COMMISSION OF INQUIRY INTO THE CONSTRUCTION WORKS AT AND NEAR THE HUNG HOM STATION EXTENSION UNDER THE SHATIN TO CENTRAL LINK PROJECT

WITNESS STATEMENT OF CHAN CHUN WAI CHRIS
FOR
MTR CORPORATION LIMITED

I, **CHAN CHUN WAI CHRIS**, of MTR Corporation Limited, MTR Headquarters Building, Telford Plaza, 33 Wai Yip Street, Kowloon Bay, Hong Kong, **WILL SAY AS FOLLOWS**:

1. I obtained my Bachelor Degree (Civil Engineering) from The University of Hong Kong in 2006. In May 2011, I became a member of the Hong Kong Institution of Engineers and also obtained my qualification as a Chartered Engineer of the Institution of Civil Engineers in the United Kingdom. In February 2014, I became a Registered Professional Engineer with the Engineers Registration Board.

2. I left MTR Corporation Limited ("**MTRCL**") in December 2017.

3. I first became involved in Contract 1112 in May 2014 as a Construction Engineer ("**ConE**") II. I was initially assigned to the Hung Hom Stabling Sidings ("**HHS**"). In or around November 2014, Ben Chan was assigned to HHS as ConE I. I was thereafter promoted to ConE I and transferred to the North Approach Tunnel ("**NAT**") including the North Fan Area. In the middle of 2015, my scope of responsibility extended to the South Approach Tunnels ("**SAT**"). I remained as ConE I for both NAT and SAT until my departure from MTRCL. As far as I can recall, I spent about 60-70% of my time at NAT and the remainder at SAT.

4. I worked under three Construction Managers, successively Cheng Kai Shing Patrick, Chan Kit Lam from in or around early 2015, and finally Fu Yin Chit Michael ("**Michael Fu**") from in or around mid/late 2016. I reported to Tsang Wing Wai Joe (SConE).

5. During the time when I was assigned to NAT and SAT, Kappa Kang (ConE II) reported to me.

6. I understand that on 22 March 2019, Messrs. Lo & Lo, the solicitors acting for the Commission of Inquiry issued a letter to MTRCL titled "*Commission of Inquiry into the Construction Works at and near the Hung Hom Station under the Shatin to Central Link Project (Request for Witness Statements-NAT)*" ("**NAT Letter**").

7. The NAT Letter identifies three issues, namely:

   (1) Three defective stitch joints were found at NAT ("**Issue 1**");

   (2) Non-compliance issues at the NAT Shunt Neck ("**Issue 2**");

   (3) Lack of RISC forms, inspection and supervisory records and deviations at NAT, SAT and HHS ("**Issue 3**").

8. I understand that MTRCL is required to submit its evidence on the three issues in stages. I provide this witness statement in response to various matters raised in the NAT Letter in respect of Issues 1 and 2.

9. In this witness statement, I shall adopt the headings and terms used in the NAT Letter.

Materials (Couplers and Rebars)

Item 1.7.3: Describe and explain, with reference to the Requirements, Standards and Practice the rebars and couplers which should be used in the construction of the 3 Stitch Joints

Item 1.11: Identify the party or parties which placed the order for couplers and rebars for the 3 Stitch Joints and explain the role of MTRCL in the ordering, checking and testing of couplers and rebars and in ensuring that only the correct materials were used.

Item 1.12: Confirm whether MTRCL is satisfied that the mismatch and the use of wrong materials was not the fault of the contractor under Contract 1111 and give your reasons therefor.

Item 1.14: As the interfacing requirements were communicated to Leighton 1 1/2 years ago, explain whether there are any system and procedures in place to ensure that Leighton would order the correct materials. It was said that on hindsight, "MTRCL's inspectorate team could also have reminded Leighton" that Lenton couplers were in fact

used under Contract 1111. Describe and explain the role of MTRCL in ensuring that Leighton would meet the requirements for ordering of materials such as rebars and couplers.

Item 1.15: Produce the relevant part(s) of the minutes of the 1111/1112 Interface Meetings which took place in respectively in December 2014, February 2015, June 2015 and August 2015 in which Leighton was informed of the requirements on couplers and rebars 'and the change in use of materials for the 3 Stitch Joints. Produce any records and/or communications with Leighton to show that Leighton was aware of the alleged change in use of materials.

Item 2.8.4: the rebars and couplers which should have been used in the construction of the Shunt Neck Joint.

Item 2.10: Identify the party which placed the order for couplers and rebars for the Shunt Neck Joint and explain the role of MTRCL in the ordering, checking and testing of couplers and rebars and in ensuring that only the correct materials were used to build a construction joint (as opposed to a stitch joint).

Item 2.11: Confirm whether MTRCL is satisfied that the mismatch and use of wrong materials was not the fault of the contractor under Contract 1111 and give your reasons therefor.

Item 2.20: Explain and confirm whether MTRCL considers there is any issue and concerns in relation to such rebar fixing work and concrete pouring work.

