

SJB Urban



Statement of Expert Evidence

Urban Design

Riverdale Draft Precinct Structure Plan
Planning Panel Victoria hearing

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1.0 Introduction

This Statement has been prepared by Simon Joseph McPherson, Director of SJB Urban Pty Ltd, with assistance from Amanda Roberts, Senior Urban Designer at SJB Urban. SJB Urban is an independent, specialist urban design practice, based at 25 Coventry Street, Southbank, Victoria.

My evidence addresses urban design considerations relevant to the Draft Riverdale Precinct Structure Plan (PSP), with regard to the land at 1160 Sayers Road, Tarneit, which is partly affected by this Precinct Structure Plan. SJB Urban is in the process of preparing a Structure Plan for this land for Wyndham City Council, the owner of the land.

1.1 Process and involvement

In October 2013 I was engaged by Wyndham City Council as landowner of 1160 Sayers Road to assess the Riverdale Precinct Structure Plan with regard to the subject land. This engagement is separate to SJB Urban's engagement for preparation of a dedicated Site Structure Plan for this land which commenced in June 2013.

The content and implications of the PSP for the Site Structure Plan have been discussed during various stakeholder workshops for this project, including Wyndham City Council, Growth Areas Authority, Office of Living Victoria, and DTPLI.

I have inspected the subject site and surrounding area to inform my review, and the photographs in this statement are my own, except where noted.

The PSP, by its nature, is a 'high level' document, providing an 'outline' urban structure across a large area. It does not provide significant detail in terms of street layouts, locational relationships, interfaces or built form outcomes.

My evidence will respond to the PSP in a high-level manner, focussing on the key urban design considerations as they affect the subject land.

The Site Structure Plan project is still in process, currently in Phase 2 of 4, and is scheduled for completion in mid-late 2014.

1.2 Summary of opinions

The following points summarise my opinions of the proposed Draft Riverdale Precinct Structure Plan (PSP), from an urban design viewpoint:

- There is significant strategic support for pursuing improved growth area planning and development outcomes, including the recently launched Plan Melbourne.
- The Draft PSP Plan, Requirements and Guidelines are generally supportable, particularly in terms of:
 - Location of a town centre close to a proposed train station
 - Locating recreation and community facilities close to the town centre and key access routes

- Identifying opportunities for higher-density housing in various contexts
 - Optimising use of the creek frontages
- Several aspects of the PSP are problematic in terms of achieving the established vision and aspirations for the 1160 Sayers Road site, and for achieving sustainable urban development across the PSP area, including:
 - Town centres network
 - Sayers Road alignment
 - Train Station location
 - Bus routes location
 - Community infrastructure location
 - Recreation facilities location
 - Residential densities and catchments
- The timing of the PSP may impact on the ability for the 1160 Sayers Road Structure Plan project to robustly investigate and propose an urban design outcome that will deliver a successful public transit orientated development for Wyndham City Council and maximise the investment by the State and Federal Government in the Regional Rail Link. The significant commitment made by all levels of Government to the 1160 Sayers Road Site Structure Plan is reflective of the unique opportunity to demonstrate world's best practice in developing a sustainable greenfield development on an urban fringe.
- The location of the town centre, wholly to the south of the RRL corridor and separated from the station by extensive at-grade car parking, does not maximise the potential for the train station to contribute to a walkable town centre and public transport-orientated development.
- The location of the train station, separated from the town centre and the nominated arterial road (Sayers Road) does not maximise its ability to encourage the use of an integrated public transport network/interchange, and prevents the station becoming the 'heart' of the town centre.
- The location of the Indoor Recreation Facility between the tributary of Davis Creek, the Sayers Road overpass and the Regional Rail impacts on the ability for the neighbourhood to deliver on a number of key objectives of the PSP and is not a good urban design outcome.
- The proposed minimum residential densities are substantially insufficient to achieve the objectives of:
 - Walkable access and neighbourhood structure;
 - Local provision of services and facilities;
 - Housing diversity and adaptability of neighbourhoods over time

If densities can be achieved that will deliver policy aims, the increased population within the Riverdale PSP area (and beyond to the future Oakbank PSP) will have follow-on effects such as increased support for local shops and services.

2.0 Context

2.1 Growth area planning and development in Melbourne

2.1.1 Growth area planning

There is mounting evidence that the current model of delivering new greenfield suburbs is not producing sustainable communities. The implications of low density 'sprawl' development are well documented, and include physical and mental health impacts, car dependency and traffic congestion, social isolation, lack of adaptability to changing demographics, and personal economic impacts. The following quotes have emerged from our research in these areas as part of the Site Structure Plan project for 1160 Sayers Road.

"Where residents and visitors walk, cities are alive and thriving. [There is] a vital need for policies to promote walking in all levels of planning" (OECD, *Pedestrian safety, urban space and health*, 2012)

As traffic numbers increase, social interaction decreases and the perception of the outdoor space being part of one's home equally diminishes (Donald Appleyard, *Liveable Streets*, 1981)

"Many major chronic diseases of the 21st century are associated with physical inactivity, and in Australia, physical inactivity is second only to tobacco as the leading cause of death and disability" (Billie Giles-Corti, *The impact of urban form on public health*, 2006)

Urban sprawl or low walkability appears to be associated with obesity. Those living in high walkable neighbourhoods spend twice as much time weekly (137 minutes) walking for local errands compared with those living in low walkable neighbourhoods, and about half as many residents are overweight ((Billie Giles-Corti, *The impact of urban form on public health*, 2006)

2.1.2 Strategic planning context

The recently launched draft **Plan Melbourne** reinforces the need to plan for better access to community infrastructure, services and facilities for all residents, with an emphasis on 'local' access to employment, shops and services.

The subject land is currently in the Urban Growth Zone according to the Wyndham Planning Scheme. Development of the land is therefore subject to the gazettal of a Precinct Structure Plan issued by the Melbourne Planning Authority (MPA, formerly the Growth Area Authority, GAA). The MPA is a State Government authority responsible for the forward planning and coordinated provision of infrastructure in Melbourne's growth areas: Casey, Cardinia, Hume, Melton, Mitchell, Whittlesea and Wyndham.

