

Our ref: TSRC-MOD-097
Your ref
Enquiries Adam Garvin



Department of
Transport and Main Roads

18 September 2024

Attention: Mr James Thewlis
Project Co Representative
Nexus Infrastructure Pty Ltd
PO Box 9326
Wilsonton Qld 4350

BY TEAMBINDER

Dear James

MODIFICATION ORDER - CLAUSE 33.1 OF THE PROJECT DEED - CLOSE-OUT AND OUTSTANDING WORKS COMPLETION

In this letter, capitalised terms not defined in section 7 adopt the definitions used in the Project Deed between the State of Queensland and Nexus Infrastructure Pty Ltd (as trustee) dated 21 August 2015.

1. BACKGROUND TO MODIFICATION ORDER

- (a) On or around 6 September 2019, Project Co issued a Modification Proposal to the State pursuant to clause 33.7 of the Project Deed (being the Completion Modification Proposal). The Completion Modification Proposal proposed, among other things, that Project Co and the State would instruct the Independent Reviewer:
 - (i) to disregard the Outstanding Works for the purposes of determining whether or not Tollroad Completion had occurred; and
 - (ii) that the Outstanding Works must be completed in order for Project Co to achieve:
 - (A) Close-Out (under the Project Deed); and
 - (B) Outstanding Works Completion.
- (b) On or around the same date, the State issued a Modification Order to Project Co pursuant to clause 33.1 of the Project Deed (being the Completion Modification Order), directing Project Co to undertake the Modification, as proposed in the Completion Modification Proposal.
- (c) In light of the Completion Modification Order, the Independent Reviewer was instructed to disregard the Outstanding Works for the purposes of determining whether or not Tollroad Completion had occurred. Following that instruction, the Independent Reviewer certified that, disregarding the Outstanding Works, Tollroad Completion had occurred on 31 July 2019.

- (d) Some of the Outstanding Works related to E24 and, specifically, concerned apparent geotechnical design deficiencies in the construction of E24 (Z2).
- (e) Project Co has advised, and the State accepts, that, as at the date of this Modification Order, subject to and upon issuing this Modification Order:
 - (i) E24 (Z2) is Fit For Purpose; and
 - (ii) there are no known Defects in respect of E24 (Z2),
 subject to ongoing monitoring of E24 in accordance with the E24 Monitoring and Management Plan.
- (f) The State and Project Co agree that the Outstanding Works relevant to E24 (Z2) be addressed as set out in this Modification Order.

2. MODIFICATION ORDER

This Modification Order is issued by the State in accordance with clause 33.1 of the Project Deed. The purpose of the Modification is to enable the Independent Reviewer to determine whether Close-Out and Outstanding Works Completion have been achieved at or about the date of this Modification Order, by the Independent Reviewer:

- (a) taking into account the relief from compliance with certain requirements of the Performance Specification as set out in this Modification Order; and
- (b) disregarding certain other matters which may prevent the achievement of Close-Out and Outstanding Works Completion in making those determinations.

The information required to be addressed pursuant to clause 33.1 of the Project Deed is set out in the Modification Order.

This Modification Order is a State Project Document for the purposes of the Project Deed.

3. ELEMENTS OF MODIFICATION

Scope of Modification: The Modification issued by the State under clause 33.1 is for the following:

3.1 Independent Reviewer certifications

- (a) Project Co and the State must instruct the Independent Reviewer:
 - (i) when determining whether Close-Out and Outstanding Works Completion have been achieved, the Independent Reviewer will have regard to paragraph 3.2 below, which provides relief from compliance with certain requirements of the Performance Specification;
 - (ii) that the following matters (which may otherwise prevent the achievement of Close-Out) will be disregarded by the Independent Reviewer for the purposes of determining whether or not Close-Out has been achieved pursuant to clause 21.1(c)(ii) of the Project Deed:
 - (A) the Additional Works, and the facts, matters and circumstances giving rise to those Additional Works;
 - (B) clauses 2.2(a), 2.2(h) and 2.2(f) of the GDSMR;
 - (C) the SRA Defect - Cut 21, the SRA Defect – Cut 24 and the SRA Defect Cut - 26; and
 - (D) the IR Pavement Defect; and
 - (iii) if the Independent Reviewer is otherwise satisfied that Project Co has done everything which the Project Deed requires Project Co to do prior to, or as a

condition precedent to, Close Out, to issue certificates of Close-Out and Outstanding Works Completion.

