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Spark – Central (tunnels) package – Urban Design and Landscape Plan

Submission from Boroondara City Council

Date: 20 June 2022

Contents

Introduction	1
The UDLP	2
Public exhibition	2
Scope, scale and influence	2
Community feedback	3
Bulleen Park and Ride UDLP	3
Adherence to the Environmental Performance Requirements (EPRs)	4
Detailed comments on the UDLP	5
Errors in the UDLP	5
Information missing from the UDLP	5
Issues and opportunities	6
Southern ventilation structure	6
EPA works approval assessment	7
Bulleen Road, North East Link and Eastern Freeway interchange	8
Spaghetti junction	8
Scale, bulk and visual impact	8
Pedestrians	9
Cyclists	10
Drivers	10
Noise attenuation	10
Interchange landscaping	11
Koonung Creek Reserve	11
Eastern Freeway design impact	11
Masterplan	12
Walking and cycling	12
Park furniture	13
Drainage infrastructure	13
Noise attenuation	14
Vegetation	15

Freeway Golf Course	17
Excess land	17
Fencing	18
Habitat corridor	18
Koonung Creek	19
Noise attenuation	19
General	19
Reference design and Spark design comparisons	19
Motorway Control Centre	20
Walking and cycling infrastructure	21
Appendix A – Detailed comments on the EPR responses	24
Environmental Management Framework (EMF)	24
Aboriginal Heritage (AH)	25
Air Quality (AQ)	25
Arboriculture (AR)	26
Business (B)	28
Contamination and Soil (CL)	30
Flora and Fauna (FF)	32
Ground movement (GM)	35
Groundwater (GW)	36
Historical Heritage (HH)	37
Land Use Planning (LP)	38
Landscape and Visual (LV)	40
Noise and vibration (NV)	42
Social and community (SC)	48
Surface Water (SW)	50
Sustainability and Climate Change (SCC)	54
Traffic and Transport (TT)	55
Appendix B – Detailed comments on the UDLP	57
Appendix B2 – Detailed comments on the UDLP (Attachments)	151
Appendix C – Errors in the UDLP	173
Appendix D – Information missing from the UDLP	177

Introduction

Thank you for the opportunity to provide input to the central (tunnels) package Urban Design and Landscape Plan (UDLP) developed by the Spark consortium (Spark) for the North East Link (NEL) project. We acknowledge the role the North East Link Program (NELP) has had in the development of the UDLP and appreciate the extension to the public exhibition period both NELP and Spark provided Council to ensure good and transparent governance processes were followed.

With assistance our expert witness reports in urban design and landscape presented at the 2019 Inquiry and Advisory Committee (IAC) panel hearing, community and internal experts, we have focussed our commentary on elements of the proposal which will affect our community both in and outside the Boroondara Council area. Along with walking and cycling infrastructure and the Motorway Control Centre (MCC), the four UDLP areas of impact in Boroondara are:

1. Southern ventilation structure.
2. Bulleen Road, North East Link and Eastern Freeway interchange.
3. Koonung Creek Reserve.
4. Freeway Golf Course.

Where we have identified issues, we have endeavoured to highlight the opportunities these issues present Spark, NELP, Council and/or the community to improve the project and generate a better outcome.

A common theme running through the issues identified and discussed is the lack of human focussed response in the design. This is apparent in the helicopter, 'top down' viewpoints used throughout the UDLP and the lack of consideration given to the experience of nearby residents and other sensitive receptors. The design is described in the UDLP report section as being sensitive to its surrounds and being enveloped in location appropriate landscaping to minimise its dominance. When considered as a set of design plans only and without the UDLP report text, the design response is best described as dominant and forceful. This is clearly demonstrated by the design of the southern and northern ventilation structures which dominate the skyline at 53m tall, gleaming and shining in the sun and lit by a skirt of LED lights at night.

This document and appendices, when read together, form Council's submission to the Spark UDLP public exhibition exercise. This submission was considered and endorsed at the 20 June 2022 Services Delegated Committee meeting of Boroondara Council.

The UDLP

The UDLP presents a concept landscape design and well defined road design focussing on the drivers experience and ignoring that of nearby residents, visitors to parks and reserves, golfers and users of the neighbouring school and public sports facilities. The design is forceful and lacks human eye level viewpoints, especially for sensitive receptors and of imposing structures. It is the very hungry caterpillar of road designs and little care or attention has been shown for the sensitive surrounds, parks and reserves.

The UDLP claims to be exactly what the title says - an urban design and landscape plan. It is, however, the first opportunity the community has had to view the road design for the NEL and the Eastern Freeway. If the community read only the title and decide they do not want to look at urban design and/or landscape plans, they will miss their only opportunity to review and influence the road and noise attenuation measure designs.

The lack of reference in the UDLP to Boroondara plans, policies and strategies does little to build trust in the Spark design. As an absolute minimum, the Boroondara Open Space Strategy and Boroondara Tree Canopy Replacement Plan must be referenced within the UDLP.

Public exhibition

We acknowledge the 21 calendar day public exhibition period (11 to 31 May 2022) complies with the minimum public exhibition period defined by the North East Link Project Incorporated Document.

We consider the public exhibition duration to be inadequate for a UDLP of this size, scope and influence.

Scope, scale and influence

This is the first of five UDLPs for the NEL and will greatly influence the following four UDLPs and the design solutions they present.

Spark has consistently advised it is developing a preliminary design only for the southern interchange and some of the Eastern Freeway and this design can and will be altered by the southern, east and west works package alliances. While this might be true and possible for the landscape design elements, the road geometry and alignment along the length of the Eastern Freeway and at the interchange are defined and locked in by the Spark preliminary design.

The Eastern Freeway width, number and alignment of lanes, location of barriers, arrangement and location of ramps, noise walls and pylons to be covered by the southern, east and west works packages and associated UDLPs become non-negotiables as a direct result of Spark's preliminary southern interchange and Eastern Freeway design. The land take from the Koonung Creek Reserve is set by the Spark UDLP.

The size of the document, 519 A3 pages, presented an almost insurmountable challenge to anyone attempting to review it within the allocated 21 calendar days.

Community feedback

A number of community members contacted Council to express their concerns about the very limited public exhibition period and to advise that they would attempt to provide a submission but it would be very superficial.

Members of the NELP Southern and Northern Community and Business Liaison Groups (CLG and BLG) all expressed grave concerns about the short duration of the public exhibition period. Members of these four groups were invited to request an extension through the CLG and BLG chair.

While some members did request an extension, they did not hear back from NELP or Spark by the 5pm, Tuesday 31 May 2022 deadline.

Bulleen Park and Ride UDLP

It is informative to compare the Spark UDLP and public exhibition period with the Bulleen Park and Ride UDLP (BPR UDLP) developed by NELP.

The BPR UDLP was 259 pages, approximately half the size of the Spark UDLP. The subject matter and scope were limited to the Bulleen Park and Ride proposed to be located on the then Koonung Reserve in Manningham. Given the very focussed scope of the document, the influence of the BPR UDLP was limited to the facility itself and nearby streets.

The BPR UDLP is significantly smaller in size, scope and influence than the Spark UDLP. The public exhibition period for the BPR UDLP was 36 calendar days from 2 November 2020 to 7 December 2020.

NELP advised the longer public exhibition period was because of the Victorian lockdown and Covid restrictions in place at the time of exhibition. This is despite most lockdown restrictions lifting on 28 October 2020. No matter the reason for the longer public exhibition period, the difference - 15 calendar days - is stark and incredibly disappointing.

Spark could have chosen to have a longer public exhibition period but very deliberately did not. This calculated choice does little to build trust and respect between Spark, the community and stakeholders. It will result in limited, rushed and superficial feedback from stakeholders on a critically important document.

Adherence to the Environmental Performance Requirements (EPRs)

Clause 4.9.3 of the project's Incorporated Document requires the UDLP submitted to the Minister for Planning be accompanied by an explanation demonstrating how the UDLP will comply with the EPRs detailed in the approved Environmental Management Framework (EMF).

Section 6 of the Spark's UDLP details the EPRs and their responses¹.

Spark's responses are very high level, do not always fully or properly respond to the EPRs and note further site investigation works will be required during the development of preliminary design. These investigation works include topographic surveys, utility proofing, arborist and ecological surveys, traffic surveys, acoustic modelling and the like to further inform the EPR responses.

In some cases, the EPR response reads more like a statement of commitment to comply with EPRs rather than demonstrating compliance. This makes it challenging for stakeholders and the community to assess how Spark and its design will meet the EPR obligations. It raises the question of 'how can the Minister for Planning approve this section of the UDLP when this is the case?'.

Appendix A sets out Council's detailed comments on Spark's response to the EPRs and requests for further information and details, including:

- Seeking an explanation about the focus on design achievements in Manningham rather than discussing the design response to minimise impacts at sensitive and challenging interfaces or responding to specific requirements set out in the EPRs.
- Asking Councils be acknowledged as critical stakeholders through design and construction and ensuring they are consulted appropriately about relevant project plans (e.g. CEMP, WEMP, CCP, OEMP) and reports (e.g. Arboriculture, Ecology, flood modelling, traffic modelling etc).
- Ensuring best practice approaches during operations, for example the tagging of trees with unique IDs during arboriculture assessments to avoid trees being accidentally felled.
- Timely provision of community notifications and ensuring Councils are informed of community complaints recorded in the Complaints Register.
- Release of summary reports to the public, especially those relating to noise (construction and operation), air quality and environmental compliance where there is heightened community concern.

¹ Urban Design and Landscape Plan, 6.0 Compliance with Environmental Performance Requirements, Pages 245 to 305.

- Ensuring that Council is made aware of any contaminated spoil found on Council managed land and provided with details of EPA approvals for removal and evidence of proper disposal (i.e. copies of landfill gate tickets).

Detailed comments on the UDLP

Please see Appendix B for detailed comments on the UDLP. We welcome Spark's consideration of these detailed comments, request timely written responses to each comment and workshops to discuss the comments and Spark's responses.

We look forward to working with Spark through the detailed design phase to enable and ensure design changes incorporate our comments and requests.

Errors in the UDLP

It is unfortunately necessary to list the errors in the May 2022 (public exhibition) version of the UDLP and ask they be fixed in the final version to ensure the UDLP accurately and correctly reflects current conditions. The lack of attention to detail for a document of this significance is frustrating.

See Appendix C for the details of the errors and requested amendments.

Information missing from the UDLP

It is also unfortunately necessary to list the information missing from the May 2022 (public exhibition) version of the UDLP and ask the information is provided in the final version. Providing the missing information will help Council and the community properly understand the impact of the Spark concept design on their neighbourhood, parkland, homes and lives.

See Appendix D for details of the missing information.

Issues and opportunities

We have grouped commentary about the issues and opportunities identified during our review of the UDLP into the four main areas of impact in Boroondara, being:

1. The southern ventilation structure.
2. The southern interchange/Bulleen Road, NEL and Eastern Freeway interchange.
3. Koonung Creek Reserve.
4. Freeway Golf Course.

A fifth section provides our comments on the UDLP more generally and in areas outside of Boroondara that influence the design and impact on our community.

Southern ventilation structure

The UDLP describes the southern ventilation structure as “not dominating the skyline”². The UDLP also notes, in response to a key design requirement of “minimising light pollution in the surrounding areas from reflectivity”³, that “low reflectivity materials such as concrete, weathering steel, and matte coloured acrylic, are used for road corridor structures to minimise light pollution”⁴.

The southern ventilation structure, a road corridor structure, is 53m tall, ~55m wide and ~140m long clad in a satin finish metal panel with LED feature lights and PV panels.

For comparison:

- Eastlink tunnel ventilation structures are 45m tall and clad in a decorative non-reflective material.
- The Shane Warne Stand (Great Southern Stand) at the MCG is 45m tall.
- Marvel (Docklands) Stadium is ~57m tall.
- The Colosseum is ~48m tall and ~156m long.

The renders and artists impressions of the structure showing it glinting in the sun during the day and sparkling at night when lit by the LEDs.

The structure is sited between Bulleen Park and Marcellin College’s sports grounds. The immediately surrounding area includes the Carey sports grounds, Trinity Grammar playing fields, Freeway Golf Course and Yarra River. All flat and green open space. The land use in the wider area is low height residential and some low

² Urban Design and Landscape Plan, 5.0 Consistency with Urban Design Strategy, Response to Key place-specific requirement 1A, Table 36, Page 237.

³ Urban Design and Landscape Plan, 5.0 Consistency with Urban Design Strategy, Key Design Requirement 20.3, Table 22, Page 185.

⁴ ibid

height commercial, although the NEL will see much of this commercial land use leave the area.

The suggestion by Spark that their southern ventilation structure does not dominate the skyline is perplexing.

The UDLP does its utmost to give the impression the southern ventilation structure is a diminutive feature. The helicopter viewpoints used for the renders and artists impressions seek to minimise the true scale of the structure. The lack of human eye level viewpoints from neighbouring areas, including Bulleen Park, Trinity Grammar sports fields, Carey sports fields and the Freeway Golf Course, supports the notion Spark are deliberately playing down the visual bulk and dominant nature of their southern ventilation structure.

The UDLP public exhibition and associated feedback presents Spark the opportunity to reduce the scale and bulk of the southern ventilation structure to ensure it sensitively responds to its surrounds and does not dominate the skyline.

EPA works approval assessment

It is noted the Environment Protection Authority Victoria (EPA) works approval assessment report for the road tunnel ventilation system⁵ is based on the reference design, including the ventilation structure reference design detailed in the report as:

- *“Two tunnel ventilation structures with two ventilation stacks of 40m in height each:*
 - *the northern ventilation stack at Blamey Road: two discharge outlets: 40 m² (primary) and 20 m² (secondary) respectively*
 - *the southern ventilation stack at Bulleen Road: two discharge outlets—33 m² (primary) and 17 m² (secondary) respectively.*
- *An emergency smoke discharge structure at Manningham Road Interchange:*
 - *four outlets—20.25 m², each 4m high above local ground level.”*

The EPA provided conditional approval for the road tunnel ventilation systems and requires NELP/Spark to provide them the final design of the tunnel ventilation system reviewed by a consultant or engineer with demonstrated qualification and experience in road tunnel ventilation design suitable for the project.

We look forward to NELP and/or Spark responding to the opportunity the EPA has provided to rigorously and independently review and assess the road tunnel ventilation design, with a view to minimise the scale and bulk of the southern ventilation structure, prior to commencing any works.

⁵ <https://www.epa.vic.gov.au/-/media/epa/files/for-community/current-projects-and-issues/major-projects/north-east-link-project/so1003465-nel-wa-assessment-report.pdf>

Bulleen Road, North East Link and Eastern Freeway interchange

The UDLP is, first and foremost, a document seeking to showcase the urban design and landscape concept design of the central (tunnels) works package. Its accidental secondary purpose is to show the NEL road design to the community for the first time.

The commentary included in this document about the road design has deliberately been kept to a minimum. This is done with the hope other comments about urban design and landscape design aspects result in road design changes for the better and the knowledge Council will be invited to review and comment on the detailed road designs.

However, three messages must be made very clear to Spark about their Bulleen Road, NEL and Eastern Freeway Interchange design.

1. The design presented in the UDLP fails to address the issues and concerns Council and the community raised during the 2019 IAC panel hearing.
2. The design fails to respond to the Minister's assessment of environmental effects. The design does not minimise visual impacts⁶ and is not a nuanced response⁷.
3. Spark must review and redesign the interchange to reduce the height, bulk and visual intrusion for all nearby residents.

Spaghetti junction

The Bulleen Road, NEL and Eastern Freeway interchange has been described, without the slightest hint of fondness, by community members and others closer to the project as 'spaghetti junction'. Others have referred to it as 'the very complicated interchange' to highlight the contrast to Spark's Manningham Road interchange they have titled 'the simple interchange'.

The very complicated interchange is a dangerous, confusing and convoluted design for pedestrians, cyclists and drivers.

Scale, bulk and visual impact

The reduced footprint of the very complicated interchange on the Freeway Golf Course is acknowledged. This reduction, however, has come at the expense of residents on the south side of the Eastern Freeway by way of the elevated over Bulleen Road southbound NEL to westbound Eastern Freeway ramp and the FGC reconfiguration by limiting the design footprint to land outside the NEL declared project area.

The UDLP does not present a single human eye viewpoint of the very complicated interchange. The residents do not know what they will see when they look out their

⁶ North East Link, Minister's assessment of environmental effects, November 2019, Page 35

⁷ ibid

front door or front room window. They do not know what or who will be able to see into their homes and their lives. The deliberate choice to only include views from a helicopter and a drivers eyeline ensures the design focuses all attention on the road and the driver. Residents are ignored and reminded their experience of the NEL is not important, not at all, not to anyone.

Spark's literal interpretation of place specific requirement 5K (Minimise overlooking to residential properties located north-east of the Eastern Freeway interchange)⁸ is odd. The requirement was written with the reference design in mind and not the Spark design which has significant overlooking and intrusion into residential properties located to the south of the very complicated interchange. Spark would do well to review the intent of the place specific requirement and apply that intent to their concept design.

Spark must use the opportunity of seeking and receiving public feedback to acknowledge the nearby residents experience of the NEL, ensure their homes and lives are not viewed and viewable and continue to provide the long views of greenery from their front doors and rooms.

Pedestrians

Everyone is a pedestrian at some point in their day, whether it is walking from their front door to their car or home to the bus park and ride. Everyone understands pedestrians are opportunists and do not always behave as road designers want or expect them to.

Every road design needs to be forgiving to mistakes pedestrians, and other road users, make. Every road design needs to ensure all road users will make it home safely. The very complicated interchange design does not do this.

The design forces pedestrians to cross multiple lanes of traffic in multiple stages, to wait in the middle of very busy roads for a green person signal and cross slip lanes, bus lanes and freeway on-ramps angled such that pedestrians are encouraged to look the wrong way for on-coming traffic. It is extremely likely pedestrians will behave outside the way the design wants them to and will make risky moves to get to their bus, get home or to school.

Spark must take the opportunity the draft UDLP presents to rethink and redesign the very complicated interchange to provide a safe, forgiving and easily travelled environment for pedestrians. This opportunity is critically important when the number and age of the children attending the school and school sports fields on both sides of Bulleen Road are considered.

⁸ Urban Design and Landscape Plan, 5.3.3 Koonung Creek Valley Area, Response to Key Design Requirement 5K, Table 21, Pages 159 & 160

Cyclists

The inclusion of both on- and off-road cycling infrastructure is welcomed and the opportunities Spark's concept design present the cycling community through design refinement are exciting.

All on-road bike lanes, including those through the very complicated interchange, should be properly separated and protected rather than separated from traffic by a 100-150mm thick line of white paint. Cyclists feel and ride with more confidence when properly separated and protected lanes are provided, with more people cycling on this style of bike lane.

As discussed elsewhere in this document, off-road paths must be mode separated to improve safety for all users and provide a high quality riding experience.

Drivers

For a driver of any age, not just older drivers, the very complicated interchange will be almost impossible to navigate. The design effectively encourages drivers to weave through double turn lanes to access the freeway on-ramp and offers an easy opportunity to drive onto the busway by mistake.

No amount of signage will assist drivers as they manoeuvre through the intersection.

The very complicated interchange must be redesigned to make it a simpler, easier and safer interchange for all road users. Spark must take this opportunity and use it to relocate the northerly ramps back to the Manningham Road interchange/the simple interchange.