The MPA's objectives are to:

- *Ensure development and infrastructure occurs in a coordinated and timely manner*
- *Promote sustainable development, housing diversity and affordability and jobs in growth areas*

- *Ensure employment land is provided for commercial and industrial purposes in a coordinated and timely manner*
- *Deliver communities that are socially, environmentally and economically sustainable*
- *Improve the operation of the regulatory environment and administrative processes to reduce costs and inefficiencies for developers and local government (GAA background <http://www.gaa.vic.gov.au/about/our-role/background/> viewed 24/07/2013).*

In the document *Managing Melbourne's Growth* released in June 2012, the GAA highlighted the need to cut travel time to work and include a number of tools to ensure that employment in the growth areas is encouraged including the goal of creating one job per household:

- *Making sure employment land is set aside for local jobs and regional industrial enterprises to create jobs;*
- *Ensuring space is there for a full range of 'local' jobs such as schools, community services, and home-based jobs; and*
- *Setting out appropriately located and attractively designed town centres that can cater for the higher order and professional jobs.*

2.1.3 Riverdale PSP

Objectives include:

- *Create a series of neighbourhoods that cluster around public open space, community hubs, and town centres*
- *Build a high-density and transit-oriented neighbourhood focussed on the proposed future railway station site*
- *Promote greater housing choice through the delivery of a range of lots capable of accommodating a variety of dwelling typologies*

2.1.4 Our Cities Our Future (National Urban Policy)

Objectives include:

- *Encouraging a range of housing types to suit diverse households.*
- *Support affordable living choices.*
- *Locating housing close to facilities and services, including jobs and public transport, in more compact mixed use development.*
- *Supporting new outer metropolitan housing with access to facilities, services and diverse education and employment opportunities.*
- *Improve accessibility and reduce dependence on private motor vehicles.*
- *Support community wellbeing.*
- *Providing access to social and economic opportunity.*
- *Improving public health outcomes.*
- *Redressing spatially concentrated disadvantage.*
- *Enhancing access to cultural, sporting and recreational activity.*

2.1.5 SJB Urban research: growth area planning and policy

SJB Urban's ongoing in-house research and development project entitled 'Shall We Dense?' seeks to provide a comprehensive understanding of current urban policy, and the implications of policy directions for urban sustainability outcomes. It identifies a significant shortfall in policy requirements, relative to stated objectives. That is, the stated density aims are substantially insufficient to achieve the objectives of:

- *Walkable access and neighbourhood structure;*
- *Local provision of services and facilities;*
- *Housing diversity and adaptability of neighbourhoods over time.*

This work aligns the ‘viability thresholds’ of a range of activity centre types, in terms of their required population catchments, with the physical limits of walkability, to identify requirements for density and housing-type mix.

This work has resulted in a new research and development project entitled ‘Save: My Life’, for which SJB Urban is in partnership with RMIT University, with Places Victoria, now replaced by the Metropolitan Planning Authority, as the secondary industry partner. This project, funded by an ARC (Australian Research Council) Linkage grant, will deliver an online affordability tool to allow users to understand the broader implications of their housing choices.

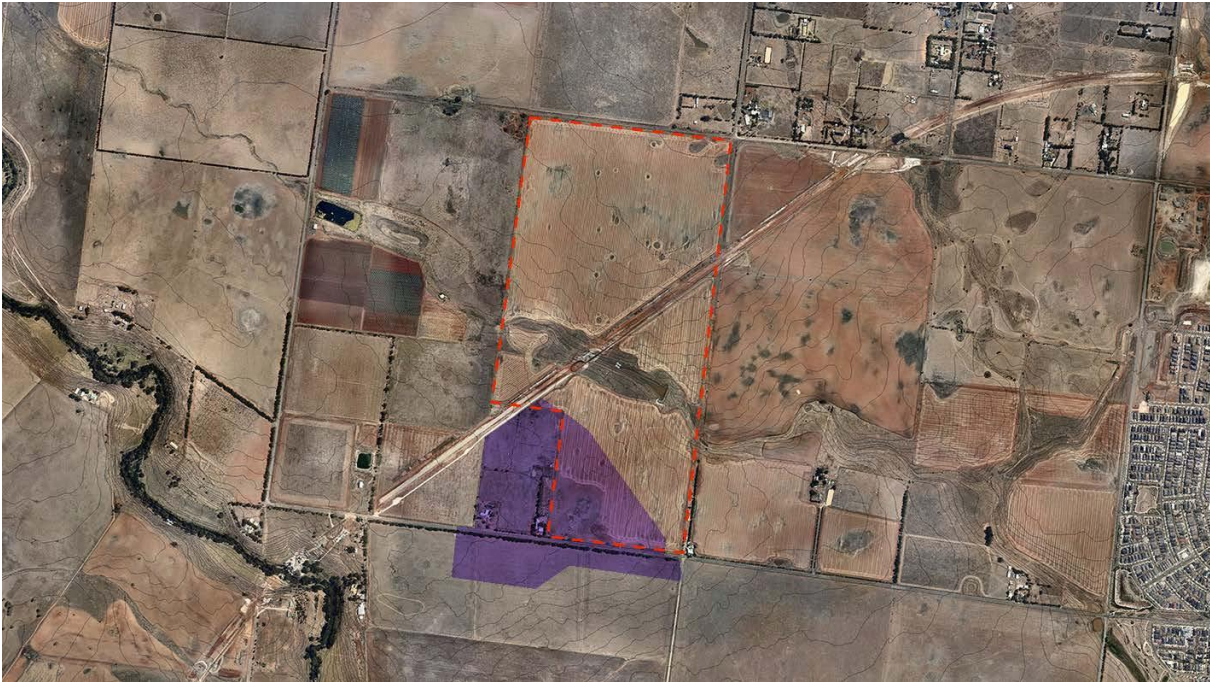
This body of work has informed our team’s approach to Sayers Road Structure Plan project.

2.2 The Site Structure Plan project: 1160 Sayers Road

Wyndham City Council, supported by the Federal Government Liveable Communities Program, has demonstrated a commitment to achieving improved outcomes and demonstrating excellence at 1160 Sayers Road. The Liveable Cities Program is *seeking to encourage partnerships between the levels of government to foster innovative solutions to promote high quality urban design, improve the quality of open space and public places, address high levels of car dependency and traffic congestion and support cities in tackling the challenges of climate change* (<http://investment.infrastructure.gov.au/funding/liveablecities>).

The site is located in the north-west of Wyndham, an area of substantial population growth in recent years. Nearby established suburbs include Tarneit approximately 3 kilometres to the east, Manor Lakes approximately 5 kilometres as the crow flies to the south and Werribee town centre approximately 10 kilometres to the south-east.

The site is bisected by the Regional Rail Link line (under construction), with the land north of the rail falling within the future Oakbank PSP and the land south of the rail line within the Riverdale PSP. The proposed Major Town Centre in the Riverdale PSP is located partially in or close to the south-west corner of the site and wholly within the Riverdale PSP area.



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Figure 1. Aerial view of the subject site in its wider urban context with 1160 Sayers Road site in dashed red and proposed Riverdale PSP town centre site in purple (Source: Wyndham City Council).



Figure 2. Looking north-east from Sayers Road along the subject site boundary.



Figure 3. Looking north-west from Sayers Road along the subject site boundary.



