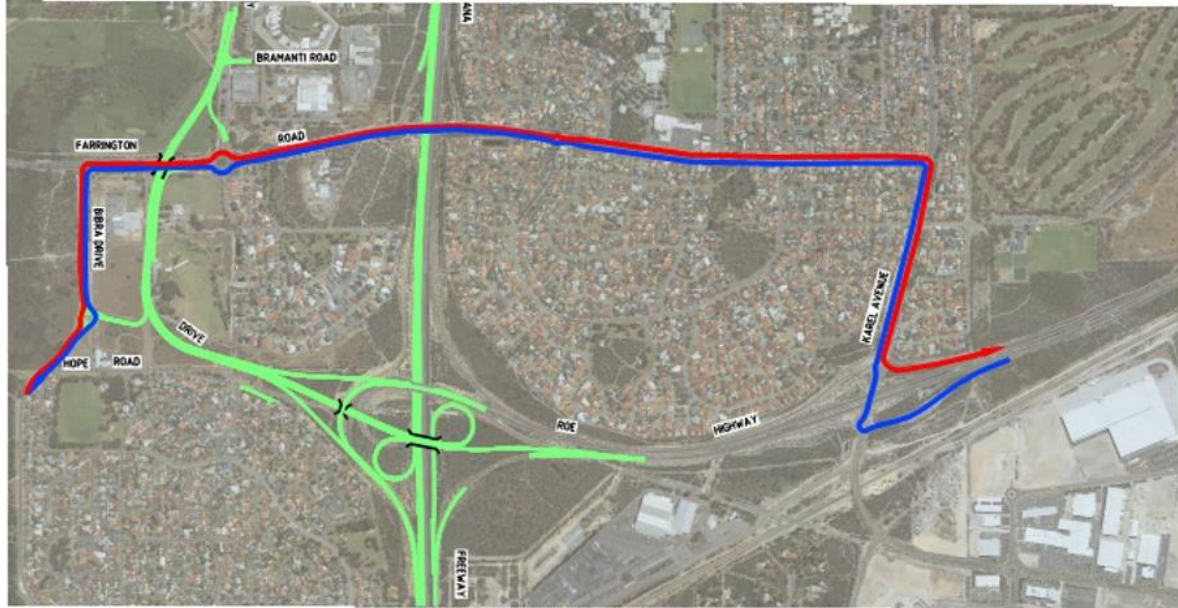
BIBRA DRIVE TO KWINANA FWY SOUTH



BIBRA DRIVE TO KWINANA FWY NORTH

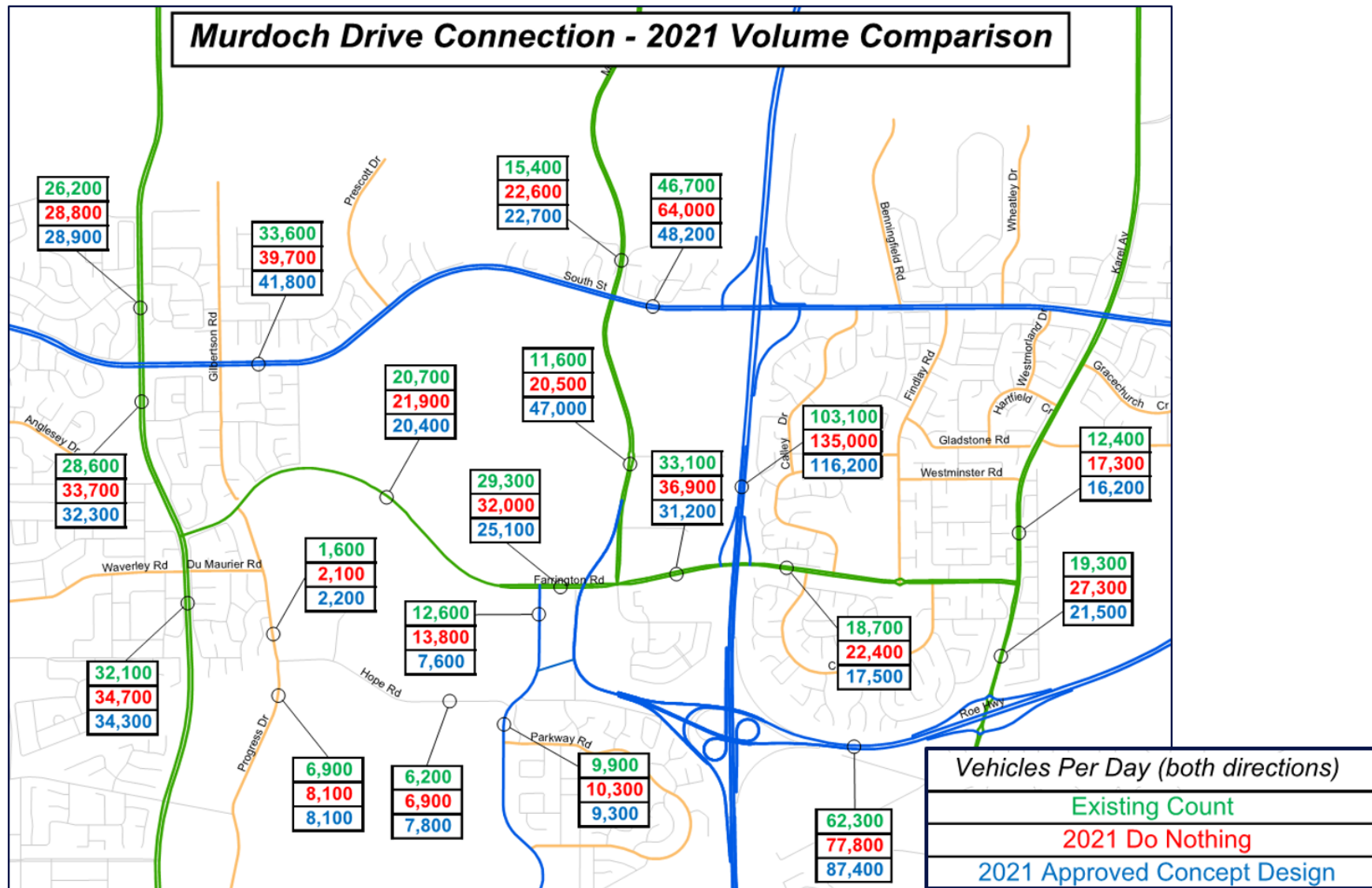


FARRINGTON ROAD TO/ FROM ROE HIGHWAY

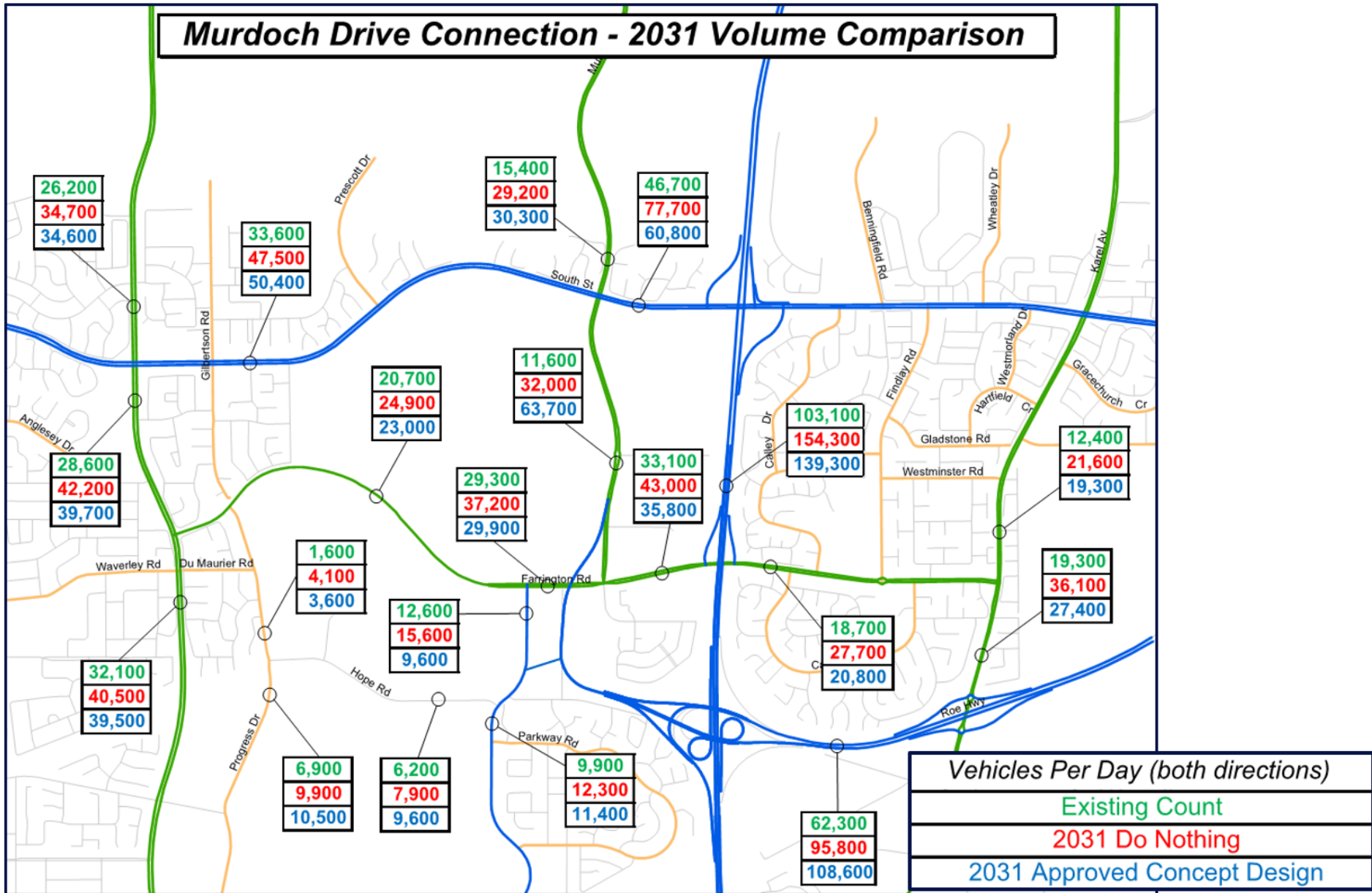


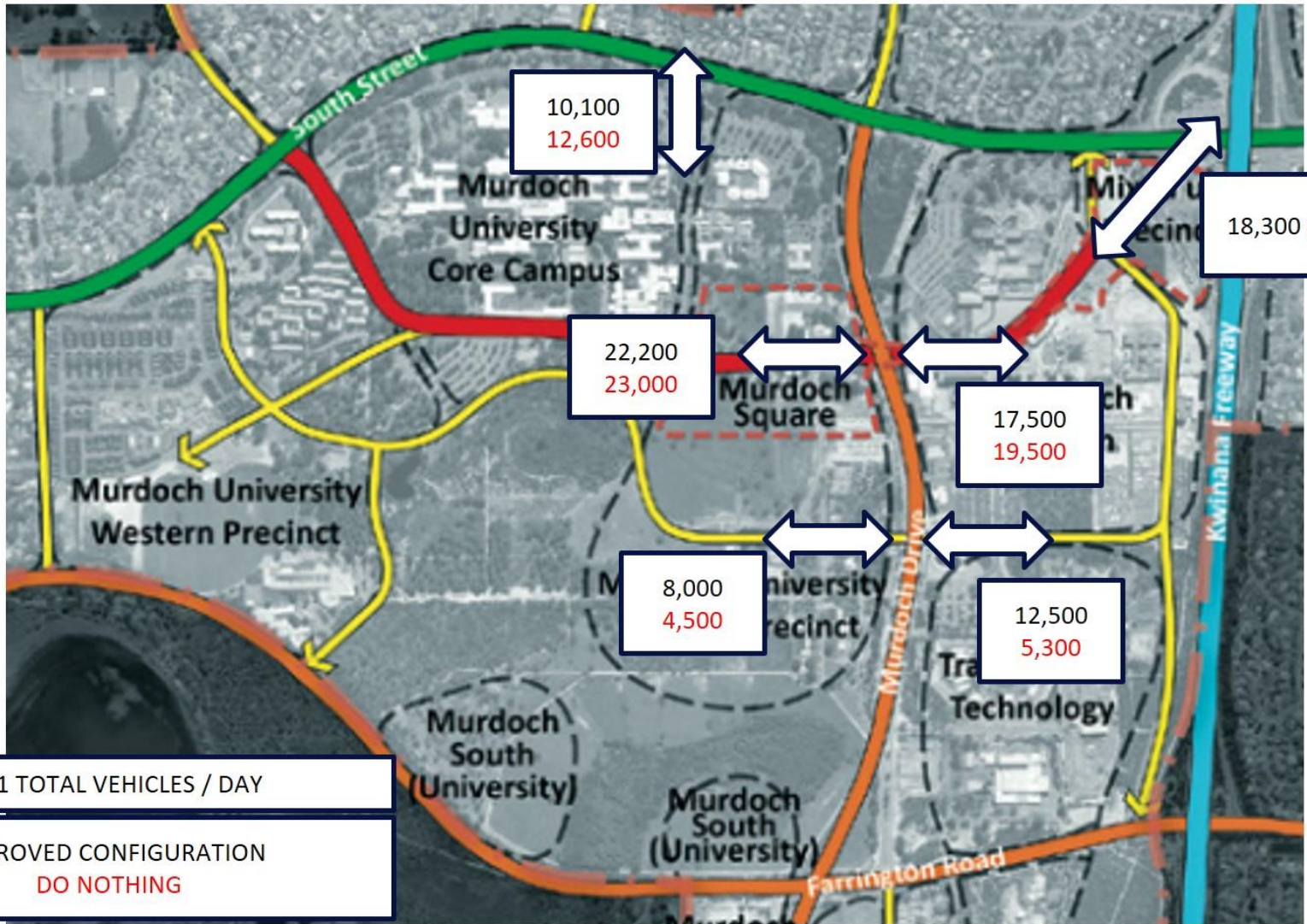
BIBBA DRIVE TO/ FROM ROE HIGHWAY

Padraic provided preliminary traffic comparisons for current configuration and post construction traffic volumes to 2021. And 2031 as shown below and on the following pages noting that the Murdoch precinct will be a major regional destination regardless of design configuration.



Murdoch Drive Connection - 2031 Volume Comparison