Noise attenuation

The inclusion of noise walls on all elevated road structures is appreciated as traffic noise is an ongoing concern for residents living near the Eastern Freeway. The concept design for the on-structure noise walls is underwhelming and bog standard. The UDLP presents Spark an opportunity to be innovative in the design of on-structure elements, including noise attenuation measures. Investigation into the inclusion of location sensitive, well designed City Link style sound tubes on all elevated road structures to better protect residential properties from traffic noise is encouraged.

The need to provide a fully managed motorway, complete with Intelligent Transport System (ITS) infrastructure is acknowledged. Overhead gantries with variable speed limit signs and variable message signs form important components of the system which ensures a safe road environment. Ramp metering is an important ITS element to ensure traffic flow on the freeway does not breakdown by limiting the number of vehicles merging at any one time. The disadvantages of ramp metering, particularly on downhill grade such as the southbound NEL to westbound Eastern Freeway ramp, are general traffic noise and engine braking noise.

The NEL will carry a large volume of heavy vehicles with a significant proportion of those expected to access the westbound Eastern Freeway through the proposed ramp metering and often using engine braking. Noise attenuation must be designed and constructed on the southbound NEL to westbound Eastern Freeway ramp to protect residential properties almost immediately adjacent and above the ramp from traffic noise.

Interchange landscaping

The very complicated interchange will be a harsh environment for any landscaping provided, with maintenance access a very real issue.

The combination of multiple overhead structures casting shadows and shade along with the constant exhaust fumes, will ensure all but the hardiest of plants will not survive. The landscape design shown in some cross-sections and site-sections acknowledge this reality with the inclusion of large sections of 'granitic gravel' in areas under elevated road structures.

Koonung Creek Reserve

Eastern Freeway design impact

The widened Eastern Freeway design presented in the UDLP significantly and adversely impacts the Koonung Creek Reserve (KCR). The design is as land hungry and forceful as the reference design, despite the Minister for Planning stating in his response to the 2019 IAC panel report and recommendations:

*"I also accept the IAC's conclusion that the traffic performance and functionality of the project needs to be balanced against the environmental effects of the built form. A detailed design that balances these occasionally competing objectives is the appropriate outcome."*⁹

The environmental effects of the built form on the KCR are incredibly negative and will impact the reserve, and community, for generations. The Eastern Freeway design demonstrates Spark has not even attempted to consider the alternative designs presented at the IAC panel hearing. They have steamrolled their preferred design through without consideration for the KCR, its vegetation, wildlife, biodiversity, ecosystem functions, community functions and connectivity.

Extrapolating the Spark Eastern Freeway design along the length of the KCR to Doncaster Road results in the decimation of 6-7 hectares or approximately 20% of the reserve. This is a devastating loss for the community, the neighbourhood and the many critters and plants that call the KCR home.

Spark still has the opportunity to rethink, reimagine and redesign the Eastern Freeway and the NEL to reduce the land grab from the KCR. We firmly encourage

⁹ https://www.planning.vic.gov.au/_data/assets/pdf_file/0032/447449/North-East-Link_MinistersAssessment_Final.pdf

Spark and NELP to take this opportunity and for the southern works package team and alliance to review and implement the O'Brien Traffic alternate design and to listen to the community and Council.

Masterplan

Noting the UDLP incorporates the western third of the KCR and presents a concept design for this area, it is critically important Spark acknowledge the KCR is subject to a masterplan as agreed by the State and Council in their UDLP. The development of the masterplan is expected to start in early 2023 and be a partnership project including the community, Council and NELP. It is an opportunity to engage the community and ask them to reimagine their parkland.

It is understood Spark has a contractual obligation with the State to develop and exhibit a concept design for the KCR and this obligation contradicts the agreement between Council and the State for a masterplan. This contradiction is frustrating and Spark's obligation is considered inappropriate.

The UDLP public exhibition process is an opportunity for Spark to listen and respond to Council and acknowledge the commitment the State made to develop and implement a KCR masterplan. Ideally a 'hold cloud' would be placed over the KCR area included in the UDLP area and a note added to reflect the State and Council commitment to a masterplan, this masterplan will be the plan implemented and the Spark concept design may not be included in the masterplan.

All commentary about the KCR included in the UDLP is provided in the spirit of cooperation, with the above request taking precedent over all other KCR commentary and requests.

Walking and cycling

It is disappointing the KCR concept plan has several errors in terms of existing infrastructure and does not deliver, despite repeated requests, mode separated walking and cycling paths.

Spark's intent to slow and enrich the movement experience through linear parklands is applauded, however it fails to recognise how people experience and use the KCR. It focuses on people recreating in the KCR, those playing at the playground, having picnics and walking their dogs. The gently winding Koonung Creek Trail (KCT) design ignores the commuter use of the KCT and the need for these cyclists, scooter riders and runners to safely travel through the KCR for transport. It fails to understand the need to separate dogs, cyclists and scooter riders for the safety of all.

Spark missed a major opportunity to provide walking and cycling access from the Bulleen Park and Ride (BPR) across the Eastern Freeway to the KCR, surrounding residential area and ignored the potential opportunity a reconstructed Estelle Street bridge could bring to the area. The BPR will primarily serve a commuter purpose and will be relatively empty on weekends when it could be used by KCR visitors.

The lack of safe, easy and good walking and cycling connection between the two significant facilities is an easily fixed failure in Spark's design.

Park furniture

The Spark concept design for the KCR includes a wide variety of park furniture, including:

- Bike parking
- Bins
- Seats
- BBQs
- Shelters
- Picnic tables
- Drinking fountains
- Bike repair stations
- E-bike charging points
- Wi-Fi stations

The location of the park furniture does not follow any clear plan and is scattered along the proposed KCT alignment. This unplanned approach suggests the KCR design, KCT alignment and delivery of park furniture has not been thoroughly examined and considered from a user's point of view. Considering the design and delivery of park furniture as a park user, it is disappointing the list of park furniture does not include a new playground at the western end of the KCR near Kosciuszko Road or public toilets. The latter ranked highly in the Council run KCR users survey and playgrounds were highlighted as an important element of the reserve for all users.

Spark's concept design for the KCR and proposed suite of park furniture presents NELP, Council and the community a conversation starter and opportunity to build from through the KCR masterplan development.

Drainage infrastructure

The Spark KCR concept design includes two water bodies and an ephemeral creek, with the former approximately 250m to the west of the existing KCR wetland and dog beach. The inclusion of the two water bodies either at all or so close to the existing KCR wetland is not explained or justified in the UDLP. This lack of explanation leads to the conclusion they have been supplied for Eastern Freeway stormwater drainage purposes only and do not intend to serve any sort of biodiversity or other ecosystem function.

The ephemeral creek running through the KCR ends at a smaller water body at the western end of the KCR. Again, no explanation is provided as to the purpose of the ephemeral creek which, incidentally, does not correspond with the approximate alignment of the barrelled Koonung Creek under the KCR and Eastern Freeway. This leads, again, to the assumption the ephemeral creek is designed as part of the

Eastern Freeway stormwater management system with no biodiversity or ecosystem service purpose.

The inclusion by Spark of two stormwater retention basins and an at grade open drain in highly valued, high quality and biodiversity rich Council managed public open space is unacceptable without deliberative engagement. The inclusion contradicts Key Design Requirement 18.5 (Drainage infrastructure and retarding basin design)¹⁰. The requirement dictates drainage infrastructure and retarding basins must be located and designed to not adversely impact on the function of public open space and not inhibit the ability for residents to access open space near where they live.

The one urban design visualisation showing the KCR¹¹ does not show any of the drainage infrastructure and is deliberately located to not show the two large water bodies. This is compared with the landscape design drawings showing the proposed drainage infrastructure¹². This discrepancy between images, combined with concerns about the impact of the drainage infrastructure on the KCR further erodes trust in the UDLP and Spark's design intentions.

The Spark KCR concept design is an opportunity to explore the idea of delivering drainage infrastructure in the KCR with the community during the masterplan development.

Noise attenuation

Noise walls

The inclusion of noise walls along the length of the northern edge of the KCR is welcomed and appreciated by Council and the community. Traffic noise is a serious concern for the community and the noise walls will assist in attenuating the traffic noise and improve the amenity of the area. It is noted the design of the noise walls, including height, is subject to further noise modelling and data analysis.

In the detailed design of the noise walls, we encourage Spark to review international best practice noise wall design and construction to ensure the noise EPRs are at least met. Where Spark can achieve better noise attenuation than detailed in the EPRs, this opportunity should be taken.

Overshadowing and shading

While the noise walls are welcomed, they are welcomed with some caution. The UDLP is inconsistent in the information it shows about the noise walls in terms of locations, heights and types. It does suggest the noise walls adjacent to the KCR will be up to 10m and be made of concrete with a small triangular panel of

¹⁰ Urban Design and Landscape Plan, 5.4 Detailed Requirements and Benchmarks, Response to Key Design Requirement 18.5, Table 22, Page 184

¹¹ Urban Design and Landscape Plan, Attachment 3, UDLP visualisations Koonung Creek Reserve aerial, Page 197

¹² Urban Design and Landscape Plan, Attachment 2, Landscaping design, Pages 132 - 134

semi-transparent coloured acrylic. The height and opacity of most of the noise walls generate serious concerns about overshadowing and shading on the KCR. We note the 10m height is described by Spark as the worst case scenario and consider it the most likely scenario based on the traffic noise information from the Environment Effects Statement (EES).

Shading and shadowing are at their worst on the winter solstice, June 21. At the winter solstice the shadows generated by the 10m noise walls extend beyond 20m. The use of September 22, the spring equinox, in the demonstration of overshadowing and shading is misleading and inappropriate.

Noting the coloured acrylic panel provided in the noise wall may only be 3m tall at their maximum and the proposed colour palette, it is considered the winter solstice shading and shadowing will severely affect the growth potential of any tree or vegetation planted within the area of shade. Consideration may need to be given to including dry rainforest species along noise walls given the light constraints rather than expecting the local, historical EVCs to perform well. This consideration would recognise the change in local conditions and microclimates the noise walls will create and will help NELP to achieve the tree canopy restoration target.

Understanding the best and worst case conditions will help in selecting climate resilient species.

Any overshadowing of shared use paths, cycle paths and footpaths may contribute to icy conditions and accidents.

Spark must take the opportunity to remodel the overshadowing from their noise walls using the winter solstice of June 21 and provide this information in the final UDLP, alongside a reconsidered planting palette for areas next to the noise walls and within the area of overshadowing. It is acknowledged the requested date is a departure from standard practice for the assessment of overshadowing and suggested it is a better practice which should be adopted industry wide.

Noise mounds

There are several existing areas of noise mounds in the KCR. These mounds not only attenuate traffic noise, they also provide a greater soil depth for vegetation and an interesting topographical feature. In finalising the noise attenuation design, following the further noise modelling and data analysis, Spark should investigate the opportunity to recreate the noise mounds in the KCR.

Vegetation

The volume of vegetation identified for removal in the KCR is overwhelming and unjustified. The vegetation in the KCR is established, healthy and highly valued by the community and Council that will take 30-40 years to regrow to the current scale, density and achieve the current biodiversity values and ecosystem services.

The UDLP should provide reasons and give explanations for the removal of so much vegetation in the KCR, especially the areas some distance from the proposed

Eastern Freeway southern edge. Spark must accept and sensitively respond to the challenge of minimising vegetation removal for any project purpose. Moonscaping and 'accidental' tree felling are not tolerated by the community or Council.

The UDLP states:

*"The expansion of tree canopy and habitat corridors reduces the heat island effect within the surrounding areas reducing energy requirements."*¹³

The expansion of the Eastern Freeway into the KCR is doing the opposite of what the Spark response claims. It is reducing the tree canopy cover and habitat corridor areas by making the adjoining parkland smaller and removing all established trees and vegetation to, presumably, ease construction. The Eastern Freeway will be a 22 lane wide wasteland of asphalt and concrete, banded by 10m tall concrete noise walls. It will be a massive heat island. It is disingenuous of Spark to claim their removal of established, dense and healthy vegetation and noise mounds in the KCR and replacement with tube stock, juvenile potted trees and concrete noise walls will achieve any reduction in the heat island effect within the area surrounding the widened Eastern Freeway.

Urban heat island effect

Spark's heat island statement claims that roadside plantings will ameliorate urban heat islands, despite the bulk of the vegetation alongside the Eastern Freeway being behind noise walls. Clarification as to the expected impact of these plantings on day and night temperatures would be valuable as it is a big claim to make without evidence from past projects and the extensive scientific research in this area.

Cities are warmer than rural areas because of urban densification, heat-generating human activities and absorption of solar energy by thermally dense building materials and unshaded hardscape. Urban heat islands develop when heat captured during the day is released to the surrounding atmosphere. At night, the urban heat island effect is more marked as the cooling effects of vegetation are reduced because trees, shrubs and turf are not transpiring. This is true for still clear nights, when inversion layers develop (warm air is trapped under cooler air), and on cloudy nights, where warm air is retained close to the earth's surface under a blanket of cloud cover.

Trees and other vegetation cool the environment by directly shading the ground, preventing heat gain by soil or hardscape, and through transpiration of water and its evaporation from the leaf surface to the atmosphere. The extent of cooling that trees and understorey plantings can provide depends on their spacing, size, foliage density, and ability to control water loss (more effective control of water loss reduces transpirational cooling). While the focus on indigenous or Australian species is

¹³ Urban Design and Landscape Plan, 5.0 Consistency with Urban Design Strategy, Principle 4, Objective 4.3, Table 34, Page 234

understood in the context of the project, it's worth noting that well-selected deciduous trees may provide increased daytime cooling benefits (if soil moisture is available) and offer increased access to light in winter, which contributes to passive solar heat gain and improve human thermal comfort throughout the year. Along the road (where people will not be walking) this may not be of interest, but it must be considered in open space planning by us and the NEL team.

Accepting that some vegetation may need to be removed to facilitate construction, it is worth stating the replacement vegetation will need to be tolerant of high levels of radiant heat and pollution. It will need to filter both short and long views across and through the KCR and be consistent with Council's planting palette in the KCR. The preference is for indigenous species with a demonstrated ability to survive and thrive in warmer climates. We look forward to working with NELP and the community through the masterplan development for the KCR to ensure the appropriate climate risk assessment tools are used in the finalisation of the planting palette. Noting parts of the KCR have been landfill in previous decades, it will be vitally important to know and understand the soil quality and conditions. This knowledge will be gained through the masterplan process and will guide planting plans.

Freeway Golf Course

Excess land

The reduced land take from the Freeway Golf Course (FGC) is a welcome design inclusion. It is, however, frustrating to only be made aware of this reduced land take now and not when Council was redesigning the FGC to accommodate the NEL declared project area. Had NELP chosen to provide Council officers information about the reduced FGC land take for the NEL as requested on several occasions, our reconfigured course design would have been significantly different and less compromised.

The excess land is not consistently defined in the UDLP, with different renders, artist impressions and cross-sections showing different outcomes. In some images, the FGC is untouched. In others, there is significant incursion from the road and/or busway edge. This lack of definition, consistency and attention to detail is concerning but provides Spark an opportunity to listen to and engage with Council about the potential uses of the land and to amend the UDLP images to reflect the reconfigured course design.

We welcome ongoing discussions, workshops and design reviews with the Spark team about the potential uses of the excess land, including:

- Constructing a golf hole.
- Building a driving range, including appropriate caging and fencing, carparks and a hub/shop.
- Installing a bespoke mini-golf facility.
- Building and planting a turf nursery.

- Planting an urban forest and understorey managed for biodiversity purposes.

Fencing

The legend sheet provided in the UDLP attachments for the landscape design lists 'FE2 - Golf Course Fencing, Determined by other'¹⁴. Confusingly the landscape design legend also lists fence type 'FE1 - Black chain line fencing, 1.8M high' and uses the same line type as fence type FE2, with two indistinguishable colours defining the fence types.

The landscape design plans which include the FGC include a note "Golf course fencing height and alignment to be determined"¹⁵.

NELP has a copy of the FGC reconfiguration design and has been able to determine the golf course fencing height and alignment they need to design and construct to protect their road and infrastructure for some time now. NELP are creating the need for golf course fencing by designing and constructing the NEL as they are choosing to do. It is their responsibility to design, construct, own and maintain any golf course fencing they determine is required.

The UDLP public exhibition feedback presents Spark an opportunity to consider how they and/or NELP will design and construct any golf course fencing they deem as necessary without impacting the operations and play of the golf course.

Habitat corridor

In response to Key Design Requirement 3B (Consider providing a habitat link across the Eastern Freeway to the Freeway Public Golf Course)¹⁶ the UDLP shows a habitat corridor and notes "a habitat link has been included."¹⁷

The proposed location of the habitat link is questionable, particularly when there are higher quality habitat areas nearby where a habitat link would be of benefit including Hays Paddock to the Kew Golf Club and Burke Road Billabong or Musca Street Reserve to the Yarra Flats Reserve and Burke Road Billabong under the Burke Road bridge. These two suggestions are listed as 'Key Design Requirements', however we note they are both outside the Spark UDLP area.

Given the lack of any other reference to the link elsewhere in the UDLP and noting the superior nearby locations, the habitat link seems to have been included as a hopeful afterthought. The inclusion of the link gives Spark the opportunity to consider the appropriateness of the proposal and, if thought valuable enough to

¹⁴ Urban Design and Landscape Plan, Attachment 2, Landscape Design Master Legend Sheet 02, Page 97

¹⁵ Urban Design and Landscape Plan, Attachment 2, Landscape Design Surface Treatment Plans 06, Page 132

¹⁶ Urban Design and Landscape Plan, 5.0 Consistency with Urban Design Strategy, Table 20, Page 153

¹⁷ ibid

proceed, undertake faunal monitoring to inform the design. It also gives time for Spark to develop a faunal monitoring plan to ensure the link is appropriately designed and used.

Koonung Creek

The UDLP response to 'Principle 4 - Resilience and Sustainability, Objective 4.3 Environmental Sustainability' states:

*"A new wetland will treat the flow of water from the Koonung Creek before it passes under the intersection. The riparian vegetation corridor of the Koonung Creek continues over the land bridge to be reunited with the creek on the western side."*¹⁸

The response is dishonest as the land bridge does not interface with the Koonung Creek on the western side of Bulleen Road. The Koonung Creek flows under Bulleen Road and between the Freeway Golf Course and Carey sports fields, at least a football fields distance from the land bridge.

Spark should take the opportunity to reconsider their response to 'Principle 4 - Resilience and Sustainability, Objective 4.3 Environmental Sustainability' and shift their focus to naturalising and improving the Koonung Creek within the Freeway Golf Course and to its intersection with the Yarra River. This work would make a difference to the quality of habitat along the length of the creek and further improve the Koonung Creek biodiversity corridor.

Noise attenuation

The FGC maintenance and administration building (MAB) is sited on the south western point of the course, with the busway running almost underneath it in the cutting. The proximity of the busway and freeway to the MAB, the home of Council's Turf Management team, and the potential traffic noise is concerning. Spark has an opportunity to provide the team with a work environment that does not exceed the EPR noise limits and must ensure the area is included in the updated traffic noise modelling and assessment, with noise attenuation measures provided as appropriate.

General

Reference design and Spark design comparisons

The reference design and Spark design images chosen for inclusion in section 4.1 (Design Changes Since the EES)¹⁹ of the UDLP cannot be compared and the use of the two very different images is deceptive. Especially when considering the

¹⁸ Urban Design and Landscape Plan, 5.0 Consistency with Urban Design Strategy, Table 34, Page 234

¹⁹ Urban Design and Landscape Plan, 4.1 Design Changes Since the EES, Pages 40 - 47

community had extremely limited time to review the UDLP and it has been close to 3 years since the release of the reference design.

