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Great Eastern Highway Bypass Interchanges Project

Frequently Asked Questions

About the project

Why is this project needed?

The intersections of Great Eastern Highway Bypass (GEHB) with Roe Highway, Stirling Crescent and Abernethy Road have become increasingly congested with road users experiencing significant wait times during peak periods. This increased congestion is due to the presence of heavy vehicles moving in a north-south direction between the Forrestfield/High Wycombe and Hazelmere industrial areas, and Perth hills residents and heavy vehicles seeking to avoid heavy traffic through Midland and Guildford. In addition to traffic congestion issues, future expansion of the southern part of Midland around the former railway workshops precinct is constrained by the lack of direct access to and from the south.

What does the project include?

- Major interchanges at:
 - GEHB and Roe Highway
 - o GEHB and Abernethy Road
- An extension of Lloyd Street from its current end point to the GEHB, including a new bridge over the Helena River to provide a new southern access to Midland
- Upgrades to the GEHB, including removal of the existing signalised intersection at Stirling Crescent
- Upgrade of Abernethy Road between Yagine Close and Kalamunda Road including a new heavy vehicle standard roundabout connection at Adelaide Street
- Upgrade of Roe Highway between Talbot Road and Clayton Street, including a bridge duplication over Helena River
- Completion of the 30km Principal Shared Path network on Roe Highway between Great Eastern Highway and Kwinana Freeway
- Landscaping.



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How is the project funded?

The project is jointly funded by the Federal (\$247.25 million) and State and Local (\$139.25 million) Governments.

Who is delivering the project?

The Greater Connect Alliance, comprising Laing O'Rourke, AECOM and Arcadis, in partnership with Main Roads, will develop, design and construct the project.

What are the benefits of the project?

This project will:

- Improve road safety and reduce congestion for all users of the GEHB and adjoining roads
- Improve freight efficiency, connectivity and travel time
- Improve access to the Hazelmere and Forrestfield industrial areas and former railway workshops precinct in Midland
- Improve the local cyclist network

Key benefits:

Roe Highway and Great Eastern Highway Bypass Interchange

- A new grade separated interchange will replace one of the last remaining signalised intersections on Roe Highway to provide free flowing access between both roads.
- The interchange will provide immediate journey time savings for 60,000 road users on Roe Highway per day.

Abernethy Road and Great Eastern Highway Bypass Interchange

- Abernethy Road will be elevated to pass over the GEHB, with connectivity retained via a new grade separated interchange.
- Completion of the interchange will allow removal of the signalised intersection of Stirling Crescent and GEHB.
- This will alleviate significant levels of congestion by allowing free flowing traffic along the length of GEHB between Roe Highway and Kalamunda Road.

Upgrades to Abernethy Road

- Abernethy Road will be duplicated between Yagine Close and Kalamunda Road.
- There will be a new heavy vehicle standard roundabout connection at Adelaide Street.

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New Lloyd Street Bridge over Helena River

- Lloyd Street will be extended from its current end point adjacent to Bunnings, over the Helena River to the GEHB via the new Abernethy Road and GEHB interchange.
- The Lloyd Street extension will create a new southern entry to Midland, providing improved access to St John of God Hospital, the Curtin University campus and a developing entertainment precinct. This part of the project is co-funded by the City of Swan.

New Principal Shared Path (PSP)

- A new PSP will extend from the Roe Highway and Great Eastern Highway Bypass Interchange to join the section of PSP north of Kalamunda Road which was constructed as part of the Roe Highway and Kalamunda Road Interchange project.
- This extension will complete the missing link in the 30km PSP along Roe Highway, between Great Eastern Highway in Midland and Kwinana Freeway in Jandakot.
- A new PSP will also be built along the northern side of the Great Eastern Highway Bypass from Roe Highway to just west of the existing railway bridge where it will join the local footpath network on Waterhall Road.



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Getting around

Why does the intersection of Stirling Crescent and Great Eastern Highway Bypass (GEHB) need to close?

The intersection of Stirling Crescent and GEHB is less than 400 metres from the intersection of GEHB and Roe Highway. The access ramps and merging distances for the grade separated interchange at GEHB and Roe Highway will extend as far as Stirling Crescent, which means the existing intersection will need to close. The Stirling Crescent access will be replaced by the new interchange at Abernethy Road, which will provide safe and efficient access between the two roads. Removal of the signalised intersection at Stirling Crescent will result in free-flowing traffic along the GEHB between Roe Highway and Kalamunda Road and will eliminate queuing of traffic at signals during peak travel times.