3.2 Compliance with the Performance Specification

- (a) To the extent the Performance Specification incorporates requirements to comply with the GDSMR (but only insofar as it relates to the Works at E24):
 - (i) subject to paragraph 3.2(c), the requirements of clauses 2.2(a) and 2.2(b) of the GDSMR are to be applied as if those requirements were amended in accordance with Annexure One;
 - (ii) notwithstanding clauses 1(g) of the GDSMR and the references in clauses 2.3(b)(i), (b)(v) and (b)(vi) of the GDSMR to two-dimensional modelling and analysis, 3D modelling based on "Finite Difference Analysis" using FLAC 3D software is deemed an acceptable method of analysis; and
 - (iii) subject to paragraph 3.2(b) and paragraph 3.2(c), the requirements of the first paragraph of clause 2.4 of the GDSMR are waived.
- (b) After Close-Out has been achieved, the presence of any colluvial slope wash materials must not lead to:
 - (i) the SRA score for E24 being assessed as an ARL 1 or 2; and
 - (ii) non-compliance with the serviceability requirements of the GDSMR, as set out in clause 2.2(f) of the GDSMR.
- (c) Notwithstanding paragraphs 3.2(a) and (b) above, without limiting any provision of the Project Deed (including clause 22.1 or clause 37.3):
 - (i) in the event that there is an unexpected and observable movement on the shear plane at E24 detected through physical observation or monitoring data reported by the Supervising Geotechnical Engineer, the parties will instruct the Supervising Geotechnical Engineer to undertake increased observation and analysis (including through increased frequency of reporting of monitoring data and analysis);
 - (ii) using the monitoring data and analysis provided by the Supervising Geotechnical Engineer, the voting members of the TSRC Geotechnical Issues Monitoring and Management Committee will meet in good faith to discuss what each member considers to be the appropriate course of action to manage any identified risks arising from the movement, taking into account factors including safety, efficiency of process and recent developments in design and construction of earthworks structures similar to E24;
 - (iii) the State must consider the discussions and recommendations of the TSRC Geotechnical Issues Monitoring and Management Committee before taking the action in paragraph (iv) below; and
 - (iv) if the State requires Project Co to rebuild E24 in accordance with clauses 37.2 or 22.1, of the Project Deed, Project Co must ensure that E24 is rebuilt in accordance with the requirements of the Project Deed, including the first paragraph of clause 2.4 of the GDSMR.
- (d) Subject to paragraph 3.2(c)(iii), the State retains full discretion to exercise its rights under the Project Deed in the event that there is unexpected and observable movement on the shear plane.

3.3 Compliance with Geotechnical Monitoring and Management Plans

- (a) The Geotechnical Monitoring and Management Plans are Project Plans for the purposes of the Project Deed.
- (b) Project Co must:

- (i) comply with the Geotechnical Monitoring and Management Plans;
 - (ii) undertake the works required to be performed by Project Co as set out in the Geotechnical Monitoring and Management Plans; and
 - (iii) ensure that its Subcontractors undertake the works required to be performed by them as set out in the Geotechnical Monitoring and Management Plans.
- (c) Project Co must update the Geotechnical Monitoring and Management Plans at the time required by, and in accordance with the process referred to in, the Geotechnical Monitoring and Management Plans and the Project Deed.

3.4 Monitoring Equipment

To the extent that a Geotechnical Monitoring and Management Plan requires the Monitoring Equipment to still be in service or available past the Expiry Date:

- (a) the Monitoring Equipment will constitute equipment for the purposes of the definition of "Tollroad"; and
- (b) Project Co must handover the Monitoring Equipment in good working order and otherwise in accordance with clause 27.2 of the Project Deed.

3.5 TSRC Geotechnical Issues Monitoring and Management Committee

- (a) The State requires that Project Co procure that the TSRC Geotechnical Issues Monitoring and Management Committee be established. The State notes that it may be that for this purpose the existing E24 Monitoring and Management Committee members commence to act as the TSRC Geotechnical Issues Monitoring and Management Committee.
- (b) The State requires that Project Co procure that:
 - (i) the Supervising Geotechnical Engineer be appointed by Project Co, the D&C Subcontractor and the State at the D&C Subcontractor's cost;
 - (ii) the TSRC Geotechnical Issues Monitoring and Management Committee will be comprised of the State, Project Co and the D&C Subcontractor as voting members;
 - (iii) the O&M Subcontractor will be entitled to observer membership of the TSRC Geotechnical Issues Monitoring and Management Committee as a non-voting member;
 - (iv) the TSRC Geotechnical Issues Monitoring and Management Committee will be governed in accordance with the TSRC Geotechnical Issues Monitoring and Management Committee Terms of Reference; and
 - (v) the TSRC Geotechnical Issues Monitoring and Management Committee is advisory in nature, and its remit is set out in the TSRC Geotechnical Issues Monitoring and Management Committee Terms of Reference.

3.6 Process for identifying Geotechnical Issues

- (a) The State notes that Geotechnical Issues may be identified or raised by the State, the Supervising Geotechnical Engineer, Project Co or the D&C Subcontractor.
- (b) Where:
 - (i) Project Co or the State becomes aware of a Geotechnical Issue, Project Co or the State (as applicable) will promptly notify the other, and each of the Supervising Geotechnical Engineer, the O&M Subcontractor and the D&C Subcontractor; and
 - (ii) the Supervising Geotechnical Engineer or the D&C Subcontractor is notified or becomes aware of a Geotechnical Issue – Project Co will procure that party

notifies the other, and each of the State, Project Co and the O&M Subcontractor.

