Appendix A – Consideration of section 171 factors and matters of national environmental significance and Commonwealth land

Section 171 Factors

In addition to the requirements of the *Guideline for Division 5.1 assessments* (DPE, 2022) and the *Roads and Related Facilities EIS Guideline* (DUAP, 1996) as detailed in the REF, the following factors, listed in section 171 of the Environmental Planning and Assessment Regulation 2021, have also been considered to assess the likely impacts of the proposal on the natural and built environment.

Factor	Impact
a. Any environmental impact on a community?	
Construction of the proposal would result in some temporary short term impacts associated with potential traffic delays and access disruptions due to temporary changes in traffic conditions, increases in noise, vibration and dust, and reduced visual amenity due to vegetation removal and construction activities. These impacts would be mitigated with the implementation of recommended safeguards and management measures identified in Chapter 7.	Short term minor negative
Long term impacts include partial acquisition of five parcels of land, full acquisition of one land parcel, minor changes in property access and a loss of informal parking.	Long term minor negative
Once operational, the proposal would reduce queuing and delay along Mandalong Road, Freemans Drive, Dora Street and Wyee Road, improve safety for all road users, pedestrians and cyclists, and improve the road network resilience.	Long term moderate positive
b. Any transformation of a locality?	
Construction of the proposal area would temporarily transform the existing locality due to the removal of roadside trees, earthworks, the presence and movement of construction workers, plant, equipment and heavy vehicles, and the operation of the ancillary facilities. These impacts would be minimised with the implementation of recommended safeguards and management measures identified in Chapter 7.	Short term minor negative
Permanent changes to land use would occur due to property acquisition. The proposal would require the partial acquisition of five parcels of land and full acquisition of one land parcel. Partial acquisition would mostly consist of strip acquisition of properties along the road corridor and would have no substantial effect on the functionality or viability of the current or future use of the remainder of the property. The full acquisition of the privately owned concrete batching plant would result in the permanent closure of this facility. Upon completion of construction, this site would be revegetated and become road reserve.	Long term minor negative
The operational area is located within and directly adjacent to a developed urban arterial road carrying high volumes of traffic and as such is not considered to substantially transform the locality.	Nil
The effects of vegetation removal carried out during construction would be mitigated through landscaping and revegetation but plantings would take around 10-15 years to reach maturity. Other safeguards and management measures to reduce potential visual impacts during operation are identified in Chapter 7.	Medium term minor negative
c. Any environmental impact on the ecosystems of the locality?	
The proposal would result in the removal of 0.98 hectares of native vegetation, including 0.39 hectares of the following TECs listed under the EPBC Act and BC Act: • 0.27 hectares of Swamp Sclerophyll Forest on Coastal floodplains of the NSW North Coast, Sydney Basin and South East Corner Bioregions (endangered under the BC Act) • 0.08 hectares of River Flat Eucalypt Forest on Coastal Floodplains of the NSW North Coast, Sydney Basin and South East Corner Bioregions (endangered under the BC Act) • 0.04 hectares of Coastal Swamp Sclerophyll Forest of NSW and South East Queensland (endangered under the EPBC Act). The proposal would also remove around 4.86 hectares of non-native vegetation, comprising native plantings, native shrub regrowth, and exotic grasses and trees.	Long term minor negative

Factor	Impact
The removal of vegetation for the proposal would remove suitable habitat for a range of threatened fauna species listed under the BC Act and EPBC Act, as well as threatened flora species and potential threatened flora habitat within the proposal area. Up to nine hollow-bearing trees would be removed by the proposal that may provide suitable habitat for bats, birds and arboreal mammals, reptiles and frogs. The proposal would increase existing habitat fragmentation and edge effects caused by existing infrastructure, which may impact wildlife connectivity, including movement of arboreal fauna. There is also a risk of injury and mortality of terrestrial fauna species, including threatened fauna species, to occur. Overall, the proposal is not likely to significantly impact threatened species, populations, ecological communities or their habitats, within the meaning of the BC Act, FM Act or EPBC Act. An Urban Design Concept and Landscape Strategy has been developed for the proposal, which includes planting locally endemic species within the proposal area to ensure that biological diversity and ecological integrity in the local area is maintained over the long term.	
d. Any reduction of the aesthetic, recreational, scientific or other environmental quality or value of a locality?	
The proposal may result in a temporary minor reduction in the aesthetic and recreational quality of the area during construction due to the removal of vegetation, changed road conditions and increased noise, vibration, air quality and visual amenity impacts. These impacts would be minimised through the implementation of safeguards and management measures identified in Chapter 7.	Short term minor negative
The effects of vegetation removal carried out during construction would be mitigated through landscaping and revegetation but plantings would take around 10-15 years to reach maturity. Other safeguards and management measures to reduce potential visual impacts during operation are identified in Chapter 7.	Medium term minor negative
An Urban Design Concept and Landscape Strategy has been developed for the proposal, that includes planting locally endemic species within the proposal area. These new plantings would improve the environmental values of the locality.	Long term positive
An Urban Design will be prepared for the proposal in accordance with Beyond the Pavement (Transport for NSW, 2020) as part of the detailed design. The Urban Design will present an integrated urban design for the proposal that would improve the aesthetic value of the proposal area.	Long term positive
Kerbs and gutters are currently mainly absent from the proposal area. The proposal would improve the environmental quality of the locality by upgrading the stormwater drainage infrastructure within the proposal area.	Long term positive
e. Any effect on a locality, place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance or other special value for present or future generations?	
The proposal is not expected to impact known Aboriginal or non-Aboriginal sites, items or values in the proposal area or surrounds. The proposal is not expected to impact a locality, place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance or other special value for present or future generations.	Nil
f. Any impact on the habitat of protected fauna (within the meaning of the *National Parks and Wildlife Act 1974*)?	
The proposal would remove native vegetation that provides suitable habitat for a range of threatened fauna species listed under the BC Act and EPBC Act, including nine hollow-bearing trees that may provide suitable habitat for bats, birds and arboreal mammals, reptiles and frogs. The biodiversity assessment concluded that these impacts would not be significant.	Long term minor negative