How will road users to the north of GEHB access the bypass once Stirling Crescent is closed?

Road users north of GEHB can access the Bypass via the new interchange at Abernethy Road. From Stirling Crescent you can turn into Lakes Road or Bushmead Road which will both adjoin Lloyd Street. Lloyd Street will connect directly to the new interchange. Please see the map on the page below.

How will businesses to the south of GEHB access the bypass once Stirling Crescent closes?

Access to GEHB will be maintained via Adelaide Street and Abernethy Road. Adelaide Street will be extended to Abernethy Road. Please see the map on the page below.

When will Stirling Crescent close?

Stirling Crescent will close once the new upgrades are in place.



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Why is the intersection of lakes Road and Lloyd Street left-in, left-out access only?

Safety for all road users is of paramount consideration. Introducing unprotected right hand turning movements across traffic in this location would create a heightened risk, particularly given the significant volume of heavy vehicle movements in this area and the close proximity of this intersection to the new interchange at Abernethy Road.

How will road users access the Bypass from Lakes Road?

Access to the Great Eastern Highway Bypass will be as follows:

 Businesses located on the eastern side of Lloyd Street will be able to access the Bypass via Lakes Road and Lloyd Street and/or Stirling Crescent, Bushmead Road and Lloyd Street.

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 Businesses and residents located on the western side of Lloyd Street will be able to access the Bypass by turning left into Lloyd Street from Lakes Road, travelling to the roundabout at Bushmead Road and continuing around the roundabout on to Lloyd Street southbound back to the Bypass. The additional journey time associated with traversing the roundabout is approximately one minute.

To access Lakes Road from the Great Eastern Highway Bypass, road users can:

- Exit the Bypass via the new interchange at Abernethy Road and Lloyd Street, and head north along Lloyd Street (towards Hazelmere)
- A left-turn into the section of Lakes Road west of Lloyd Street will be located approximately 400 metres from the interchange.
- To enter the section of Lakes Road to the east of Lloyd Street, road users should use the roundabout at Bushmead Road to turn around, head back towards the Bypass and turn left into Lakes Road





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Project design

What stage is design at now?

Design has progressed beyond 85% completion for most aspects of the project.

What does design involve?

There have been many considerations in development of the project design. These include ensuring the design:

- aligns with required project outcomes and objectives
- integrates with surrounding land use
- meets required safety, technical standards, policies, and design guidelines
- minimises impacts and carefully considers the environment, heritage, local amenity and aesthetics; and existing infrastructure such as water, power and gas utilities
- minimises the need for land acquisition
- meets constructability requirements, that is, ensures the infrastructure can be constructed using the available level of technology and within specified constraints.

Will the design include noise or screen walls?

The project is being delivered in accordance with *State Planning Policy 5.4 (SPP5.4) Road and Rail Noise*. Under this policy, Main Roads is required to ensure noise limits at the boundaries of its projects are contained within the established acceptable parameters.

Noise modelling will be undertaken as part of the design process to assess current noise levels, and projected noise levels to 2041 with the project in place. Noise walls or mounds may be considered in locations where exceedances are evident.

Screen walls will be considered adjacent to roads and paths at locations where there is potential for visual intrusion.

Will the community have input to the design?

A broad range of stakeholders have been directly engaged in the design development process including relevant State and Local Government Authorities, freight operators, and government regulators. Local businesses, road user groups and the broader community were provided with the opportunity to provide feedback at community information displays and via online community surveys in September 2021. Stakeholder and community feedback helped identify local community, road user and local industry priorities for the project.

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What changes have been made to the project design in response to stakeholder and community feedback?

To date, key design changes resulting from the feedback received include:

- Addition of a shared path along the northern side of Adelaide Street between Stirling Crescent and Abernethy Road.
- Review of flora species to be incorporated in project landscaping.
- Commitment to development and implementation of a Heritage Interpretation and Aboriginal Art Plan for the project.
- Commitment to incorporation of Aboriginal art into the project Urban and Landscape Design.
- Use of recycled materials such as recycled asphalt pavement and recycled concrete.

You can view the Community Feedback Report here:

https://www.mainroads.wa.gov.au/globalassets/projects-initiatives/projects/metro/great-easternhighway-bypass/gehbi-community-feedback-report-november-2021.pdf

In addition to the above, Main Roads has entered discussions with Traditional Owners to explore the viability of a new alignment for the Lloyd Street Bridge as part of the mediation process under Section 10 of the Aboriginal and Torres Strait Islander Heritage Protection Act. Traditional Owners and local environmental groups have put forward a new alignment for consideration. The new proposal moves the bridge further west, to a narrower crossing of the Helena River, loosely following the footprint of the old Whiteman Road bridge that was demolished in 2002.

