### Commission of Inquiry into the Construction Works at and near the Hung Hom Station Extension under the Shatin to Central Link Project

FOURTH WITNESS STATEMENT OF MAN SZE HO

- I refer to my first, second and third witness statements dated 26 September 2018, 18 October 2018 and 4 January 2020 ("Previous Witness Statements"). Unless otherwise stated or the context otherwise requires, any abbreviations shall bear the same meaning as in my Previous Witness Statements.
- I make this fourth witness statement in response to the matters arising out of the hearing before the Commission of Inquiry on 2 January 2020, concerning the Method Statement (the "Method Statement") of Suitable Measures Works (HUH Area B & C EWL level) (the "Suitable Measures Works") [OU9/11332-11373].
- 3. Unless otherwise stated, the facts stated herein are within my personal knowledge and are true. Where the facts and matters stated herein are not within my own knowledge, they are based on the stated sources and are true to the best of my knowledge, information and belief.
- 4. I was promoted to my current position of Senior Engineer in April 2018. After working on another project of Leighton from August 2017 to August 2018, I returned to the Project and have been involved in remedial works.
- 5. There is now produced and marked Exhibit "**MSH-2**" a copy set of documents which I will refer to below in this Witness Statement.

#### Preparing first issue of the Method Statement

- Leighton's position is that the Suitable Measures Works were not necessary. However, MTRCL instructed Leighton to proceed with the works.
- 7. I first received from MTRCL the advance copies of the BD submission and design drawings for the Suitable Measures Works on 2 November 2019 by way of emails [Exhibit "MSH-2", items 1 and 2]. MTRCL directed Leighton to implement the suitable measures according to the drawings specified above. Those drawings were prepared by Atkins (in its capacity as DDC); MTRCL noted that those drawings were "under government review and subject to government approval", and that MTRCL would update Leighton as soon as possible on any further amendments. On my seniors' instructions, I prepared the Method Statement (the "Method Statement") of Suitable Measures Works for Areas B and C at the EWL level (the "Suitable Measures Works") [OU9/11332-11373], by reference to two of the drawings regarding typical details [OU9/11335, 11346, 11347]. The Method Statement was submitted to and received by MTRCL on 14 November 2019.
- 8. In order to ensure safe construction of the Suitable Measures Works in accordance with the drawings provided by MTRCL, Leighton proposed in the construction method and sequence of works to scan the alignment of rebar by cover meter and mark on the concrete surface where any rebar were identified. This step was proposed for the purpose of agreeing with MTRCL the locations of the drill holes [OU9/11340, 11342]. After agreeing on the locations of the drill holes, it was proposed that Leighton would trim the concrete cover locally by electric breaker to expose the top layer of the rebar, before commencing the concrete coring works for dowel bars installation. It was also proposed that Leighton would stop the concrete coring works whenever a rebar was encountered, and an alternative location for the coring hole would be agreed with MTRCL. These proposed steps were intended to minimise the risk of damaging the existing rebar.

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# MTRCL's comments and working drawing amendments in relation to the Method Statement

- 9. On 22 November 2019, MTRCL replied to Leighton's proposal in the Method Statement, marking the status of the submission as "Approved-In-Principle (Re-Submission Required)" [Exhibit "MSH-2", item 3], and providing its comments on the Method Statement in a separate document attachment [Exhibit "MSH-2", item 4]. MTRCL's comments covered matters such as protection works, sequence details, construction safety and quality assurance.
- 10. On 29 November 2019, I received an email from MTRCL attaching the revised advance copies of the working drawings for the Suitable Measures Works [Exhibit "MSH-2", item 5]. The two drawings regarding typical details, which were referenced in the Method Statement, had been updated. The major amendments made to the updated working drawings by MTRCL were as follows:

#### Method Statement of Post Drilled Dowel Bar for Suitable Measure:

- 1. Remove concrete cover to expose T1 layer rebar of EWL Slab
- 2. Identify the drill hole locations
- 3. drill 30mm hole diameter for post drilled dowel bar
- 4. install the post drill dowel bar with the manufacturer's instruction

### [Exhibit "MSH-2", item 5, pages 13 and 14]

11. As a result of these updated working drawings, instead of Leighton and MTRCL agreeing on the drill hole locations before trimming the concrete cover locally to expose the top layer of the rebar, Leighton was required to remove the entire concrete cover to expose the T1 layer rebar of the EWL Slab before identifying the drill hole locations.

# Leighton's re-submission of the Method Statement and MTRCL's further comments

- 12. Based on the comments and the updated working drawings provided by MTRCL, Leighton revised and re-submitted the Method Statement on 16 December 2019 [OU9/11394-11451] (the "Re-submitted Method Statement"). Notably, the sequence of works was updated so that the entire concrete cover would be removed to expose the T1 layer rebar of the EWL Slab, before the drill hole locations are identified and agreed with MTRCL. Due to the change of works sequence, there would be no need to scan the alignment of existing rebar by cover meter.
- 13. In the Re-submitted Method Statement, Leighton refined the drilling procedure by proposing to commence with a M12 drill bit, followed by a M16 drill bit (both for a maximum depth of 900mm), in order to drill pilot drill holes. After that, it was proposed in the Re-submitted Method Statement that Leighton would proceed with the concrete coring works at the pilot drill hole locations. If a rebar was encountered during coring, it was proposed that Leighton would stop the concrete coring works, and would agree with MTRCL on another drill hole location, where the proposed procedure would be repeated. This procedure should reduce the risk of encountering rebar at the first few rebar layers.
- 14. On 23 December 2019, MTRCL replied to Leighton's submission of the Resubmitted Method Statement, marking the status of the submission as "Approved-In-Principle (Re-Submission Required)", and providing several comments on concreting, drill hole size and details of the reinforcement [Exhibit "MSH-2", item 6].

Dated the 6th day of January 2020.

Signed: ....

Man Sze Ho