Figure 4. Looking east down Sayers Road along the subject site boundary.



Figure 5. Existing farmhouse at corner boundary of 1160 Sayers Road site.

The project brief for the Site Structure Plan states that Council purchased the land at 1160 Sayers Road to **establish town centre community services, commercial enterprise, recreation facilities and residential development with the unique opportunity to demonstrate world's best practice in sustainable greenfield development on an urban fringe.**

The Site Structure Plan is expected to guide future development on the 115-hectare site including influencing the Riverdale PSP and future neighbouring PSPs. Key outcomes of the Site Structure Plan include:

- *A demonstration of best practice transit-orientated and liveable development that delivers, compared to other urban fringe communities*
- *Land use patterns that encourage integrated development supporting mixed use and cohabitation of facilities*
- *Improved liveability and lower household energy consumption through better urban design and a focus on innovative approaches to “greening” for all aspects of the development of the site*
- *Higher use of walking, cycling, buses and trains as transport modes. An exemplar of accessibility for all members of the community*
- *Land savings in the private and public realm from reduced road widths, reduced on street parking, reduced garaging of vehicles resulting in more efficient use of land and more affordable communities*
- *Integration of passive and active open space*
- *Reduced heat island effect as a result of a stronger focus on greening*
- *Energy efficiency, energy production considerations and integrated water management strategy*
- *High sustainability and ecological principles through construction and operation of the precinct*
- *Coordinated delivery of community infrastructure and facilities for the region*
- *Provision of a hierarchy of sporting facilities within a municipal context to support a range of community needs – from informal social uses through to health, community development, community building, local sports and elite competition venues*
- *Increased connectivity to other parts of the municipality*
- *An increased diversity and availability for local jobs.*

The Site Structure Plan is being prepared by SJB Urban, supported by a specialist consultant team. This team has undertaken extensive research and conducted numerous workshops on the delivery of innovative and sustainable neighbourhoods in a greenfield context. This work has been consolidated in a Stage 1 report, which sets the scene for the feasibility stage, Stage 2, currently underway.

Stage 2 will investigate the financial, social and environmental sustainability of up to three (3) planning options for 1160 Sayers Road. Variables between the options may include:

- Position of the train station;
- Town centre location and configuration;
- Community facilities location;
- Residential densities and housing type mix and yield;
- Passive and active open space location and design; and
- Street networks.

Stage 2 is expected to be completed in early 2014, and will provide Council with a rigorous assessment of options and guidance regarding the optimal and sustainable development outcomes for the land, in response to Council’s objectives and requirements as outlined above. The proposed completion date for the Site Structure Plan is mid-2014.

In line with the brief for the Site Structure Plan from the Australian Federal Government funded program, Liveable Communities, the Site Structure Plan will *investigate a range of innovative solutions, address car dependency and congestion, maximise local jobs and tackle climate change* in various ways.

These innovations and ‘world’s best practice’ approaches are being investigated as part of Stage 2,3 and 4 of the project and will have a positive impact on the subject site and the surrounding area in creating socially, environmentally and economically sustainable development.

This approach and the capacity to challenge the current delivery of greenfield communities is achievable through the unique set of circumstances where Wyndham City Council is the land owner and is committed to

best practice outcomes. In my opinion, this opportunity should be fully exploited by the local, state and federal governments to showcase a commitment to creating a sustainable future for Victoria's growth areas.

2.3 The site's physical context

The Riverdale PSP applies to approximately 1,120 hectares of land, generally defined by the RRL to the north, Davis Road in the north-east, Davis Creek in the south-east and the Werribee River in the south and west. The subject site within the Riverdale PSP is approximately 48 hectares and located in the north-west of the Riverdale PSP.



Figure 6. RRL construction over Werribee River along the western boundary of the Riverdale PSP.



Figure 7. Existing suburb edge at Davis Road along the eastern boundary of the Riverdale PSP.

The proposed major road network within the PSP is predominately a north-south/ east-west grid. This deviates from the south-east corner of the subject site into a diagonal grid as the Sayers Road alignment changes at Sewells Road and runs north-west diagonally through the site.

Davis Creek and its tributaries, running across the land towards the Werribee River at the southern boundary, provide the major topographical changes and landscape and amenity opportunities throughout the PSP. The subject site has one of the unnamed tributaries of Davis Creek running diagonally through and generally parallel to the proposed Sayers Road alignment.

Existing agricultural uses dominate the gently undulating landscape with prevailing strong linear stands of trees and open views.

3.0 Part 2: Review of the Draft Riverdale Precinct Structure Plan

3.1 Vision and objectives

The vision for the Riverdale precinct is generally supported, in particular:

- *New neighbourhoods and **town centres** will be formed on the **edge of the creeks and tributaries**;*

And

- *The substantial public investment in the **Regional Rail Link is a catalyst for change** and driving force behind growth across the corridor. The **PSP capitalises on this investment through the creation of a transit-ready major town centre** that intensifies uses around the potential future Riverdale station. The centre will be the central hub of activity and gateway to the precinct, providing inter-metropolitan connections to the Priority Public Transport Network and eventually the railway.*

And

- *The town centres, public transport infrastructure, and the expansive integrated network of open space will lead to a greater variety of housing choices and price points across a highly diverse precinct.*

The overarching objectives of growth area planning (PSP Guidelines One, Overview of Planning New Communities, 2013), which are also supported, are:

- *To establish a sense of place and community;*
- *To create greater housing choice diversity and affordable places to live;*
- *To create diverse and vibrant town centres;*
- *To provide for local and regional employment and business activity;*
- *To provide efficient and better transport choices;*
- *To respond to climate change and increase environmental sustainability, and;*
- *To deliver accessible, integrated and adaptable community infrastructure.*

3.2 Components

This section reviews the primary physical components of the PSP, with particular relevance to the subject site at 1160 Sayers Road.

3.2.1 Neighbourhood Activity Centres / urban structure

The PSP includes three (3) Neighbourhood Activity Centres or Town Centres. These are spaced approximately 2.5km apart from one another 'as the crow flies'.

Plan Melbourne discusses the principle of a '20-minute city' in which daily needs are located within 20 minutes' travel time from home. However it is well established that encouraging walking for local/convenience functions (school, transport, convenience retail etc.) relies on smaller distances. That is, a 20-minute walk is likely to be discouraging for convenience shopping, or even for access to public transport.

Walking times of 5-minutes (or 400-500m) for local convenience, and 10-minutes (or 800m) for public transport access for commuting, are considered a general 'norm' in terms of acceptability in urban design terms, as shown in the diagrams below from Melbourne 2030. This is an essential component of encouraging and facilitating walking and patronage of local services and facilities, rather than discouraging walking, or car dependency for access.

