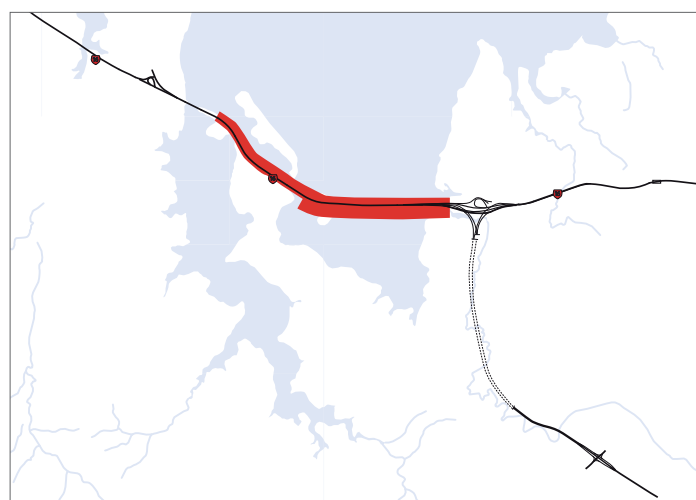


C4 Sector 4 – Reclamation



Sector 4 involves the provision of two additional westbound lanes from the Great North Road Interchange to the Rosebank Road Interchange to create a total of five westbound lanes plus a dedicated bus shoulder. An additional lane will be added from the Rosebank Interchange to the Great North Road Interchange to create a total of four eastbound lanes in this section. Widening of the reclamation area will enable improved stormwater treatment and enable the existing cycleway to be relocated further away from vehicle traffic.



Figure C-4.2: Aerial view of sector 4 from the north

C4.1 Traherne Island

C4.1.1 Existing situation

Movement and connectivity

- Motorway provides 3 lanes in both directions, with continuous bus shoulders

Landscape, planting, views

- Dramatic harbour landscape for most of this sector, with expansive views of the Waitemata. In the two directions there are contrasting distant backdrops of the Waitakeres and Auckland CBD
- Vegetation on Traherne Island provides a sense of enclosure. Some native species present, including some rare species, but widespread distribution of weed species has altered the current character of the island. Currently there is not a developed sense of place or strong landscape character, partly due to the strong presence of weed species
- Safety barriers along shoulders in some reclamation areas interrupt views

