

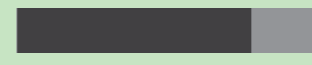
Curbing the Kerb in Yarra's Side Streets

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Raising roads so that they are at the same height as footpaths - obviating the roadside kerb - is an emerging urban design technique used to make side streets more permeable for pedestrians and cyclists, as opposed to vehicles.

Why would kerbless streets be appropriate for the City of Yarra?

79% of survey respondents argue that current active/public transit infrastructure in Yarra is inadequate¹.



Kerbless streets discourage car use, a current aim of Yarra City Council² to address the densifying population in the area³.



Kerbless streets improve disabled citizens' access to the city⁴.



Kerbless streets have the potential to provide more room for urban ecology projects.



The City of Yarra's urban form mainly consists of gridded streets. Main streets are usually approximately 20 metres wide (such as Bridge Road, Richmond), and side streets are usually approximately 10 metres wide (such as Argyle Street, Fitzroy pictured below). The suburbs that comprise the City of Yarra are some of the oldest in Melbourne, and were designed before cars were invented. As such, streets in Yarra are much narrower than in suburbs of Melbourne that were designed during the late 20th and early 21st centuries, and function poorly when attempting to accommodate for both vehicular and pedestrian traffic as can be observed in the image below. Currently, in many Yarra side streets such as Argyle St, 25% of street-space is allocated for pedestrians, and 75% for vehicles, as has been illustrated to the right. Jan Gehl notes that patronage in transport modes is determined by how each mode is catered for in street design⁶. It is clear that Yarra's side streets discourage walking, as pedestrians can only walk single file, and persons with prams or wheelchairs may not be able to navigate the street at all.