2021 TOTAL VEHICLES / DAY

APPROVED CONFIGURATION
DO NOTHING

Preliminary Micro-Simulations (videos) were presented by Padraic showing traffic patterns, flows, queues and hot spots noting that ramp metering (traffic lights on some legs) may be required at proposed roundabouts to manage peak flows and keep traffic free flowing. This is similar to the Point Lewis Rotary near the Narrows Bridge in Perth.

A video was shown for the 2021 Morning Peak noting that:

- Video shows from 7:40am – 8:15am.
- Congestion lasts for 30mins through to approximately 8:15am.
- Congestion / queuing extends from Bibra Drive roundabout through to Farrington Road in WB direction (reaching as far as Farrington / Allendale Entrance).
- Traffic on Bibra Drive EB through to MDC is operating unopposed, resulting in southbound traffic on Bibra Drive queuing due to lack of gaps at roundabout.

A video was also shown for the 2021 Afternoon Peak noting that:

- Video shows 4:20pm – 5:00pm.
- Congestion begins to clear after approximately 5pm on Farrington Road.
- The eastbound flow along Farrington Road operates largely unopposed which results in insufficient gaps for vehicles exiting MDC.
- This shows queuing along Murdoch Drive as vehicles are unable to turn on to Farrington Road due to high opposing traffic.