Urban form

- No urban development in this area

Structures

- No major structures visible above the causeway



Figure C-4.3: Photo 4-1 Existing view west on Traherne Island



Figure C-4.1: Photo 4-2 Existing view west departing Traherne Island

Western Ring Route ▶ Waterview Connection



Figure C-4.4: Sector 4.2 existing plan

Section C ▶ Sector Design Concepts

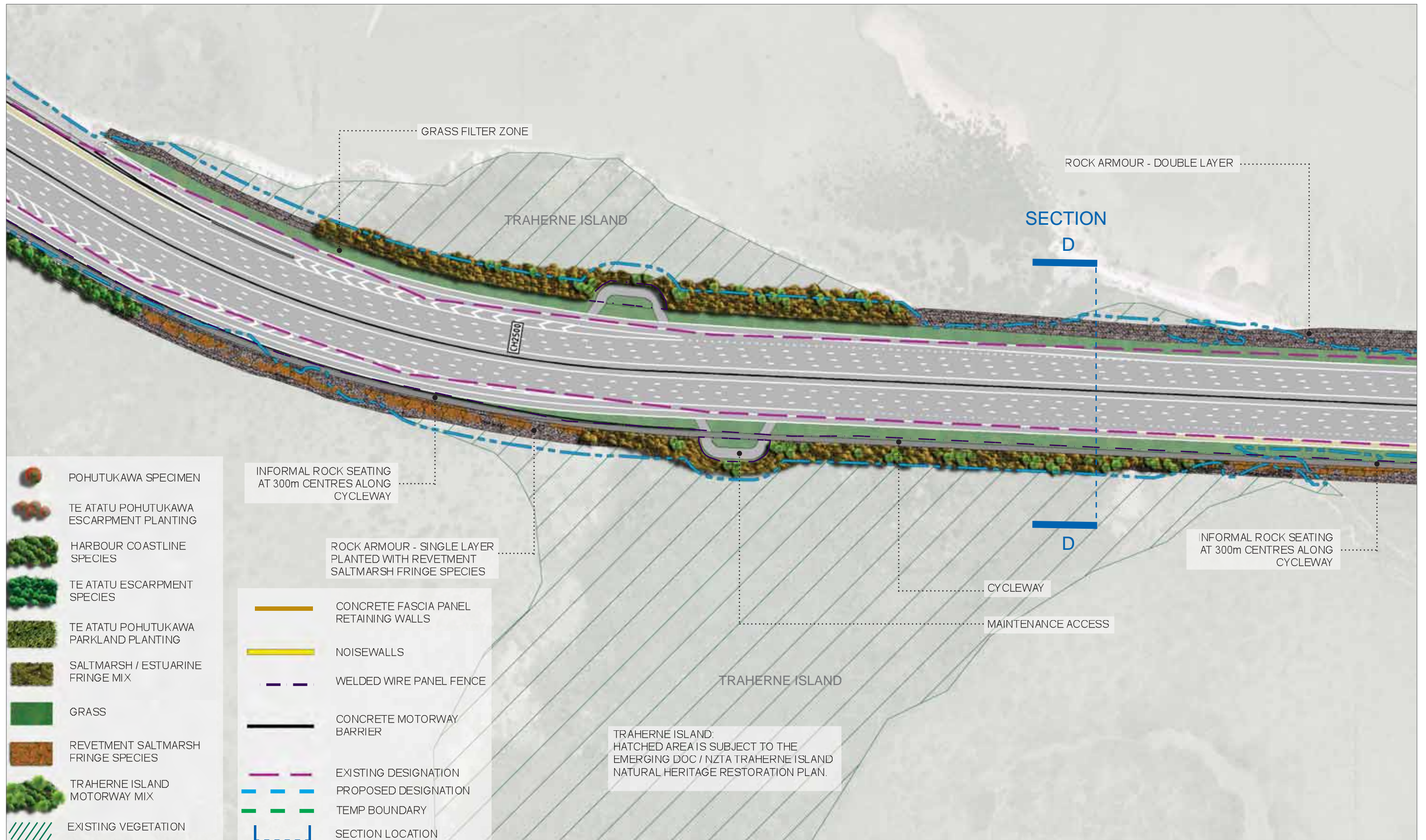


Figure C-4.5: Sector 4-1 concept plan

Western Ring Route ▶ Waterview Connection

C4.1.2 Design concept

Movement and connectivity

- Motorway widened with one additional eastbound lane and two additional westbound lanes, with continuous bus shoulders
- Cycleway relocated to increase separation from vehicles on motorway
- Two compounds are provided in this area, to enable occasional highway maintenance and access for authorised persons to Traherne Island. These areas are necessarily located away from the carriageway and associated clear zones, and are provided with security fencing to deter anti-social behaviour.

Landscape, planting, views

- All works within Traherne Island shall be undertaken in accordance with the requirements of the emerging Restoration Plan to be agreed between DoC and the NZTA
- The Restoration Plan will set out overall objectives, survey, research and management approaches together with the compensation of ecological issues arising from the proposed road scheme
- The detail design proposals for the planted and seeded motorway verge / embankments shall be developed in accordance with the final restoration plan
- Works for the road scheme include replacement and enhancement of existing native edge vegetation, and the translocation of existing flax plants either directly on the island or in advance to local nurseries for propagation and subsequent replanting
- The provision of compensation habitats for saltmarsh vegetation and habitat lost due to the scheme shall be undertaken as part of the Traherne Natural Heritage Restoration Plan. Rare plants will be carefully relocated into appropriate environments within the overall island system.

Structures

- No major structures in this section. Signage and furniture required in approach to Rosebank interchange.