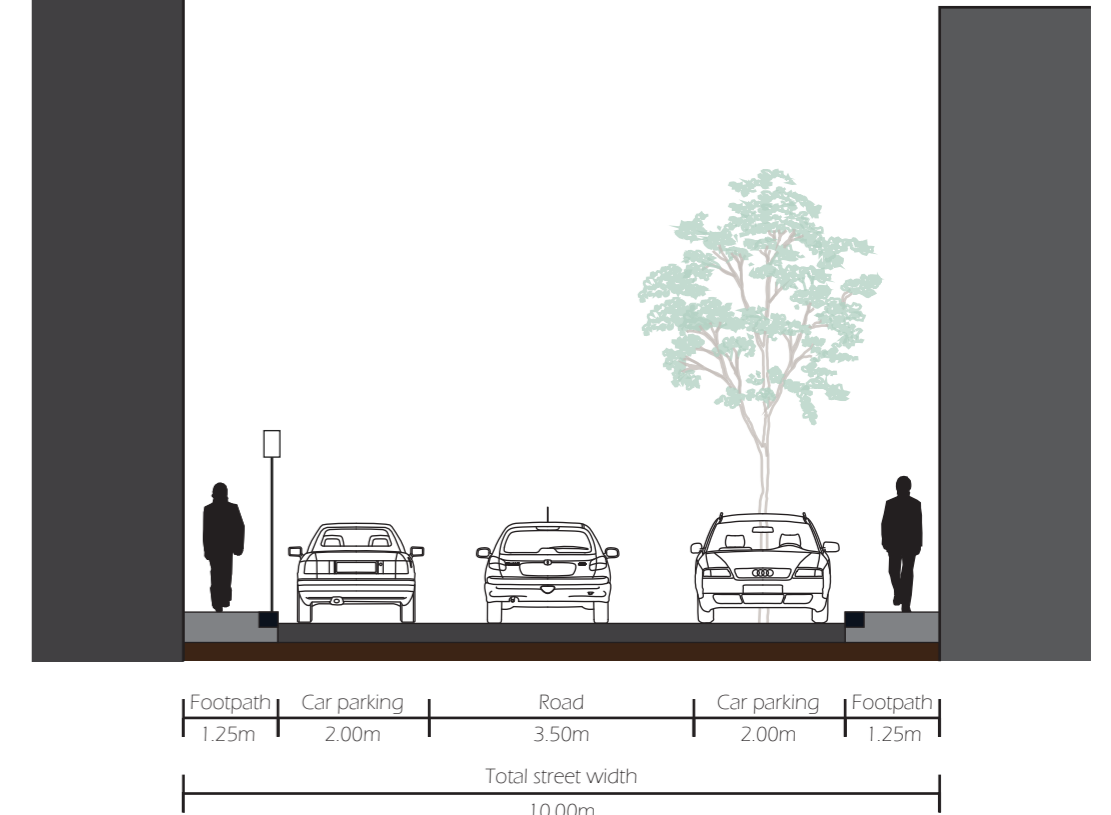


Additionally, paths can become obstructed by residents' bins, and parked bicycles - those of which also have very limited infrastructure.

This is not to say that the City of Yarra is not currently walkable. Yarra has one of the lowest rates of car ownership in Melbourne⁷, and the structure of its neighbourhood performs very well in international walk score rankings⁸. However, it is clear that the urban design of the city does not meet the standards that would be desired for a highly walkable neighbourhood.

The City of Yarra would benefit from an urban design intervention that would prioritise pedestrianism over vehicular transport and parking, such as the introduction of kerbless side streets that provide more space for pedestrian and bicycles, and discourage vehicular through-traffic.

Argyle street, Fitzroy Typical side street in the City of Yarra



Carrer de Sant Agusti Typical side street in Gracia, Barcelona



Superblocks Model. Adapted from Ajuntament de Barcelona. Retrieved from <https://www.barcelona.cat/en/urban-planning/urban-planning/superblocks>. Copyright 2019 by Ajuntament de Barcelona.

Permeability for different modes of transport in Gracia is structured using superilles (meaning superblocks in Catalan), in the manner shown above. Through-traffic travels along exterior streets with speed limits of 50 km/h. Local traffic in interior streets is limited to 10 km/h⁹.

While Gracia's urban form is a tight, semi-structured grid that is not as strict as the Eixample region of Barcelona depicted above, it functions in the same way. Most side streets in Gracia have a width of approximately 8 metres such as Carrer de Sant Agusti (pictured above), and most main streets a width of approximately 16 metres.

It is important that if side streets are to be made kerbless, that they are supported by a permeability program that diverts traffic away from side streets such as the superilles do in Gracia. Public spaces shared between pedestrians and vehicles are very rare in modern cities across the globe, as the two modes of transport are generally considered incompatible with one another. From fieldwork conducted in Gracia in 2016 and 2020, it was apparent that pedestrians and vehicles can coexist in kerbless side streets due to low vehicle traffic volume (as determined by permeability associated with superilles¹⁰), very low speed limits, and an overarching pedestrian right-of-way.



The precedent: Kerbless streets in the superilles of Gracia, Barcelona



An innovative response by Ajuntament de Barcelona (metropolitan government) to address car congestion and pollution in the city⁹.

10km/h

Slow speed limits discourage through-traffic, and allow vehicles and pedestrians to safely share street space.



Despite being at a continuous level, visual and physical differences between road and footpath remain to ensure the safety of users such as children and the vision impaired.



The intervention has increased foot traffic by 10%, increased bicycle traffic by 30%, and has decreased vehicle traffic by 26% in Gracia's interior streets¹⁰.