The reference design images shown are the '*Horizontal plan: construction*' drawings from the EES map book²⁰. The Spark design images look to be from the preliminary landscape design package. The use of the different images is akin to comparing apples and oranges. If the reference design plans showed the same details as the Spark design plans, the differences between the two designs would not be noticeable. Similarly, if the Spark design plans showed the same details as the reference design plans, the differences between the two would not be noticeable.

Spark has an opportunity to amend the images used to ensure a fair and equitable comparison between the reference design and Spark design. The '*Horizontal plan: operation*' from the map book would potentially enable a more equitable comparison.

Motorway Control Centre

The MCC design is well developed, with significant detail included in the UDLP²¹. The attention to design detail ensures the MCC responds sensitively to its setting adjacent to the Yarra River near the Manningham Road interchange. The intended 5-star GreenStar rating is welcomed and aligns with Council's design practice.

While it is clear the NEL maintenance and incident response vehicles will all be accommodated within the MCC car park, rapid, safe and easy access to the NEL north of the Manningham Road interchange for these vehicles is not apparent in the designs. What is apparent is these vehicles will need to either drive south on Bulleen Road, make a U-turn at the very complicated southern interchange or travel north on Rosanna Road to the Lower Plenty Road interchange to access the NEL. Either route will increase incident response times and potentially put drivers at risk.

The lack of rapid, safe and easy access to the NEL directly from the MCC is a direct result of the removal of the northern ramps from the Manningham Road interchange. The "simpler Manningham Road interchange²²" has, perhaps unintentionally, resulted in a road and driver safety issue in the 6.5km long tunnel and the rest of the NEL.

In contrast, the EastLink MCC is located at the Maroondah Highway interchange very close to the EastLink tunnels. It provides rapid, safe and easy access to the

²⁰ https://bigbuild.vic.gov.au/_data/assets/pdf_file/0011/524288/NELP-EES-Map-book-Key-Map-and-Horizontal-Alignment-Plans-Part-1.pdf and https://bigbuild.vic.gov.au/_data/assets/pdf_file/0004/524299/NELP-EES-Map-book-Horizontal-Alignment-Plans-Part-2.pdf and https://bigbuild.vic.gov.au/_data/assets/pdf_file/0017/524303/NELP-EES-Map-book-Vertical-Alignment-Plans-and-Indicative-Cross-Sections.pdf

²¹ Urban Design and Landscape Plan, Attachment 1, Architecture and Urban Design, Motorway Control Centre, Pages 23 - 35

²² <https://engage.vic.gov.au/north-east-link-tunnels-urban-design-and-landscape-plan>

EastLink tunnels and alignment for the incident response and maintenance vehicles stored at the MCC.

Alternative Motorway Control Centre

The notation of 'Alternate Motorway Control Centre (AMCC)' on the northern ventilation structure²³ responds somewhat to the concerns about lack of direct access the incident response and maintenance vehicles will have to the NEL.

The northern ventilation structure and AMCC is essentially sited at the Lower Plenty Road interchange. This location removes the journey from the Manningham Road interchange for incident response and maintenance vehicles and locates the AMCC in a position similar to the EastLink MCC.

There are no other references to the AMCC in the UDLP, leading to a lack of clarity about the intention of the AMCC and its role in incident response and maintenance access.

The UDLP public exhibition and feedback provides Spark the opportunity to reconsider the location of the MCC, with a view to locating it to minimise incident response times for the NEL alignment and tunnels in particular.

Walking and cycling infrastructure

The NEL presents a once in a lifetime opportunity to provide a well-design and connected walking and cycling network. The potential to connect with the Koonung Creek Trail, EastLink Trail and Peninsula Link Trail is an exciting prospect. However, the walking, cycling and shared use paths shown in the UDLP do not appear to meet the requirements of the AustRoads Guide to Road Design Part 6A: Paths for Walking and Cycling²⁴.

Shared or mode separated paths

The provision of shared use paths throughout the design rather than mode separated walking and cycling paths is the most obvious failure of the Spark design. The AustRoads guide provides very clear direction about when shared and mode separated paths are appropriate and the width for each type of path. The decision to mode share or mode separate is based on directional split and volume of both modes.

A brief review of current pedestrian and cyclist volumes on the Koonung Creek Trail, within the scope of this UDLP, demonstrates current volumes of both modes are sufficient to warrant mode separated paths. While this is a Boroondara local example, it will be the rule and not the exception across and along the project corridor as walking and cycling for transport and recreation boomed through 2020

²³ Urban Design and Landscape Plan, Attachment 1, Architecture and Urban Design, Northern Ventilation Structure, Page 9

²⁴ AustRoads Guide to Road Design Part 6A: Paths for walking and cycling, Edition 2.1, 2021

and 2021. The growth rates are persisting as the community continues to enjoy the benefits of walking and cycling.

It is disappointing to hear Spark's justification for providing shared paths only - being they do not want to build too much hardstand area (concrete and asphalt), particularly in parks and reserves where the walking and cycling infrastructure is located.

This justification is absurd when you consider the volume of concrete and asphalt Spark are choosing to include in their design of the tunnels and the widened Eastern Freeway. The O'Brien Traffic design, an alternate design, presented at the 2019 EES IAC panel hearing demonstrated how traffic performance along the Eastern Freeway and NEL would meet the documented requirements in a significantly reduced footprint with a reduced land take. In his assessment of the IAC report and recommendations, the Minister for Planning states:

*"...I accept IAC Recommendation 6, that the alternative designs be provided to tenderers for their consideration."*²⁵

It is frustrating Spark has chosen to not include any elements of the O'Brien Traffic alternate design and has ignored Council and community feedback about mode separated paths. The results of a recent Council survey of Koonung Creek Reserve users indicated 84% (222) of respondents supported mode separated paths through the reserve. The community and Council are in lock step when it comes to mode separated path, but Spark continue to refuse to listen.

Gradients and curves

The gradients and radius of the curves on the proposed shared paths look to be problematic across the UDLP area. AustRoads specify a 3% grade as the maximum preferred grade for ease of cycling, with up to 5% with flatter sections of path at regular intervals acceptable. It is obvious that the flatter the path, the easier it is for people with mobility issues to travel along but distance can become an issue. A delicate balance needs to be struck to ensure appropriate and safe grades are provided for all users, as well as appropriate distances.

Noting the influence this UDLP and design has on the remaining four works packages and UDLPs, Spark need to take the once in a lifetime opportunity their UDLP and works package present them and the community. They need to listen to the community and Council and deliver a well-designed and connected walking and cycling network that will meet the needs of users now and for the future.

Trail and path lighting

Despite the lengthy commentary about and design plans showing new and upgraded walking and cycling shared trails and paths, the UDLP provides no commentary or

²⁵ https://www.planning.vic.gov.au/_data/assets/pdf_file/0032/447449/North-East-Link_MinistersAssessment_Final.pdf

proposals for trail and/or path lighting. Lighting can increase the usable hours of trails and paths and contribute to perceived safety in the area. The former is particularly important in winter to ensure commuters can walk, run or cycle home along a lit trail, as well as ensuring locals can walk their dogs in the evening.

This missed opportunity is easily remedied through the inclusion of lighting in the Spark concept design. On ramps and other elevated structures handrail lighting can be considered. In reserves and other areas traditional light poles can be considered.

Appendix A – Detailed comments on the EPR responses

Environmental Management Framework (EMF)

EPR	EPR description	Phase	Boroondara Council comment	Spark Response
EMF 1	Deliver project in general accordance with an Environmental Management System	All	No comment.	EMF 1
EMF 2	Deliver project in accordance with an Environmental Strategy and Management Plans	All	Strategy and management plans must be provided to councils for review and information.	EMF 2
EMF 3	Audit and report on environmental compliance	Design, construction and operation	Ensure the summary reports are made available on a project website in a timely manner.	EMF 3
EMF4	Complaints Management System	Design, construction and operation.	Complaints recorded in the Complaints Management System must be made available to relevant Councils to understand, be aware of and track resident's concerns about the Project.	EMF4

Appendix A – Detailed comments on the EPR responses

Aboriginal Heritage (AH)

EPR	EPR description	Phase	Boroondara Council comment	Spark Response
AH1	Comply with the Cultural Heritage Management Plan	Design, construction	No comment.	

Air Quality (AQ)

EPR	EPR description	Phase	Boroondara Council comment	Spark Response
AQ1	Implement a Dust and Air Quality Management and Monitoring Plan to minimise air quality impacts during construction	Construction	<p>The management plan should include, inter alia, cleaning of vehicles, residential properties and other personal property in the event dust from the works site is not managed.</p> <p>Provide Council a copy of the Dust and Air Quality Management and Monitoring Plan.</p>	
AQ2	Design tunnel ventilation system to meet EPA requirements for air quality	Design, construction and operation.	Refer to the EPA Victoria Works Approval and conditions/requirements of the same.	
AQ3	In-tunnel air quality performance standards	Design, construction and operations	Refer to the EPA Victoria Works Approval and conditions/requirements of the same.	

Appendix A – Detailed comments on the EPR responses

EPR	EPR description	Phase	Boroondara Council comment	Spark Response
AQ4	Monitor ambient air quality	Construction and operation	Ensure the air quality data is published on a project website on a daily basis as required by the EPR.	
AQ5	Monitor compliance of in-tunnel air quality and ventilation structure emissions	Operation	Refer to the EPA Victoria licence and conditions/requirements of the same.	
AQ6	Construction Haulage Vehicle Fleet	Construction	No comment.	

Arboriculture (AR)

EPR	EPR description	Phase	Boroondara Council comment	Spark Response
AR1	Develop and implement a Tree Removal Plan	Design and construction	<p>Trees to be removed must be tagged with a unique ID during the arboriculture assessment in accordance with best practice. Revise Project response to acknowledge tree tagging.</p> <p>NELP assured Council they would require trees to be removed for construction to be tagged following unauthorised tree removal during early works.</p>	

Appendix A – Detailed comments on the EPR responses

EPR	EPR description	Phase	Boroondara Council comment	Spark Response
AR2	Implement a Tree Protection Plan(s) to protect trees to be retained	Design, construction and operation	<p>Who monitors trees subject to protection over the three year period following completion of constructions works? Where trees are on Council land, will relevant council's be provided with tree monitoring data and consulted where trees need to be replaced. Revise Project response to acknowledge monitoring data to be provided to land manager in request.</p>	
AR3	Implement a Tree Canopy Replacement Plan	Design construction and operation	<p>Amend the Project response to state that the Tree Canopy Replacement Plan needs to be developed in consultation with relevant councils and land managers.. All tree planting in Boroondara parks and reserves needs to be guided by Boroondara's Tree Canopy Replacement Plan. This document has been provided to Spark.</p> <p>Refer to comments in comment spreadsheet from Susan Murphy regarding the design life of trees and provenance for understorey and tree species.</p>	

Appendix A – Detailed comments on the EPR responses

Business (B)

EPR	EPR description	Phase	Boroondara Council comment	Spark Response
B1	Business disruption mitigation plan	Design and construction	Council and local businesses should be advised well in advance of business disruption and businesses should be supported through this period. Amend the Project response to acknowledge the above.	
B2	Business relocation strategy	Design and construct	No comment	
B3	Employee Assistance Program	Design, construction	No comment	
B4	Minimise disruption to businesses from land acquisition and temporary occupation	Design, construction	The Freeway Golf Course is expected to open in late 2022. Land is to be acquired from the Freeway Golf Course in November 2022. Land acquisition (installation of fencing) must not disrupt golfing activities. Project contractors must advise Council of on ground activities related to land acquisition well in advance and discuss how this will be managed.	

Appendix A – Detailed comments on the EPR responses

EPR	EPR description	Phase	Boroondara Council comment	Spark Response
B5	Minimise and remedy damage or impacts on third party property and infrastructure	Design, construction	No comment	
B6	Minimise access and amenity impacts on businesses	Design, construction	Council must be kept informed of any access and amenity impacts on businesses. See comment in B1.	
B7	Protect utility assets	Design, construction	No comment	
B8	Business Liaison Groups	Design, construction	No comment	

Contamination and Soil (CL)

EPR	EPR description	Phase	Boroondara Council comment	Spark Response
CL1	Implement a Spoil Management Plan	Design, construction	<p>The Project response must state that Councils will be consulted during the preparation and implementation of the Spoil Management Plan (as noted in the EPR).</p> <p>Explain the reporting requirements if contaminated spoil (such as PFAS, acid sulphate soils or asbestos) is found. Council must be informed when contaminated spoil is exposed during construction, along with the next steps in terms of treatment and/or disposal no matter how small the volume of material and opinion of the EPA.</p>	

Appendix A – Detailed comments on the EPR responses

EPR	EPR description	Phase	Boroondara Council comment	Spark Response
CL2	Minimise impacts from disturbance of acid sulphate soil	Design, construction	No comment	
CL3	Minimise odour impacts during spoil management	Design, construction	What advice is provided to nearby residents or the LGA if odours cannot be contained? The Spark response should note that a communication strategy will be developed to inform communities and councils in the event of odour impacts.	
CL4	Minimise risks from vapour and ground gas intrusion	Design, construction	The Project response should refer to emergency management procedures or plan in the event vapour and ground gas intrusion risks cannot be minimised.	
CL5	Manage chemicals, fuels and hazardous materials	Design, construction, operation	The Project response should note that the CEMP will be shared with relevant councils.	
CL6	Minimise contamination risks during operation	Operation	No comment	

Flora and Fauna (FF)

EPR	EPR description	Phase	Boroondara Council comment	Spark Response
FF1	Avoid and minimise impacts on fauna and flora	Construction	The Project response should note that a copy of the Flora and Fauna sub plan will be provided to relevant municipal councils.	
FF2	Minimise and offset native vegetation removal	Design, construction	The Project response must state that the arboricultural and ecological surveys must be made available to relevant councils for review and to enable adjustment of Council asset management data.	
FF3	Avoid introduction or spread of weeds and pathogens	Construction	Include in the Project response that local land managers will be notified of any introduced pathogens or weed outbreaks.	

Appendix A – Detailed comments on the EPR responses

EPR	EPR description	Phase	Boroondara Council comment	Spark Response
FF4	Protect aquatic habitat	Design, construction	The Project response should list examples of design measures to minimise impacts on waterways rather than listing key design outcomes (which do not address the EPR).	
FF5	Obtain Flora and Fauna Guarantee Act 1988 permits	Construction	No comment	
FF6	Implement a Groundwater Dependent Ecosystem Monitoring and Mitigation Plan	Construction, operation	Over what period will the Groundwater Monitoring Program run during the operation phase? The Groundwater monitoring program and data should be shared with local land managers. Include this in the Project response. Note 'Study Park Gum' should be 'Studley Park' 'stressed treed' should be 'stressed trees'.	

Appendix A – Detailed comments on the EPR responses

EPR	EPR description	Phase	Boroondara Council comment	Spark Response
FF7	Implement a salvage and translocation plan for Matted Flax-lily	Design, construction	No comment	
FF8	Minimise intense noise and vibration impacts on Australian Grayling	Design, construction	No comment	
FF9	Protect fauna habitat values in existing waterbodies that are modified for drainage purposes	Construction	The Spark response must address the need to schedule construction activities outside the typical waterbird nesting season - September to January (as stated in this EPR). What will the relevant measures identified in the CEMP include to mitigate against damage from temporary construction related works? Note examples in the Project response.	
FF10	Studley Park Gum mitigation	Design, construction and operation	No comment	

Ground movement (GM)

EPR	EPR description	Phase	Boroondara Council comment	Spark Response
GM1	Design and construction to be informed by a geotechnical model and assessment	Design, construction	No comment	
GM2	Implement a Ground Movement Plan to manage ground movement impacts	Design, construction	No comment	
GM3	Carry out condition surveys for potentially affected property and infrastructure	Construction	Property and infrastructure condition surveys for Council owned or managed infrastructure must be provided to Council for review.	
GM4	Rectify damage to properties and assets impacted by ground movement or settlement	Construction	No comment	

Groundwater (GW)

EPR	EPR description	Phase	Boroondara Council comment	Spark Response
GW1	Design and construction to be informed by a groundwater model	Design, construction	No comment	
GW2	Monitor groundwater	Design, construction, operation	The project response to this EPR should include a reference to other relevant EPRS such as FF6 - Implement a Groundwater Dependent Ecosystem Monitoring and Mitigation Plan.	
GW3	Minimise changes to groundwater levels through tunnel and trench drainage design and construction methods	Design, construction	No comment	
GW4	Implement a Groundwater Management Plan to Protect groundwater quality and manage groundwater interception	Design, construction	Note in the Project response that the Groundwater Management Plan must be shared with councils and that councils will be advised of any discharges of groundwater to local creeks.	

Appendix A – Detailed comments on the EPR responses

EPR	EPR description	Phase	Boroondara Council comment	Spark Response
GW5	Manage groundwater during operation	Operation	<p>The Project response should state that the Operations Environment Management Plan will be shared with councils and land managers.</p> <p>Councils and Melbourne Water must be advised of any discharges of groundwater to local waterways. Consider referencing EPR SW3 in this response.</p>	

Historical Heritage (HH)

EPR	EPR description	Phase	Boroondara Council comment	Spark Response
HH1	Design and construct to minimise impacts on heritage	Design, construction	No comment	
HH2	Implement an Archaeological Management Plan to avoid and minimise impacts on historic archaeological sites and values	Construction	No comment	
HH3	Monitor condition of heritage sites	Construction	No comment	

Appendix A – Detailed comments on the EPR responses

EPR	EPR description	Phase	Boroondara Council comment	Spark Response
HH4	Undertake archival photographic recording	Construction	No comment	
HH5	Minimise impacts on heritage trees	Construction	Given that designs are well advanced, can Spark confirm that the Caltex Tree will be saved and protected during the works?	

Land Use Planning (LP)

EPR	EPR description	Phase	Boroondara Council comment	Spark Response
LP1	Minimise land use impacts	Design, construction	The Project response should be amended to respond to the complete list of land uses set out in the EPR and respond across the entire scope of the UDLP including the Southern Interchange.	
LP2	Minimise impacts from location of new services and utilities	Design	No comment	

Appendix A – Detailed comments on the EPR responses

EPR	EPR description	Phase	Boroondara Council comment	Spark Response
LP3	Minimise inconsistency with strategic land use plans	Design	<p>The Project response is very Manningham centric. What other relevant strategies, plans and frameworks were considered to inform the scope of packages covered in this UDLP? Note these in the Project response. The Project response must respond to the last paragraph the minimisation to the greatest extent reasonably possible, impacts on residential, commercial, industrial and open space...etc.</p>	
LP4	Minimise overshadowing from noise walls and elevated structures and overlooking from elevated structures	Design	<p>It is unclear how the overshadowing and overlooking analysis demonstrates minimal impacts on adjoining properties at the Eastern Freeway Interchange as overshadowing is only presented for the September equinox.</p> <p>Explain in the Project response where natural topography assist this minimisation?</p> <p>Will consultation occur with affected property owners? Include this in the Project response. Council would like to be advised ahead of these conversations with affected property owners.</p>	

Appendix A – Detailed comments on the EPR responses

EPR	EPR description	Phase	Boroondara Council comment	Spark Response
			Please refer to comments in Council's submission and comment sheet to understand our concerns regarding overshadowing and overlooking.	
LP5	Prepare and implement a Public Open Space Relocation and Replacement Plan	Design and construction	No comment.	