Factor	Impact
g. Any endangering of any species of animal, plant or other form of life, whether living on land, in water or in the air?	
The proposal would result in the removal of 0.98 hectares of native vegetation, which may provide suitable habitat for terrestrial fauna and flora. Up to nine hollow-bearing trees would be removed by the proposal that may provide suitable habitat for bats, birds and arboreal mammals, reptiles and frogs.	Long term minor negative
The proposal would increase existing habitat fragmentation which may impact wildlife connectivity, including movement of arboreal fauna, and result in minor edge effects. There is also a risk of injury and mortality of terrestrial fauna species, including threatened fauna species, to occur.	
As the proposal is surrounded by large areas of similar habitat, it is not likely to result in significant impacts on fauna or flora. Safeguards and management measures outlined in Section 7.2 would be implemented to minimise risk of injury and mortality of terrestrial fauna species and potential impacts on wildlife connectivity.	
h. Any long term effects on the environment?	
Long term impacts on land use would occur due to partial and full property acquisition. Partial acquisition would mostly consist of strip acquisition of properties along the road corridor and would have no substantial effect on the functionality or viability of the current or future use of the remainder of the property. The full acquisition of the privately owned concrete batching plant would result in the permanent closure of this facility. Upon completion of construction, this site would be revegetated and become road reserve.	Long term minor negative
The proposal would result in the removal of 0.98 hectares of native vegetation, including 0.39 hectares of TECs listed under the EPBC Act and BC Act. An Urban Design Concept and Landscape Strategy has been developed for the proposal, which includes planting locally endemic species within the proposal area to ensure that biological diversity and ecological integrity in the local area is maintained over the long term.	Long term minor negative
The proposal would have positive long term effects on the environment through improved road safety and also efficiency of traffic movement along Mandalong Road, Freemans Drive, Dora Street and Wyee Road.	Long term moderate positive
i. Any degradation of the quality of the environment?	
The proposal has the potential to temporarily degrade the quality of the environment during construction through erosion, sedimentation, accidental spills, dust, vegetation removal, noise and vibration, if controls are not in place. Safeguards and mitigation measures have been proposed to manage and minimise these potential impacts (as outlined in Section 7.2).	Short term minor negative
j. Any risk to the safety of the environment?	
Construction of the proposal would result in potential temporary road safety risks due to changed traffic conditions. These risks would be minimised through the implementation of a traffic management plan and safeguards and management measures outlined in Section 7.2.	Short term minor negative
The proposal would improve safety for road users, pedestrians and cyclists during operation by reducing congestion, improving intersection performance and improved pedestrian/cyclist and public transport facilities.	Long term moderate positive
k. Any reduction in the range of beneficial uses of the environment?	
The beneficial use of proposal area would be temporarily reduced during construction due to potential delays and congestion, and increased safety risks during construction as a result of increased construction traffic and changed traffic conditions.	Short term minor negative
Once operational, the proposal would result in improved safety, efficiency and connectivity, which would support local and regional economic development. It would also support an increase in active and public transport use, and increase transport network resilience.	Long term moderate positive