- (c) Upon becoming aware of any Geotechnical Issue, Project Co:
 - (i) must promptly raise the Geotechnical Issue with the TSRC Geotechnical Issues Monitoring and Management Committee;
 - (ii) subject to paragraph 3.6(c)(iii), may elect, in its absolute discretion, to conduct within a reasonable period of time, a Geotechnical Investigation in accordance with paragraph 3.7, in respect of the Geotechnical Issue the subject of the notice; and
 - (iii) must, if directed to do so by the State, conduct a Geotechnical Investigation in accordance with paragraph 3.7, in respect of the Geotechnical Issue the subject of the direction.
- (d) Any notice issued in accordance with this paragraph 3.6 must comply with the requirements of clause 57.1 of the Project Deed.

3.7 Geotechnical Investigation

- (a) Project Co may elect to (or must, if directed to do so by the State) further investigate a Geotechnical Issue notified or identified as contemplated by paragraph 3.6(a) (**Geotechnical Investigation**) in accordance with this paragraph 3.7.
- (b) If Project Co undertakes a Geotechnical Investigation, it must engage such experts as Project Co considers are appropriate to consider, investigate and report on the Geotechnical Issue. Any expert appointed to conduct a Geotechnical Investigation must be an independent person with appropriate skills having regard to the nature of the Geotechnical Issue.
- (c) Project Co must ensure (acting reasonably) that all information, access and assistance as is required for each Geotechnical Investigation (including any further investigations undertaken by Project Co or required by the State as contemplated by paragraph 3.7(e)) is promptly provided to Project Co, the State and any appointed expert.
- (d) Project Co must report to the State on the outcome of the Geotechnical Investigation and the recommendations of the relevant expert (**Geotechnical Report**).
- (e) Upon consideration of any Geotechnical Report, the State may (acting reasonably) direct further action or investigation with respect to the Geotechnical Issue in accordance with these paragraphs 3.6 and 3.7 or in accordance with the Project Deed, including by forming the view that a Defect exists and requires rectification.
- (f) Any further action directed by the State in accordance with paragraph 3.7(e) will not constitute a Modification Order or entitle Project Co to bring any Claim against the State.
- (g) Project Co must provide a copy of any Geotechnical Report to the TSRC Geotechnical Issues Monitoring and Management Committee.
- (h) Project Co must bear the costs of any Geotechnical Investigation.
- (i) Promptly following completion of each Geotechnical Investigation, Project Co must, at its cost:
 - (i) prepare a remedial plan setting out the manner in which Project Co will address any Defects identified by the State or Project Co (**Remedial Plan**) and provide a copy of the Remedial Plan to the State; and
 - (ii) update the Remedial Plan to reflect any comments by the State (acting reasonably);

- (iii) implement such Remedial Plan (as updated in accordance with paragraph 3.7(i)(ii)) at its cost.

3.8 Additional Works – obligation to complete

Project Co must, at its own cost, procure that:

- (a) Cut 19 Additional Works Completion occurs by the Date for Cut 19 Additional Works Completion;
- (b) Cut 21 Additional Works Completion occurs by the Date for Cut 21 Additional Works Completion;
- (c) Cut 24 Additional Works Completion occurs by the Date for Cut 24 Additional Works Completion;
- (d) Cut 26 Additional Works Completion occurs by the Date for Cut 26 Additional Works Completion; and
- (e) Pavement Additional Works Completion occurs by the Date for Pavement Additional Works Completion.

3.9 Certifying Additional Works Completion

- (a) Clauses 21.1 and 21.2 of the Project Deed apply to the Additional Works, as if references to:
 - (i) "Works" were references to "Additional Works";
 - (ii) "Close Out" were references to "Additional Works Completion";
 - (iii) "Certificate of Close-Out" were references to "Certificate of Additional Works Completion"; and
 - (iv) "Date of Close-Out" were references to "Date of Additional Works Completion".
- (b) Not used.

3.10 Time

- (a) Subject to paragraph 3.10(b) and paragraph 3.10(c), the following clauses of the Project Deed are incorporated by reference into this Modification Order:
 - (i) clause 23.1 ("*Primary obligation*");
 - (ii) clause 23.2 ("*Monitoring progress*");
 - (iii) clause 23.3 ("*Delay to Completion*");
 - (iv) clause 23.4 ("*Delay entitling claim*");
 - (v) clause 23.5 ("*Modifications*");
 - (vi) clause 23.6 ("*Change Notice*"), provided that Project Co's entitlement to compensation in respect of the relevant Extension Event will be nil;
 - (vii) clause 23.7 ("*Conditions precedent to extension*"), except clause 23.7(d) ("*no Acceleration Acceptance Notice*");
 - (viii) clause 23.8 ("*Extension of time*");
 - (ix) clause 23.9 ("*Unilateral extensions*");
 - (x) clause 23.16 ("*Claims barred*");
 - (xi) clause 23.17 ("*Time not at large*"); and