A number of questions and answers resulted as follows

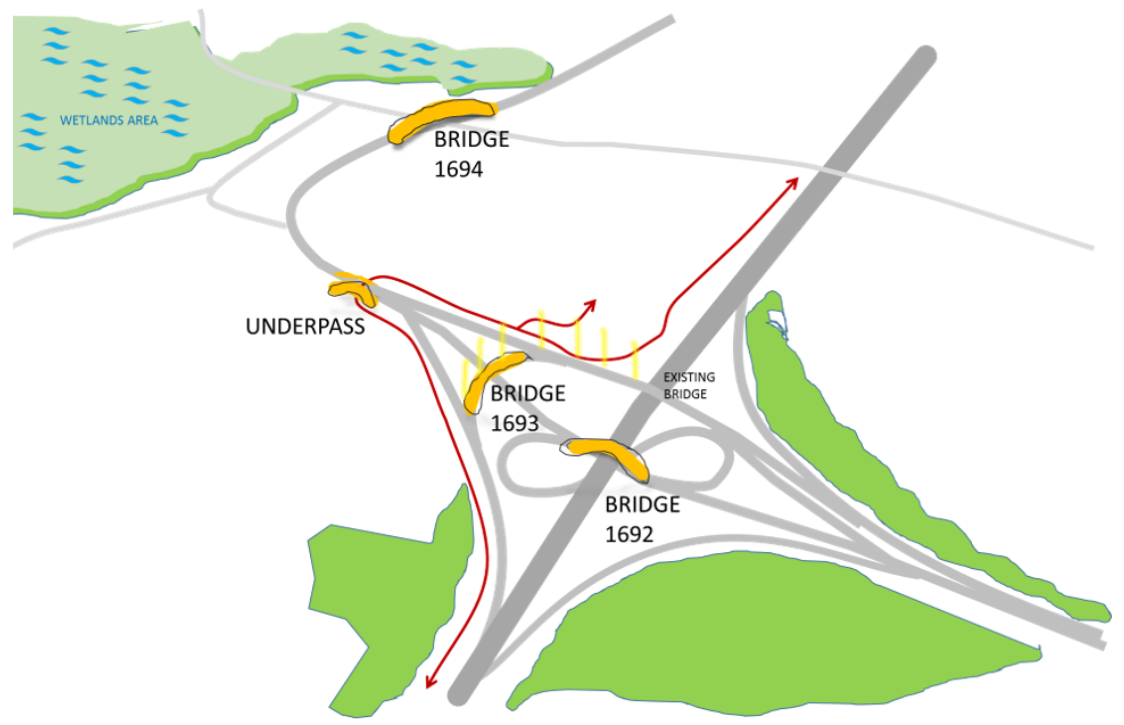
Q.	Why not expand the traffic modelling to go east of Farrington Road to Karel Avenue?
A	We have modelled to the extent of the project and the modelling reflects current volumes and growth on links that will be materially impacted by this project. The project does make traffic management more effective as a better solution. Existing Fiona Stanley Hospital access signage suggests using Karel Ave and Farrington Rd and this will change with Roe Highway carrying the load with MDC. The primary objective is to provide safe and efficient southern MAC access not address local road network issues. It is a regional solution.
Q	Are the existing Roe/Kwinana interchange loops retained or do they change?
A	Current loops change from the generous loop to a much tighter loop with some associated issues. These loops reflect current standards as a continuous, single radius.
Q	Bibra Lake residents were briefed by Cardno and a modified roundabout design was discussed. Is that still planned?
A	No major overhaul is proposed to the existing roundabout with some work required including ramp metering potentially. The microsim work has only just done on this option and the morning and afternoon peaks remain to be resolved

Q	Issues remain for northbound traffic on Bibra Drive and then Hope Road that can't carry more traffic. Can we look for ways to limit that traffic and use other roads?
A	Bibra Drive traffic volumes will increase with or without this project. We think with these changes traffic volumes along Bibra Drive will drop marginally by 2021. Hope Rd traffic volumes will increase by a modest amount and the numbers reflect a logic test as such with more people using Hope Road to provide ready access. We may be able to look at Hope Road traffic calming initiatives.
Q	CoC found environmental constraint on Farrington Road west of Freeway from 1994 EPA decision with duplication refused previously. From a traffic point of view duplication makes sense but EPA decision prevents that. CoC assessed 6 options and the Minister's preferred option does not reflect the CoC view and we need to minimise impacts for the local road network. Static modelling shows the existing Farrington Rd / Murdoch Drive roundabout improved with a left turn slip from south bound to freeway movement. More advanced microsim modelling is welcomed.
A	The trigger to provide a dual carriageway is around 15,000 vehicles per day (vpd) with Farrington Road currently carrying around 20,000 vpd.
Q	The objective is to improve traffic flows not make them more convoluted so why can't east bound Farrington Road traffic bound for Murdoch Drive northbound have a direct slip lane to eliminate the convoluted route that has resulted from this configuration?
A	CoC analysed this with opposition from Murdoch Uni as part of a range of options previously considered with a conservation category wetland in the area. The wetland is part of the Beeliam wetlands and was avoided for that reason and is outside the project footprint.

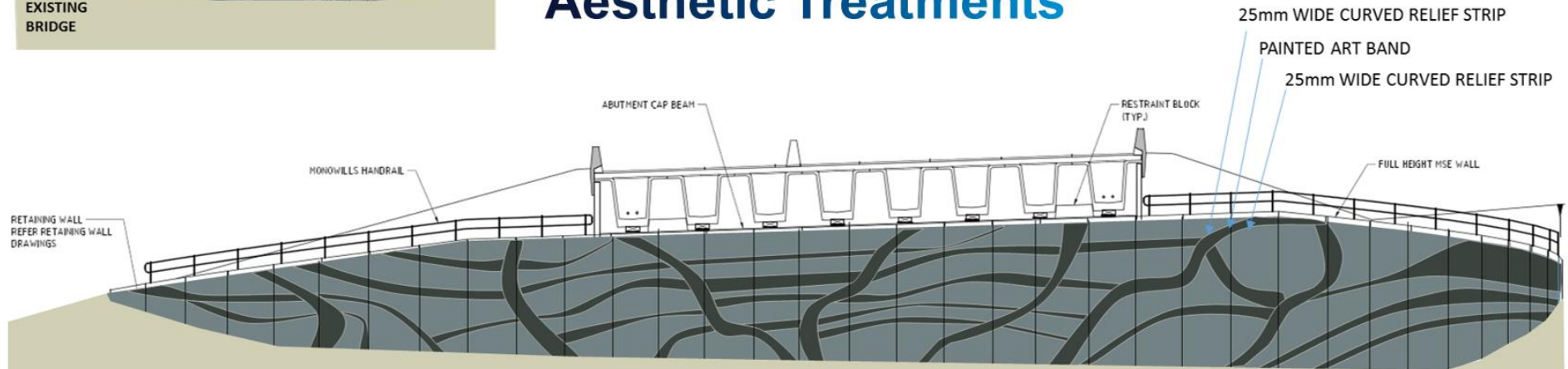
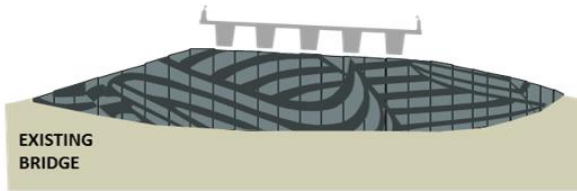
6 URBAN DESIGN

PM explained the urban design components of the project are being considered to create interest and appeal at four proposed bridges as significant project elements. The bridge locations and suggested treatments are shown on the following pages.