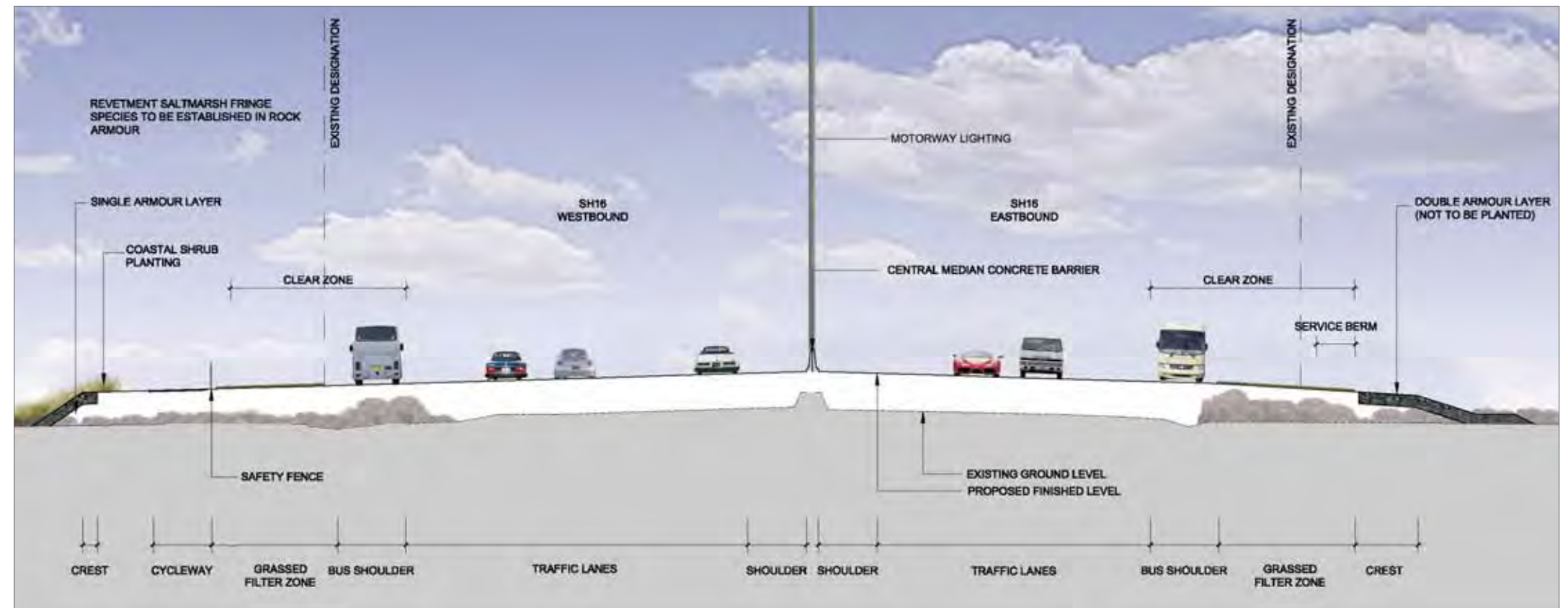


Figure C-4.6: Future cross-section at Traherne Island compared to existing arrangement (Section D)

Section C ▶ Sector Design Concepts

C4.2 Sector 4.2 Causeway

C4.2.1 Existing situation

Movement and connectivity

- Motorway provides 3 lanes in both directions, with continuous bus shoulders.

Landscape, planting, views

- Experience of moving at a level close to the water
- Is punctuated by Rosebank bridge, raising and enclosing the route
- Limited verge areas, coastal defence formed with random boulders
- Eastbound views from corridor to CBD, Waitemata Harbour, intertidal zone and Rangitoto
- Westbound views of the inner intertidal zone and Waitakere ridgelines
- Westbound views of industrial area feature low-quality development in some highly visible locations
- Barriers along shoulders in causeway areas interrupt views.

Urban form

- No urban development in this area.

Structures

- No major structures visible above the causeway.



Figure C-4.7: Photo 4-3 Existing view eastwards approaching Rosebank bridge



Figure C-4.8: Photo 4-4 Existing view westwards after Rosebank bridge on the off-road route