The proposal: A model for kerbless side streets in the City of Yarra

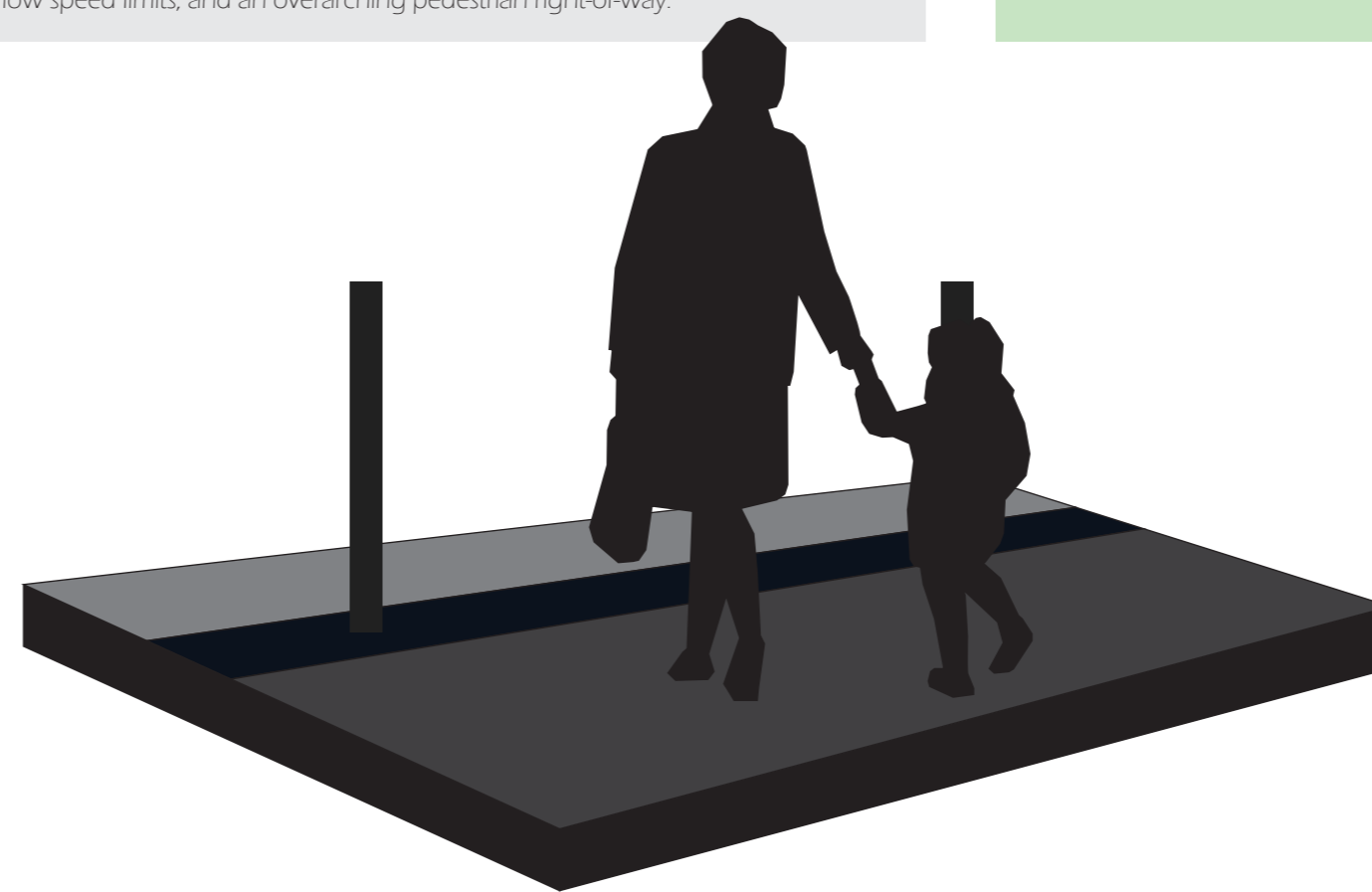
Side streets in the City of Yarra would be redesigned following a structure such as is depicted to the right, which would utilise a kerbless design to provide more space for pedestrians and cyclists, and discourage car use.

These kerbless side streets would be supported by a superblock-style network of interconnected and permeable streets for vehicles surrounding kerbless 'interior' streets, to minimise 'rat-running' and ensure pedestrian safety.

Kerbless streets would employ appropriate measures including slow speed limits to ensure pedestrian safety.

Redesigned streets would incorporate amenable street furniture, ecology projects, and bicycle infrastructure.