- Bridge 1692 (Kwinana Freeway)
- Bridge 1693 (Murdoch Drive)
- Bridge 1694 (Farrington Road)
- Pedestrian Underpass for principal shared path

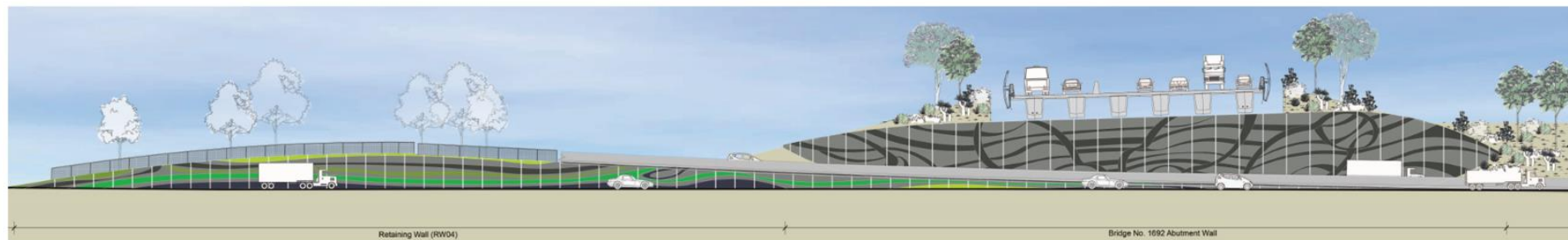


Bridge 1692 Aesthetic Treatments

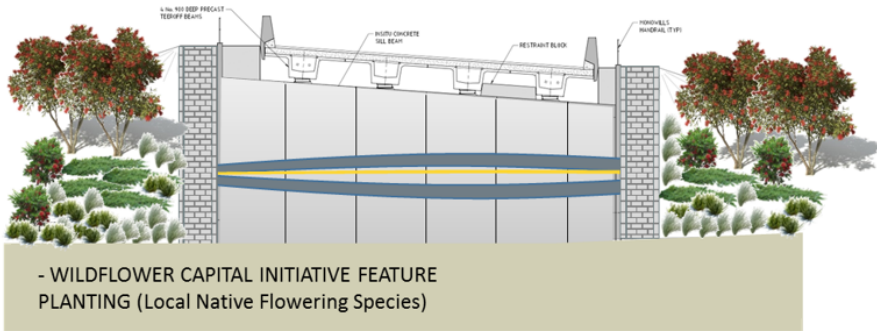
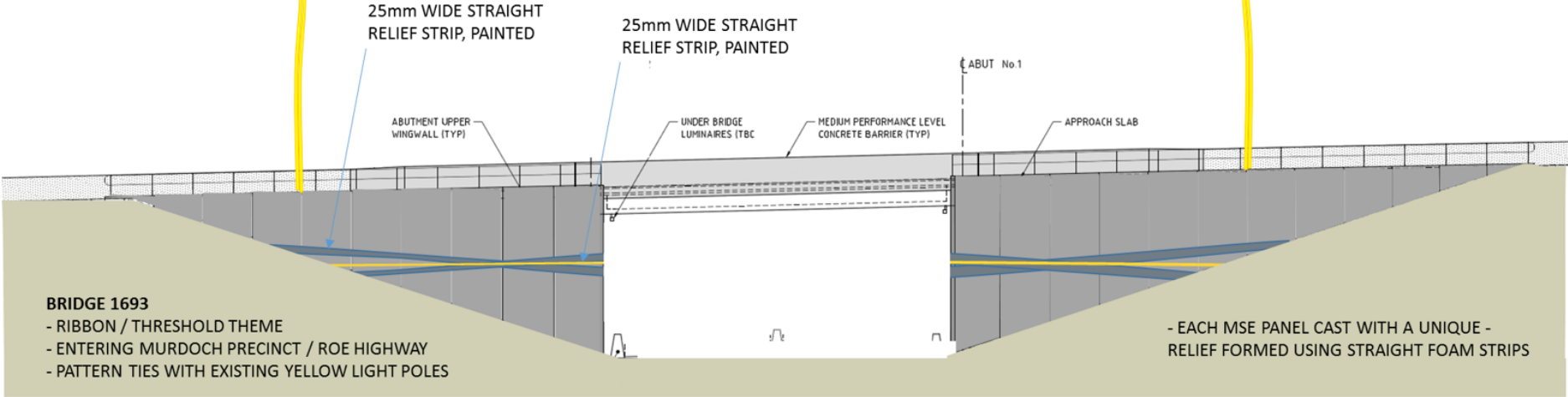


BRIDGE 1692

- CONTIUES THE ART THEME OF THE EXISTING BRIDGE NEARBY
- EACH MSE PANEL CAST WITH A UNIQUE RELIEF
- RELIEF FORMED USING 25mm WIDE PLASTIC FILLETS