Figure C-4.9: Photo 4-5 Existing view westwards after Rosebank bridge

Western Ring Route ▶ Waterview Connection

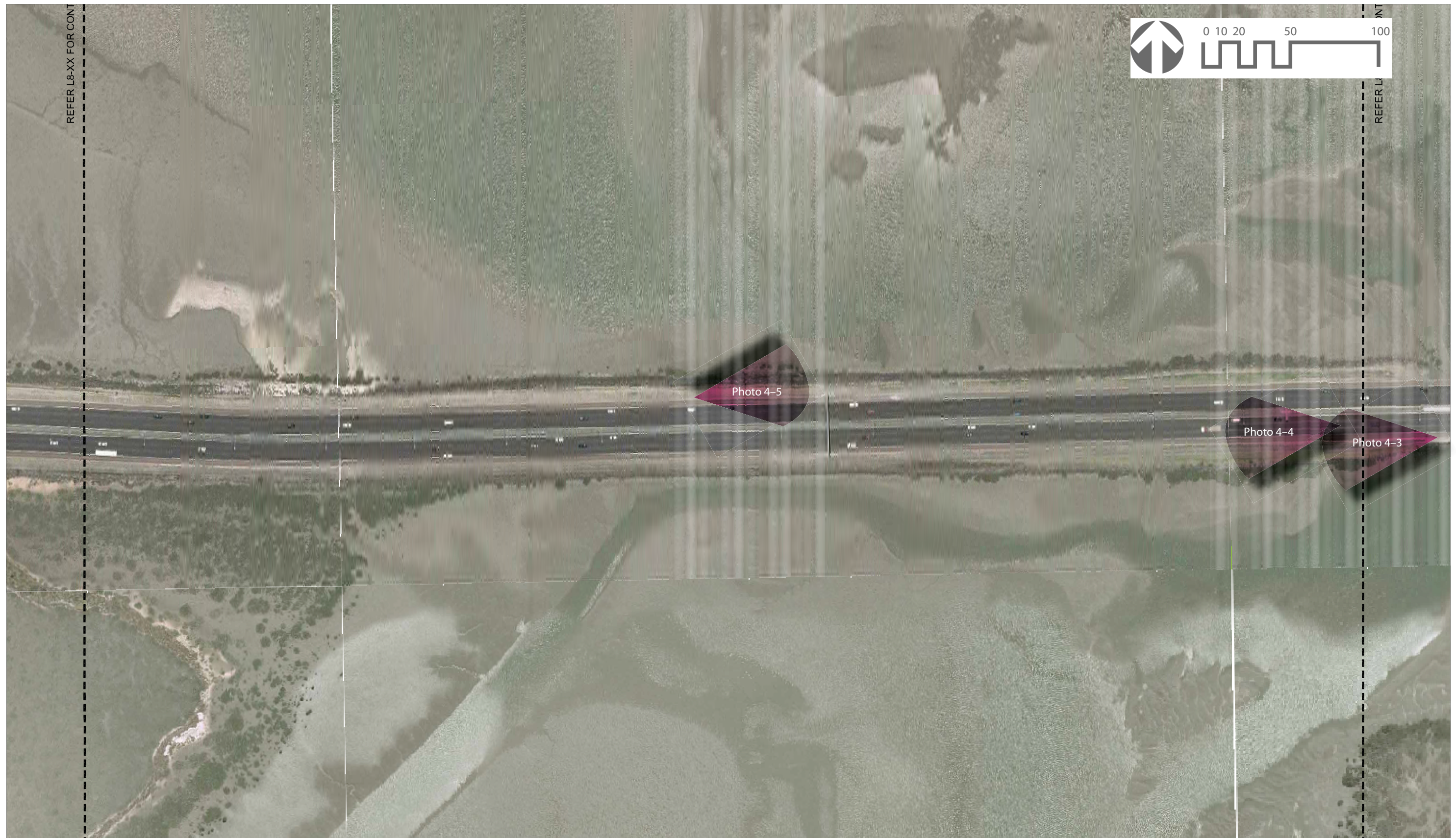


Figure C-4.10: Sector 4.2 existing plan

Section C ▶ Sector Design Concepts

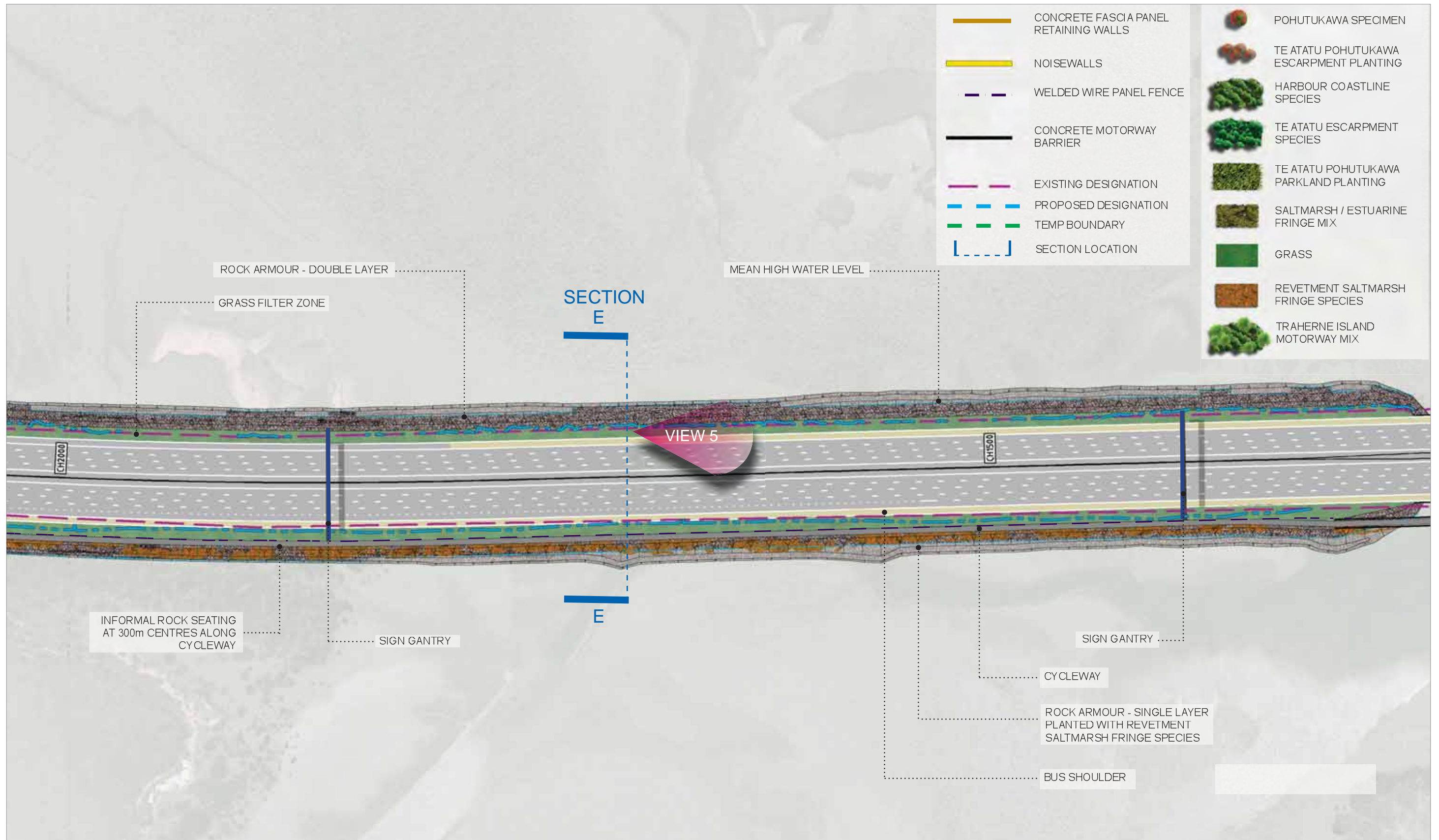


Figure C-4.11: Sector 4.2 concept plan

Western Ring Route ▶ Waterview Connection

C4.2.2 Design concept

Movement and connectivity

- Motorway widened with one additional eastbound lane and two additional westbound lanes, with continuous bus shoulders
- Cycleway relocated to increase separation from vehicles on motorway.

Landscape, planting, views

- Width and height of causeway construction minimise need for future rebuilding operations in this area
- 'Clear zone' is used for low-impact filter-strip drainage installation, avoiding use of installed cartridge filters
- Existing views are protected by minimising use of safety barriers
- Saltmarsh species are to be planted into the new 'rip-rap' boulders forming the coastal armour, with planting being carried out as soon as areas of armour are completed to minimise establishment of weed species. In cases where additional boulder armour needs to be provided as part of the contract, for example due to settlement, additional plantings should be provided in the same manner.

Urban form

- No change to urban form.

Structures

- No major structures visible above the causeway on this section. Signage and corridor furniture required in advance of the Waterview Interchange.