Factor	Impact
l. Any pollution of the environment?	
The proposal has the potential to result in some minor short term pollution impacts due to the generation of noise and vibration and emissions to air (dust and exhaust emissions). The proposal could also result in minor impacts to water quality from erosion and sedimentation impacts and from accidental spills/leaks. These impacts would be avoided or minimised through the implementation of the safeguards and management measures outlined in Section 7.2.	Short term minor negative
The operation of the proposal would be unlikely to substantially alter air quality from the existing conditions.	Nil
m. Any environmental problems associated with the disposal of waste?	
Waste generated during construction and operation of the proposal would be managed in accordance with the resource management hierarchy principles outlined in the WARR Act. It is not anticipated that there would be any environmental problems associated with the disposal of waste, providing the safeguards and management measures outlined in Section 7.2 are implemented.	Nil
n. Any increased demands on resources (natural or otherwise) that are, or are likely to become, in short supply?	
The proposal is not likely to result in increased demands on resources which are or are likely to become in short supply.	Nil
o. Any cumulative environmental effect with other existing or likely future activities?	
There would be potential cumulative impacts associated with the proposal should construction overlap or occur consecutively with other nearby projects. This could include potential traffic, noise, vibration, erosion and sedimentation, air quality, water quality, visual amenity and biodiversity impacts. Potential cumulative construction impacts would be minimised through the implementation of safeguards and management measures identified in Section 7.2.	Short term minor negative
The proposal, together with the Gimberts Road intersection Upgrade and Wyee Road/Alliance Avenue Intersection Upgrade, would collectively contribute to improved traffic efficiency, safety and performance along Mandalong Road, Dora Street, Freemans Drive and Wyee Road.	Long term moderate positive
The operation of the proposal and nearby projects would provide significant socio-economic benefits in the Lake Macquarie region through growth in investment, infrastructure and employment opportunities.	Long term moderate positive
p. Any impact on coastal processes and coastal hazards, including those under projected climate change conditions?	
The proposal is not located within a coastal area ad would not result in any impact on coastal processes or hazards, including those under projected climate change conditions.	Nil
q. Applicable local strategic planning statements, regional strategic plans or district strategic plans made under the Act, Division 3.1.	
Local strategic planning statements, regional strategic plans or district strategic plans relevant to the proposal have been considered in Section 2.1. The proposal is consistent with a number of regional and local strategic plans, including (but not limited to) the *Hunter Regional Plan 2041* (DPE, 2022), *Draft Hunter Strategic Regional Integrated Transport Plan* (Transport for NSW, 2024), *Lake Mac 2023 Community Strategic Plan 2022-2032* (Lake Macquarie City Council, 2022a), and the *Lake Macquarie City Council Walking Cycling and Better Streets Strategy 2031* (Lake Macquarie City Council, 2022b).	Long term moderate positive
r. Other relevant environmental factors.	
In considering the potential impacts of the proposal, all relevant environmental factors have been considered (refer to Chapter 6).	Nil

Matters of National Environmental Significance and Commonwealth land

Under the environmental assessment provisions of the EPBC Act, the following matters of national environmental significance and impacts on Commonwealth land are required to be considered to assist in determining whether the proposal should be referred to the DCCEEW .

A referral is not required for proposed actions that may affect nationally-listed threatened species, endangered ecological communities and migratory species. Impacts on these matters are still assessed as part of the REF in accordance with Australian Government significant impact criteria and taking into account relevant guidelines and policies.

Factor	Impact
c. Any impact on a World Heritage property? There are no World Heritage properties within or near the proposal area.	Nil
d. Any impact on a National Heritage place? There are no National Heritage properties within or near the proposal area.	Nil
e. Any impact on a wetland of international importance? There are no wetlands of international importance within or near the proposal area.	Nil
f. Any impact on a listed threatened species or communities? The proposal would result in the removal of 0.98 hectares of native vegetation, including 0.39 hectares of the following TECs listed under the EPBC Act and BC Act: • 0.27 hectares of Swamp Sclerophyll Forest on Coastal floodplains of the NSW North Coast, Sydney Basin and South East Corner Bioregions (endangered under the BC Act) • 0.08 hectares of River Flat Eucalypt Forest on Coastal Floodplains of the NSW North Coast, Sydney Basin and South East Corner Bioregions (endangered under the BC Act) • 0.04 hectares of Coastal Swamp Sclerophyll Forest of NSW and South East Queensland (endangered under the EPBC Act). This proposal would remove suitable habitat for a range of threatened fauna species listed under the BC Act and EPBC Act, as well as threatened flora species and potential threatened flora habitat within the proposal area. Up to nine hollow-bearing trees would be removed by the proposal that may provide suitable habitat for bats, birds and arboreal mammals, reptiles and frogs. The proposal would increase existing habitat fragmentation which may impact wildlife connectivity, including movement of arboreal fauna, and result in minor edge effects. There is also a risk of injury and mortality of terrestrial fauna species, including threatened fauna species, to occur. Overall, the proposal is not likely to significantly impact threatened species, populations, ecological communities or their habitats, within the meaning of the BC Act, FM Act or EPBC Act. An Urban Design Concept and Landscape Strategy has been developed for the proposal, which includes planting locally endemic species within the proposal area to ensure that biological diversity and ecological integrity in the local area is maintained over the long term.	Long term minor negative
g. Any impacts on listed migratory species? Two migratory species, the Regent Honeyeater *(Anthochaera Phrygia),* and Swift Parrot *(Lathamus discolor)* are considered to have a moderate likelihood to occur within the proposal area. However, habitat within the proposal area is unlikely to constitute important habitat for these species. Therefore, the proposal is not likely to significantly impact migratory species within the meaning of the EPBC Act.	Long term minor negative
h. Any impact on a Commonwealth marine area? There are no Commonwealth marine areas within or near the proposal area.	Nil

Factor	Impact
i. Does the proposal involve a nuclear action (including uranium mining)? The proposal does not involve a nuclear action (including uranium mining).	Nil
j. Additionally, any impact (direct or indirect) on the environment of Commonwealth Land? The proposal would not result in any direct or indirect impact on Commonwealth Land.	Nil