Based on walkable catchments around the proposed Centres in the PSP, this will leave the vast majority of dwellings in the area outside of convenient walking distance from a Neighbourhood Activity Centre.

It is also well established that low- or conventional-density suburban development presents significant constraints to the provision of effective, regular public transport (bus) services. Therefore, this pattern of development is likely to result in car-dependency for the majority of households.

The PSP indicates local parks at the centre of each arterial road 'block' to provide walkable access for most households. However, while useful, this is not sufficient to support walkable neighbourhoods.

Recommendation:

It is my opinion that a larger number of neighbourhood/local activity centres should be identified across the PSP area, as shown in the diagrams below, and supported by calculated housing yields to support the services and facilities in these Centres, providing walkable access for all residents.

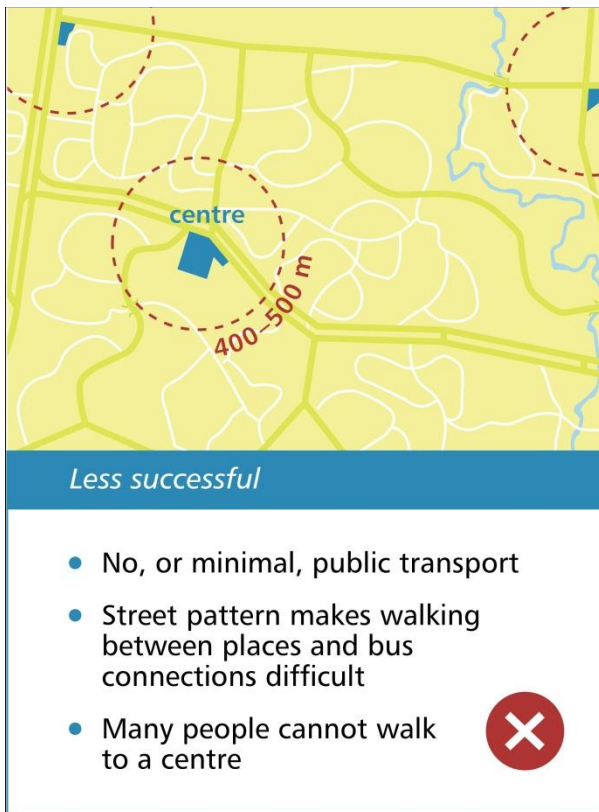


Figure 8. Melbourne 2030 diagram indicating dispersed activity centres and non-walkable urban areas.

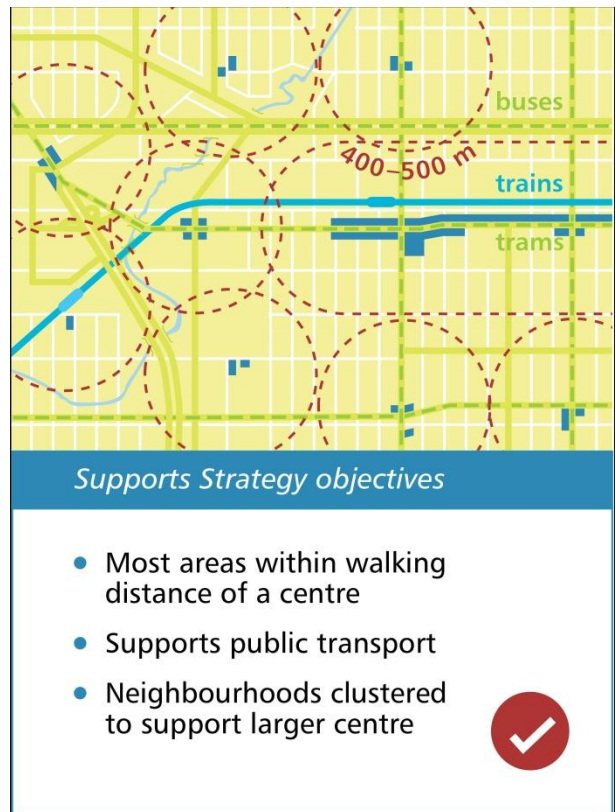


Figure 9: Melbourne 2030 diagram indicating clustered walkable catchments (400-500m radius) with multiple smaller centres around a larger activity centre.

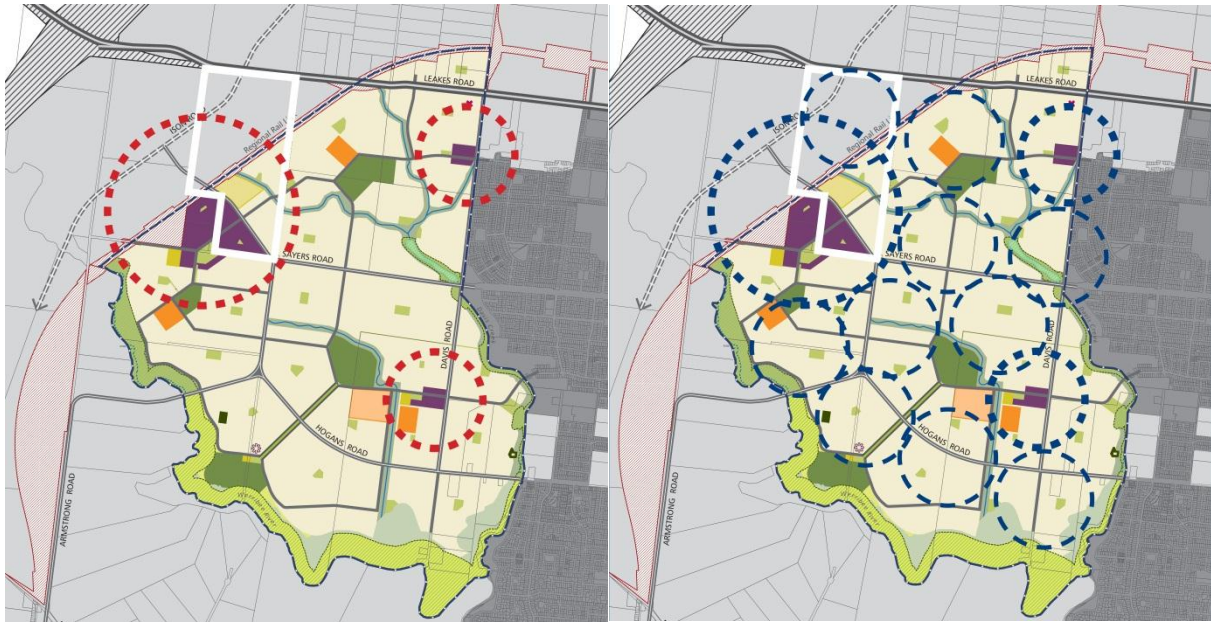


Figure 10. Draft PSP with activity centre locations and their walkable catchments of 400m and 800m where a train station is planned (left) and recommended activity centre locations and catchments (right), in line with Melbourne 2030 principles shown above.