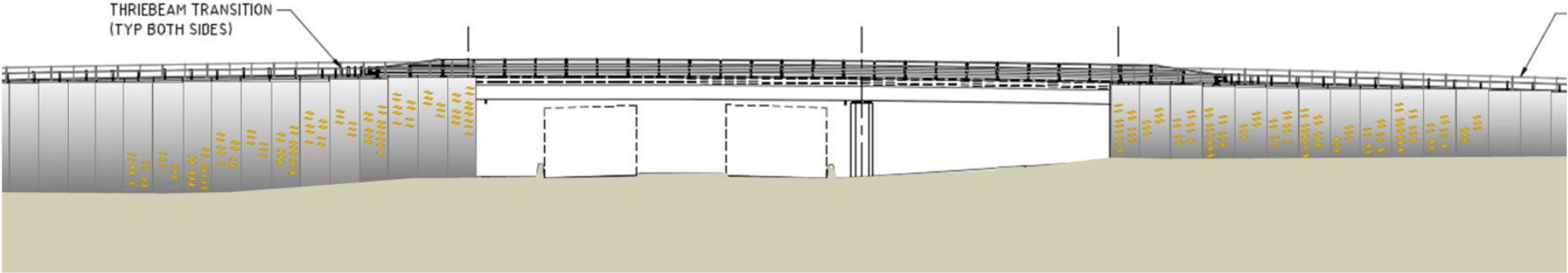
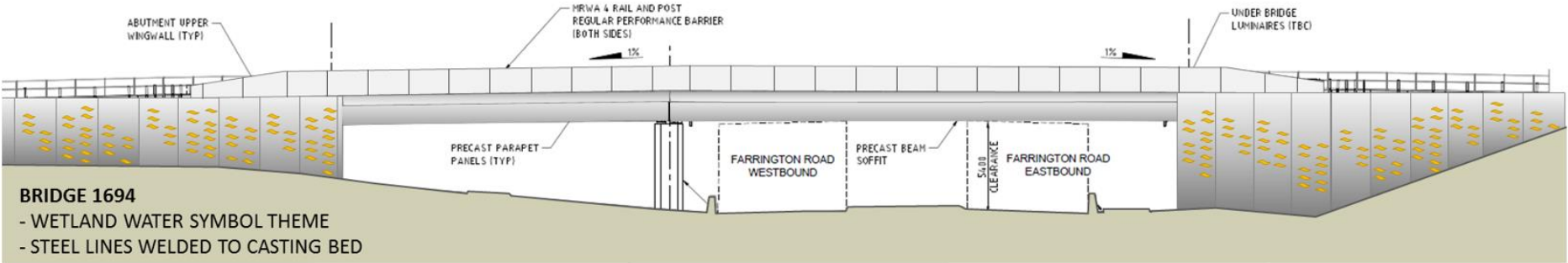
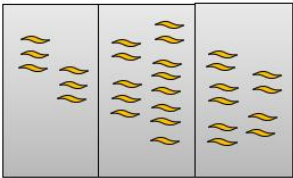