- (xii) clause 23.18 ("*Force Majeure*"), except clause 23.18(h) ("*Payment during an uninsurable Force Majeure Event*") and 23.18(i) ("*Exceptions*").
- (b) For the purposes of:
 - (i) the clauses incorporated under paragraph 3.10(a); and
 - (ii) in clause 1 ("*Definitions*"), in the definitions of:
 - (A) "Extension Event"; and
 - (B) "D&C Program",
 all references to:
 - (iii) "D&C Activities" or "Works" must be read as "Additional Works";
 - (iv) "Completion" or "Close-Out" must be read as "Additional Works Completion"; and
 - (v) "Date for Completion" or "Date for Close-Out" must be read as "Date for Additional Works Completion".
- (c) Nothing in this paragraph 3.10 entitles Project Co to make any Claim against the State or otherwise entitle Project Co to payment of any amount.

3.11 Independent Reviewer Fees

For the avoidance of doubt, the costs and expenses of the Independent Reviewer (including the Independent Reviewer's professional fees and any costs incurred in exercising or purporting to perform its obligations under the Independent Reviewer Deed of Appointment) arising out of or in connection with this Modification Order shall be borne solely by Project Co.

4. NO EFFECT ON RIGHTS

- (a) No:
 - (i) inspection or review of any Geotechnical Issue by (or on behalf of) the State, the Supervising Geotechnical Engineer or any other expert appointed as part of the Geotechnical Investigation;
 - (ii) review of or comments upon any Geotechnical Issue, Geotechnical Investigation, Geotechnical Reports or Remedial Plan by (or on behalf of) the State, the Supervising Geotechnical Engineer or any other expert appointed as part of the Geotechnical Investigation; or
 - (iii) failure by (or on behalf of) the State, the Supervising Geotechnical Engineer or any other expert appointed as part of the Geotechnical Investigation to detect any non-compliance by Project Co with obligations in accordance with the Project Documents or any Laws,
 will:
 - (iv) relieve Project Co from, or alter or affect, its Liabilities, obligations or responsibilities whether in accordance with the Project Deed or otherwise according to Law;
 - (v) prejudice the State's rights against Project Co whether under the Project Deed or otherwise according to Law; or
 - (vi) constitute an approval by the State of Project Co's performance of its obligations in accordance with the Project Deed.
- (b) The State does not owe Project Co any duty of care or other obligation (howsoever described):

- (i) to identify Geotechnical Issues; or
- (ii) to review Geotechnical Issues or Geotechnical Reports, or recommendations or other information provided to the State or otherwise in relation to any Geotechnical Investigation.

5. GENERAL PROVISIONS

The State directs that:

- (a) the amount payable by the State for these Modifications is \$nil;
- (b) the amount payable by Project Co to the State in respect of Savings for these Modifications is \$nil;
- (c) there is no extension to any relevant Date for Close-Out;
- (d) there is no amendment to any Relevant Infrastructure, State Project Document or application of Standards as part of this Modification, other than as set out in clauses 3 and 6; and
- (e) subject to paragraph 6(a), there is no amendment to any relevant warranty given by Project Co under the Project Deed.

6. RELIEF UNDER PROJECT DEED

- (a) The State directs that:

- (i) subject to paragraph 6(a)(ii), provided that:

(A) Project Co complies with its obligations set out in clause 2.2(b) (as amended in accordance with Annexure One) and clause 2.2(f) of the GDSMR to repair adjoining pavement, earthworks, structures and services, subject to the conditions set out in those provisions of the GDSMR; and

(B) Project Co complies with the E24 Monitoring and Management Plan,

Project Co's requirement to meet the Handover Condition in respect of E24 will be modified such that the Handover Condition is consistent with E24 in the condition it was in at Close-Out (as detailed in the SGE Pre-Close-Out Report) and as if Project Co had satisfied all other relevant obligations in accordance with the Project Deed. This direction will not relieve Project Co of its obligation to meet the Handover Condition for Assets adjoining E24, including addressing any impact of E24 on adjoining Assets.

- (ii) despite paragraph 6(a)(i) above, in the event that:

(A) there is loss or damage to the Relevant Infrastructure during the Term; or

(B) a Defect is identified in E24 during the Term,

and Project Co rebuilds or rectifies E24 as contemplated by paragraph 3.2(c), the Handover Condition requirement in paragraph 6(a)(i) will be modified so that the Handover Condition for E24 will be consistent with the condition immediately post-rectification or post re-build in accordance with all relevant obligations under the Project Deed.

- (b) To the extent Project Co is required to rebuild E24 in accordance with paragraph 3.2(c), the State will give appropriate and reasonable consideration to any proposal by Project Co that any Abatements that have accrued or will accrue and that are attributable to:

- (i) E24 or the Embankment 24 Associated Infrastructure being non-compliant with the Performance Specification in respect of the failure leading to the direction to rebuild E24; or
- (ii) the period while Project Co is investigating and undertaking the design and rebuild,

are waived, and will not trigger Major Default (paragraph (a)) or Default Termination Event (paragraph (i)) thresholds.