3.2.2 Sayers Road alignment

From my preliminary discussions with MPA officers, I understand that the planned re-alignment of Sayers Road away from the established road grid, and through the subject land to run perpendicular to the RRL, is not available for review or modification at this point in time. I understand that Council officers have contributed to this planned re-alignment prior to SJB Urban's involvement in the Site Structure Plan project. We understand that Sayers Road will be grade separated from the RRL, in the form of a road-over-rail elevated bridge.

However, this alignment presents some key concerns for the urban design outcomes for the subject land and surrounds, as follows:

- Creation of a substantial physical and visual barrier between the Town Centre and much of its walkable catchment, especially that close to the Creek corridor
- Creation of a prominent and unsightly form dominating the low-lying local landscape around the town centre and Creek environment
- Creating perceptions of a higher-speed 'highway' environment that is not constrained by the arterial road grid network, but is a free-flowing traffic environment 'removed' from the urban structure.

A recently constructed example of this type of overpass may be found nearby on Davis Road, north of Leakes Road, as shown below. This overpass comprises a built up 'mound' across which the road runs, with very limited cross-access below. I understand this configuration represents the 'basic' or most economical engineering solution for a road overpass in this context.



Figure 11. Overpass of RRL along Davis Road, indicates potential form and scale of Sayers Road/RRL overpass on the subject land.

Recommendation:

If the planned realignment of Sayers Road is not available for review, the design of this element will be essential for minimising its impact on the surrounding urban environment and maximising pedestrian permeability, access and amenity.

3.2.3 Train Station location

The Regional Rail Link (RRL) alignment, currently under construction, forms the north-west boundary of the Riverdale PSP with a potential future station located between the existing alignment of Sayers Road and the proposed realignment of Sayers Road. This station’s proposed location in the PSP is currently separated from the town centre by land allocated for at-grade commuter car parking approximating 600 car spaces.

The RRL and associated train station has the potential to significantly contribute to a number of key factors in creating a sustainable neighbourhood including:

- Reduction in private car use for commuting
- Providing a public transport link to both the Melbourne Central City and Geelong
- Implementing best practice transit network design (discussed further by ARUP)
- Acting as a catalyst for the Riverdale town centre development by being a key attractor for investors and developers
- Defining the heart of the town centre as a public transport hub.

The proposed PSP does not maximise the benefits of the investment in the train line and future station for the following reasons:

- The rail corridor creates an unavoidable physical barrier between the Riverdale and Oakbank PSP’s. The use of the rail corridor as a boundary in the planning stage, potentially reinforces this barrier by allowing planning on either side of the tracks to occur separately rather than in an integrated manner. This barrier should be reduced as much as possible to allow access for communities on both sides to nearby amenities.
- There is an opportunity to use the Sayers Road overpass as part of an intermodal hub for level transfers between bus and train, however this will only be possible if the train station is located adjoining the

overpass, integrating the road overpass as part of a well-designed transport node. Locating the train station together with the Sayers Road overpass has the potential to transform the overpass from a barrier to a link.

- The train station location is currently separated from the proposed Town Centre. In urban design terms this will not allow the maximum benefit gained from proximity/walkability to the train station for the greatest area of the town centre. Currently over half of the town centre falls outside of a 400 metre radius (5 minute walk) with a smaller portion falling outside of an 800 metre radius (10 minute walk). (Figure 12)



Figure 12. Notional walking catchments around station as located in the draft PSP.

Recommendation:

The location of the train station should be moved approximately 250 metres north along the existing track alignment to integrate with the proposed Sayers Road overpass allowing for a transit interchange at Sayers Road and for the train station to have a major public address at Sayers Road.

3.2.4 Bus network

- The Principle Public Transport Network is shown in the PSP as going along Sayers Road and then heading south at the intersection of Sayers Road at Sewells Road. This clearly shows that the Principle Public Transport Network is bypassing the proposed train station by approximately 1 kilometre and is only touching the very tip of the town centre.

Recommendation:

The Principle Public Transport Network should be designed to meet/intersect with the proposed train station to provide for convenient modal shifts for public transport users. It should also continue into the town centre core to provide direct and convenient access to the town centre from surrounding neighbourhoods.

3.2.5 Town Centre location and configuration

It is understood that the town centre will be subject to a detailed Urban Design Framework Plan in collaboration with the MPA and Wyndham City Council. This is a requirement of the draft PSP.

As previously stated, the vision and objectives for the PSP are generally supported. However, the following detailed Key Design Elements of the town centre identified in association with Figure 13 below are not supported:

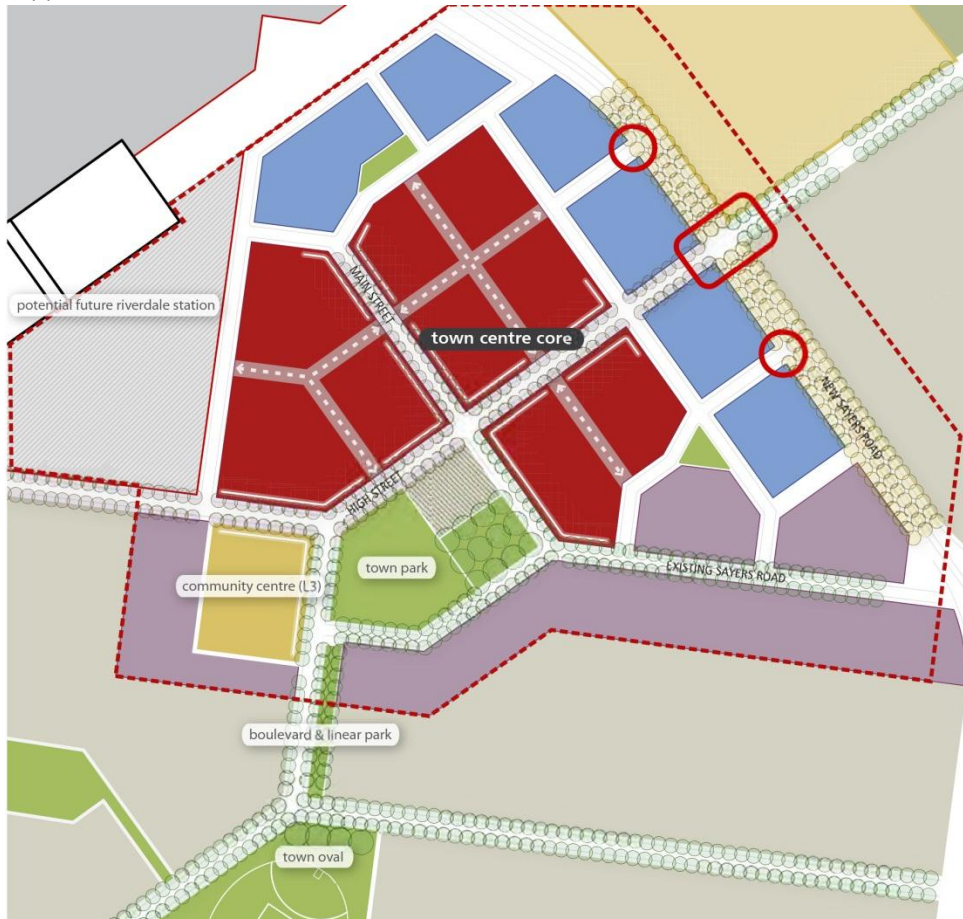


Figure 13. Riverdale Major Town Centre plan, from Riverdale PSP, p.15.