Landscape and Visual (LV)

EPR	EPR description	Phase	Boroondara Council comment	Spark Response
LV1	Design to be in accordance with the Urban Design Strategy	Design and construction	<p>Please refer to Council's submission and comments spreadsheet that outline key issues in relation to the Southern Interface design.</p> <p>Give examples of the location of key residential areas identified along the corridor where targeted design solutions are being developed. Will consultation with residents be undertaken (see LP4)?</p>	

Appendix A – Detailed comments on the EPR responses

EPR	EPR description	Phase	Boroondara Council comment	Spark Response
LV2	Minimise landscape and visual impacts during construction	Design, construction	The Construction Compound Plan (CCP) and sub plans must be provided to Council for consideration and for a 'no objection' response. As per the EPR text, this should be noted in the Project response.	
LV3	Minimise Construction lighting impacts	Design, construction	The WEMP should be submitted to relevant councils for consideration and a 'no objection' response.	
LV4	Minimise operation lighting impacts and maximise operational lighting benefits for open space.	Design, construction	Ensure any new cycling, pedestrian or SUP paths are lit to ensure safety of users at night.	

Noise and vibration (NV)

EPR	EPR description	Phase	Boroondara Council comment	Spark Response
NV1	Achieve traffic noise objectives	Design, construction, operation	<p>Confirm where noise measurements are conducted in Category A and Category B buildings (ground floor, first or second floors etc.). If noise measurements are deemed higher than the DoT/VicRoads policy, what mitigation treatments will be offered to affected residents?</p> <p>It is good to see that the Project response acknowledges key sensitive noise areas include residential interface areas at the Southern Interchange road alignments.</p> <p>During operations will data collected in the traffic noise monitoring program be made available to the public?</p>	

Appendix A – Detailed comments on the EPR responses

EPR	EPR description	Phase	Boroondara Council comment	Spark Response
NV2	Monitor traffic noise	Design, operation	Will baseline traffic noise monitoring data (pre-construction) be made available to the Councils or the public? Over what period and over what days will this noise monitoring occur?	
NV3	Minimise construction noise impacts to sensitive receptors.	Construction	Refer to comments provided in NV4. What learnings are there from other major infrastructure projects around minimising noise to sensitive receptors?	
NV4	Implement a Construction Noise and Vibration Management Plan (CNVMP) to manage noise and vibration impacts	Construction	<p>The Project response must include a statement to say that it will respond (and not be limited to) the items noted in the EPR NV4.</p> <p>Include a statement in the Project response to acknowledge temporary relocations of residents where noise exceeds acceptable limits and under what conditions this will occur? Include a</p>	

Appendix A – Detailed comments on the EPR responses

EPR	EPR description	Phase	Boroondara Council comment	Spark Response
			<p>statement that the community and local councils will be notified ahead of noisy works or works generating vibrations.</p> <p>The community living close to works will be very sensitive to noise from construction works and must be kept well informed of noisy construction works and mitigation solutions on offer.</p>	
NV5	Establish vibration guidelines to protect utility assets	Construction	No comments	
NV6	Design permanent tunnel ventilation system and relevant fixed infrastructure to meet EPA requirements for noise	Design, construction	No comment	
NV7	Monitor noise from tunnel ventilation system and relevant fixed infrastructure	Operation	No comment	

Appendix A – Detailed comments on the EPR responses

EPR	EPR description	Phase	Boroondara Council comment	Spark Response
NV8	Minimise construction vibration impacts on amenity	Construction	<p>If vibrations are likely to exceed maximum vibration dose values, what mitigation measures are put in place - just respite periods/breaks in construction activities?</p> <p>State in the Project response whether mitigation measures will include temporary relocation of affected residents. What notification will be provided to residents?</p>	
NV9	Minimise construction vibration impacts on structures	Construction	No comment	
NV10	Minimise impacts from ground-borne (internal) noise	Construction	State in the Project response whether mitigation measures will include temporary relocation of affected residents.	
NV11	Minimise amenity impacts from blast vibration	Construction	What notification will be provided to residents ahead of any blasts? Include a statement about community notification.	
NV12	Minimise amenity impacts from blast overpressure	Construction	What notification will be provided to residents ahead of any blasts? Include a statement about community notification.	

Appendix A – Detailed comments on the EPR responses

EPR	EPR description	Phase	Boroondara Council comment	Spark Response
NV13	Noise mitigation – noise walls	Construction	No comment	
NV14	Reduce impacts from engine brake noise	Design, construction, operation	<p>Council and community members are concerned about engine breaking noise from trucks joining the Eastern Freeway from the NEL southbound to Eastern Freeway westbound ramp.</p> <p>The ramp is located close to residential properties near Musca Street and Orion Street. The Project response does not address engine breaking in this context. Include in the Project response a statement explaining how engine breaking can be reduced in this and similar contexts.</p>	
NV15	Noise at public open space and school recreation grounds	Design, operations	<p>Will schools be consulted around noise mitigation measures and options? Include a statement in the Project response to outline consultation.</p> <p>Will managers of public open spaces be consulted around additional noise mitigation measures such as mounding?</p>	

Appendix A – Detailed comments on the EPR responses

EPR	EPR description	Phase	Boroondara Council comment	Spark Response
			Include a statement in the Project response noting consultation with public open space managers will be undertaken during the design phase to address noise mitigation options.	
NV16	Monitoring of Ongoing performance of operational traffic noise mitigation measures	Operation	No comment.	

Social and community (SC)

EPR	EPR description	Phase	Boroondara Council comment	Spark Response
SC1	Reduce community disruption and adverse amenity impacts	Design and construction	<p>The Project response should note that councils will be consulted about the management of disruption and any adverse amenity impacts on communities and open spaces during construction.</p> <p>Add further detail to point c to note where land acquisition adjacent to the project is being reduced and how this will improve amenity impacts.</p> <p>Add further detail to point d. so it makes sense.. 'reduction in construction time and reconstruction by designing and constructing some permanent elements of the road alignment, in particular Bulleen Road'.</p>	
SC2	Minimise and manage impacts of land acquisition and occupation	Design and construction	Where will the minimisation of temporary land occupation occur? Which municipalities? Provide this detail in the Project response.	

Appendix A – Detailed comments on the EPR responses

EPR	EPR description	Phase	Boroondara Council comment	Spark Response
SC3	Implement a Communications and Community Engagement Plan	Design, construction, operation	<p>Delete the word 'extensive' in relation to stakeholder consultation. There was not 'extensive' consultation with Boroondara Council officers in relation to concept designs for the Southern Interchange and Southern Interface Zone.</p> <p>Under construction, the Project response needs to respond to the elements listed in the EPR. Communications and community engagement needs to be more than updates on the Project's progress. Will any innovative communications tools be developed to help the community understand various impacts from the projects?</p> <p>Any works notifications being distributed to the community need to be provided to Council well ahead of any letter box drops so that Council's Customer Connect staff can be kept informed and relevant Ward Councillors informed of upcoming works.</p>	

Appendix A – Detailed comments on the EPR responses

EPR	EPR description	Phase	Boroondara Council comment	Spark Response
SC4	Participate in the Community Liaison Group	Design, construction	No comment	
SC5	Minimise impacts of displacement of formal active recreation facilities	Design, construction, operation	No comment	
SC6	Minimise impacts on formal active recreation and other facilities	Design, construction, operation	No comment	
SC7	Implement a Community Involvement and Participation Plan (CIPP)	Construction, operation	No comment	
SC8	Implement a voluntary purchase scheme for residential properties	Construction, operation	When will the details of the voluntary purchase scheme be made public?	

Surface Water (SW)

EPR	EPR description	Phase	Boroondara Council comment	Spark Response
SW1	Discharges and runoff to meet State Environment Protection Policy (Waters)	Design, construction, operation	Note in the Project Response that Surface Water Management Plan will be shared with councils.	

Appendix A – Detailed comments on the EPR responses

EPR	EPR description	Phase	Boroondara Council comment	Spark Response
SW2	Design and implement spill containment	Design, construction, operation	Explain if the spills contained in the Spill containment Units are tested before being discharged into Banyule Creek, Koonung Creek and the Yarra River. Apart from the infrastructure, what steps are typically included in the operations manual in relation to spills? Add more detail in the Project response to address the above.	
SW3	Waste water discharges to be minimised and approved	Construction, operation	Councils should be kept informed of waste water discharges into local waterways ahead of the discharge occurring.	
SW4	Monitor water quality	Design, construction, operation	Add in the EPR heading	
SW5	Implement a Surface Water Management Plan during construction	Construction	Add in the EPR heading	

Appendix A – Detailed comments on the EPR responses

EPR	EPR description	Phase	Boroondara Council comment	Spark Response
SW6	Minimise risk from changes to flood levels, flows and velocities	Design, construction	Melbourne Water may be the relevant authority for management of waterways and some drainage, but Council stormwater drainage may be impacted from flow changes (e.g. back filling of drains) and Council assets such as Freeway Golf Course may be impacted by increase in flow or flooding. The Project response should note that councils will be kept informed of any plans increase overall flood risk or changes to flow regime of waterways.	
SW7	Develop flood emergency management plans	Construction, operation	No comment	
SW8	Minimise impacts from waterway modifications	Design construction	No comment	
SW9	Maintain bank stability	Design, construction, operation	No comment	
SW10	Provide for access to Melbourne Water and other drainage assets	Design, construction	Boroondara Council has not been consulted on access for drainage maintenance. Have other councils been consulted?	

Appendix A – Detailed comments on the EPR responses

EPR	EPR description	Phase	Boroondara Council comment	Spark Response
SW11	Adopt Water Sensitive Urban and Road Design	Design, construction, operation	Can the WSUD Strategy be shared with councils? Has it been developed with councils? It has certainly not been developed in consultation with Boroondara Council. Amend the statement to reflect who it has been developed in consultation with.	
SW12	Minimise impacts on irrigation of sporting fields	Design, construction, operation	<p>Note that the Manningham Council, Boroondara Council and local schools jointly coordinate the Bolin Bolin Integrated Water Management project that provides water for irrigation of Bulleen Park, Carey Grammar and Freeway Golf Course.</p> <p>Further information can be provided by Manningham Council. Key project infrastructure is located within the project area and acknowledgement of this project must be included in the Project response as it cannot be impacted during construction.</p>	
SW13	Consider climate change effects	Design	No comment	

Appendix A – Detailed comments on the EPR responses

EPR	EPR description	Phase	Boroondara Council comment	Spark Response
SW14	Meet existing water quality treatment performance	Design, construction	No comment	

Sustainability and Climate Change (SCC)

EPR	EPR description	Phase	Boroondara Council comment	Spark Response
SCC1	Implement a Sustainability Management Plan	Design, construction, operation	In terms of Tree Replacement and species selection for revegetation. What is the design life for trees given project climate change impacts; how much thought is given to provenance?	
SCC2	Minimise greenhouse gas emissions	Design, construction and operation	No comment	
SCC3	Apply best practice measures for energy usage for tunnel ventilation and lighting systems	Design operations	No comment	
SCC4	Minimise and appropriately manage waste	Construction, operation	No comment	

Appendix A – Detailed comments on the EPR responses

EPR	EPR description	Phase	Boroondara Council comment	Spark Response
SCC5	Minimise potable water consumption	Construction	No comment	

Traffic and Transport (TT)

EPR	EPR description	Phase	Boroondara Council comment	Spark Response
TT1	Optimise Design Performance	Design	The Project response says that design performance has been optimised for the works and will be developed further through consultation with appropriate road management authorities, land managers and local councils. Our Council and community have concerns about active transport options. What further changes can be made regarding design performance given that changes must be made ahead of detailed design.	
TT2	Transport Management Plan(s) (TMP)	Construction	<p>What is the PDSR? Is the acronym used and explained elsewhere? If not use full description here.</p> <p>Include swept path analysis and haulage route analysis in the list of traffic management analyses.</p>	

Appendix A – Detailed comments on the EPR responses

EPR	EPR description	Phase	Boroondara Council comment	Spark Response
			Include in the Project response that TMPs will be shared with impacted Councils for review and comment.	
TT3	Transport Management Liaison Group	Design, construction	No comment	
TT4	Road safety design	Design construction, operation	No comment	
TT5	Traffic monitoring	Design construction, operation	Include a statement that Traffic Monitoring data will be shared with relevant councils for information.	

Appendix B – Detailed comments on the UDLP

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
1	3. Site analysis - south	33		List Koonung Creek Reserve under 'Features' as it is shown on the map (Figure 17).		
2	4. Project Description and Design response	37		Describe in the text the steps taken to reduce the scale and footprint of the southern interchange especially along sensitive residential interfaces and public open space.		
3	4. Project Description and Design response	37		Include Boroondara policy/strategy documents relevant to the UDLP including the Boroondara Open Space Strategy and the Boroondara Tree Canopy Replacement Plan.		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
4	4.1 Design change since the EES	40 - 47		<p>The 'Reference Design' images and the 'Spark Design Solution' images are not comparable. The 'Reference Design' images are sourced from the EES Map Book 'Horizontal plan: construction' maps. The 'Spark Design Solution' images are from a concept landscape design. It is not fair to include two such different images and use them as comparison images.</p> <p>Replace all 'Reference design' images with the EES Map Book 'Horizontal plan: operation' images. These are better suited to being directly compared with the landscape style 'Spark Design Solution' images and enable a fairer comparison.</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
4	4.1 Design change since the EES	40		Note additional design changes as mentioned at the Boroondara Councillor briefing including: - Change of land use at the Boroondara Tennis Centre from the Bulleen Park and Ride to wetland and parkland. - Tunnel portal (entrance and exit) shifted further south towards Eastern Freeway/Bulleen Road interchange.		
5	4.1.5 Yarra Link green bridge near Bulleen Road and Eastern Freeway Interchange	46		The text mentions extension of the Koonung Creek linear parkland. Provide further information showing where the Koonung Creek linear park is extended. Is the reference to the section between Thompson Road and land bridge?		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
6	4.2.1 Design intent	51		<p>Provide commentary explaining how the concept design has responded to the needs of communities and residents along the NEL and Eastern Freeway UDLP works area corridor.</p> <p>The collaboration and input of the Wurundjeri Woi Wurrung to the concept design is applauded, however the design must also respond to the communities and residents along the corridor. This is particularly important for communities impacted by views to new structures and noise walls, overshadowing and overviewing or where there is a reduction in open space.</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
7	4.2.4 Caring for country	55	Figure 48 Reimagining Biodiversity Corridors	<p>Provide detail to expand on the statement relating to the Koonung Creek biodiversity corridor.</p> <p>The land bridge creates new east-west connections, but the extended habitat corridor associated with the Koonung Creek ends at Thompson Road. The Eastern Freeway is a massive barrier to fauna moving between the Yarra River and the Koonung Creek corridor that extends for kilometres from Boroondara and into Whitehorse on the south side of the freeway.</p> <p>Demonstrate where and how thought been given to a Koonung Creek corridor connection across the Eastern Freeway and improving the Koonung Creek along its daylighted length to its intersection with the Yarra River.</p>	Boroondara Biodiversity Strategy (2013) provides descriptive info on the biodiversity corridors	

