

**COMMISSION OF INQUIRY INTO THE CONSTRUCTION WORKS
AT AND NEAR THE HUNG HOM STATION EXTENSION
UNDER THE SHATIN TO CENTRAL LINK PROJECT APPOINTED
PURSUANT TO SECTION 2 OF THE COMMISSIONS OF INQUIRY
ORDINANCE (CHAPTER 86) ON 10 JULY 2018**

3RD WITNESS STATEMENT OF LOK PUI FAI

I, LOK PUI FAI, Senior Structural Engineer/Railway Development, Kowloon and Rail Section, New Buildings Division 2, Buildings Department (“BD”), 8/F, 14 Taikoo Wan Road, Taikoo Shing, Hong Kong, do say as follows:

1. I am a Senior Structural Engineer in BD and have been seconded to the Railway Development Office (“RDO”) of the Highways Department (“HyD”) for this position since 12 January 2016. I am a member of the Buildings Ordinance Team (“BO Team”) in RDO to handle matters relating to the Instrument of Exemption (“IoE”) issued by the Building Authority (“BA”) [H7/2220-2233] and Instrument of Compliance (“IoC”) issued by HyD [H7/2416-2431] for the Shatin to Central Link (“SCL”) Project. I am the same Lok Pui Fai who gave a statement dated 13 September 2018 (“my 1st Witness Statement”) [H7/2187-2213] to the Commission of Inquiry into the Construction Works at and near the Hung Hom Station (“HUH”) Extension under the SCL Project (“the Commission”).

2. I make this 3rd Witness Statement pursuant to the request of the Commission set out in the letter from Messrs. Lo & Lo to the Department of Justice (“DoJ”) dated 4 April 2019 regarding the works of the South Approach Tunnels (“SAT”) (“SAT Letter”). Save where otherwise specified, the facts referred to in this witness statement are within my personal knowledge or are derived from office files and records and sources to which I have access and are true to the best of my knowledge, information and belief. Save as otherwise specified, this witness statement adopts the same abbreviations and nomenclature used in the SAT Letter.

3. I have also made two other witness statements (i.e. my 2nd and 4th Witness Statements) pursuant to the request of the Commission set out in two

other letters from Messrs. Lo & Lo to DoJ dated 4 April 2019 (“**NAT Letter**” and “**HHS Letter**” respectively) regarding the works of the North Approach Tunnels (“**NAT**”) and Hung Hom Stabling Sidings (“**HHS**”) respectively which are subject to the control mechanism of IoC and IoE respectively.

4. This witness statement addresses the following questions in the SAT Letter (“**Questions**”) and is divided into the following parts:

- (1) Part A provides the required updates and supplemental information in relation to the reply by DoJ on 13 March 2019 [DD1/38.4-38.12] in response to Questions 1 to 4 and 6;
- (2) Part B explains the role and work of PYPUN-KD & Associates Limited (“**PYPUN**”) in response to Questions 7 to 9;
- (3) Part C deals with the issues of lack of RISC forms, inspection and supervisory records and deviations at SAT (“**Issue 3 at SAT**”) in response to Questions 11 to 17 ; and
- (4) Part D covers other matters under the expanded terms of reference (“**TOR**”) relating to SAT in response to Questions 18 and 19.

A. Updates and supplemental information (answer to Questions 1 to 4 and 6)

5. I would like to elaborate and provide supplemental information to the reply by DoJ dated 13 March 2019 [DD1/38.4-38.12] as follows.

6. A consolidated chronology of events setting out the involvement of the relevant government departments, including that of BO Team in Issue 3 at SAT has been provided in response to the letter from Messrs. Lo & Lo to DoJ dated 6 March 2019 and an updated chronology of events (up to 8 May 2019) was provided by the Government (“**Chronology**”) on 10 May 2019. For the purpose of this witness statement, I rely on the Chronology.

7. Besides, insofar as BO Team is concerned, a brief account of the development of Issue 3 at SAT is set out in paragraphs 35 to 38 of Part D of my 2nd Witness Statement in response to the NAT Letter.

8. Further, I wish to add that BO Team, assisted by the Building Submission Review & Compliance Team (“**BSRC Team**”) of PYPUN i.e. the Monitoring and Verification Consultant engaged by HyD, conducted 2 site audits on 13 and 20 March 2019 respectively to check whether site supervision records were kept in accordance with the requirements of the Site Supervision Plan (“**SSP**”) and the Buildings Ordinance, Cap. 123 (“**BO**”). The corresponding inspection reports are at **[Items 152 and 165 of Chronology]**. However, after the first site audit on 14 March 2019, legal representatives of Leighton Contractors (Asia) Limited (“**Leighton**”) wrote to BO Team and requested that BO Team should notify Leighton in advance of the purpose, legal basis and proposed time for future visits **[Item 159 of Chronology]**. On 19 March 2019, BO Team replied **[Item 164 of Chronology]** that the site visit on 13 March 2019 was conducted pursuant to section 22 of BO which empowers the BA to carry out site audit at any time to ascertain whether the provisions under BO, other regulations or notices have been complied with. A summary of BO Team’s site inspection / audit / witness records is at **Annex LPF-22**.