- *Three precincts on the south side of the railway line, focused on a town park and square*
 - Dividing the town centre into defined 'precincts' will not result in a mixed use, active-all-hours town centre
 - Locating the town centre all to one side of the rail corridor further exacerbates the potential barrier caused by the rail
- *A fourth community use-focused precinct located north-east of Sayers Road*
 - Locating a community use-focused precinct (shown on Plan 2 as an Indoor Recreation Facility) between the Creek and Sayers Road
 - The creek corridor has the potential to contribute 'sense of place' and land values due to the aesthetic amenity and is more appropriate for mixed use development.
 - The large volume required for the Indoor Facility results in approximately 6 1/2 hectares of land within a 5 minute walk of the train station and town centre being unavailable for residential or mixed use purposes.
- *Town centre core anchored between the potential future Riverdale Station and Sayers Road*

- The core of the town centre should be located around or immediately adjacent to the primary public transport interchange for it to achieve sustainable transport and maximise the investment of the Regional Rail Link.

Recommendation:

The town centre should be located around the train station, on both sides of the rail corridor and have a sensitive yet direct physical relationship with the unnamed Davis Creek tributary. It should be a mixed-use centre, not broken up into precincts, to promote activity throughout the day and evening.

3.2.6 Residential density

The Draft PSP contains a number of references to achieving higher residential densities, which are strongly supported, including:

- *Create a series of neighbourhoods that cluster around public open space, community hubs, and town centres.*
- *Build a high-density and transit-oriented neighbourhood focussed on the proposed future railway station site.*
- *Promote greater housing choice through the delivery of a range of lots capable of accommodating a variety of dwelling typologies.*
- *Leverage off the amenity offered by waterways, open space and town centres to deliver medium and high density housing options.*
- *Deliver sufficient residential densities within a walkable catchment to support vibrant and viable town centres.*
- *Development must appropriately respond to the potential future railway station site and future PPTN network through the creation of opportunities for high-density residential development.*

However the PSP is not specific in terms of density numbers, which is of concern. It is my opinion that yields, densities and housing mix should be more stringently planned and specified, to ensure the benefits of accessibility and viability of local services and facilities is achieved.

The Precinct Structure Planning Guidelines (GAA 2009) state that *an average of at least 15 dwellings per hectare (net developable area)* should be planned for.

In-house research: ‘Shall We Dense?’

SJB Urban’s ongoing in-house research project ‘Shall We Dense?’ effectively tests density numbers against planning principles, to identify shortfalls in planned densities in terms of achieving good planning outcomes.

The work draws on the catchment ‘viability thresholds’ for various facilities and activity centre types, and measures the density and housing type mix if these catchments are located within walkable distance of the activity centre (5-10 minutes’ walk).

Across a broad range of activity centre types and sizes, and through varying mixes of detached houses, semi-detached, townhouse/terrace types and apartments up to three-storeys, the resultant densities range from approximately 16-80 dw/ha, with a Precinct average of approximately 25-30 dw/ha.

In line with this work, our work on the Site Structure Plan is seeking to deliver much higher average densities than 15 dw/ha, across the entire site. It would be preferable and more effective if surrounding areas, across the Precinct, also achieved higher densities and therefore supported walkable neighbourhoods and sustainable centres, to allow the wider precinct to function as an integrated urban network of centres and neighbourhoods.

It is my concern that the PSP is not specific enough in explaining and specifying required densities and housing mix to support a network of centres, and what is meant by ‘medium’ and ‘high/higher’ density, and that the projected density numbers are too low to achieve the aspired outcomes.

For example, Objective 10 of the Draft Riverdale PSP proposes to *build a high-density and transit oriented neighbourhood focussed on the proposed future railway station site*. Table 1 and Table 2 however show a proposed ‘guideline for statutory planners’ equivalent to 17.6 dwelling per hectare (derived from hectare area and housing yield from PSP, reproduced below). This is not considered ‘high density’ and will not, according my research, achieve walkable neighbourhoods that *cluster around community hubs and town centres*.

Housing delivery guide – character areas

The following table is intended to provide statutory planners with guidance on the required lot yields across the precinct to underpin the viability of town centres and support the broader town centre objectives (O11, O12).

CHARACTER AREA	AREA (HA)	HOUSING YIELD	HOUSING TYPE RANGE
Riverdale major town centre	210	3,700	Any residential development within the town centre should consist of apartments, terraces, and other high density options. Immediately surrounding the town centre further opportunities should be sought for high and medium density housing.
Davis Road South local town centre	240	3,740	Predominantly detached housing with opportunities for terraces and row houses along waterways and parks as well as apartments closer to the town centre.
Davis Road North local town centre	157	2,450	Predominantly detached housing with opportunities for terraces and row houses along waterways and parks as well as apartments closer to the town centre.

Figure 14. Housing delivery guide for town centre areas and housing yields, from Riverdale PSP, p. 13.

Recommendation:

The proposed densities for the Riverdale PSP and future development including the Oakbank PSP should be aiming to achieve socially, environmentally and economically sustainable communities that minimise the reliance on private car and encourage employment. While it is understood that the guidelines set a minimum, not a maximum, increasing the preferred densities to the level that can achieve the supported policy objectives will have far reaching impacts on:

- Population numbers;
- Walkable access and viable local and town centres;
- Required community facilities to support the increased population;
- The Development Contributions Plan in terms of the funding increased community facilities
- Potential job creation.

3.2.7 Recreation location

The Riversdale PSP shows a significant Indoor Recreation Facility located between the town centre core, the rail corridor and the creek corridor. This facility, while a major benefit for the community is likely to have a high car parking demand and consist of large ‘block’ buildings to accommodate indoor recreation uses such as swimming pools and sports courts.