Figure C-4.12: Visual simulation of proposed view east approaching Rosebank bridge (View 5)

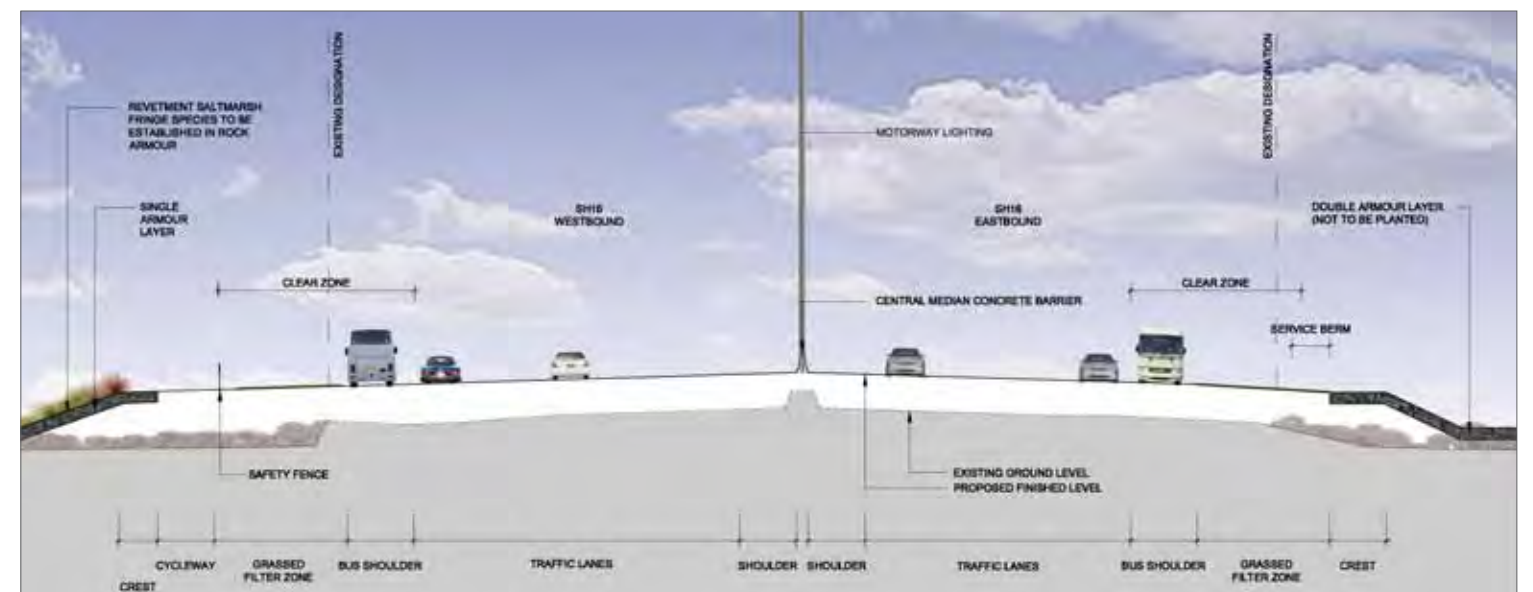


Figure C-4.13: Future cross-section of causeway compared to existing arrangement (Section E)

Section C ▶ Sector Design Concepts

C4.3 Sector 4.3 Rosebank bridge

C4.3.1 Existing situation

Movement and connectivity

- Asymmetrical lane provision addresses traffic merge from interchange
- Cycleway on the southern side; narrow passage across bridge
- No pressure for local connectivity; topography forms natural barriers.

Landscape, planting, views:

- Emerges from low-lying coastal land below the Point Chevalier ridge
- Experience of moving at a level close to the water
- Punctuation formed by Rosebank bridge, raising and enclosing the route
- Limited verge areas, coastal defence formed with random boulders
- Distant views of the Waitakeres and inner harbour from corridor
- Notable views into corridor from dwellings at Hemington Street and from Eric Armishaw Park.

Urban form

- Overlooked by residential areas, typically one and two storeys, which are connected via the Waterview interchange immediately to the east
- Buildings are set back and raised from corridor, separated by foreshore and Oakley Creek.

Structures

- Bridge rises above the causeway level
- Cycle lane immediately adjacent to vehicle lanes.



Figure C-4.14: Photo 4-6 Existing view west approaching Rosebank bridge on the off-road route



Figure C-4.15: Photo 4-7 Existing view west on Rosebank bridge



Figure C-4.16: Photo 4-8 Existing view to Rosebank Bridge from Eric Armishaw Park