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
8	4.2.7 Green infrastructure	66		<p>Demonstrate in the UDLP commentary how Spark has reviewed and responded to the Boroondara Integrated Water Management Strategy.</p> <p>Provide Spark's WSUD strategy to Council for information and review. It would be helpful to understand alignment of Spark's objectives and actions with Council's objectives, actions and targets.</p>	Integrated Water Management Strategy (2014).	
9	4.2.7 Green Infrastructure	67	Ecology & Planting	The UDS identifies three distinct landscape characters - Ridgeline, Yarra River Valley and Koonung Creek Valley. Koonung Creek Valley has been omitted and should be added in.	Boroondara Biodiversity Corridor.	
10	4.2.7 Green infrastructure	67	Ecology & Planting	Detail in the 'Ecology & Planting' text how the planting strategy responsive to climate change.		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
				Articulate what is meant by 'memorable and sustainable' landscapes.		
11	4.2.7 Green infrastructure	67	Soils	We don't dispute the following statement in the UDLP: 'The soils and foundation within NEL have been subject to many impacts over the years'. Describe or list the types of impacts the soils and foundation experienced along the NEL alignment. For example: agriculture, landfills etc.		
12	4.2.7 Green infrastructure	67	Soils	It is good to see that Spark will 'define improvements and modifications needed to support the plant communities within the varying types of landscapes. We encourage the soil testing is undertaken prior to planting to understand the true site conditions and to ensure		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
				appropriate remediation can be designed and implemented.		
13	4.2.9 Key Strategic Moves	68		<p>Explain why there no consideration of mode separated paths, especially along key strategic and commuter cycling corridors such as the Koonung Creek Trail (KCT).</p> <p>The KCT carries high pedestrian and cyclist volumes that currently meet the AustRoad thresholds for mode separated paths. See comments relating to Section 4.2.10. This is a once in generation project and works must 'future proof' paths by creating mode separated paths. Eighty-eight (88%) of respondents to a short survey about Koonung Creek Reserve supported mode separated paths.</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
14	4.2.10 Movement and Open Space Strategy	69		<p>Where the UDLP references "The Victorian Cycling Strategy (2018-28)" and "Northern Regional Trails Strategy (2016)" include The Eastern Regional Trails Strategy (ERTS) (2018).</p> <p>The ERTS includes a City of Boroondara and Koonung Creek Trail (KCT) action item: 'Identify any areas of the Koonung Creek Trail that carry high pedestrian and cyclist volumes and investigate the feasibility of mode separating where possible' (see page 49: https://s23705.pcdn.co/wp-content/uploads/2019/07/Eastern-Trails-Strategy.pdf)</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
15	4.2.10 Movement and Open Space Strategy	69		<p>Which local Council Open Space and Cycling-Walking Strategies were referred to in terms of 'informing specific outcomes'? Where are they listed?</p> <p>Boroondara Council recently put their draft Bicycle Strategy out for consultation. The strategy advocates for separate paths for pedestrians and cyclists on various trails.</p> <p>Note that, actual numbers of path users as recorded in Super Sunday Bike Counts (2019 and 2020) at intersection of Koonung Creek Trail and Estelle Street bridge exceeds acceptable numbers for a shared path set out in the Austroads Guide to Road Design Part 6A: Paths for Walking and Cycling (page 28); Figure 5.4: Path widths for a 50/50 directional split .</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
16	4.2.10 Movement and open space strategy	69		<p>We note under Strategic Policy Background that Spark intends to 'slow and enrich the movement experience through linear parklands'.</p> <p>Explain how this approach accommodates existing 'fast' commuter routes such as the Koonung Creek Trail? Both the fast commute as well as the slow experience needs to be accommodated in the design.</p>		
17	4.3.4 Southern Interface zone	79	Figure 80	<p>Include a render or visual impression in the UDLP that shows the view from Koonung Creek Reserve to the elevated road leading to the NEL so local residents and users of Koonung Creek Reserve will be able to understand the scale of the elevated roads.</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
18	4.3.4 Southern Interface zone	79	Figure 80	Acknowledge in the text that the 'reimagined parkland' in Koonung Creek Reserve is subject to the development of a masterplan with Boroondara City Council to inform its detailed design. Acknowledge that the community and users of the KCR will be engaged and consulted through the master planning process.		
19	4.3.4 Southern Interface zone	79	Figure 80	Provide a second access bridge across the Eastern Freeway (east of the Southern Interchange) to enable North Balwyn residents to more easily access the Bulleen Park and Ride - a major transport hub. The Estelle Street bridge could be moved further east toward Doncaster Road if a access bridge over the Eastern is provided between the current Estelle Street bridge location and the Bulleen Park and Ride.		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
20	5. Consistency with the UDS - Objective 1.4	99		Improvement to the Koonung Creek and riparian habitat is welcome. The improvements are however limited to the short length of the creek between the land bridge and Thompson Road. Greater environmental/ecological outcomes could be achieved if improvements to Koonung Creek extended to its junction with the Yarra River and also an appropriately located fauna bridge/habitat corridor across the Eastern Freeway. Given this is a once in a generation project, why have additional improvements not been included?		
21	5. Consistency with the UDS - Objective 2.3	100		Provide more detail on the 'Intuitive Wayfinding Strategy'. Can a copy of this strategy be provided to Council? What are indigenous cultural wayfinding		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
				elements? Provide more text detail or an example to illustrate.		
22	5. Consistency with the UDS - Objective 3.1 - Integration with context.	100		The UDS urban design outcome seeks for the design to avoid severances of communities. Explain how the southern interchange improves north-south and east-west connectivity for communities, when the design is complex especially for pedestrians and cyclists trying to get across the Eastern Freeway from North Balwyn to, for example, the Bulleen Park and Ride or across Bulleen Road and do not want to travel all the way up the land bridge for whatever reason (i.e. mobility issues restrict the distance they can travel).		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
23	5. Consistency with the UDS - Objective 3.2 - Integration of design	100		Explain in plain English what is meant by the 'hydraulic requirements of the water management designs ... are one example of the design integration?' The current statement makes no sense to anyone other than a water engineer.		
24	5. Consistency with the UDS - Objective 3.3 - Strategic alignment	100		<p>Provide an explanation about the extent of consultation with local governments in the development of the 'integrated engineering, urban design and landscape architectural' approach.</p> <p>There is currently no summary of these discussions and no acknowledgment of specific local government plans and strategies that were reviewed. Provide more detail.</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
25	5. Consistency with the UDS - Objective 3.4 Minimise footprint	100		<p>The UDS Principle Objective states: "Minimise negative impacts on the community and the environment by minimising the Project footprint and visual bulk, particularly where it intrudes on sensitive land uses...".</p> <p>Explain how the footprint, including visual bulk, of the Southern Interchange has been minimised at sensitive interfaces in the south including adjacent to residential areas and Belle Vue PS. If they have not been minimised, include an explanation about why the design has not been able to achieve this.</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
26	5. Consistency with the UDS - 4.1 Enduring and durable/ 4.2 Resilience and future proofing.	100		Provide more detail in response to Objective 4.1. Provide specific references through the UDLP as examples. As it stands this is a very generic response.		
27	5. Consistency with the UDS - Objective 4.3 Environmental Sustainability	101		<p>The Water Management Strategy should be shared with councils. Confirm that this document will be shared?</p> <p>The Spark Sustainability Strategy should be shared with councils. Confirm that this document will be shared?</p> <p>List which of the waterways and tributaries are being daylighted? It is misleading to say that Koonung Creek is being daylighted as it is not barrel drained between Bulleen Road and Thompson's Road (currently Boroondara Tennis Centre land).</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
				Who are the stakeholders that will manage these waterways? The UDLP should note that further consultation needs to be undertaken with stakeholders regarding the management of any new wetlands or WSUD.		
28	5. Consistency with the UDS - Objective 4.4 Whole of life	101		What engagement is being undertaken with stakeholders at this crucial concept design phase to explore maintenance capacity of key assets ?		
29	5. Consistency with the UDS - Table 19	151	Figure 97 4B	Explain what will happen to the land at the Freeway Golf Course that is no longer needed from the project.		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
30	5. Consistency with the UDS	151	Table 19 3H	To what degree will overlooking be minimised? Add further detail in response to this in the text, as this is a significant concern to residents.		
31	5. Consistency with the UDS	148	Figure 97	2K should be moved adjacent to Belle Vue PS as this is what the guideline in the UDS references. Currently it sits up near Marcellin College.		
32	5.3.2 Yarra River Valley Area	149	Table 19, 1B	Place specific requirement 1B (Where the existing mast lights along the Eastern Freeway cannot be retained, consider relocation. Where the existing light masts cannot be relocated provide a design strategy for reuse) is marked as 'Not applicable' in table 19. Explain why place specific requirement 1B is marked as 'Not applicable' for a design that impacts on the mast lights along the Eastern Freeway.		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
33	5. Consistency with the UDS	149	Table 19, 2A	Provide information on path width and material. If it is included in the Attachment then make specific reference to the relevant figure or details.		
34	5. Consistency with the UDS	149	Table 19, 2B	Provide more information on path width and material. If it is included in the Attachment then make specific reference to the relevant figure or details. Ideally any secondary paths should be gravel.		
35	5. Consistency with the UDS	149	Table 19, 2F	More information needed on path width. All SUPs must assume The Strategic Cycling Corridor (SCC) rating of C1 (Primary Route).		
36	5.3.2 Yarra River Valley Area	150	Table 19, 3A	With regard to median strip widths - confirm road barrier limitations/offsets.		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
37	5.3.2 Yarra River Valley Area - Amenity, Vibrancy and Safety	150	Table 19, 3B	Include reference to the Boroondara Canopy Replacement Plan in relation to proposed buffer planting at the Leonis Ave Reserve interface. Discuss with Council officers ahead of planting and species selection.		
38	5.3.2 Yarra River Valley Area	150	Table 19, 3C	Include in text an acknowledgement that a selection of micro-climate species will be included in the next stage of design for discussion and agreement with Council.		
39	5.3.2 Yarra River Valley Area - Amenity, Vibrancy and Safety	150	Table 19, 3C	Include examples from other projects showing how vegetation has been incorporated into noise wall treatments. Council's concern relates to the treatments to both sides of the noise wall along the Koonung Creek Trail - assume these won't be vegetated if acrylic panels are part of the design unless vegetation is self-		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
				attaching, e.g. Attachment 1 - Architecture and Urban Design Road Infrastructure Noise Wall Type D1, D2 - DRG 0105, Road Infrastructure Noise Wall Type E2 - DRG 0107, Road Infrastructure Noise Wall Type E3, F1 - DRG 0108		
40	5. Consistency with the UDS -	150	Table 19, 3C	Include a specific figure or page reference in the Attachment that shows noise walls relevant to this key design requirements. Confirm that all existing noise walls will be replaced. See note regarding Attachment 1 - sheet 0104, 0105, 0106 and 1017.		
41	5.3.2 Yarra River Valley Area	150	Table 19, 3D	Explain how public safety will be managed where there are difficult narrow interfaces and poor passive surveillance. Limitations on planting to some narrow areas. Sections and further detail needed.		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
42	5.3.2 Yarra River Valley Area	150	Table 19, 3D	Include a render/artist visualisation as an example to show how narrow sections along the Koonung Creek Trail will have good lighting, open sightlines and are attractive to users. Example sections could include Mountain View Road/Belle Vue PS and on the approach to Musca Street Reserve.		
43	5.3.2 Yarra River Valley Area	150	Table 19, 3F	Confirm that the "low maintenance buffer planting" includes trees in these areas. Provide a page number for the relevant reference in the UDLP attachment.		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
44	5.3.2 Yarra River Valley Area	148 and 150	Table 19 and figure 97, 3G	Spark's response does not really answer the UDS Place Specific Guidelines - 3G. "Design elevated structures at the Eastern Freeway interchange to minimise the bulky appearance when viewed from surrounding neighbourhoods such as Balwyn North."Spark's response is as follows:'Engineering and design strategies will be used to minimise impact on local neighbourhoods and ensure an engaging driver experience with views to the changing landscape. Continuous free-flowing structural forms and piers for elevated structures form part of a collective family of chamfered piers ensuring a seamless integration with surrounding landscapes.'The driver experience is irrelevant to the response. The key design requirement focusses on the resident's experience of the		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
				<p>elevated structures, not the driver experience. The inclusion of a NEL southbound to Eastern Freeway westbound ramp above Bulleen Road (an OD route with vertical clearance requirement of ~7m) is not minimising the bulky appearance - it is adding to it. Prepare and include an artist visualisation or render in the UDLP to show what the view from residential areas in Balwyn North will look like. Spark should explain more clearly what they are doing to minimise the visual impacts of roads and ramps at this location.</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
45	5.3.2 Yarra River Valley Area	151	Table 19, 4A	Key design requirement 4A in the UDS sits at the interface of Bulleen Road and Koonung Creek on both sides of Bulleen Road. The UDS guideline speaks to the restoration of the creek at project interfaces including on the west of Bulleen Road (FGC and Carey Grammar). Amend diagrams and maps in the UDLP to accommodate these improvements to Koonung Creek extend to the junction of the Yarra River.		
46	5.3.2 Yarra River Valley Area	151	Table 19, 4B	Will new indigenous buffer planting for biodiversity and habitat along the Freeway Golf Course boundary incorporate trees? Any planting in this area needs to tie in with the upcoming NELP funded tree planting and understorey planting at the Freeway Golf Course aimed at improving environmental values. Ensure coherence; liaise with Council.		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
47	5.3.2 Yarra River Valley Area	151	Table 19, 4B	In the UDS, 4B is located at the golf course interface. Provide a response in the UDS to the question of WSUD infrastructure. Will there be new WSUD infrastructure in the Freeway Golf Course? Or redesign of the existing waterbody in the Freeway Golf Course located adjacent to the Eastern Freeway?		
48	5.3.2 Yarra River Valley Area	152	Figure 98 Closest reference is 1A	Will there be noise walls between Orion Street and the Eastern Freeway? The marking on drawing 0104 (Attachment 1) looks black not dark blue.		
49	5.3.2 Yarra River Valley Area	152	Figure 98, 1D	The 'future pedestrian trail' along the Yarra (adjacent to the Freeway Golf Course) must be deleted from the map. This area has been revegetated and vegetation would need to be cleared. A fence would need to be erected to protect pedestrians from stray balls.		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
50	5.3.2 Yarra River Valley Area	152	Figure 98	<p>The cycling/walking/SUP path running in a direct east-west orientation in Leonis Avenue Reserve is not an existing path and needs to be deleted.</p> <p>Note that this park floods and could be designed for WSUD treatment - or detention. Has flood modelling identified this? Will any new pedestrian or cycling trail be located out of the flood zone?</p>		
51	5.3.2 Yarra River Valley Area	152	Figure 98, 2C	<p>Any new 'buffer' plantings should be consistent with future plans for an Arboretum at Musca Street Reserve. Include reference to Boroondara Canopy Replacement plan and Musca Street Arboretum Plan in the response or in the Attachment 2 and work with Council to see the arboretum become reality.</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
52	5.3.2 Yarra River Valley Area	153	Table 20, 1C	Table 20 lists place specific requirement 1C (Consider providing a walking and cycling path on the north side of the Eastern Freeway from Bulleen Road towards Burke Road) as 'Not part of this scope' when the UDLP addresses the north side of the Eastern Freeway from Bulleen Road to just west of Burke Road. To be clear, Council does not support the inclusion of a walking and cycling path on the north side of the Eastern Freeway. There is insufficient land to provide a safe walking and cycling path through the golf course. Despite Council not supporting the inclusion of a walking and cycling path on the north side of the Eastern Freeway, explain why this place specific requirement 1C is marked as 'Not part of this scope'.		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
53	5.3.2 Yarra River Valley Area	153	Table 20, 1D	<p>Place specific requirement 1D (Consider providing a path connection along the east side of the Yarra River in the Freeway Golf Course to improve access on either side of the Eastern Freeway) is marked as 'Not part of this scope' in table 20 but is marked on figure 98.</p> <p>To be clear, Council does not consider it possible to provide a safe walking and cycling path on the east side of the Yarra River in the Freeway Golf Course that enables people to walk and cycle safely through an active golf course.</p> <p>Despite Council not supporting the inclusion of a walking and cycling path on the east side of the Yarra River, explain why this place specific requirement is marked as 'Not part of this scope' in table 20 and is marked on figure 98.</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
54	5.3.2 Yarra River Valley Area	153	Table 20, 2A	<p>Note in the UDLP that buffer planting at Columba Street must be informed by the Boroondara Canopy Replacement Plan and discussions with Council officers.</p> <p>Is a noise wall proposed at this location? It looks like it (Attachment 1, DRG - 0104) Demonstrate the necessity for a noise wall.</p> <p>This is a location with great views across the freeway cutting.</p> <p>Any noise wall or plantings should not block views or block sunlight to the park.</p> <p>There will be height limits to what you can plant close to the park/freeway boundary on the freeway cutting side and we won't see anything from the park if there's a 9 m noise wall there</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
				(unless it's all acrylic panels that stay clear and unclouded). Don't lose the views across to the north for the sake of some low shrubby screening plantings. e.g. Attachment 2 Landscape Design Surface Treatment Plan Sheet 06 DRG 0065		
55	5.3.2 Yarra River Valley Area	153	Table 20, 3B	What fauna monitoring evidence do you have that this is the best option for a habitat link across the Eastern Freeway? There are other options for example Burke Rd Bridge (3A) or from Hays Paddock to Kew Golf Club (3C).		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
56	5.3.2 Yarra River Valley Area	154	Table 20, 4B	<p>The comment about maintaining distant scenic views to the north potentially conflicts with noise wall and planting of vegetation buffer at the Columba St Reserve and Eastern Freeway interface . If the noise wall structures are visually permeable (as per the response to this item in Table 20), how effective will their noise reduction function be?</p> <p>From a review of the site plans site sections, the residents of Columba Street and nearby streets will be looking at one of the many ramps at the Eastern Freeway, NEL and Bulleen Road interchange. A view to ramps, noise walls and traffic is not a scenic view.</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
57	5.3.3 Koonung Creek Valley Area	158	Figure 100, 2A	The UDS requires the Koonung Creek Trail to be reinstated to a suitably wide and functional standard. The Koonung Creek Trail is a commuter trail should be reinstated as a mode separated path. Results of a Council led survey of users of the Koonung Creek Reserve and trail shows strong demand (88%) for mode separated paths.		
58	5.3.3 Koonung Creek Valley Area	159 & 160	Table 21	All place specific requirements located in the Koonung Creek Reserve need to have a hold cloud/note included and a comment that the KCR design is subject to a masterplan to be completed by NELP in partnership with the community and Council, with works to start on the masterplan in early 2023. This applies to place specific requirements 2A, 2B, 2C, 3A, 4A, 5B, 5C, 5D, 5E, 5F, 5G and 5L.		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
59	5.3.3 Koonung Creek Valley Area	159	Table 21, 2A	Provide details on path width and material. Any secondary paths should be gravel.		
60	5.3.3 Koonung Creek Valley Area	159	Table 21, 2B	Confirm in the Spark response if the Estelle Street bridge will be replaced? Consider shifting bridge further west to enable better access for Balwyn North residents to the BPR.		
61	5.3.3 Koonung Creek Valley Area	159	Table 21, 2C	Provide details on path width and material. Any secondary paths should be gravel.		
62	5.3.3 Koonung Creek Valley Area	159	Table 21, 4A	Define the design life of vegetation, particularly large shrubs and trees which should be planted for the long term, and ensure they are robust in a future warmer climate out to say 2090 using appropriate climate risk assessment tools - CoB can provide advice on this.		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
63	5.3.3 Koonung Creek Valley Area	159	Table 21, 4A	Review wording so Spark Response is clear and applies to the Koonung Creek Biodiversity Corridor within Koonung Creek Reserve as well as the rejuvenated area between the land bridge and Thompson Road.		
64	5.3.3 Koonung Creek Valley Area	159	Table 21, 5B	Include cross-sections of narrow areas in Koonung Creek Reserve in the UDLP		
65	5.3.3 Koonung Creek Valley Area	158	Figure 100	There are no existing footpaths on the south side of Koonung Creek Reserve. The path shown as 'existing' between Balwyn Road and Singleton Road is a goat track only. Amend map to reflect this advice.		
66	5.3.3 Koonung Creek Valley Area	159	Figure 100, 5B	Amend the map to include 5B on the Koonung Creek Trail at the narrow section on Mountain View Road.		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
67	5.3.3 Koonung Creek Valley Area	160	Figure 100, 5D	The Spark response must reference the Boroondara Canopy Replacement Plan and the Koonung Creek Reserve Masterplan which will identify planting locations and the configuration of open space areas and tree/understorey locations. The		
68	5.3.3 Koonung Creek Valley Area	160	Table 21, 5F	Provide cross sections to show how buffer planting effectively screens views to the Eastern Freeway ramps. Respond to the Key Design Requirement regarding mounding as landscape treatment. Does the Spark design include mounding? Mounding could assist with tree growth, access to light and screening of views.		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
69	5.3.3 Koonung Creek Valley Area	160	Figure 100, 5G	The Spark response must reference the Boroondara Canopy Replacement Plan and the Koonung Creek Reserve masterplan.		
70	5.3.3 Koonung Creek Valley Area	159 & 160	Table 21, 5K	<p>Place specific requirement 5K (Minimise overlooking to residential properties located north-east of the Eastern Freeway interchange) should apply to all residential properties near the interchange. The intent of this requirement was written with the reference design in mind, not the Spark design.</p> <p>Amend the response to note this and amend the design to reflect and honour the intent of the requirement.</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
71	5.3.3 Koonung Creek Valley Area	160	Figure 100, 5L	The Spark response should be amended to note that retention of the concrete half-arch structure will be included in the Koonung Creek Masterplan consultation. The decision to retain the half arch must be made with the community and Council.		
72	5.4.4 UDS Framework - Element Based Requirements	167	Table 22, 2.1	<p>Key Design Requirement 2.1 (Bridge design) is marked as 'Not Applicable' despite the UDLP incorporating new bridges (e.g. the Bulleen Road SUP bridge).</p> <p>Explain why this Key Design Requirement is marked as 'Not Applicable'.</p> <p>Amend the UDLP to include a response to Key Design Requirement 2.1.</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
73	5.4.4 UDS Framework - Element Based Requirements	167	Table 22, 2.7	Key Design Requirement 2.7 (Passive surveillance) is marked as 'Not Applicable' despite the UDLP incorporating public access below structures (e.g. the Bulleen Road KCT underpass), deterring graffiti (e.g. noise walls and any other structure reachable by a human) and needing to maximise solar access to spaces beneath structures (e.g. under the NEL southbound to Eastern Freeway westbound ramp). Explain why this Key Design Requirement is marked as 'Not Applicable'. Amend the UDLP to include a response to Key Design Requirement 2.7.		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
74	5.4.4 UDS Framework - Element Based Requirements	168	Table 22, 2.9	<p>Key Design Requirement 2.9 (Signage on bridges) is marked as 'Not Applicable' despite the UDLP incorporating ITS signage on gantries and bridges.</p> <p>Explain why this Key Design Requirement is marked as 'Not Applicable'.</p> <p>Amend the UDLP to include a response to Key Design Requirement 2.9.</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
75	5.4.4 UDS Framework - Element Based Requirements	184	Table 22, 18.5	<p>Key Design Requirement 18.5 (Drainage infrastructure and retarding basin design) requires drainage infrastructure and retarding basins be located and designed to not adversely impact on the function of public open space and not inhibit the ability for residents to access open space near where they live.</p> <p>Noting our request for a hold cloud and note to be put on the Koonung Creek Reserve component of the UDLP, it is important to provide our comments on KCR design elements nonetheless.</p> <p>The ephemeral creek and basin proposed in the KCR are located and designed such that they do not adversely impact on the function of the public open space and inhibit the ability for residents to</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
				<p>access open space near where they live. The ephemeral creek will be dry 99% of the time and takes away highly valued, grassed and vegetated open space the community love and value. The basin is not 100m from the KCR wetland, complete with dog-beach and gazebo enjoyed by many. The duplication of water bodies makes no sense, unless NELP intend to demolish the existing KCR wetland to expand the Eastern Freeway footprint.</p> <p>Update the response to explain how the KCR drainage infrastructure does not adversely impact on the function of the open space and the ability for residents to access the KCR.</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
76	5.4.4 UDS Framework - Element Based Requirements	185	Table 22, 20.3	<p>Key Design Requirement 20.3 (Reflectivity) requires new materials and finishes to minimise light pollution in the surrounding area from reflectivity. The response notes low reflectivity materials will be used including concrete, weathering steel and matte coloured acrylic. No comment is made about the ventilation stack finishes and reflectivity.</p> <p>Amend the response to include commentary about the proposed materials on the southern ventilation structure and reflectivity of those materials. If the southern ventilation structure materials are reflective, amend the material to ensure this key design requirement is met or explain how they meet this key design requirement.</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
77	5.4.4 UDS Framework - Element Based Requirements	186	Table 22, 20.4	The response to Key Design Requirement 20.4 (Vandalism) notes "concrete surfaces are highly textured and/or finished to discourage graffiti". It is our experience that highly textured surfaces are very difficult to cleanse of graffiti, with smooth surfaces finished in an anti-graffiti coating more manageable and easier to maintain.		
78	5.5.3 Urban Design Framework Plans - Eastern Freeway Interchange	223		<p>The UDLP does not provide a response to the place specific requirements from map K1 (Bulleen Road to Doncaster Road) (pages 70 & 71) of the UDS despite the UDLP covering parts of this UDS map, including the Koonung Creek Reserve.</p> <p>Include a response to all place specific requirements included in the UDLP area.</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
79	5.5.3 Urban Design Framework Plans - Eastern Freeway Interchange	224	Table 33, first comment under 'Caring for Country'	Large canopy trees are to be planted along Bulleen Road - given the road infrastructure, DoT required clear zones, how big can these trees be expected to be? Is there scope to plant canopy trees on Bulleen Rd in the southern lead-in to the interchange? This is outside the project footprint but is a critical gateway.		
80	5.5.3 Urban Design Framework Plans - Eastern Freeway Interchange	224	Figure 119	Figure 119 gives no realistic indication of the scale of the new infrastructure from the ground. Provide additional renders in addition to Render Dwg 0332 (View from Marcellin College) and views from the top of the land bridge such as Render DWG 0331 to provide a realistic view of what views will be like from the ground.		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
81	5.5.3 Urban Design Framework Plans - Eastern Freeway Interchange	225	Table 33	<p>With reference to Attachment 2 - Landscape Design Tree Retention and Removal Plan Sheet 02 DRG 0081, Sheet 03 DRG 0082, we urge Spark to ensure the design and any compounds and work zones built during the project endeavour to retain as many high quality mature trees as possible.</p> <p>At meetings with the NELP Environment Team, and in project coordination meetings, Council and NELP have discussed several times the need for Council to work with project contractors to identify opportunities to maintain high quality trees in pockets through the various open space areas in the project footprint, e.g. Koonung Creek Reserve (KCR), Musca St Reserve (MSR). The NELP team has been supportive</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
				of this, with a view that once the contractor was appointed and the design phase underway discussions could begin. Any high quality mature trees we can protect during works and retain are a bonus for the community and demonstrates care, engagement and effective collaboration, and gives us something resembling a mixed age urban forest instead of a greenfield site full of small trees.		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
82	5.5.3 Urban Design Framework Plans - Eastern Freeway Interchange	225	Figure 122 - Table 33	Provide commentary in the UDLP that confirms the depth of soil on the Yarra Link land bridge and that it will be sufficiently deep to support canopy tree growth. If there is already reference to this in the UDLP, provide a reference to the relevant page in the UDLP.		
83	5.5.3 Urban Design Framework Plans - Eastern Freeway Interchange	228	Figure 123	<p>The on road cycle path on the east side of Bulleen Road appears to provide no protection for cyclists.</p> <p>Alter the design to ensure on-road cyclists are protected from vehicles on Bulleen Road. See City of Melbourne designs for on-road bike lane protection inspiration.</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
84	5.5.3 Urban Design Framework Plans - Eastern Freeway Interchange	228	Figure 123	<p>The eastern approach to the Yarra Link Land Bridge looks steep. Are there rest points before and during the climb to the top? Are any rest points proposed at the new wetland?</p> <p>Amend Figure 123 to show rest spots from the eastern approach to the land bridge and in and around the new wetland.</p>		
85	5.5.3 Urban Design Framework Plans - Eastern Freeway Interchange	230	Improved Public Open Space	<p>The commentary identifies shade tree planting in all locations (open space, land bridge, neighbourhood parks). Confirm what is the anticipated design life of these trees? Climate resilient species selection is critical.</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
86	5.5.3 Urban Design Framework Plans - Eastern Freeway Interchange	232	Table 34, Principle 1, Objective 1.3	There are numerous references to the planting of Canopy Trees throughout the UDLP including in the response provided by Spark to Principle 1, Objective 1.3. Please include the details of the anticipated design life of these trees? Selecting climate resilient species as noted above and in other commentary will be critical.		
87	5.5.3 Urban Design Framework Plans - Eastern Freeway Interchange	232	Table 34, Principle 1, Objective 1.3	<p>The response to Principle 1/Objective 1.3 refers to daylighting of waterways and tributaries. The Koonung Creek is already daylighted between the Bulleen Road and the Manningham Club.</p> <p>Confirm which waterways are being daylighted and note these in this and other relevant sections of the UDLP.</p>	Principle 1 Identity Objective 3 - Landscape and Visual Amenity	