These buildings with typically large expanses of inactive frontage (no windows or doors) will not contribute to an integrated, fine grain ‘town centre’ or an effective frontage to the Sayers Road overpass. In my opinion

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these buildings are also not the most appropriate built form and associated use to maximise the amenity provided by the creek corridor. The potential significant demand for car parking may also result in large areas of hardstand, a use that does not capitalise on the creek corridor, the proximity to the train station and town centre for vibrant, activity generating uses that contribute to a socially, economically and environmentally healthy and varied town centre.

Recommendation:

The Indoor Recreation Facility would be more appropriately positioned around the intersection of Sayers Road and Sewells Road at the gateway to the town centre. This location would allow:

- access to the centre from the Principle Public Transport Network;
- large car parking facilities would not impact on high value land such as town centre or creek frontage
- co-location with active open space to the north of Sayers Road may allow for efficient operation models for Council.

3.2.8 Interface to creek

The Draft Riversdale PSP vision states that *new neighbourhoods will be formed on the edge of the creeks and tributaries*. The PSP shows Sayers Road and associated overpass and approximately 220 metres of residential development and indoor recreation use separating the town centre from the Davis Creek tributary.

Recommendation:

The town centre should be located adjacent to the Davis Creek tributary to allow the creek system and associated landscape character to have a positive 'sense of place' benefit for the town centre. It will also locate the town centre adjacent to the principle off-road pedestrian and cycle pathways.

3.3 Draft PSP Requirements and Guidelines

The scope of my instruction for this Statement has not allowed detailed review of the numerous Requirements and Guidelines in the Draft Riverdale PSP, except where noted below.

From my general review, the Requirements and Guidelines reflect supportable principles and directions for future development. However I would be concerned about some specific aspects and how the guidance is translated in implementation.

4.0 Preliminary Site Structure Plan (1160 Sayers Road within PSP area)

4.1 Proposed alternative plan

As explained above, the Site Structure Plan process for 1160 Sayers Road is in progress, and is currently in a period of feasibility testing of options, informed by extensive research and investigation work. Therefore a complete or 'preferred' Site Structure Plan is not yet available.

For the Planning Panels Victoria process for the Draft Riverdale PSP, SJB Urban has worked with Wyndham City Council and our consultant team to prepare an outline plan reflecting the recommended changes to the Draft Riverdale PSP, for the portion of the 1160 Sayers Road site that falls under this PSP.

This plan is shown below. The various components of this plan, which differ from the Draft PSP, are explained below.

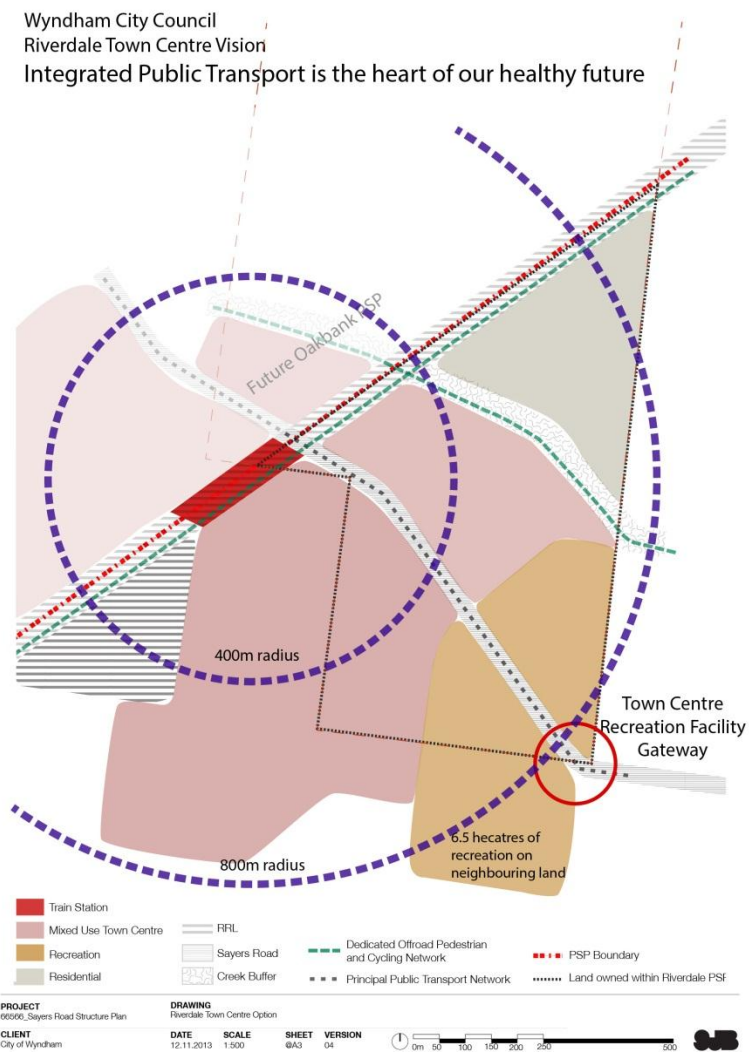


Figure 15. Preliminary Site Structure Plan indicating notional locations for the proposed town centre, train station and recreation area.

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4.2 Components

4.2.1 Neighbourhood Activity Centres / urban structure

While *Plan Melbourne* contains the principle of a '20 minute city', it is important to distinguish this from the outcomes sought here. I understand the 20-minute city is based on notions of access to employment, schools, community infrastructure and other higher order facilities. But this does not negate the importance of walkable access to local shops, services and facilities, within 5-10 minutes' walk.

It is well established that 20 minutes is well beyond reasonable expectations for walking for convenience and local services. If the 20-minute journey incorporates public transport, then this assumes regular, reliable services within very close proximity, and effective connections between modes.

In seeking 'world's best practice' greenfield development for the subject site, the Site Structure Plan is seeking to deliver development patterns that support walkable access for all residents, to an activity centre. This relies on the presence, and viability, of a number of local/neighbourhood centres, not just the proposed town centre at Riverdale, delivering walkability outcomes similar to those in inner Melbourne. It will also deliver:

- Housing diversity
- Reduced car dependence
- Walking (or cycling) as the most convenient option for local functions
- Enhanced health outcomes
- Enhanced social outcomes
- Multiple smaller centres connected with, and in support of, the major town centre.

It is my opinion that this approach should be taken across the PSP area, and across all growth area plans.

Therefore the PSP should reflect an integrated network of town centres and smaller local centres, not just the three activity centres currently shown.

The above outcomes also rely on significant residential density outcomes, discussed above and below.