7. DEFINITIONS

In this Modification Order, the following words have the following meanings:

Additional Works means the Cut 19 Additional Works, the Cut 21 Additional Works, the Cut 24 Additional Works, the Cut 26 Additional Works and the Pavement Additional Works.

Additional Works Completion means Cut 19 Additional Works Completion, Cut 21 Additional Works Completion, Cut 24 Additional Works Completion, Cut 26 Additional Works Completion and Pavement Additional Works Completion or any or all of the foregoing as the context may require or permit.

Certificate of Additional Works Completion means a certificate substantially in the same form as the Certificate of Close-Out but applying to the Additional Works, certifying that Additional Works Completion has been achieved.

Close-Out Rejection Notice means the notice issued by the Independent Reviewer dated 18 August 2022 and titled 'Part 20 – Independent Reviewer's Notice – Close-Out (Work remaining to be performed)'.

Completion Modification Order means the Modification Order issued by the State in accordance with clause 33.1 of the Project Deed and dated 6 September 2019, with reference 'Tollroad Completion and Outstanding Works' as a result of the Completion Modification Proposal.

Completion Modification Proposal means the Modification Proposal issued by Project Co in accordance with clause 33.7 of the Project Deed and dated 6 September 2019, with reference 'Tollroad Completion & Outstanding Works'.

Cut 19 means the cutting between chainages 11775 and 12080.

Cut 19 Additional Works means the Works in respect of Cut 19 detailed in Annexure Two.

Cut 19 Additional Works Completion means the stage when the Cut 19 Additional Works have been completed.

Cut 21 means the cutting between chainages 12720 - 13300 (RHS) and 12720 - 13250. (LHS).

Cut 21 Additional Works means the Works in respect of Cut 21 detailed in Annexure Three.

Cut 21 Additional Works Completion means the stage when the Cut 21 Additional Works have been completed.

Cut 21 Monitoring and Management Plan means the plan of that name set out at in document titled "Cut 21 Remediation Validation Monitoring & Management Framework" dated 4 September 2024, including annexed document titled "Cut 21 Right Hand Side – Instrumentation and Monitoring Plan" dated 22 May 2023 (document no. TSRC-ERDEW04-IMP-00001), or such later approved versions.

Cut 24 means the cuttings between chainages 14440 - 14785.

Cut 24 Additional Works means the Works in respect of Cut 24 detailed in Annexure Four.

Cut 24 Additional Works Completion means the stage when the Cut 24 Additional Works have been completed.

Cut 26 means the cutting between chainages 15505-15870.

Cut 26 Additional Works means the Works in respect of Cut 26 detailed in Annexure Five.

Cut 26 Additional Works Completion means the stage when the Cut 26 Additional Works have been completed.

Cut 26 Monitoring and Management Plan means the plan of that name set out in document titled "Cut 26 Remediation Validation Monitoring & Management Framework" dated 1 December 2023, including annexed document titled "Cut 26 – Batter Face Remediation Works – Instrumentation and Monitoring Plan for Permanent and Temporary Works", dated 28 November 2023 (document no. TSRC-ERDEW05-IMP-00001), or such later approved versions.

Date for Additional Works Completion means the Date for Cut 19 Additional Works Completion, Date for Cut 21 Additional Works Completion, Date for Cut 24 Additional Works Completion, Date for Cut 26 Additional Works Completion or the Date for Pavement Additional Works Completion (as applicable), or all of them if the context requires.

Date for Cut 19 Additional Works Completion means 13 March 2025, as adjusted (if at all) in accordance with this Modification Order.

Date for Cut 21 Additional Works Completion means 6 December 2024, as adjusted (if at all) in accordance with this Modification Order.

Date for Cut 24 Additional Works Completion means 6 December 2024, as adjusted (if at all) in accordance with this Modification Order.

Date for Cut 26 Additional Works Completion means 28 May 2025, as adjusted (if at all) in accordance with this Modification Order.

Date for Pavement Additional Works Completion means 30 September 2025, as adjusted (if at all) in accordance with this Modification Order.

Date of Additional Works Completion means the date stated as the "Date of Additional Works Completion" in the "Certificate of Additional Works Completion".

Embankment 24 or E24 means:

- (a) the embankment created as part of the Works and described as 'Embankment 24' in the Toowoomba Second Range Crossing Project design documentation;
- (b) the immediately surrounding structures to the embankment referred to in paragraph (a) of this definition;
- (c) the earthwork structure on the left hand side of the Tollroad between chainages 15650 – 16300; and
- (d) all monitoring equipment identified in Geotechnical Monitoring and Management Plans.

E24 (Z2) means that portion of E24 West Zone 2, which is the area of Embankment 24 between Ch 16000 and Ch 16250.

E24 Monitoring and Management Plan means the plan of that name set out at in document titled "Embankment 24 Monitoring and Management Plan", dated 9 March 2023, or such later approved version.

Embankment 24 Associated Infrastructure means:

- (a) the immediately surrounding structures to E24;

(b) the Embankment 24 Buttress; and

(c) the Monitoring Equipment.