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
88	5.5.3 Urban Design Framework Plans - Eastern Freeway Interchange	232	Table 34, Principle 1, Objective 1.3	<p>The UDS requirement - Strategic Context and opportunity talks about 'sensitively siting' of elevated structures (and other elements) to reduce any adverse effects'. The Spark response does not clearly acknowledge how this has been achieved in relation to the Eastern Freeway Interchange and impacts from elevated roads and ramps. The response as it reads focusses largely on the Yara Link land bridge rather than the interchange with the Eastern Freeway and Bulleen Road.</p> <p>Amend the response so that it clearly outlines how the new design has reduced the visual and physical impacts from the project on Balwyn North residents, users of Koonung Creek Reserve and the Belle Vue Primary School community.</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
				Provide renders or artist impressions from these key vantage points to illustrate the scale of infrastructure when it is built.		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
89	5.5.3.2 Bulleen Road/Eastern Freeway interchange Table 34	233	Table 34, Principle 2 , Objective 2.2	<p>Objective 2.2 Transport integration is "Maximise the benefits of the Project by facilitating seamless access to a variety of public transport, walking and cycling choices as part of a connected and intermodal network.". It is listed as "Not part of scope".</p> <p>Explain why it is 'not part of scope'.</p> <p>Does the Spark design not seek to facilitate 'seamless access to a variety of public transport, walking and cycling choices as part of a connected and intermodal network' at the Bulleen Road, NEL and Eastern Freeway interchange? Other sections of the UDLP and the attachments specifically espouse the benefits of the many walking and cycling paths, as well as the bus way.</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
90	5.5.3 Urban Design Framework Plans - Eastern Freeway Interchange	233	Table 34, Principle 2, Objective 2.2	<p>It is unclear bus stop (905) which is located on the corner of Leonis Avenue Reserve and the Eastern Freeway will be retained.</p> <p>Community members have raised this as an issue and have noted that it is an important bus stop for Balwyn North residents. Explain in response to Principle 2, Objective 2.2, whether it will be retained.</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
91	5.5.3.2 Bulleen Road/Eastern Freeway interchange	233	Table 34, Principle 2, Objective 2.3	Why is Objective 2.3 of the UDS (see page 12 of the endorsed UDA) excluded from the Spark UDLP? Does the Spark design not seek to "provide a coordinated design that promotes visual connections and wayfinding, reduces a reliance on signage and minimises visual clutter and obstructions to key views" at the Bulleen Road, NEL and Eastern Freeway interchange? Stating Objective 2.3 is not included in the Eastern Freeway Interchange framework plan is not considered to be an acceptable reason for its exclusion for the UDLP, particularly as the Objective is relevant to the interchange and all road users travelling through the interchange. This is one of many examples of the UDLP being a tick box exercise and one without thought to review and include all relevant elements of the endorsed UDS.		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
92	5.5.3.2 Bulleen Road/Eastern Freeway interchange	234	Table 34, Principle 4, Objective 4.3	<p>Provide evidence to support the claim that "The expansion of tree canopy and habitat corridors reduces the heat island effect within the surrounding areas, reducing energy requirements." It's a stretch to make this claim without evidence. If evidence cannot be referenced in Spark's response, this sentence must be deleted.</p> <p>There will be an expanded area of road pavement relative to what is there presently. Council can share scientific literature that show the limits to which the cooling effects of vegetation in parks decline with distance, and its dependence on the size of the park as well as the vegetation mix.</p> <p>A road corridor is not a park, the adjoining park areas will be</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
				<p>smaller than they are at present. Overclaiming on this score is disingenuous and incorrect. And the vegetation (as always) will need to be tolerant of high radiant heat and pollution.</p> <p>Climate resilient species selection and design life of plantings are key issues to address.</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
93	5.5.3.2 Bulleen Road Eastern Freeway Interchange	235	Table 34, Principle 4, Objective 4.3	<p>It will be some years until the trees grow large enough to provide effective shade.</p> <p>Explain in the UDLP response what interim measures will be in place to provide shade along SUPS, and pedestrian and cycling paths while the canopy trees are still young and small.</p>	Principle 4 - Resilience & Sustainability Objective 4.3 Environmental Sustainability	

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
94	5.0 Consistency with Urban Design Strategy	235	Table 35, Key Direction responses for Eastern Freeway Interchange, Key Direction 2	<p>Mixing a Caring for Country discussion with a giant road building project is a big stretch. Respect for the waterways would probably involve daylighting and rejuvenating all of Koonung Creek. This is not in the project scope and construction of NEL will make this impossible forever.</p> <p>Regarding "the interchange design focusing on maximising tree canopy coverage, ensuring the corridor reduces and mitigates climate change impacts. Landscape and planting strategies and ecology and soil technical inputs have informed the urban design." None of this is visible to us and plans for selecting climate resilient vegetation have not been explained in the UDLP. We have solid knowledge of vegetation success and failure, and suggest</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
				<p>Spark makes use of Council's expertise.</p> <p>Amend the UDLP response to note that Spark will collaborate with relevant Councils to plan tree planting and revegetation, to benefit from local knowledge and expertise.</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
95	5.5.3.2 Bulleen Road/Eastern Freeway interchange Table 35	235	Table 35	Explain why Key Directions 2.Y (Respect the design qualities of the original section of the Eastern Freeway built in 1977 including mast lights and bridges, rock escarpments and 'borrowed' landscape) and 3.Y (Create a great bus user experience along the Eastern Freeway and a well-resolved facility for Bulleen Park and Ride) (see page 25 of the UDS) are not included in the UDLP? Stating Key Directions 2.Y and 3.Y are not included in the Eastern Freeway Interchange framework plan is not considered to be an acceptable reason for its exclusion for the UDLP, particularly as the Key Directions are relevant to the interchange and all road users travelling through the interchange. This is one of many examples of the UDLP being a tick box exercise and one without thought to review and include all relevant elements of the endorsed UDS.		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
96	Additional project benefits	236		<p>What is the dynamic digital lighting display - where will it be located?</p> <p>Provide more detail under the relevant dot point.</p>		
97	5.5.3.2 Bulleen Road/Eastern Freeway interchange	237	Table 36	<p>The response to "Key place-specific Requirement 1A" states "The Southern Ventilation Structure (SVS), whilst not dominating the skyline, will be clearly visible on approach to the intersection."</p> <p>Explain how a 53m tall, ~55m wide and ~140m long structure clad in a satin finish metal panel with LED feature lights and PV panels does not dominate the skyline, with particular emphasis on the nature of the surrounding built environment (e.g. residential, two storey dwellings, school campuses) and natural</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
				<p>environment (e.g. Koonung Creek, Yarra River, Bulleen Park, Freeway Golf Course).</p> <p>The size, design detail and material schedule strongly suggest the SVS is intended to stand-out and dominate the skyline, especially when read in conjunction with the intention it be a beacon and gateway to the NEL tunnels for motorists deliberately visible from some distance away.</p>		
98	5.5.3.2 Bulleen Road/Eastern Freeway interchange	238	Table 36, 4A	<p>The UDLP response states "the Koonung Creek north of Thompsons Road has been daylighted".</p> <p>The Koonung Creek is already daylighted at this location. Amend the text so that the information about the condition of the creek is accurate.</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
99	UDS detailed requirements and benchmarks for Manningham/Bulleen Road Interchange	239	Table 37, 17.5 Enhance habitat and biodiversity	"new landscape corridors...indigenous vegetation from the local EVCs..." Explain in the response what provenance selection you need to consider for sourcing long-lived woody vegetation (trees) that will perform through to the warmer climate of 2090?		
100	UDS detailed requirements and benchmarks for Manningham/Bulleen Road Interchange	239	Table 37, 7.2 Open space infrastructure	The UDLP response should also list toilets at key locations such as the Yarra Link Land bridge and Koonung Creek Reserve. Include toilets in the list of new public infrastructure.		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
101	5.5.3.2 Bulleen Road/Eastern Freeway interchange Table 37	239	Table 37, 13.6	<p>The response to requirement 13.6 (Perceived safety) notes "SUPs meet Australian guidelines for safety, including ... appropriate gradual path grades." It is impossible to confirm the SUP, footpath and cycle path grades without properly scaled plans (noting the plans provided in the UDLP have been shrunk to fit the UDLP header and footer, so the scales noted are not accurate) and long sections.</p> <p>Provide properly scaled plans and long sections for all SUPs, footpaths and cycle paths.</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
102	UDS detailed requirements and benchmarks for Manningham/Bulleen Road Interchange	239	Table 37, 13.8 Prioritise pedestrians	The Spark response notes that pedestrians are prioritised on key walking routes into and around key community facilities and destinations such as activity centres, bus stations, nearby schools and aged care facilities. Given that there are key commuter cycling routes through the project area, pedestrians should be protected through the design of mode separated paths rather than shared paths. What advice was sought from Councils in relation to the design of local walking and cycling trails?		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
103	5.5.3.2 Bulleen Road/Eastern Freeway interchange Table 37	239	Table 37, 18.3	<p>Requirement 18.3 (Daylighting waterways) is listed as 'not applicable' despite key place-specific requirement 4A on page 238, in table 36 advising the Koonung Creek north of Thompsons Road has been daylighted.</p> <p>Explain how requirement 18.3 is not applicable for the Manningham/Bulleen Road interchange or amend table 37 to reflect the information in table 36 and the attachments (i.e. the Koonung Creek is being daylighted).</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
104	UDS detailed requirements and benchmarks for Manningham/Bulleen Road Interchange	239	Table 37, 18.4	<p>The UDLP response does not acknowledge the impact of the Project on removal of tree canopy and understorey. As shown in the UDLP, the designs for the widening of the Eastern Freeway (western third) shows substantial loss of vegetation in Koonung Creek Reserve.</p> <p>Amend the text to acknowledge the impact of the project on indigenous (and native) tree and understorey cover.</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
105	Sections through the Yarra Link green Bridge	240	Figure 130	<p>Why is a cross section of the eastern side of the Yarra Link bridge? The approach steep and the approach and access is via a single direct path unlike on the western side.</p> <p>Will there be any built shade structures to provide shelter/shade while trees are growing? or to provide shelter in extreme weather?</p> <p>Include a cross section of the eastern half of the Yarra Link green bridge. Show any shade structures.</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
106	Sections through Eastern Freeway Interchange Attachment: Landscape works - South Site section sheet 08 Report: Figure 131	132 (Attachment 2): 132 & 151 Report: 241	Figure 131	<p>The site-sections on page 151 of attachment 2 (site section 08) and page 241 of the report (figure 131) show the same section but have different detail. The attachment does not show any trees against the noise wall and the path is marked as a footpath. The report shows trees and a SUP.</p> <p>Confirm which section shows the correct details and amend as necessary.</p>		
107	Sections through Eastern Freeway Interchange	241	Figure 132	Provide a scale to provide an accurate indication of heights of noise walls in relation to trees/planting.		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
108	Sections through Eastern Freeway Interchange Attachment: Landscape works - South Site section sheet 10 Report: Figure 132	133 (Attachment 2): &153 Report: 241	Figure 132	The site-sections on page 153 of attachment 2 (site section 10) and page 241 of the report (figure 132) show the same section but have different detail. The attachment does not show any trees against the noise wall and the path is marked as a footpath. The report shows trees and a SUP. Confirm which section shows the correct details and amend as necessary.		
109	5.3.2 Yarra River Valley Area	149	Table 19	Place specific requirement 1B (Where the existing mast lights along the Eastern Freeway cannot be retained, consider relocation. Where the existing light masts cannot be relocated provide a design strategy for reuse) is marked as 'Not applicable' in table 19.Explain why place specific requirement		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
				19 is marked as 'Not applicable' for a design that impacts on the mast lights along the Eastern Freeway.		
110	5.3.2 Yarra River Valley Area	150	Table 19	<p>The response to item 3G (Design elevated structures at the Eastern Freeway interchange to minimise the bulky appearance when viewed from surrounding neighbourhoods such as Balwyn North) in table 19 shows no care or consideration for nearby residents and a strong focus on the drivers and driver experience above all else.</p> <p>Explain how the Eastern Freeway interchange design minimises the bulky appearance for Balwyn North residents, those in Mountain View Road and</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
				Columba Street in particular. The inclusion of a NEL southbound to Eastern Freeway westbound ramp above Bulleen Road (an OD route with vertical clearance requirement of ~7m) is not minimising the bulky appearance - it is adding to it.		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
111	5.3.2 Yarra River Valley Area	153	Table 20	<p>Table 20 lists place specific requirement 1C (Consider providing a walking and cycling path on the north side of the Eastern Freeway from Bulleen Road towards Burke Road) as 'Not part of this scope' when the UDLP addresses the north side of the Eastern Freeway from Bulleen Road to just west of Burke Road.</p> <p>To be clear, Council does not support the inclusion of a walking and cyclin path on the north side of the Eastern Freeway. There is insufficient land to provide a safe walking and cycling path through the golf course.</p> <p>Despite Council not supporting the inclusion of a walking and cycling path on the north side of the Eastern Freeway, explain why this place specific requirement 1C is marked as 'Not part of this scope'.</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
112	5.3.2 Yarra River Valley Area	153	Table 20 & Figure 98	<p>Place specific requirement 1D (Consider providing a path connection along the east side of the Yarra River in the Freeway Golf Course to improve access on either side of the Eastern Freeway) is marked as 'Not part of this scope' in table 20 but is marked on figure 98.</p> <p>To be clear, Council does not consider it possible to provide a safe walking and cycling path on the east side of the Yarra River in the Freeway Golf Course that enables people to walk and cycle safely through an active golf course.</p> <p>Despite Council not supporting the inclusion of a walking and cycling path on the east side of the Yarra River, explain why this place specific requirement is marked as 'Not part of this scope' in table 20 and is marked on figure 98.</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
113	5.3.2 Yarra River Valley Area	154	Table 20	<p>The response to place specific requirement 4B (Seek to maintain distant scenic views to the north from residential areas on Columba Street at the interface with the project) is meaningless and unbelievable without a viewpoint image to support the claim 'scenic views enjoyed by residential areas on Columba Street have been maintained through visual permeability of noise wall structures'.</p> <p>From a review of the site plans site sections, the residents of Columba Street and nearby streets will be looking at one of the many ramps at the Eastern Freeway, NEL and Bulleen Road interchange. A view to ramps, noise walls and traffic is not a scenic view. The deliberate lack of a viewpoint looking north and/or north-east from Columba</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
				Street only serves to support Council's concerns about the kitchen window view for our residents.		
114	5.3.3 Koonung Creek Valley Area	159 & 160	Table 21	All place specific requirements located in the Koonung Creek Reserve need to have a hold cloud/note included and a comment that the KCR design is subject to a masterplan to be completed by NELP in partnership with the community and Council, with works to start on the masterplan in early 2023. This applies to place specific requirements 2A, 2B, 2C, 3A, 4A, 5B, 5C, 5D, 5E, 5F, 5G and 5L.		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
115	5.3.3 Koonung Creek Valley Area	159 & 160	Table 21	<p>Place specific requirement 5K (Minimise overlooking to residential properties located north-east of the Eastern Freeway interchange) should apply to all residential properties near the interchange.</p> <p>Amend the response to note this and amend the design to reflect this.</p>		
116	5.4.4	167	Table 22	<p>Key Design Requirement 2.1 (Bridge design) is marked as 'Not Applicable' despite the UDLP incorporating new bridges (e.g. the Bulleen Road SUP bridge).</p> <p>Explain why this Key Design Requirement is marked as 'Not Applicable'.</p> <p>Amend the UDLP to include a response to Key Design Requirement 2.1.</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
117	5.4.4	167	Table 22	<p>Key Design Requirement 2.7 (Passive surveillance) is marked as 'Not Applicable' despite the UDLP incorporating public access below structures (e.g. the Bulleen Road KCT underpass), deterring graffiti (e.g. noise walls and any other structure reachable by a human) and needing to maximise solar access to spaces beneath structures (e.g. under the NEL southbound to Eastern Freeway westbound ramp).</p> <p>Explain why this Key Design Requirement is marked as 'Not Applicable'.</p> <p>Amend the UDLP to include a response to Key Design Requirement 2.7.</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
118	5.4.4	168	Table 22	<p>Key Design Requirement 2.9 (Signage on bridges) is marked as 'Not Applicable' despite the UDLP incorporating ITS signage on gantries and bridges.</p> <p>Explain why this Key Design Requirement is marked as 'Not Applicable'.</p> <p>Amend the UDLP to include a response to Key Design Requirement 2.9.</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
119	5.4.4	184	Table 22	<p>Key Design Requirement 18.5 (Drainage infrastructure and retarding basin design) requires drainage infrastructure and retarding basins be located and designed to not adversely impact on the function of public open space and not inhibit the ability for residents to access open space near where they live.</p> <p>Noting our request for a hold cloud and note to be put on the Koonung Creek Reserve component of the UDLP, it is important to provide our comments on KCR design elements nonetheless.</p> <p>The ephemeral creek and basin proposed in the KCR are located and designed such that they do not adversely impact on the function of the public open space and inhibit the ability for residents to</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
				<p>access open space near where they live. The ephemeral creek will be dry 99% of the time and takes away highly valued, grassed and vegetated open space the community love and value. The basin is not 100m from the KCR wetland, complete with dog-beach and gazebo enjoyed by many. The duplication of water bodies makes no sense, unless NELP intend to demolish the existing KCR wetland to expand the Eastern Freeway footprint.</p> <p>Update the response to explain how the KCR drainage infrastructure does not adversely impact on the function of the open space and the ability for residents to access the KCR.</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
120	5.4.4	185	Table 22	Key Design Requirement 20.3 (Reflectivity) requires new materials and finishes to minimise light pollution in the surrounding area from reflectivity. The response notes low reflectivity materials will be used including concrete, weathering steel and matte coloured acrylic. No comment is made about the ventilation stack finishes and reflectivity. Amend the response to include commentary about the proposed materials on the southern ventilation structure and reflectivity of those materials. If the southern ventilation structure materials are reflective, amend the material to ensure this key design requirement is met or explain how they meet this key design requirement.		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
121	5.4.4	186	Table 22	The response to Key Design Requirement 20.4 (Vandalism) notes "concrete surfaces are highly textured and/or finished to discourage graffiti". It is our experience that highly textured surfaces are very difficult to cleanse of graffiti, with smooth surfaces finished in an anti-graffiti coating more manageable and easier to maintain.		
122	5.5.3 Urban Design Framework Plans - Eastern Freeway Interchange	223		<p>The UDLP does not provide a response to the place specific requirements from map K1 (Bulleen Road to Doncaster Road) (pages 70 & 71) of the UDS despite the UDLP covering parts of this UDS map, including the Koonung Creek Reserve.</p> <p>Explain why the UDLP does not include a response to all place specific requirements included in the UDLP area.</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
123	5.5.3.2 Bulleen Road/Eastern Freeway interchange	233	Table 34	<p>Objective 2.2 Transport integration is "Maximise the benefits of the Project by facilitating seamless access to a variety of public transport, walking and cycling choices as part of a connected and intermodal network.". It is listed as "Not part of scope".</p> <p>Explain why it is 'not part of scope'.</p> <p>Does the Spark design not seek to facilitate 'seamless access to a variety of public transport, walking and cycling choices as part of a connected and intermodal network' at the Bulleen Road, NEL and Eastern Freeway interchange? Other sections of the UDLP and the attachments specifically espouse the benefits of the many walking and cycling paths, as well as the bus way.</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
124	5.5.3.2 Bulleen Road/Eastern Freeway interchange	233	Table 34	<p>Why is Objective 2.3 of the UDS (see page 12 of the endorsed UDA) excluded from the Spark UDLP?</p> <p>Does the Spark design not seek to "provide a coordinated design that promotes visual connections and wayfinding, reduces a reliance on signage and minimises visual clutter and obstructions to key views" at the Bulleen Road, NEL and Eastern Freeway interchange?</p> <p>Stating Objective 2.3 is not included in the Eastern Freeway Interchange framework plan is not considered to be an acceptable reason for it's exclusion for the UDLP, particularly as the Objective is relevant to the interchange and all road users travelling through the interchange.</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
				<p>This is one of many examples of the UDLP being a tick box exercise and one without thought to review and include all relevant elements of the endorsed UDS.</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
125	5.5.3.2 Bulleen Road/Eastern Freeway interchange	235	Table 35	Explain why Key Directions 2.Y (Respect the design qualities of the original section of the Eastern Freeway built in 1977 including mast lights and bridges, rock escarpments and 'borrowed' landscape) and 3.Y (Create a great bus user experience along the Eastern Freeway and a well-resolved facility for Bulleen Park and Ride) (see page 25 of the UDS) are not included in the UDLP? Stating Key Directions 2.Y and 3.Y are not included in the Eastern Freeway Interchange framework plan is not considered to be an acceptable reason for it's exclusion for the UDLP, particularly as the Key Directions are relevant to the interchange and all road users travelling through the interchange. This is one of many examples of the UDLP being a tick box exercise and one without thought to review and include all relevant elements of the endorsed UDS.		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
126	5.5.3.2 Bulleen Road/Eastern Freeway interchange	237	Table 36	<p>The response to "Key place-specific Requirement 1A" states "The Southern Ventilation Structure, whilst not dominating the skyline, will be clearly visible on approach to the intersection."</p> <p>Explain how a 53m tall, ~55m wide and ~140m long structure clad in a satin finish metal panel with LED feature lights and PV panels does not dominate the skyline, with particular emphasis on the nature of the surrounding built environment (e.g. residential, two storey dwellings, school campuses) and natural environment (e.g. Koonung Creek, Yarra River, Bulleen Park, Freeway Golf Course).</p> <p>The size, design detail and material schedule strongly suggest the SVS is intended to stand-out and dominate the</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
				skyline, especially when read in conjunction with the intention it be a beacon and gateway to the NEL tunnels for motorists deliberately visible from some distance away.		
127	5.5.3.2 Bulleen Road/Eastern Freeway interchange	239	Table 37	The response to requirement 13.6 (Perceived safety) notes "SUPs meet Australian guidelines for safety, including ... appropriate gradual path grades." It is impossible to confirm the SUP, footpath and cycle path grades without properly scaled plans (noting the plans provided in the UDLP have been shrunk to		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
				<p>fit the UDLP header and footer, so the scales noted are not accurate) and long sections.</p> <p>Provide properly scaled plans and long sections for all SUPs, footpaths and cycle paths.</p>		
128	5.5.3.2 Bulleen Road/Eastern Freeway interchange	239	Table 37	<p>Requirement 18.3 (Daylighting waterways) is listed as 'not applicable' despite key place-specific requirement 4A on page 238, in table 36 advising the Koonung Creek north of Thompsons Road has been daylighted.</p> <p>Explain how requirement 18.3 is not applicable for the Manningham/Bulleen Road interchange or amend table 37 to reflect the information in table 36 and the attachments (i.e. the Koonung Creek is being daylighted).</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
129	Attachment: Landscape works - South	Attachment 2: 132 & 151 Report: 241	Site section sheet 08 Report: Figure 131	<p>The site-sections on page 151 of attachment 2 (site section 08) and page 241 of the report (figure 131) show the same section but have different detail. The attachment does not show any trees against the noise wall and the path is marked as a footpath. The report shows trees and a SUP.</p> <p>Confirm which section shows the correct details and amend as necessary.</p>		
130	Attachment: Landscape works - South	Attachment 2: 133 & 153 Report: 241	Site section sheet 10 Report: Figure 132	<p>The site-sections on page 153 of attachment 2 (site section 10) and page 241 of the report (figure 132) show the same section but have different detail. The attachment does not show any trees against the noise wall and the path is marked as a footpath. The report shows trees and a SUP.</p>		