Main Roads has committed to explore the feasibility of realigning the bridge to address the concerns of Traditional Owners and other local groups, while meeting road network efficiency and connectivity requirements.

Does the project design require land acquisition?

Some land acquisition is required to construct the new interchanges. Land is acquired by negotiation or formal taking action under the powers contained in the *Land Administration Act 1997*. More information on the property acquisition process is available at <u>https://www.mainroads.wa.gov.au/globalassets/contact/land-acquisition-fact-sheet.pdf</u>

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Project construction

How will the project be constructed?

The project has been separated into four main work areas for construction as follows.

- GEHB/Roe Highway Interchange
- GEHB/Abernethy Road Interchange, including Lloyd Street extension from Lakes Road to the Bypass
- A new bridge over Helena River connecting the existing sections of Lloyd Street
- Upgrade to Abernethy Road between Yagine Close and Kalamunda Road, including connection of Adelaide Street to Abernethy Road

Each area includes early works such as surveying, site investigations, service protection and relocations, accommodation works, and clearing. This will be followed by earthworks, bridge construction, road pavement, line marking, and finishing works. Finishing works include installation of kerbing and road barriers/guard rails, road signage, lighting, and landscaping. All of these works will be staged to minimise impacts on traffic flow.

What is the expected timeframe for construction?

Works in each area will be constructed concurrently. Some early works such as surveying, geotechnical investigations, and clearing along some sections of Great Eastern Highway Bypass commenced in 2021. Preliminary construction works commenced in mid-2022. Preliminary construction works include utility/service protection and relocation works, accommodation works, and upgrades to local roads. Subject to availability of land, environmental approvals and outcomes of technical investigations, major construction is expected to commence early 2023.

How will construction be managed?

Construction Management Plans are developed for all works. The construction methodology will consider aspects such as noise, vibration, traffic management, environment, and safety, with the aim of minimising impacts as much as possible. Examples include:

- Reducing impacts on traffic by maintaining traffic lane availability during AM and PM peak times, providing detours during road closures, ensuring business and residential access at all times and using haulage routes that avoid local roads as much as possible.
- Minimising the clearing footprint as much as possible.
- Minimising impacts of vibration and dust by undertaking vibration monitoring in sensitive locations and implementing control measures such as dust suppression for works that are expected to create dust. Where possible, we will also store stockpiles of materials in locations that will not affect local residents and businesses.
- Ensuring planned impacts are communicated to businesses, residents and road users well in advance of any changes. The team will work with directly impacted stakeholders to ensure alternative access arrangements are appropriate, in advance of any changes, to avoid impacts to business operations.

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Environment, heritage and community

What is the impact of the project on the environment?

As with all major infrastructure, there will be some environmental impacts that will be closely managed and monitored during construction. Potential environmental impacts are currently being assessed by environmental specialists, and appropriate mitigation strategies identified. The project team is currently consulting with the WA Department of Water and Environmental Regulation, Department of Biodiversity, Conservation and Attractions, and Commonwealth Department of Agriculture, Water and Environment to identify environmental approval and offset requirements.

How will Aboriginal heritage be monitored during the works?

An Aboriginal Cultural Heritage Management Plan (ACHMP) has been prepared in consultation with Traditional Owners. The ACHMP outlines the management actions necessary to minimise impacts to Aboriginal Heritage throughout the project area.

Throughout clearing works Whadjuk Noongar representatives will be present on site to monitor the works to observe ground disturbing activities within any potential areas of interest.

How will it be ensured that construction activities don't harm the environment?

Care will be taken to protect and minimise impacts of construction on the environment. The project team undertakes detailed environmental risk assessments for all aspects of the project. This includes consideration of issues associated with culture and heritage, dust, flora and fauna, waterways, hazardous substances, noise and vibration and spoil management. After the hazards, impacts and risks are identified, control measures are implemented to mitigate or eliminate risks.

Will trees and vegetation be removed as part of construction activities?