Embankment 24 Buttress means the earthwork structure on the LHS of the Tollroad between chainages 15700 and 16100.

GDSMR means the Geotechnical Design Standard – Minimum Requirements issued by TMR in February 2015.

Geotechnical Investigation has the meaning in paragraph 3.7(a) of this Modification Order.

Geotechnical Issue means any fact, matter or circumstance that may indicate actual or potential:

(a) issues, problems or concerns with the stability or proper performance of; or

(b) other geotechnical issues relating to,

any of the following:

(c) E24;

(d) Cut 21;

(e) Cut 26.

Geotechnical Monitoring and Management Plans means:

(a) the E24 Monitoring and Management Plan;

(b) the Cut 21 Monitoring and Management Plan; and

(c) the Cut 26 Monitoring and Management Plan.

IR Pavement Defect means the facts, matters and circumstances as to pavement assessment data, as particularised in row B6 of Schedule 2 of the Close-Out Rejection Notice.

Monitoring Equipment means all monitoring equipment identified in the Geotechnical Monitoring and Management Plans and for the avoidance of doubt, constitutes equipment for the purposes of the definition of Tollroad.

Outstanding Works has the meaning given to that term in the Completion Modification Proposal.

Outstanding Works Completion has the meaning given to that term in the Completion Modification Proposal.

Pavement Additional Works means the Works detailed in Annexure Six.

Pavement Additional Works Completion means the stage when the Pavement Additional Works have been completed.

Remedial Plan has the meaning in paragraph 3.7(i)(i).

SGE Pre-Close-Out Report means the report titled "Biannual Monitoring Report – August 24 – Nexus Delivery for the E24 Management Committee" prepared by Supervising Geotechnical Engineer and dated 6 September 2024.

SRA Defect – Cut 21 means the facts, matters and circumstances as to Cut 21 SRA not reporting an ARL of 4 or above, as particularised in row B3 of Schedule 2 of the Close-Out Rejection Notice.

SRA Defect – Cut 24 means the facts, matters and circumstances as to Cut 24 SRA not reporting an ARL of 4 or above, as particularised in row B4 of Schedule 2 of the Close-Out Rejection Notice.

SRA Defect – Cut 26 means the facts, matters and circumstances as to Cut 26 SRA not reporting an ARL of 4 or above, as particularised in row B40 of Schedule 2 of the Close-Out Rejection Notice.

Supervising Geotechnical Engineer has the meaning given to that term in the TSRC Geotechnical Issues Monitoring and Management Committee Terms of Reference.

TSRC Geotechnical Issues Monitoring and Management Committee means the committee established in accordance with paragraph 3.5.

TSRC Geotechnical Issues Monitoring and Management Committee Terms of Reference means the document of that title.

Yours sincerely



Digitally signed by Adam
Garvin
Date: 2024.09.16 16:18:58
+10'00'

Adam Garvin

State Representative – Toowoomba Second Range Crossing

Annexure One

Amendments to GDSMR for purposes of Close-Out

- (a) Section 2.2(a) shall be applied as if it is deleted and replaced with the following:

"The Embankment shall be stable at all times. The minimum Factor of Safety (FOS) during construction shall be 1.30. Over the long-term, the Embankment must perform in a manner that is consistent with the tolerably safe movement of traffic on the Tollroad, i.e. meeting the criteria of ARL 3 (subject to compliance with the E24 Monitoring and Management Plan), ARL 4 or ARL 5. Regular instrumentation monitoring and the plotting of settlement and pore pressure development over time sufficient to demonstrate compliance with minimum FOS post construction must be provided to TMR."

- (b) Section 2.2(b) shall be applied as if it is deleted and replaced with the following:

"If post-construction in-service movements exceed the limits set in the applicable section of the Austroads Guide to Road Design (AGRD) as noted below, Project Co is required to repair adjoining pavement to the extent required to restore the geometry of the Tollroad to within the Austroad prescribed limits."

- Aquaplaning (Refer to Austroads AGRD Part 5A, 2023)
 - Absolute maximum film depth 4.0mm (intervention level)
 - Design film depth 2.5mm (to provide allowance for deterioration to a maximum of 4mm prior to intervention being required)
- Crossfall rate of rotation (Refer to Austroads AGRD Part 03, 2021)
 - Rate of rotation of 2.5% per second (Desirable maximum)
 - Rate of rotation of 3.0% per second (Absolute maximum)
- Crossfall
 - Design crossfall to be retained to provide the intended design friction demand for the horizontal radius and design speed. (Refer to Austroads AGRD Part 03, 2021)
 - Design crossfall to be retained to provide the design flow widths specified in the project Basis of Design Criteria. TMR's drainage manual (Road Drainage Manual, TMR, Sep 2019) allows for maximum of 1m encroachment into running lanes (2.5m clear traffic width) for an AEP10% event. It is noted that project specific criteria are often more stringent than this requirement.
 - Minimum normal crossfall should be 2.5-3% (Austroads AGRD Part 3, Table 4.2)
- Sight Distance (Refer to Austroads AGRD Part 03, 2021)
 - Stopping & headlight sight distance should be provided in accordance with the AGRD limits for the design speed. A reaction time of 2.0s and coefficient of deceleration of 0.36 would generally be considered the minimum required, however the project Basis of Design Criteria should be consulted to confirm the adopted minimum criteria.
- Level Control (at construction and during operation)

- MRTS30 provides specifications for level control (tolerance) on pavement construction
- MRTS30 specifies the post 12month from practical completion surface deviation should be a maximum of 6mm from a 3m straight edge.
- MRTS30 specifies a Road Roughness of 1.93m/km which is measured at the completion of construction.”