Appendix B1 - Detailed comments on the UDLP (Report)

Number	Section	Page	Figure (if relevant)	Boroondara comment	Additional/supporting documents	Spark Response
				Confirm which section shows the correct details and amend as necessary.		

Appendix B2 – Detailed comments on the UDLP (Attachments)

Comment number	Attachment number	Section	Page	Boroondara comment	Spark response
1	Attachment 1 - Architecture and Urban Design	DRG - 0014 Northern ventilation structure	9	<p>Explain what is meant by the note that the northern ventilation structure is an 'Alternate Motorway Control Centre'.</p> <p>Is there potential the MCC will be located at the northern ventilation structure? Is the northern ventilation structure an emergency MCC or a second MCC?</p> <p>If the MCC is located at the northern ventilation structure how will maintenance and emergency response vehicles access the NEL? What will contractual response times be for the southern section of the NEL?</p>	

Appendix B2 - Detailed comments on the UDLP (Attachments)

Comment number	Attachment number	Section	Page	Boroondara comment	Spark response
2	Attachment 1 - Architecture and Urban Design	MCC	23 - 35	<p>How do the maintenance and emergency response vehicles stored/parked at the MCC access the NEL?</p> <p>How do they access the NEL north of Manningham Road? Do they need to travel on Bulleen Road and Rosanna Road to the Lower Plenty Road interchange?</p> <p>How does this lack of immediate and easy access to the NEL affect the O&M contractual response times?</p> <p>Do the maintenance and emergency response vehicles stored/parked at the MCC also service the Eastern Freeway? If so:</p> <ul style="list-style-type: none"> - do they service the full length of the Eastern Freeway? - how do they access the Eastern Freeway, including express lanes and NEL access lanes and ramps? 	
3	Attachment 1 - Architecture and Urban Design	Southern ventilation structure	36 - 52	Confirm that the height of the ventilation structure is 53.05m above ground level.	

Appendix B2 - Detailed comments on the UDLP (Attachments)

Comment number	Attachment number	Section	Page	Boroondara comment	Spark response
4	Attachment 1 - Architecture and Urban Design	Southern ventilation structure	36 - 52	Confirm soil depth in soil zone for tree planting.	
5	Attachment 1 - Architecture and Urban Design	Southern ventilation structure	36 - 52	Confirm the southern ventilation structure is not an alternate motorway control centre.	
6	Attachment 1 - Architecture and Urban Design	Southern ventilation structure	49 & 50	Confirm the eastern SUP width, noting it must be future proofed, the current pedestrian and cyclists volumes will continue to increase over the life of the structure and must be catered for in this design. Provide the eastern SUP width on DRG -0073	
7	Southern ventilation structure	Attachment 1: Architecture and Urban Design	49 & 50	Confirm eastern SUP grade and provide long sections. Note the SUP must be graded to provide a safe environment for all users, reduce the risk of excessive downhill speeds and provide easy to traverse uphill grades.	

Appendix B2 - Detailed comments on the UDLP (Attachments)

Comment number	Attachment number	Section	Page	Boroondara comment	Spark response
8	Attachment 1 - Architecture and Urban Design	luk (eel) bridge Lower Plenty Road	53 - 57	Confirm luk (eel) bridge width, noting it must be future proofed, the current pedestrian and cyclists volumes will continue to increase over the life of the structure and must be catered for in this design. Provide luk (eel) bridge width on DRG - 0081	
9	Attachment 1 - Architecture and Urban Design	luk (eel) bridge Lower Plenty Road	53 - 57	Confirm luk (eel) bridge grade and provide long sections. Note the SUP must be graded to provide a safe environment for all users, reduce the risk of excessive downhill speeds and provide easy to traverse uphill grades.	
10	Attachment 1 - Architecture and Urban Design	Road infrastructure	68	Confirm if there are retaining walls and noise walls (both) at locations along Koonung Creek Reserve. Provide as a separate page as it is difficult to see detail.	
11	Attachment 1 - Architecture and Urban Design	Road infrastructure	68	Which roads and/or ramps are the elevated public safety barriers and noise walls located on in the southern interchange? Provide as a separate page as it is difficult to see detail in the inset image.	

Appendix B2 - Detailed comments on the UDLP (Attachments)

Comment number	Attachment number	Section	Page	Boroondara comment	Spark response
12	Attachment 1 - Architecture and Urban Design	Road infrastructure	68	Confirm the noise wall type and location adjacent to: - Mountain View Road - Koonung Creek Reserve - Leonis Avenue Reserve - Columba Street Reserve - Belle Vue Primary School	
13	Attachment 1 - Architecture and Urban Design	Road infrastructure	68	Investigate the inclusion of a CityLink style sound tube (or similar) on all ramps to better protect residential properties from traffic noise. If the investigations conclude it or an equivalent is not feasible, provide Council sound reasons, excluding cost, as to why it cannot be constructed. This type of traffic noise attenuation device should be considered for the NEL southbound to Eastern Freeway westbound on-ramp and the Eastern Freeway westbound to NEL northbound ramp to afford the nearby residential properties effective traffic noise attenuation.	
14	Attachment 1 - Architecture and Urban Design	Road infrastructure	68, 69 & 71	Investigate and confirm the most suitable acrylic noise wall colour that will enable sufficient daylight to access plantings on the southern side of the noise	

Appendix B2 - Detailed comments on the UDLP (Attachments)

Comment number	Attachment number	Section	Page	Boroondara comment	Spark response
				walls to enable the plants to grow, survive and thrive.	
15	Attachment 1 - Architecture and Urban Design	Sections - DRG 0135 and DRG 0136	87	Include maps on pages to show location of Section A, B, C and D.	
16	Attachment 1 - Architecture and Urban Design	Bulleen SUP	90 & 91	<p>Confirm Bulleen SUP bridge width, noting it must be future proofed. The current pedestrian and cyclists volumes will continue to increase over the life of the structure and must be catered for in this design.</p> <p>Include width on Bulleen SUP cross section.</p>	
17	Attachment 1 - Architecture and Urban Design	Bulleen SUP	90 & 91	Explain why the southern section of the SUP is angled from the entry point and not a straight alignment.	
18	Attachment 1 - Architecture and Urban Design	Bulleen SUP	90 & 91	Confirm the connection between the Bulleen SUP bridge and the Thompsons Road southside SUP. The drawings and images are inconsistent, with some showing a connection between the two elements and others not.	

Appendix B2 - Detailed comments on the UDLP (Attachments)

Comment number	Attachment number	Section	Page	Boroondara comment	Spark response
19	Attachment 1 - Architecture and Urban Design	Bulleen SUP	90 & 91	Confirm Bulleen SUP bridge grade and provide long sections. Note the SUP must be graded to provide a safe environment for all users, reduce the risk of excessive downhill speeds and provide easy to traverse uphill grades.	
20	Attachment 2 - Landscape Design	Landscape design	94	Add note to legend or schedule as appropriate to detail all tree planting in Boroondara is to be in accordance with the Boroondara Tree Canopy Replacement Plan.	
21	Landscape design Master legend sheet 01 and sheet 02	Attachment 2: Landscaping Design	96 & 97	Refer and integrate Council's standard drawing details for assets NELP/Spark consider should be Council assets, noting asset ownership and maintenance responsibilities are yet to be negotiated and confirmed (e.g. concrete paths, bench seat, picnic table etc.).	
22	Attachment 2 - Landscape Design	Landscape works - South	100	Our preference is not to include excessively prickly plants - Acacia paradoxa, Acacia verticillata, Acaena novea-zealandia. While providing good small bird habitat, these species are not appropriate where dogs are allowed off-leash such as Koonung Creek Reserve.	

Appendix B2 - Detailed comments on the UDLP (Attachments)

Comment number	Attachment number	Section	Page	Boroondara comment	Spark response
				Include a note under the Master Tree and Plant Schedule that species will be selected in consultation with relevant councils.	
23	Attachment 2 - Landscape Design	Landscape works - South	125 - 155	Fence type FE2 is not shown on the drawings. Confirm proposed location of FE2 fencing or remove from legend if not part of this UDLP and design.	
24	Attachment 2 - Landscape Design	Landscape works - South	130 - 132	<p>Confirm height and alignment of the golf course fencing (fence type FE2) - note on page 132 applicable to all FGC abutting roads.</p> <p>NELP and Spark have been provided a copy of the Freeway Golf Course reconfiguration plan and are aware of the course design and layout. If further information is required to design the golf course fencing (fence type FE2), NELP and/or Spark should request this information ASAP to ensure the NEL, Eastern Freeway and the NEL workforce is protected through O&M and construction.</p>	

Appendix B2 - Detailed comments on the UDLP (Attachments)

Comment number	Attachment number	Section	Page	Boroondara comment	Spark response
25	Attachment 2 - Landscape Design	Landscape works - South	131	The SUP adjacent to Orion Street must be 3m wide as a minimum. Ensure the design reflects this requirement.	
26	Attachment 2 - Landscape Design	Landscape works - South	131	The noise wall should extend to the western edge of the southern interface zone in Musca Street Reserve. Confirm that this is the case and mark change on DRG-064 and other related plans. Freeway noise is a sensitive issue for residents living on Orion Street and nearby streets.	
27	Attachment 2 - Landscape Design	Landscape works - South	131	Explain why noise walls are not to be installed behind the Maintenance and Administrative Building (MAB) at Freeway Golf Course. We encourage the provision of noise attenuation measures at this location to protect the amenity of Council workers at the MAB.	
28	Attachment 2 - Landscape Design	Landscape works - South	131	Drg-0081 shows tree removal at Freeway Golf Course for the busway. Show in DRG-0064 where tree planting will occur to replace removed vegetation and provide screening.	