Bridge 1693 Aesthetic Treatments

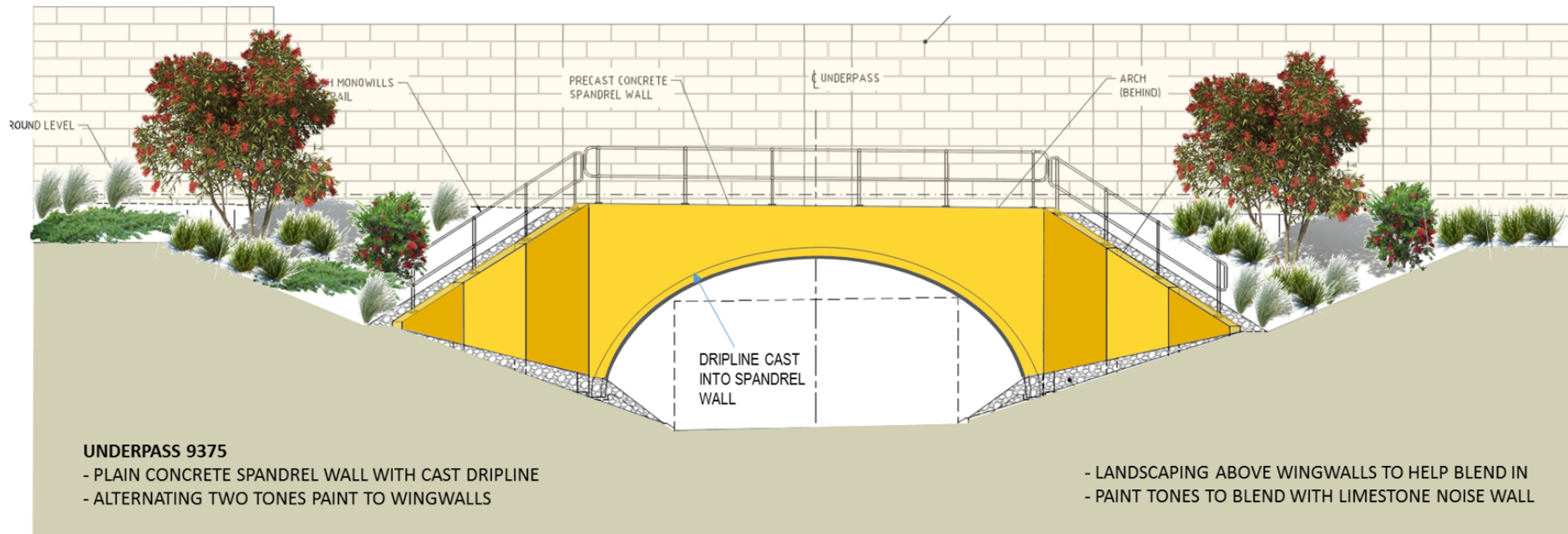


Bridge 1694 Aesthetic Treatments

BRIDGE 1694
A VARIABLE PATTERN IS ACHIEVED USING
THREE BASE CASTING BEDS (8 x 2.4m) AND
MOVABLE SHUTTERS

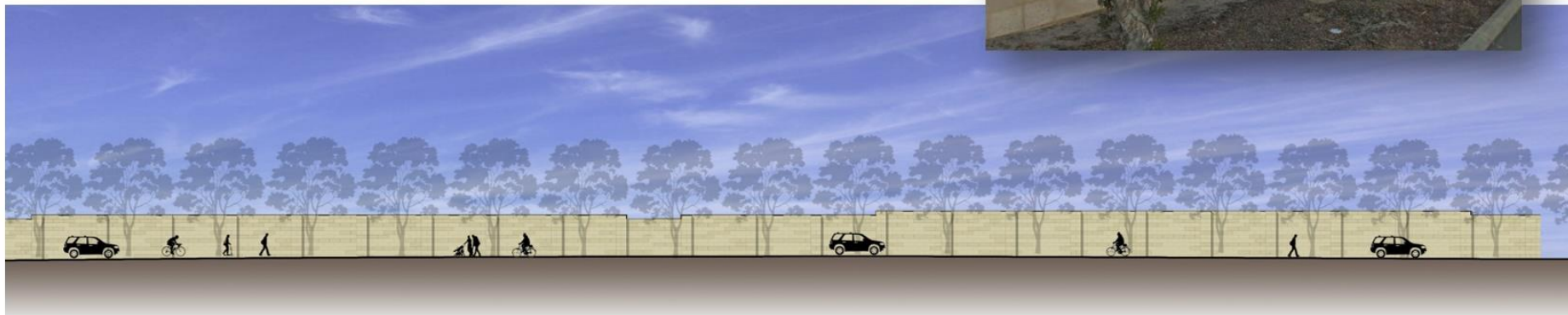


Pedestrian Underpass Aesthetic Treatments



Noise walls will be required in some locations with a typical conceptual solution provided below. More noise wall and landscaping information will be provided at the next meeting.

Noise Wall Typical Example



Landscaping and revegetation provision is also needed with consideration given to including feature wildflower planting at key locations.

Revegetation Feature Wildflower Planting (Key Locations)



A number of questions and answers resulted as follows:

Q.	Will the PSP be provided on the road or resident side of the noise wall?
A	The PSP will be provided on the resident side to get the noise walls closer to the noise source to help in their effectiveness and to provide a buffer to the walls.
Q	Is limestone the most effective best noise blocker or are other material more effective?
A	Limestone is very effective with similar noise blocking properties to concrete.
Q	Could a curved surface be included at the top of the noise wall to bounce noise back towards the road?
A	The walls are likely to be up to 5m high from road level with no recognised benefit in curving the wall. Noise modelling will be presented at a future meeting to discuss this further. A cross section will help to show level differences at the south west quadrant. Please let us know areas of interest for specific locations A one on one meeting will also be held with John to further progress this matter
	ACTION: Jorelle
	ACTION: Jorelle

7 CONSTRUCTION OVERVIEW

Jarrid Burton provided an overview of the construction process explaining that:

Key dates include:

- | | |
|------------------------------------|------------------------|
| • Early Works (Site establishment) | Ongoing |
| • Site Office | Complete March 2018 |
| • Interchange Western Side | Commenced |
| • Murdoch Triangle | Commenced |
| • Services Relocations | Commenced |
| • Bridge Over Freeway | Mid 2018 – Mid 2019 |
| • Bridge Over Farrington | Late 2018 – Late 2019 |
| • Kwinana Fwy Works | Early 2018 – Late 2019 |
| • Target Completion of Site Work | Late 2019 |

We will manage construction impacts throughout the works with:

- Hours of construction Monday to Saturday 7am to 7pm
- Night works required on occasion to minimise traffic disruption, residents within 200 metres of area will be notified
- Access to residents and businesses maintained throughout
- While negative impacts on properties are not expected to occur as a result of construction, the Alliance has offered surveys to residents within 100 metres of the works to establish the existing condition of buildings and structures, so that owners are protected against any unlikely event.

Key matters to manage include:

Native wildlife protection:

- Fauna management plan and relocation program to capture and safely remove animals from the project area prior to and during clearing operations.
- Licenced fauna handlers who are on site at the commencement of earthworks, and undertake regular inspections of the site, relocating any animals identified.

Noise impacts:

- Noise impacts will be mitigated through the construction of noise walls. When the concept design is confirmed, we intend to communicate more specific information about the project, including noise wall heights, location, materials and timing of construction.
- During construction, noise levels are managed through the implementation of an approved Noise Management Plan in accordance with project environmental approvals.

Dust management:

- Dust is managed in accordance with plans and procedures, with actions including the use of water carts and dust suppressants to wet disturbed surfaces and limit potential dust lift.

	<p>Jarrid added that:</p> <ul style="list-style-type: none"> • The planned Atco gas work will not be done as part of this contract; • There is a long lead time for 132kV power line relocations and we will plan for this but cannot control it as works done by Western Power. Farrington Road bridge works will be impacted by 132 kV line modifications programming wise. • Noise wall and PSP will not necessarily be done concurrently with PSP's likely to be done as part of the earthworks component.
--	---

A number of questions resulted as follows:

Q	Are we able to view dust recording data from the site?	
A	We are providing more dust management and suppression measures here than have been applied to similar projects previously. Our dust recording data will be provided to this group as public information.	ACTION : Padraic
Q	Are we able to view trapping data as well?	
A	Yes, and Jarrid will provide trapping information and records to a future meeting.	ACTION: Jarrid
Q	What water is being used for dust suppression?	
A	Ground water from bores on the eastern side of the freeway near the Western Power yard.	
Q	Trucks are travelling along Hope Road at site entrance near Baker Court and Hope Road. Can they just go straight through the project site with a continuous dumping process to minimise local impacts?	
A	Gilchrist Ave has different conditions for dieback management and wash down constraints and to avoid school and other sites. Spill from trucks will be swept more regularly.	ACTION: Jarrid
Q	Who monitors traffic speeds through the work site?	
A	It is a WA Police matter. If people are concerned let us know and we will consider seeking WAPol speed assessment. If issues involve our workforce we will address it in a number of ways including at tool box meetings.	
Q	Tree clearing completed last week still hasn't had any water sprayed in the area for dust suppression	
A	Jarrid to review and respond as required.	ACTION: Jarrid