Annexure Two

Cut 19 Additional Works

Cut 19 is located between Ch 11775 – 12080 as per the original design documentation.

1. The scope of the Cut 19 Additional Works will be in accordance with the Issued For Construction (IFC) Design Documentation, as certified by the D&C Subcontractor's appointed RPEQ and reviewed by the Independent Reviewer, the State and Project Co in accordance with the Project Documents which may be amended from time-to-time.
2. The IFC Design Documentation will be substantively based on the detailed design documentation as set out in the document titled "Toowoomba Second Range Crossing Cut 19 Landslides Geotechnical Assessment - Detailed Design" dated 19 July 2024 (document no. B01002-11AB).
3. The review of construction for Cut 19 Additional Works by the Independent Reviewer in accordance with the IFC Design Documentation and Project Documents. IR to certify the Cut 19 Additional Works as complete.

Annexure Three

Cut 21 Additional Works

Cut 21 is located between Ch 12720 – 13300 (RHS) and 12720 – 13250 (LHS) as per the original design documentation.

1. The scope of the Cut 21 Additional Works will be in accordance with the Issued For Construction (IFC) Design Documentation, certified by the D&C Subcontractor's appointed RPEQ and reviewed by the Independent Reviewer, the State and Project Co in accordance with the Project Documents on 20 February 2024, as amended from time-to-time.
2. Cut 21 Pavement Repairs CH12800 to 13300
 - a. Site inspection to observe current conditions and site survey,
 - b. Detailed design including review and analysis of existing project information survey and design documents,
 - c. Repair works include:
 - i. site establishment,
 - ii. traffic control where impacting the Tollroad,
 - iii. profiling existing pavement to new design profile,
 - iv. place and compact new surface layers to new design profile,
 - v. temporary and permanent line marking to design,
 - vi. site demobilisation.
 - d. construction completion activities including compliance testing, as constructed survey, as built drawings, ongoing assessment of pavement condition and repairs to meet Performance Specification compliance.
3. The review of construction for Cut 21 Additional Works by the Independent Reviewer in accordance with the IFC Design Documentation and Project Documents. IR to certify the Cut 21 Additional Works as complete.

Annexure Four

Cut 24 Additional Works

Cut 24 is located between Chainages 14440 – 14785 as per the original design documentation.

1. The scope of the Cut 24 Additional Works will be in accordance with the Issued For Construction (IFC) Design Documentation, certified by the D&C Subcontractor's appointed RPEQ and reviewed by the Independent Reviewer, the State and Project Co in accordance with the Project Documents on 10 January 2024, as amended from time-to-time.
2. The review of construction for Cut 24 Additional Works by the Independent Reviewer in accordance with the IFC Design Documentation and Project Documents. IR to certify the Cut 24 Additional Works as complete.

Annexure Five

Cut 26 Additional Works

Cut 26 is located between Ch 15505-15870 as per the original design documentation.

1. The scope of the Cut 26 Additional Works will be in accordance with the Issued For Construction (IFC) Design Documentation, certified by the D&C Subcontractor's appointed RPEQ and reviewed by the Independent Reviewer, the State and Project Co in accordance with the Project Documents on 22 March 2024, as amended from time-to-time.
2. Pavement Repairs Ch15500 – 15800
 - a. Pavement rectification of any deformed and damaged infrastructure including pavements as a result of permanent repairs and temporary works conducted to rectify the Cut 26 damages.
 - b. Ongoing infrastructure condition assessment including but not limited to pavements to meet Performance Specification compliance.
3. The review of construction for Cut 26 Additional Works by the Independent Reviewer in accordance with the IFC Design Documentation and Project Documents. IR to certify the Cut 26 Additional Works as complete.

Annexure Six

Pavement Additional Works

- The scope of Pavement Additional Works will be subject of field validations to confirm the specific location and type of Defect, prior to repair.
- Where chainages in the data do not align with field results if there is a pavement Defect within the vicinity, it will be taken to be part of the Pavement Additional Works scope.
- The D&C Subcontractor will undertake the repair of the Defects subsisting at the locations shown in the indicative chainages listed in Table 1 and 2 below.