Appendix B2 - Detailed comments on the UDLP (Attachments)

Comment number	Attachment number	Section	Page	Boroondara comment	Spark response
29	Attachment 2 - Landscape Design	Landscape works - South	132	Amend path colours to more easily differentiate between: - Existing and proposed paths. - SUPs, footpaths, cycle paths and cycle lanes.	
30	Attachment 2 - Landscape Design	Landscape works - South	132	Have holding spaces for cyclists and pedestrian been considered in the SUP design across the southern interchange? Ensure there is sufficient room for cyclists and pedestrians at lights and on traffic islands, noting the route will be used by school students and will have very high peak volumes at school start and end times.	
31	Attachment 2 - Landscape Design	Landscape works - South	132	How high are the flood walls adjacent to the busway and Freeway Golf Course. How far do they extend above the ground at the golf course?	
32	Attachment 2 - Landscape Design	Landscape works - South	132	If there is a noise wall proposed at the corner of Columba Street and Leonis Street, indicate this on the drawing and other relevant drawings.	
33	Attachment 2 - Landscape Design	Landscape works - South	132	The location of any new tree planting in Leonis Avenue Reserve must be guided by the Boroondara Tree Canopy Replacement Plan.	

Appendix B2 - Detailed comments on the UDLP (Attachments)

Comment number	Attachment number	Section	Page	Boroondara comment	Spark response
34	Attachment 2 - Landscape Design	Landscape works - South	132	Figure 98 (152) of the UDLP shows a habitat corridor across the Eastern Freeway from Columba Street Reserve to Freeway Golf Course. Why is this not marked on this plan?	
35	Attachment 2 - Landscape Design	Landscape works - South	132	Does the shared user path go across the portal beneath the Eastern Freeway westbound off ramp.	
36	Attachment 2 - Landscape Design	Landscape works - South	133	The intersection where the underpass connects to the other path is not well designed nor in accordance with standard SUP principles. Consider alternative design in accordance with AustRoads and other design standards.	
37	Attachment 2 - Landscape Design	Landscape works - South	133	Viewpoint (renders/artists impressions) should be provided in Attachment 3 from Mountain View Road and Belle Vue Primary School showing the view to the ramps and the noise wall. Given the proximity of the noise wall to the school and residential properties, can the noise wall be bespoke to create a more attractive outlook from these properties?	

Appendix B2 - Detailed comments on the UDLP (Attachments)

Comment number	Attachment number	Section	Page	Boroondara comment	Spark response
38	Attachment 2 - Landscape Design	Landscape works - South	133	It is likely during construction that existing mounding in Koonung Creek will be excavated and removed. Mounding currently provides some noise mitigation and may assist future tree growth. Has the installation of mounds been considered by landscape designers? If not, why not? If so, include the potential mounding areas on the design plans.	
39	Attachment 2 - Landscape Design	Landscape works - South	133	Why are the WSUDs needed at the end of the ephemeral creek before it enters the Koonung Creek drain under the Eastern Freeway?	
40	Attachment 2 - Landscape Design	Landscape works - South	133	The SUP needs to be out of the flood zone to enable access in all conditions. Has flood modelling informed its location? Confirm if proximity of the SUP to the creek has been considered in any risk assessments?	

Appendix B2 - Detailed comments on the UDLP (Attachments)

Comment number	Attachment number	Section	Page	Boroondara comment	Spark response
41	Landscape works - South	Attachment 2: Landscaping Design	133 & 134	<p>The Koonung Creek Reserve is subject to a masterplan as agreed by the State and Council in 2020.</p> <p>Place a hold cloud over the part of the Koonung Creek Reserve included in the Spark UDLP and include a note to read:</p> <p>"The KCR design is subject to a masterplan process to be completed in partnership with NELP, Council and the community and work will commence in early 2023. The design shown in this UDLP is indicative only and is presented to fulfil a contractual requirement between Spark and NELP."</p> <p>All KCR comments are to be read with the above in mind.</p>	
42	Attachment 2 - Landscape Design	Landscape works - South Site section sheet 08	133 & 151	<p>Confirm the garden bed type adjacent to the southern noise wall, including whether trees will be planted.</p> <p>Confirm whether a footpath or SUP will be provided at this point, noting the existing path is the Koonung Creek Trail, a SUP.</p>	

Appendix B2 - Detailed comments on the UDLP (Attachments)

Comment number	Attachment number	Section	Page	Boroondara comment	Spark response
43	Attachment 2 - Landscape Design	Landscape works - South Site section sheet 09	133 & 152	Show the remainder of the southern part of the site section, including the noise wall and the residential interface.	
44	Landscape works - South Site section sheet 10	Attachment 2: Landscaping Design	133 & 153	<p>Noting our request for a hold cloud over the Koonung Creek Reserve with associated note about the upcoming masterplan and assuming this request will be denied, confirm the details of the site section in the Koonung Creek Reserve. Currently the site section shows no trees planted to screen the noise wall and a footpath.</p> <p>Will trees and other upper storey vegetation be planted as shown in other G2D garden bed types?</p> <p>Is a footpath or a shared use path provided?</p>	
45	Attachment 2 - Landscape Design	Attachment: Landscape works - South Site section sheet 08 Report: Figure 131	Attachment 2: 132 & 151 Report: 241	The site-sections on page 151 of attachment 2 (site section 08) and page 241 of the report (figure 131) show the same section but have different detail. The attachment does not show any trees against the noise wall and the path is marked as a footpath. The report shows trees and a SUP.	

Appendix B2 - Detailed comments on the UDLP (Attachments)

Comment number	Attachment number	Section	Page	Boroondara comment	Spark response
				Confirm which section shows the correct details and amend as necessary.	
46	Attachment 2 - Landscape Design	Attachment: Landscape works - South Site section sheet 10 Report: Figure 132	Attachment 2: 133 & 153 Report: 241	<p>The site-sections on page 153 of attachment 2 (site section 10) and page 241 of the report (figure 132) show the same section but have different detail. The attachment does not show any trees against the noise wall and the path is marked as a footpath. The report shows trees and a SUP.</p> <p>Confirm which section shows the correct details and amend as necessary.</p>	
47	Attachment 2 - Landscape Design	Landscape works - South	134	If the amenity of the other Koonung Creek wetland is lost because of the impact of the widened freeway, then infrastructure such as gazebo and dog beach should be included at the new wetland instead.	
48	Attachment 2 - Landscape Design	Landscape works - South	134	If secondary paths are to be provided in the KCR, they are to be gravel.	

Appendix B2 - Detailed comments on the UDLP (Attachments)

Comment number	Attachment number	Section	Page	Boroondara comment	Spark response
49	Attachment 2 - Landscape Design	Landscape works - South	134	Seating, bike repair stations, drink fountains and other park furniture need to be located at more strategic locations to be determined by the Koonung Creek Masterplan. Based on experience at Hays Paddock, these assets should be located further away from anticipated bodies of water as to avoid risks associated with snake encounters.	
50	Attachment 2 - Landscape Design	Landscape works - South	134	The design needs to consider maintenance of assets and also ease of maintenance. Who will maintain the dry creek bed? How will access to the grassy area next to the wetland be maintained as it is bound on all sides by creek, wetland, SUP and garden. Council needs to be consulted during the design of this asset.	
51	Attachment 2 - Landscape Design	Landscape works - South	140	An excessive amount of vegetation appears to be shown for removal in Koonung Creek Reserve (Southern interface zone).	
52	Attachment 2 - Landscape Design	Landscape works - South	140	The Estelle Street bridge is within the southern interface zone. What are the plans for this bridge? Is it to be replaced? Can it be shifted closer to the BPR for example Kampman Street or Balwyn Cricket Club	

Appendix B2 - Detailed comments on the UDLP (Attachments)

Comment number	Attachment number	Section	Page	Boroondara comment	Spark response
				to shorten the walk for Balwyn North residents and from the bus stop to the BPR?	
53	Attachment 2 - Landscape Design	Landscape works - South	152	How safe is the shared user path located adjacent to Thompson Road? What is the barrier to the Eastern Freeway eastbound. Should it be higher than depicted? What separates the SUP and Thompson Road?	
54	Attachment 2 - Landscape Design	Landscape works - South	153	The Eastern Freeway west bound offramp is very high. The UDLP must include a vector image or artist impression in Attachment 3 depicting the view from Koonung Creek Reserve.	
55	Attachment 3 - Urban Design visualisations.	Southern Interface Estelle St 1 DRG 0338	195	Make the render accurate. Where are line markings? How can a cyclist and pedestrians move around each other? What is the width of the SUP?	

Appendix B2 - Detailed comments on the UDLP (Attachments)

Comment number	Attachment number	Section	Page	Boroondara comment	Spark response
56	Attachment 3 - Urban Design visualisations.	Southern Interface Estelle St 1 DRG 0338	195	What is the value of the mini verges on the footpath adjacent to the noise wall, other than looking good. This becomes a maintenance commitment for (Manningham) Council with a high probability that the turf will be worn down by foot traffic. Is there any prospect of reconfiguring Estelle St to allow some tree plantings in road outstands through this narrow verge section (and ideally along the length of the street, if the community is willing)? It won't block the view of the noise walls but it will interrupt the experience of them from the other side of the street. Fastigate selections would be a starting point so there isn't too much incursion into the road space.	
57	Attachment 3 - Urban Design visualisations.	UDLP Visualisations Southern Interface Estelle St 2 DRG 0339	196	Attachment 4 should include overshadowing diagrams covering the whole year to properly inform plant selection and maintenance programming. What shape are the Estelle Street nature strip trees in? This might be an opportunity to reconfigure the road or renew trees to provide better quality screening than will be possible on the south side of the street adjacent to the noise wall. The nature strips currently have one tree planted per property and not all of them look to be in great condition	

Appendix B2 - Detailed comments on the UDLP (Attachments)

Comment number	Attachment number	Section	Page	Boroondara comment	Spark response
				(Street View). More trees per property would be a way to green this street given residents are about to lose all the buffer planting on the southern side of the street. If you began this now, it would give them time to grow by the time works start on this section (and make sure they're protected during construction).	
58	Attachment 3 - Urban Design visualisations.	Southern Interface Estelle St 2 DRG 0339	198	The perspective (top down view) of this visualisations gives the impression that structures shown are low and not intrusive. Additional visualisations should be included in this attachment to show the interchange and views to the ventilation structure from a human perspective for example from Freeway Golf Course, Mountain View Road, View Point Road, Columba Street Reserve etc.	
59	Attachment 4: Urban Design Overshadowing Assessment	UDLP Overshadowing Diagram Southern	210	It is concerning that only overshadowing during the Spring equinox has been included. Overshadowing at the time of the winter solstice should also be shown to demonstrate impacts on residential areas	

Appendix B2 - Detailed comments on the UDLP (Attachments)

Comment number	Attachment number	Section	Page	Boroondara comment	Spark response
		Interface Zone 1 DRG 0410		and SUP. Any overshadowing of SUPs in winter may contribute to icy conditions and accidents.	
60	Attachment 4: Urban Design Overshadowing Assessment	UDLP Overshadowing Diagram Southern Interface Zone 1 DRG 0410	210	Understand that shading diagrams at the equinox are required. However for people living here, a full package covering the whole year experience should be provided. The worst case scenario (mid winter) is what we need to see and is relevant in relation to your ability to provide screening vegetation on noise walls, effective turf cover in verges and good tree growth, with minimal stressors that will make them more prone to pests and disease. You may need to be looking to dry rainforest tree species along this section given the light constraints, rather than expecting the local EVCs to perform well.	
61	Attachment 4: Urban Design Overshadowing Assessment	UDLP Overshadowing Diagram Southern Interface Zone 1 DRG 0410	210	Assuming noise walls are 10m tall, we are concerned that sufficient will light get through the potentially 3-7m tall triangle of coloured acrylic? Given the noise wall will be north of the adjacent vegetation, and the trees will either get structural shade (the worst kind of shade) or sunlight through a reflective panel, I doubt eucalypts and other native	

Appendix B2 - Detailed comments on the UDLP (Attachments)

Comment number	Attachment number	Section	Page	Boroondara comment	Spark response
				species will receive the full sun exposure they require to thrive nearby to the wall.	
62	Attachment 4: Urban Design Overshadowing Assessment	UDLP Overshadowing Diagram Southern Interface Zone 2 DRG 0411	211	Noise walls on the southern boundary of the Eastern Freeway mean that there will be zones along the north of Mountain View Road and Koonung Creek Reserve that are in constant shade. It would be more helpful to show the worst case scenario - least available light to help to develop the most appropriate solutions.	
63	Attachment 4: Urban Design Overshadowing Assessment	UDLP Overshadowing Diagram Southern Interface Zone 2 DRG 0412	212	Same as previous - please provide worst case scenario for light availability so we can reach appropriate planting decisions.	
64	Attachment 4: Urban Design Overshadowing Assessment	UDLP Overshadowing Diagram Southern	212	Because of the noise wall (expect 10 m height) Columba Street Reserve will experience significant shade along its northern extent, (previous comment about loss of views to the north) - same as previous - please provide worst case scenario for light	

Appendix B2 - Detailed comments on the UDLP (Attachments)

Comment number	Attachment number	Section	Page	Boroondara comment	Spark response
		Interface Zone 2 DRG 0412		availability so we can reach appropriate planting decisions and achieve a balance of retaining views and delivering screening (based on resident preference as they have to live with this).	
65	Attachment 4: Urban Design Overshadowing Assessment	UDLP Overshadowing Diagram Southern Interface Zone 2 DRG 0412	212	There will be several months when plants growing against the noise/floodwall at Koonung Creek Reserve will have little access to light. Are there examples of plants in the plant list that will equally tolerate both lack of sunlight in the late autumn, winter and early spring and exposure to intense sunlight during summer?	
66	Attachment 4: Urban Design Overshadowing Assessment	UDLP Overshadowing Diagram Southern Interface Zone 2 DRG 0412	212	Because of the noise wall (expect 10 m height) Columba Street Reserve will experience significant shade along its northern extent, (previous comment about loss of views to the north) - same as previous - please provide worst case scenario for light availability so we can reach appropriate planting decisions and achieve a balance of retaining views and delivering screening (based on resident preference as they have to live with this).	

Appendix C – Errors in the UDLP

UDLP page number	UDLP reference	Attachment page number	Attachment reference	Error	Fix
152	Figure 98			Columba Street Reserve labelled as 'Columbia Reserve'.	Amend label to 'Columba Street Reserve'.
159	Table 21: Consistency with Urban Design Strategic Place			The Spark design includes Indigenous planting and a wetland along on the eastern side of the will be included to treat stormwater runoff ..."	Review wording of response to ensure it makes sense.
225	Table 33: Key improvement and benefits			No Figure reference included with Table	Note Figure reference 'Table 33' above Table. Not on adjacent page
233	Principle 2 Objective 2.1			Bulleen Road bridge spelt incorrectly.	Change 'Bullen' to 'Bulleen' . Spell check the UDLP to ensure correct spelling is used throughout.

Appendix C - Errors in the UDLP

UDLP page number	UDLP reference	Attachment page number	Attachment reference	Error	Fix
237	Key place-specific requirement 2D response			Bulleen Road bridge spelt incorrectly.	Change 'Bullen' to 'Bulleen' . Spell check the UDLP to ensure correct spelling is used throughout.
		84	Attachment 1: Southern Interface Underpasses	Freeway Golf Course labelled as 'Freeway Golf Club'.	Amend label to 'Freeway Golf Course'.
		87	Attachment1: Section B Southern Interface Sections	Freeway Golf Course labelled as 'Freeway Golf Club'.	Amend label to 'Freeway Golf Course'.
		92	Attachment 1: Southern Interface Underpasses	Eastern Freeway eastbound off-ramp labelled as 'Road Offramp'.	Amend label to 'Eastern Freeway Eastbound Offramp' or other correct label.
		84	Attachment 1: Southern Interface Views - View 4	Koonung Creek Trail labelled as 'Koonung Creek Reserve SUP'.	Amend label to 'Koonung Creek Trail'.

Appendix C - Errors in the UDLP

UDLP page number	UDLP reference	Attachment page number	Attachment reference	Error	Fix
		85	Attachment 1: Southern Interface views - View 5	Freeway Golf Course labelled as 'Freeway Golf Club'.	Amend label to 'Freeway Golf Course'.
		132	Attachment 2: Surface Treatment Plan Sheet 06	Belle Vue Primary School labelled as 'Bell Vue Primary School'.	Amend label to 'Belle Vue Primary School'.
		132	Attachment 2: Surface Treatment Plan Sheet 06	Koonung Creek Trail underpass labelled as 'Pedestrian Underpass'.	Amend label to 'Koonung Creek Trail underpass'.
		132	Attachment 2: Surface Treatment Plan Sheet 06	The note 'Golf Course Fencing height and alignment to be determined' is pointing at the busway.	Assign note to the correct location.
		133	Attachment 2: Surface Treatment Plan Sheet 07	The path marked as 'Existing path' in the Koonung Creek Reserve does not exist between Balwyn Road and Hill Road.	Amend label to 'Proposed path (concrete)' between Balwyn Road and Hill Road.

Appendix C - Errors in the UDLP

UDLP page number	UDLP reference	Attachment page number	Attachment reference	Error	Fix
		133 & 134	Attachment 2: Surface Treatment Plan Sheet 066 and 067	The path marked as 'Existing path' in the Koonung Creek Reserve does not exist between Balwyn Road and Singleton .	Amend label to 'Proposed path (concrete)' between Balwyn Road and Singleton Road.

Appendix D – Information missing from the UDLP

Page	Attachment number and reference	Missing information	Fix
85	1 – Road infrastructure	Noise wall images for the south side of the Eastern Freeway.	<p>Provide noise wall images for the locations listed , including viewpoints of noise walls on ramps and noise walls along the Eastern Freeway alignment:</p> <ul style="list-style-type: none"> - Belle Vue Primary School, - Residential streets on the south side of the Eastern Freeway, - The Koonung Creek Reserve on the south side of the Eastern Freeway.
86	1 – Southern interface views	Context to enable the viewer to properly visualise the viewpoints in context. The image(s) is/are meaningless to the viewer as they are presented.	Provide better site context including longview details for each viewpoint.
87	1 – Section A and Section B	Context to enable the viewer to properly visualise the viewpoints in context. The image(s) is/are meaningless to the viewer as they are presented.	<p>Provide better site context including longview details for each section.</p> <p>Section B - Label Leonis Avenue Reserve.</p>

Appendix D - Information missing from the UDLF

Page	Attachment number and reference	Missing information	Fix
88	1 – Section C and Section D	Context to enable the viewer to properly visualise the viewpoints in context. The image(s) is/are meaningless to the viewer as they are presented.	Provide better site context including longview details for each section. Section C - Show the detail of the Bulleen Park and Ride structures and the residential area adjacent the Koonung Creek Reserve.
89	1 – Section E, F and G and Axicom Tower View	Context to enable the viewer to properly visualise the viewpoints in context. The image(s) is/are meaningless to the viewer as they are presented.	Provide better site context including longview details for each section and viewpoint. Section G - Show the actual proximity and details of the Mountain View Road properties to the southern most noise wall. Label Mountain View Road.
91	1 – Bulleen SUP views	Context to enable the viewer to properly visualise the viewpoints in context. The image(s) is/are meaningless to the viewer as they are presented.	Provide better site context including longview details for each viewpoint.

Appendix D - Information missing from the UDLP

Page	Attachment number and reference	Missing information	Fix
157 - 198	3 – Visualisations	No viewpoint is shown from a human on the ground scale in Boroondara.	<p>Provide viewpoints at the human on the ground scale including, but not limited to:</p> <ul style="list-style-type: none"> - Belle Vue Primary School - Residential streets on the south side of the Eastern Freeway (i.e. Mountain View Road, Carron Street, Kosiusko Road, Leonis Avenue, Columba Street, Orion Street) - Public open space on the south side of the Eastern Freeway (i.e. Koonung Creek Reserve, Columba Street Reserve, Leonis Avenue Reserve) - Freeway Golf Course front four holes - Freeway Golf Course pro-shop