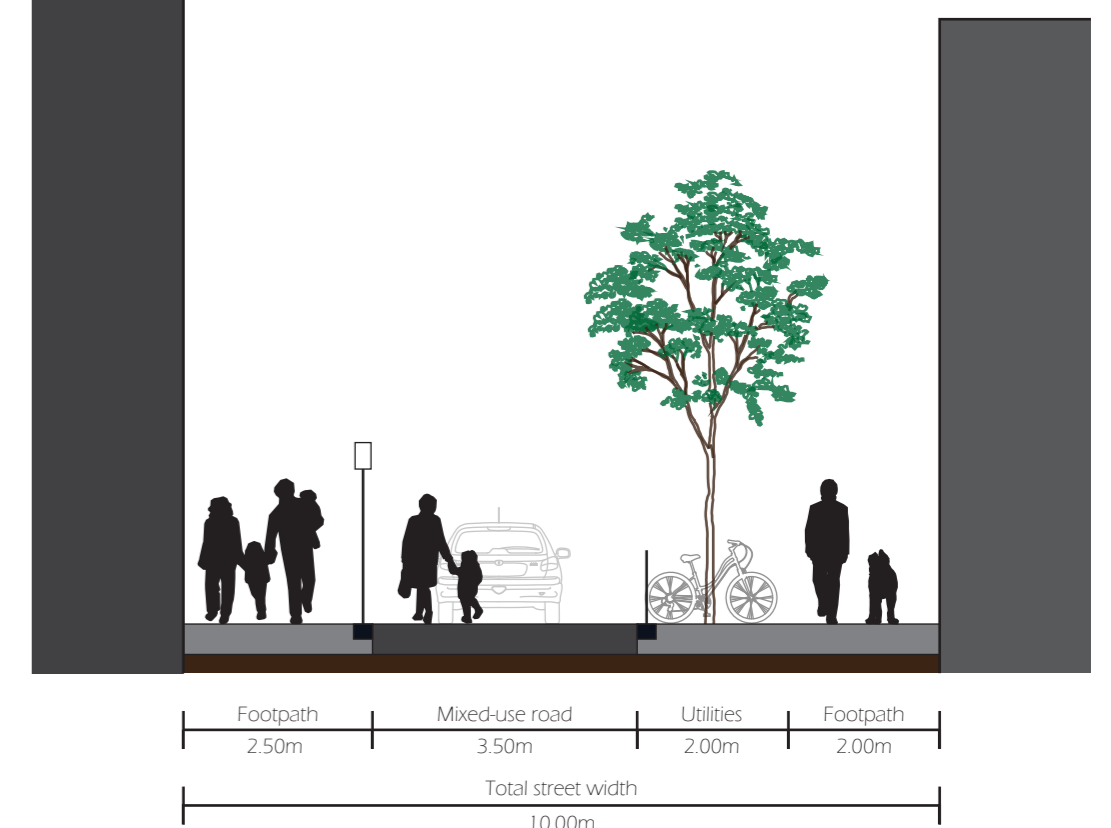
A government-led program of underground car parking would form an integral part of the scheme, to free-up street space.



Sectional perspective of a footpath-road meeting

This design incorporates materials that are renowned in the area. Footpaths would remain asphalt as this is synonymous with the Yarra¹¹ and is symbolic in that the newly walkable road is of the same material. Traditional bluestone kerbs will be placed between road and path (see above) - as a visual and physical indicator of the different land uses. These will be tactile when stepped upon to alert pedestrians of the change.

Argyle street, Fitzroy Envisioned as a kerbless side street



Feasibility

This design concept would be very progressive in the context of Australian urban planning. Whilst the City of Yarra is an area well suited to the concept in terms of its existing street widths, grid structure, density, population that don't own cars, and walkable businesses and services, the implementation would require a thorough and complicated scheme, and a high level of co-operation from the Victorian State Government and the City of Yarra. Superilles in Barcelona are a city-wide planning intervention by the municipal government of Barcelona⁹, a level of government that does not exist in Melbourne. It is apparent that the large gap between levels of government in Melbourne may be curbing the potential for projects such as kerbless side streets to implemented.

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