Table 1 - Quantity and Type of Defect by 100m Pavement Sections

Tollroad Section	Lane	Texture Depth	Roughness	Rutting
Western Section	EB	8	3	4
Western Section	WB	3	0	3
East/Central Section	EB (LL)	44	0	0
East/Central Section	EB (RL)	15	0	0
East/Central Section	WB (LL)	80	0	0
East/Central Section	WB (RL)	12	0	0
TOTAL 100M Sections	-	162	3	7

Table 2 - Location of Defects by Indicative Chainages (100m Pavement Sections)

Western Section – EB	Western Section – WB	East/Central Section – EB (RL)	East/Central Section – WB (LL)	East/Central Section – WB (RL)	East/Central Section – EB (LL)
27.5 - 27.6	28.7 - 28.8	0.4 - 0.5	0 - 0.1	16.9 - 17	6.7 - 6.8
27.6 - 27.7	31.5 - 31.6	0.8 - 0.9	0.1 - 0.2	17.4 - 17.5	8.6 - 8.7
28.7 - 28.8	40.2 - 40.3	18.7 - 18.8	0.2 - 0.3	18.1 - 18.2	10.3 - 10.4
28.8 - 28.9	30.0 - 30.1	19.3 - 19.4	0.4 - 0.5	18.4 - 18.5	11.5 - 11.6
31.6 - 31.7	30.1 - 30.2	19.4 - 19.5	1.1 - 1.2	19.1 - 19.2	11.7 - 11.8
33 - 33.1	40.6 - 40.7	19.6 - 19.7	1.6 - 1.7	20.6 - 20.7	11.9 - 12
34.3 - 34.4		21 - 21.1	2.2 - 2.3	20.7 - 20.8	12 - 12.1
36.7 - 36.8		22 - 22.1	4 - 4.1	20.9 - 21	15 - 15.1
30.2 - 30.3		23.1 - 23.2	4.3 - 4.4	21.2 - 21.3	15.1 - 15.2
35.6 - 35.7		23.5 - 23.6	4.8 - 4.9	25 - 25.1	16.5 - 16.6
40.2 - 40.3		23.6 - 23.7	4.9 - 5	25.2 - 25.3	16.6 - 16.7
29.7 - 29.8		25.8 - 25.9	5.7 - 5.8	27 - 27.1	17.1 - 17.2
34.7 - 34.8		25.9 - 26	8.3 - 8.4		17.2 - 17.3

37.2 - 37.3		26.3 - 26.4	8.4 - 8.5		17.6 - 17.7
39.1 - 39.2		27.1 - 27.2	8.7 - 8.8		17.7 - 17.8
			8.8 - 8.9		18.1 - 18.2
			8.9 - 9		18.2 - 18.3
			9.8 - 9.9		18.3 - 18.4
			9.9 - 10		18.7 - 18.8
			10.2 - 10.3		19.1 - 19.2
			11.5 - 11.6		19.2 - 19.3
			11.7 - 11.8		19.3 - 19.4
			11.9 - 12		19.4 - 19.5
			12.3 - 12.4		19.5 - 19.6
			12.4 - 12.5		20.1 - 20.2
			12.5 - 12.6		20.5 - 20.6
			13.2 - 13.3		20.6 - 20.7
			13.7 - 13.8		21.1 - 21.2
			13.8 - 13.9		21.3 - 21.4
			13.9 - 14		21.6 - 21.7
			14.5 - 14.6		22.1 - 22.2
			14.6 - 14.7		22.2 - 22.3
			14.8 - 14.9		22.3 - 22.4
			15 - 15.1		22.5 - 22.6
			15.1 - 15.2		22.6 - 22.7
			15.2 - 15.3		23.2 - 23.3
			16.4 - 16.5		23.6 - 23.7
			16.8 - 16.9		23.8 - 23.9
			17.1 - 17.2		25.2 - 25.3
			17.2 - 17.3		25.3 - 25.4
			17.4 - 17.5		26 - 26.1
			17.5 - 17.6		26.4 - 26.5
			17.6 - 17.7		26.6 - 26.7
			17.9 - 18		27 - 27.1
			18.1 - 18.2		

			18.3 - 18.4		
			18.3 - 18.4		
			18.4 - 18.5		
			18.6 - 18.7		
			18.7 - 18.8		
			18.8 - 18.9		
			18.9 - 19		
			19 - 19.1		
			19 - 19.1		
			19.1 - 19.2		
			19.2 - 19.3		
			19.4 - 19.5		
			19.6 - 19.7		
			19.7 - 19.8		
			19.9 - 20		
			20 - 20.1		
			20.1 - 20.2		
			20.2 - 20.3		
			20.3 - 20.4		
			20.4 - 20.5		
			20.6 - 20.7		
			20.7 - 20.8		
			20.8 - 20.9		
			21.6 - 21.7		
			21.9 - 22		
			22.6 - 22.7		
			23.9 - 24		
			25.2 - 25.3		
			26 - 26.1		
			26.1 - 26.2		
			26.2 - 26.3		
			26.3 - 26.4		

			26.4 - 26.5		
			26.5 - 26.6		
			26.7 - 26.8		
			26.9 - 27		
			27 - 27.1		