Western Ring Route ▶ Waterview Connection



Figure C-4.17: Sector 4.3 existing plan

Section C ▶ Sector Design Concepts

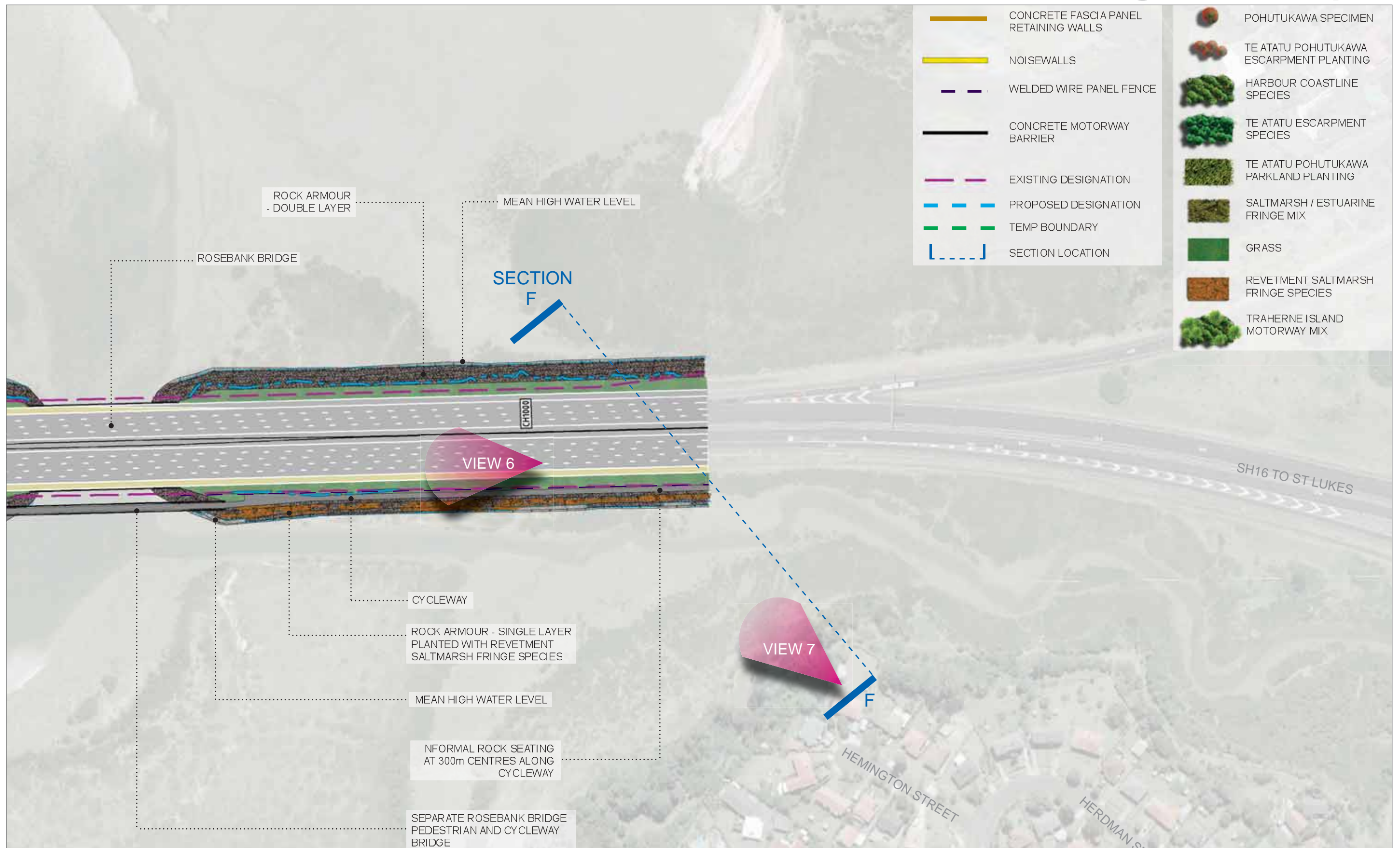


Figure C-4.18: Sector 4.3 concept plan

Western Ring Route ▶ Waterview Connection

C4.3.2 Design concept

Movement and connectivity

- Motorway widened with one additional eastbound lane and two additional westbound lanes, with continuous bus shoulders
- Cycleway relocated to increase separation from vehicles on motorway.

Landscape, planting, views

- Width and height of causeway construction minimise need for future rebuilding operations in this area
- 'Clear zone' is used for low-impact filter-strip drainage installation, avoiding use of installed cartridge filters
- Existing views are protected by minimising use of safety barriers, which are only installed on the bridge where provision of a clear zone is not readily achieved
- Saltmarsh species are to be planted into the new 'rip-rap' boulders forming the coastal armour, with planting being carried out as soon as areas of armour are completed to minimise establishment of weed species. In cases where additional boulder armour needs to be provided as part of the contract, for example due to settlement, additional plantings should be provided in the same manner.