The planned community facilities such as a library and maternal and child health services have not yet been identified in detail within the Structure Plan project and are expected to be located in a position that maximises their benefit for the community. These include;

- located within 5 minutes' walk or closer from public transport to encourage sustainable transport access
- in close proximity to open space to allow for the planning of indoor/outdoor community uses and events
- near the town centre heart to help establish placemaking and ensure the town centre is focused on the community and community needs

4.2.2 Sayers Road alignment

As discussed above, the recommended plan retains the re-aligned Sayers Road as shown in the Draft PSP. The early investigations for the 1160 Sayers Road Site Structure Plan have investigated the potential for Sayers Road to remain in its current 'arterial grid' alignment, with slight deviation where it crosses the RRL and meets the proposed Ison Road (close to the Werribee River south-west of the subject site). As mentioned above, I understand that this alignment is no longer available for discussion or review, so the PSP alignment is shown in the 'recommended' plan.

However, it is my opinion that subject to further investigation and testing, retaining Sayers Road in its existing alignment, as part of the established grid or arterial roads, would present some advantages:

- Retaining a grid-based road layout of regular intersections and clear urban structure, in line with the wider context;
- Avoiding a road environment that 'feels' free-flowing and disconnected from the urban structure, like a freeway environment;
- Avoiding a highly prominent road overpass, and visual and physical barrier, between a major town centre and significant environmental feature (creek corridor) and much of its residential catchment.

4.2.3 Train station and rail line

In the Preliminary Site Structure Plan the train station is located further north than in the Draft PSP, between the triangular portion of land owned by the Regional Rail Link (proposed use for at-grade car parking) and the Sayers Road overpass, and integrated with the road overpass. In this configuration:

- The Station platform can be accessed from the proposed car-park at the south and from the elevated Sayers Road entry providing a public transport/pedestrian priority entrance as well as the private vehicle user entry.
- The physical design of co-locating the station building next to and associated with the overpass may help minimise the land take of the earth berm that is currently proposed for Sayers Road overpass. (insert sketch design)
- The location of the train station to the north of the proposed car park allows for access to the station by car park uses and opens up land directly next to the station to the highest and best use for the community.
- Creating a people-focused entry on the Sayers Road overpass may become a catalyst for other development and activation situated on the overpass. This has the potential to lead to built form that addresses the overpass by building up to the edge and creating a 'hill' within the town centre. This is a superior urban outcome for Sayers Road over a large bermed 'ramp'.

4.2.4 Bus network

In the Preliminary Site structure Plan, the Principal Public Transport Network (bus network) is proposed to run through the town centre to the transit interchange at the train station, in order to:

- Facilitate effective modal interchange at the station
- Provide direct and frequent access via public transport to the train station
- Provide direct and frequent access to the town centre

4.2.5 Town Centre location and configuration

The town centre has been located around the proposed train station in the Preliminary Site Structure Plan, and is adjacent to the tributary of Davis Creek running through the subject land. It extends to both sides of Sayers Road and both sides of the rail corridor to maximise accessibility from the residential catchment.

Further attributes include;

- Emphasis on the train station as the 'heart' of the town centre;
- Town centre development can occur along the Creek corridor, drawing on the corridor for 'sense of place' opportunities;
- The Rail and Creek corridor provide direct cycle and pedestrian links to the town centre from surrounding neighbourhoods;
- The town centre is part of the Riverdale PSP area and the future Oakbank PSP area with equitable access to the associated facilities from both sides of the rail corridor.

4.2.6 Residential density

The Site Structure Plan for 160 Sayers Road is planned to reflect average densities of at least 25-30 dwelling per hectare across the entire site, with localised densities up to 100+ dw/ha, to support highly diverse

housing (low-rise), and effective catchment support for a range of facilities and services within walkable distance of all dwellings.

I understand that preferred 'minimum' densities specified in the PSP Guidelines will not prevent higher densities being proposed or achieved, however it is my opinion that the wider PSP area should also achieve these higher average densities, not just immediately surrounding the town centres.

4.2.7 Recreation location

Active open space is co-located with the proposed Indoor Recreation Facility in the Preliminary Site Structure Plan. Its location in the south-east corner of the subject land, and extending into the land to the south, achieves the following outcomes:

- Creating a gateway of recreation facilities at the edge of the town centre.
- Located on the Principal Public Transport Network.
- Easily accessed from the walking/cycling paths along the Davis Creek tributary.
- Co-locating indoor and outdoor active recreation can aid the Council in forming a sustainable and financially viable operating model for the spaces.

The specific location of passive open space within the town centre has not yet been identified in detail within the Site Structure Plan however the locations will support the following outcomes:

- Co-location with community facilities;
- Useable for a variety of activities.
- Creating a network of open spaces throughout the town centre that provide for a variety of experiences and support other desired outcomes such as integrated water management, food production, and climate change mitigation.

4.2.8 Interface to creek

The creek forms the northern boundary of the town centre. Wyndham is characterised by River and Creek networks and these unique environments have the potential to contribute to important placemaking initiatives ensuring that new urban environments are 'place-based' and connected with the local landscape.

The location of the town centre along the creek frontage creates the opportunity for development in and around the town centre to front the creek maximising the use of the valuable visual and environmental amenity of the corridor.

Appendix 1: Qualifications and Experience

Name and Address

Simon Joseph McPherson (MSc, BArch, BPD, RAIA)
Urban Designer and Architect
Director, SJB Urban Pty Ltd
25 Coventry Street
Southbank, Victoria 3006

Qualifications and Experience

- Master of Science (MSc): Built Environment - Urban Design (Distinction), University College London, UK
- Bachelor of Architecture (BArch) (First Class Honours), The University of Melbourne
- Bachelor of Planning and Design (BPD) (Architecture), The University of Melbourne
- Architects Registration Board of Victoria: individual registration number 5838

2007-present: Director, SJB Urban

2003-2007: Urban Designer, Department of Planning and Community Development

2001-2002: Architect, SJB Architects

1999-2000: Graduate Architect, Reid Architecture, Glasgow UK

1998-1999: Graduate Architect, Gray Puksand Architects

1999-present: Tutor, occasional Lecturer, The University of Melbourne

Areas of Expertise and Experience

- Design Review:
 - Member, Design Review Panel for South Australia (Office for Design and Architecture South Australia ODASA)
 - Member, Capital City Design Review Panel, South Australia
 - Member, Moreland City Council Design Review Panel for Central Coburg
 - Member, ACT Expert Reference Group for planning projects
- Independent Urban Design Reviews for Councils, including Yarra and Brimbank
- Urban Design Advice on a range of development proposals and locations
- Urban Design Analysis and Assessment and preparation of Urban Context Reports
- Preparation of Development Plans, Master Plans and Urban Design Frameworks for public and private sector clients
- Strategic Urban Design and Planning for Melbourne 2030 Growth Area Planning process (Committees for Smart Growth) 2004-2005
- Research for and preparation of DPCD Design Guidelines for Higher Density Residential Development and Activity Centres
- Urban development research, investigation, modelling
- Architectural practice - design, documentation, administration on a range of residential, commercial and master planning projects