Memo

To	Evan Keating, NZTA
CC	John Olliver, BBO
From	Jarred Stent
Date	14 January 2026
Job No.	144702
Job name	Takitimu North Link Stage 2
Subject	**Takitimu North Link Stage 2; RFI3 Response**

This memo is provided to respond to the following questions in RFI3;

1. Has NZTA assessed alternative vertical alignments for Francis Road and optimised the earthworks required?
2. Has NZTA considered the alternative of a retaining wall along the eastern side of Francis Road between approximately Chainages 200 and 400?

During the development of the specimen design for Takitimu North Link Stage 2, the BBO design team collaborated with the Western Bay of Plenty District Council (WBOPDC) to establish suitable design criteria for the Francis Road realignment. As requested by WBOPDC the realignment of Francis Road was designed to comply with WBOPDC's Urban standards contained in the WBOPDC Development Code 2009, reflecting the future urban zoning requirements. As a result, the maximum proposed vertical gradient is 5% in accordance with section 4.2.1 of the Development Code. The specimen design's proposed vertical alignment also facilitates drainage flow to the proposed new treatment wetland and limits the extent of filling within the natural wetland to the east.

In addition, the specimen design's vertical alignment minimizes the elevation difference between the main expressway and Francis Road, improving constructability. As set out in the Substantive Application there is potential for Francis Road to be utilised as a temporary offline traffic bypass during construction of the Ōmokoroa interchange. The comparative levels between the Ōmokoroa southbound offramp and Francis Road also enable the provision for alternative connectivity for emergency services or potential detours if a significant incident or maintenance required full closure beneath the future Ōmokoroa overpass. These important opportunities would be lost if the vertical alignment was significantly constrained.

The earthworks required for Francis Road have not yet been optimised. At this point in the design process, ie specimen design, the designation as shown in the Substantive Application is necessary to provide for a Francis Road design that meets WBOPDC standards. The extent of designation also provides sufficient space for construction activities such as haul roads and machinery access.

As the Project advances into the detailed design phase, the design will be reviewed in accordance with current standards, and further optimization of the vertical alignment and earthworks will be considered where possible.

With respect to the use of retaining walls, the specimen design utilises batter slopes as a basis for the proposed designation, facilitating integration with existing adjacent land contours and providing the greatest flexibility for future development of adjacent land.

Retaining walls require a more complex construction method, are generally more expensive and have greater safety risks than batter slopes. Prior to implementation, it is expected that site-specific geotechnical investigations will be conducted to assess ground conditions, thereby informing the optimal selection of

batter slopes or retaining walls, including the type of wall construction and intended design life. The provision of a retaining wall will necessitate a certain construction area and may not reduce the overall designation footprint. The required width will depend on the specific wall type, size, and access requirements. Detailed consideration of design options, on a site-by-site basis, have not yet been considered and, at this early stage, we have not specifically investigated a retaining wall on the eastern (Tauranga Harbour) side of Francis Road.

Accordingly, the most suitable design solution should be determined at the time of implementation / detailed design, based on a comprehensive assessment of actual site conditions, relevant standards and adjacent land use. This approach will establish whether retaining walls offer greater advantages than embankments in the given context.

Yours sincerely
Bloxam Burnett & Olliver

Jarred Stent
Director
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