We are committed to retaining as many trees and native fauna habitat as we can and will designate 'no go zones' and 'tree protection zones' where required to protect sensitive native vegetation and wildlife. Some vegetation clearing will be required as follows:

- **GEHB and Abernethy Road Interchange** there is no native vegetation in this interchange area with the exception of a small number of trees located on the northern side of GEHB near Kalamunda Road. These trees have been excluded from the development envelope.
- **GEHB and Roe Highway Interchange** construction of this interchange was originally anticipated to require clearing of up to 30.26 ha of remnant native vegetation. Greater Connect Alliance worked hard to reduce the clearing footprint and development envelope to 23.31 hectares by making some design changes including:

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- The design speed from Roe Highway north to the Great Eastern Highway Bypass west was reduced to 80km. This change in speed allowed the curvature geometry to be sharpened up pushing the design of the road further into the interchange instead of going around the edge of the road reserve. This design change, as well as relocating and redesigning a drainage basin, has allowed a significant reduction of clearing (more than 10 hectares).
- On the eastern side of the highway, the realignment of the Principal Shared Path has allowed for reduced clearing.
- Realignment of the project boundary along Roe Highway in both directions has allowed for clearing just within the road reserve, avoiding removal of rare vegetation.

We will plant new trees and vegetation at the end of the project and will explore opportunities to re-use timber. Timber will also be donated to the Woodturners Association of Western Australia.

How will the Helena River be protected during construction?

The Helena River and any other waterways in the project area will be protected via use of appropriate sedimentation controls such as silt fencing. Water quality will be monitored throughout construction to ensure water quality is maintained. Checks for wildlife will also be undertaken prior to construction commencing.

How will dust be managed during construction?

The project team is committed to maintaining air quality around the construction area by minimising the amount of dust produced by project construction activities. The project has procedures to minimise dust generated from construction activities. These include:

- watering areas of earthworks
- having additional water carts on standby on hot and windy days
- covering truck loads
- wherever possible, planning topsoil stripping and grading on days when wind conditions are less likely to carry dust toward sensitive areas
- minimising the time between stripping topsoil and commencing excavation
- application of dust suppressants.

What measures will be in place to protect wildlife during construction?

Prior to areas being cleared for construction, any wildlife present will be removed and relocated to safe areas by licensed wildlife specialists. For some animals such as possums, this may involve capturing and releasing them. Once construction has begun, checks will be made daily to ensure there is no wildlife in the construction area.

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What measures will be in place to protect protected flora species during construction?

Where possible, construction activities will be planned to avoid removal of protected flora species. Locations will be demarcated and access to these areas will be controlled.

What happens if the contractors discover asbestos or other hazardous substances during construction?

In the event asbestos is found on the site during construction, professional asbestos removalists will be engaged to undertake removal. Their work will be closely monitored by professional hygienists who will monitor air quality adjacent to residential properties.

Removal of any other identified hazardous substances will be undertaken in accordance with relevant environmental laws and guidelines.

How are Main Roads and the Greater Connect Alliance engaging with the community and local stakeholders?

The project team is working with local landowners and business operators to ensure the impacts of construction can be managed appropriately. We are also committed to engaging the broader community to ensure high levels of awareness and understanding of the project. As the project progresses, updates will be provided in the form of regular newsletters, construction updates and roadworks updates.

We will utilise a broad range of communication methods, from e-bulletins and social media, through to hard copy correspondence and face to face meetings. We encourage ongoing feedback from the community, businesses and road users about the progress of the project and will consider and incorporate this feedback wherever possible.

Other changes in the area

What other changes are occurring in the area?

 The Perth Airport Precinct – Northern Access Project comprises the replacement of the existing two-lane Kalamunda Road Bridge over the freight rail line with an increased load carrying capacity bridge of four lanes; and planning for for a new grade separated interchange at the intersection of Great Eastern Highway Bypass and Kalamunda Road. https://www.mainroads.wa.gov.au/greateastern-hwy-bypass-kalamunda-rd

• Design and construction of the new **Midland Train Station** is expected to begin in late 2021. The new location of the station will improve connections to Midland Gate Shopping Centre and Midland Health Campus. <u>https://www.metronet.wa.gov.au/projects/midland-station</u>

 Construction of the METRONET Railcar Manufacturing Facility in Bellevue is ongoing. This may result in changes to the local road network. For more information, please visit: <u>https://www.metronet.wa.gov.au/projects/railcar-program#overview</u>

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 The Tonkin Gap and Associated Works project comprises the upgrade of Tonkin Highway between Collier Road and Dunreath Drive is underway including new interchanges, bridges and a shared path. For more information, please visit: https://www.mainroads.wa.gov.au/projects-initiatives/projects/metropolitan/tonkin-gap/

How do I find out more?

You are encouraged to subscribe to stay up-to-date with the latest information as it becomes available. To subscribe, visit <u>https://www.mainroads.wa.gov.au/geh-bypass-interchanges</u>

For project enquiries, please contact Main Roads on **138 138** or via enquiries@mainroads.wa.gov.au

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