8 CRG MEMBER COMMENT		
Name	Comment	ACTION
Charles Sullivan	The CoC is keen to see paramix work to validate intersection treatments. Padraic to contact Charles to discuss further. CoC has a particular interest in the detailed design configuration at the interchange.	PADRAIC
Nicole Foxton	I am disappointed in the approved concept and keen to see morning and afternoon traffic management solutions.	
Mick McCarthy	The modelling shows Murdoch Drive will have a major increase in traffic. Microsim work from there to South St is important to understand MAC impacts and I ask that this work is completed please. Terry Pearce will get MR Planning Branch to discuss with Mick.	TERRY
	Our landscape team will be interested in general theming and design elements for landscaping. The MRIA team will now collate and issue material to LGAs for comment eg landscape, lighting etc	
Felicity Bairstow	I hope to see something that addresses Hope Road traffic volumes in the future. The project team will also seek comment from CoC	PADRAIC
	I didn't see any design information for fauna movement through the site. We will include fauna underpasses as future discussion topics	PADRAIC
Michelle Barnett	I am keen to see morning and afternoon peak movements in more detail as a proposed solution as a future discussion topic.	PADRAIC
	Planting and concept design would benefit from Wetland Centre inputs for plant selection and availability.	PADRAIC
	The openness and spatial concepts provided are good.	
Decima Johns	I would like to see more local road design information on the proposed children's playground changes. This is still part of the project and will be presented as a future topic with localised engagement.	JOELLE
Jim Nicholson	Like to see modelling cover Murdoch Drive from South St to Leach Hwy? Terry explained that it is too far from the project as a high cost task with no direct impacts resulting from these works. The flowering natives may not be a good idea as a driver distraction? Further discussion to follow at future meetings.	
Phil Glew	At the end of tonight it would be good to consider options considered and rejected for Farrington Road east bound to Murdoch northbound movement through University land and Conservation Category wetland. Phil to stay on for discussion with Terry Pearce.	
Mark Ashby	I am concerned at traffic volumes for Farrington Rd with a slight decrease noted. Sustainability of this outcome is another matter. The entrance to the college and University is important to us if changing? Padraic explained that no changes or improvements are proposed.	
Con Abbott	The eastern side of the freeway is an issue for Farrington Road with gridlock occurring now especially during school hours from the off ramp to Karel Ave with no changes proposed for existing roundabouts as a key project omission from my perspective. Terry Pearce responded explaining that MR has an approved concept and this is a local government road as a CoM matter. The forecast reduction in volumes may not be realised and CoM will be interested in how this progresses. It is a strategic model for comparative purposes and any departure will be uniform across the model. We will focus on MAC access as part of these works	

Name	Comment	ACTION
Kevin Wragg	Freeway northbound access to South St is inefficient. Will this be improved or addressed? If more efficient it would take load from the Murdoch Drive 60k vpd? Terry explained that it is fairly new infrastructure and not part of the scope of this project for any modification. Reveg be tube stock as a long lead time option to achieve results? Tube stock as seed will be used in a drying climate with winter planting. We recognise the importance of good regeneration.	
John Amantidis	Can we have more mature plantings in areas near residents and meet with local residents directly affected from Stone Court to Curry Place to address project impacts with Peter Tinley involvement. The MRIA team is happy to meet and discuss issues but if dust let us know and we will stop work until it is addressed. Jarrid to consider dust suppression in the area. More community information about clearing and other works in the area would be beneficial and a meeting with the Residents Association to communicate project information would be beneficial with a supporting newsletter helpful. Jorelle will provide catchment wide newsletters more frequently and consideration of local community meetings will also be done with targeted engagement for playground. Please contact Jorelle for other matters	JARID JORELLE
Phillip Eva	I would like to see more communication and information regarding property condition surveys. Jorelle explained that good coverage is provided with numbers to be provided by Jorelle to Phil Eva.	JORELLE
	More regular street sweeping would be beneficial to address dust/dirt on the road.	
Christine Cooper	A meeting with Bibra Lake Resident Assoc would be positive to provide information directly to the community on a regular basis to reflect planned actions. Jorelle to liaise with Christine.	JORELLE
	Terry explained that we provide weekly updates to regulators that can also be provided. This would be welcomed by residents group.	JORELLE / JARRID
Kim Sadlier	Will the freeway widenings to four lanes northbound over bridge impact upon emergency lane with lane change configuration? Padraic explained that widening of the freeway to the south was done as part of a separate contract. The shoulders narrow on the bridge in a similar way to southbound traffic.	
NEXT MEETING		
<p>Suggested Agenda topics for discussion:</p> <ul style="list-style-type: none"> • Shared path and pedestrian/cycling connectivity. • LUDA planting and wildflower way <p>The next meeting is scheduled for Monday as a preference - 26 February 2018 at Lakeside Recreation Centre – to be confirmed.</p> <p>The workshop closed at 8:15pm</p>		

ATTACHMENTS:

1. Workshop Agenda

**ATTACHMENT ONE
WORKSHOP AGENDA**

NO.	ITEM / DETAILS	PRESENTER
1	WELCOME	LINTON PIKE
2.	BACKGROUND	TERRY PEARCE
2.1	Approved concept design	
3	CONCEPT DESIGN	PADRAIC MURPHY
2.1	Preliminary traffic impacts	
2.2	Road connectivity	
4	URBAN DESIGN	PADRAIC MURPHY
4.1	Bridge design	
4.2	Noise walls	

Agenda of Meeting – Construction Reference Group, Murdoch Drive Connection

Page 1 of 2

4.3	Principal Shared Paths	
4.4	Revegetation	
5	CONSTRUCTION PROGRAM	REVEL DOWNING
5.1	Construction timeline	
5.2	Managing construction impacts	
6	NEXT STEPS	LINTON PIKE
6.1	CRG member comments	
6.2	Topics of interest for agenda	
6.3	Date for next meeting	27 FEBRUARY 2018