9. In view of MTRCL’s delay in ascertaining details of the works as-constructed and deviations, BO Team issued two letters on 17 April 2019 **[Items 207 and 208 of Chronology]** urging MTRCL and Leighton respectively to provide the relevant information in relation to the works of SAT and HHS. On 30 April 2019, Leighton provided part of the requested information and advised that they would provide the remaining information in due course **[Item 229 of Chronology]**.

B. Role and work of BSRC Team of PYPUN (answer to Questions 7 to 9)

10. I refer to Part B of my 2nd Witness Statement in response to the NAT Letter.

C. Deviations at SAT (Issue 3 at SAT) (answer to Questions 11 to 17)

11. As regards the issue of deviations at SAT, although the extent and details of the deviations are still unknown, I will try to describe and explain the issue of deviations on the basis of my understanding from the presentation given by MTRCL on 30 January 2019 **[DD3/1182-1196]**. On this note, I

would like to clarify that RISC form is neither a requirement under the BO nor a required document specified in the acceptance letters issued by BO Team. However, I understand that RISC form is an important quality control document under the Project Integrated Management System of MTRCL used for recording the details of inspection at various hold points devised by MTRCL.

12. The structural design submissions for the works of SAT, which were incorporated into the design packages for SAT and Area A (Grids 0 to 7) and HKC (Grids 7 to 15) under HUH Extension cover the following types of works: Foundation (Load Bearing Diaphragm Wall), Foundation (Socketed Steel H-pile), Substructure, Pile Cap, and Excavation and Lateral Support Works.

13. A copy of the latest relevant accepted drawings of SAT is contained in **Annex LPF-25**. A copy of the relevant acceptance letters can be found at **Annex LPF-26**.

14. According to the splicing method specified in the accepted drawings for SAT, couplers were specified for the connection of reinforcements between the platform slabs and diaphragm walls while physical lapping was specified for rebars in other locations. As informed by MTRCL during the presentation on 30 January 2019, the splicing method was changed from lapping of rebars to coupler connection.

15. Coupler is an alternative splicing method to the lapping of steel bars, and both methods are stipulated in the Code of Practice for Structural Use of Concrete Code 2004 as acceptable methods subject to their respective requirements. Although lapping of rebars and couplers are both accepted method of splicing, the use of coupler is subject to additional quality assurance, quality control and testing requirements, which have been explained in detail in paragraphs 10 to 15, 24 & 25 of my 1st Witness Statement [H7/2192-2196].

16. Therefore, prior to the commencement of the splicing works concerned, a consultation submission should be made in accordance with the procedures set out in Appendix 9 of the Project Management Plan [H7/2498] for acceptance by BO Team to effect any change of splicing method. According to BO Team's records, no consultation for such changes at SAT was

ever made by MTRCL.

17. As to the “use of standard ‘drill-in bars’ to replace damaged/misaligned couplers at D’wall in NSL Structure”, it may be a feasible remedial method. This method involves drilling a hole in the diaphragm wall and fixing a dowel bar in the hole with epoxy / cementitious grout. The installed dowel bar can then be treated as having replaced the dislocated or defective coupler, subject to having an adequate embedment length and the use of proper grouting material. However, a separate consultation submission to demonstrate the adequacy of such remedial works should be made for acceptance by BO Team before the commencement of works. According to BO Team’s records, no consultation for such remedial works was ever made by MTRCL.

18. According to our record, Intrafor Hong Kong Limited, as a registered specialist contractor for foundation works, was appointed to carry out the diaphragm wall construction works under Contract 1112. The said diaphragm wall construction works were completed in 2016 and the Certificate of Completion for such works was acknowledged by BO Team on 5 May 2017 [H10/5157]. Under normal circumstances, the use of “drill-in bars” to replace damaged / misaligned couplers at the diaphragm wall would be done at the time of the rebar fixing works for the slab of NSL structure (i.e. after the completion of the diaphragm wall construction works and during the construction of the slab of NSL structure). Therefore, BO Team has no knowledge as to which party was involved in causing the said deviation.

D. Other matters under the expanded TOR (answer to Questions 18 and 19)

19. BO Team will continue to review its work in order to ensure public safety and quality of works in future by, amongst others, taking into account the findings of the Commission in the present inquiry under the expanded TOR. In light of the recommendations set out in the Commission’s Interim Report, BD has started reviewing and considering how to further enhance the clarity of the Code of Practice for Site Supervision and strengthen the requirements on communication among the site supervisory personnel and the requirements relating to their respective obligations, and will carefully examine and follow up on further recommendations as may be made by the Commission at the conclusion of the present inquiry.

20. I confirm that the contents of this witness statement are true to the best of my knowledge, information and belief.

Dated this 14th day of May 2019



LOK PUI FAI