Urban form

- No change to urban form.

Structures

- Vehicle bridge widened to accommodate increase lane provision. The higher causeway aligns more closely with bridge elevation. Concrete safety barriers at sides of vehicle bridge, with metal rails above 800mm high
- New separated cycleway bridge, detailing consistent with other new cycleway bridges (Figure C-4.21).

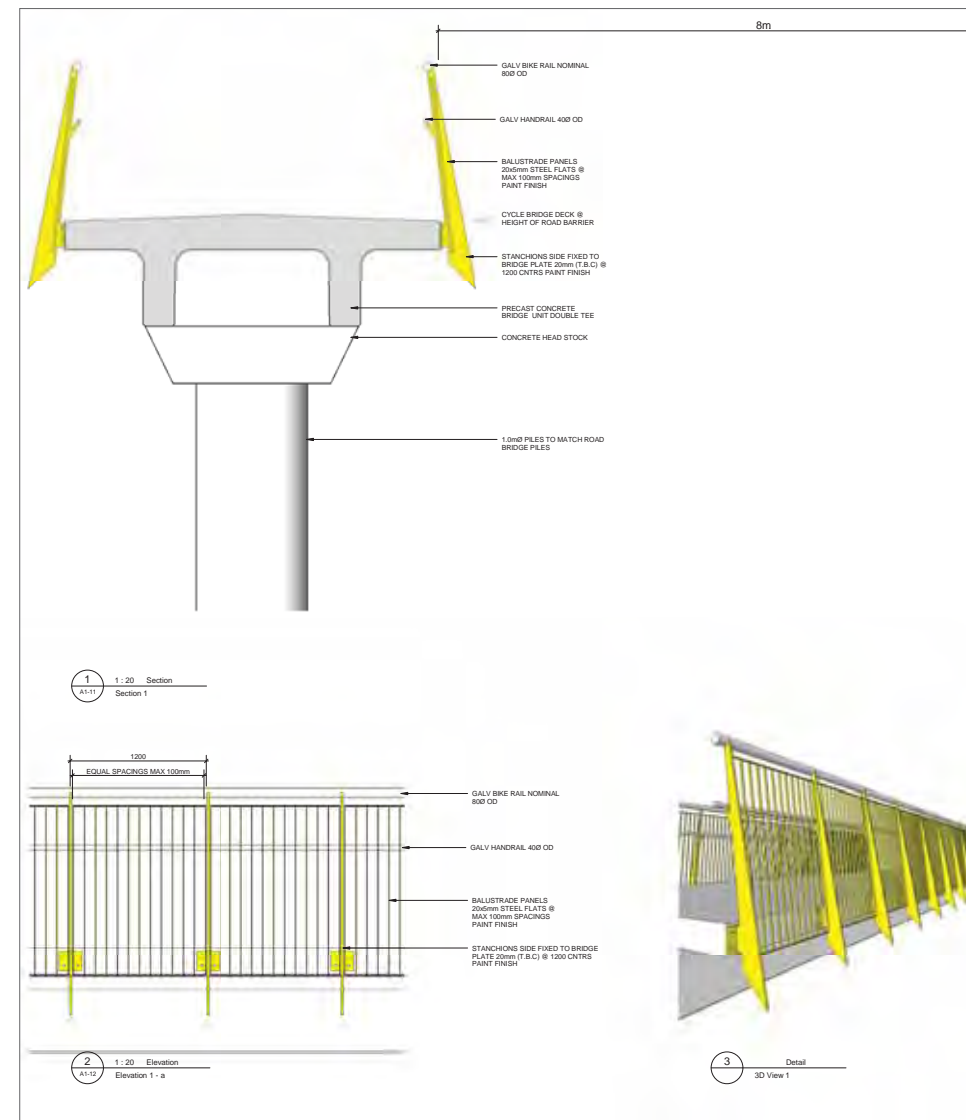


Figure C-4.21: Future pedestrian and cycle bridge detailing



Figure C-4.19: Visual simulation of proposed view west approaching Rosebank bridge (View 6)



Figure C-4.20: Concept sketch of future view to north-west from Waterview (View 7)



Figure C-4.22: Future cross-section at eastern end of route (section F)