10. There are 3 stitch joints in issue, namely: (1) the stitch joint at the EWL level (the "**1111/1112 EWL Stitch Joint**") at the interfacing location between Contract 1111 and Contract 1112 (the "**1111/1112 Interface**"); (2) the stitch joint at the NSL track level at the 1111/1112 NSL Interface (the "**1111/1112 NSL Stitch Joint**"); and, (3) the stitch joint at the NSL level within Contract 1112 (the "**1112/1112 NSL Stitch Joint**") (collectively, the "**3 Stitch Joints**"). There is also one construction joint in issue, which is located at the Shunt Neck at the 1111/1112 Interface (the "**1111/1112 Shunt Neck Joint**"). I understand that the background to, and the steps and procedures involved in, the construction of the 3 Stitch Joints and the 1111/1112 Shunt Neck Joint have been explained in Michael Fu's witness statement. As far as material testing is concerned, the construction engineers ("**ConEs**") did not have much involvement in material testing as the materials that were involved were standard day-to-day materials such as rebars,

concrete and couplers and did not require the ConEs' involvement. I expected the Inspectors of Works ("**IOWs**") to deal with the material testing.

11. In this statement, I wish to explain what rebars and couplers should have been used in the construction of the 3 Stitch Joints and the 1111/1112 Shunt Neck Joint under Contract 1112. In this context, I point out that Leighton should procure rebars and couplers from the manufacturers / suppliers of rebars / couplers based on the specifications stated in the working drawings. These specifications include: (1) the size of rebars that should be used; and, (2) the locations where rebars and couplers should be installed. In addition, given that the 1111/1112 NSL Stitch Joint, the 1111/1112 EWL Stitch Joint and the 1111/1112 Shunt Neck Joint were located at the 1111/1112 Interface, the materials that had to be used required coordination between the contractor under Contract 1111 ("**GKJV**") and the contractor under Contract 1112 ("**Leighton**"). The materials that had to be used at the 1111/1112 Interface had been discussed during a number of 1111/1112 Interface Meetings, which were regularly held and were attended by representatives of Leighton, GKJV and MTRCL for the purpose of coordinating the works at or around the 1111/1112 Interface.

12. I personally attended many of the 1111/1112 Interface Meetings. Representatives of GKJV had repeatedly mentioned that GKJV would use "Lenton couplers" (the features of which will be explained further below) at the 1111/1112 Interface during at least the following meetings:

    (1) At the 8th 1111/1112 Interface Meeting held on 5 December 2014, GKJV tabled, amongst others, a "Material Related Submission Form" (1111-MSF-GKJ-CS-000808A) for the use of "LENTON Type A2 Standard Coupler for Non-Ductility Coupler Requirement" as the Mechanical Splicing System of rebar for the construction of the NSL Tunnel and the EWL Tunnel at the 1111/1112 Interface. The minutes recorded that Leighton "*have no comments on those submissions and will check with their supplier regarding compatibility in later stage*".[1]

[1] See: the minutes of the 8th 1111/1112 Interface Meeting

(2) At the 9th 1111/1112 Interface Meeting held on 9 January 2015, GKJV's proposed use of the Lenton Type A2 Standard Coupler was again tabled, and the minutes recorded that Leighton would "*check with their supplier regarding compatibility in later stage*".[2]

(3) At the 10th 1111/1112 Interface Meeting held on 6 February 2015, GKJV tabled a "Material Related Submission Form" (1111-MSF-GKJ-CS-000832) and proposed to use a "LENTON Type A2 Standard Coupler with LENTON Plus Process" as the "Mechanical Splicing System of rebar". The use of this material was marked "*Approved*" in the minutes, and the minutes recorded that Leighton would "*check with their supplier regarding compatibility in later stage*".[3] There was a note in the form (1111-MSF-GKJ-CS-000832) (which was referred to in the minutes): "*As confirmed by Supplier, LENTON Coupler with LENTON Plus threading process can comply with BD imposed coupler requirement and conditions as per attached email correspondence...*"

(4) After that, GKJV's use of Lenton couplers at the 1111/1112 Interface was again mentioned in the following meetings and the minutes thereof stated that Leighton would "*check with their supplier regarding compatibility in later stage*":

(i) the 11th 1111/1112 Interface Meeting held on 13 March 2015;[4]
(ii) the 12th 1111/1112 Interface Meeting held on 17 April 2015;[5]
(iii) the 14th 1111/1112 Interface Meeting held on 26 June 2015;[6]
(iv) the 15th 1111/1112 Interface Meeting held on 14 August 2015;[7]
(v) the 16th 1111/1112 Interface Meeting held on 6 October 2015;[8]
(vi) the 17th 1111/1112 Interface Meeting held on 17 November 2015;[9] and
(vii) the 18th 1111/1112 Interface Meeting held on 18 December 2015;[10]

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[2] See: the minutes of the 9th 1111/1112 Interface Meeting
[3] See: the minutes of the 10th 1111/1112 Interface Meeting
[4] See: the minutes of the 11th 1111/1112 Interface Meeting
[5] See: the minutes of the 12th 1111/1112 Interface Meeting
[6] See: the minutes of the 14th 1111/1112 Interface Meeting
[7] See: the minutes of the 15th 1111/1112 Interface Meeting
[8] See: the minutes of the 16th 1111/1112 Interface Meeting
[9] See: the minutes of the 17th 1111/1112 Interface Meeting
[10] See: the minutes of the 18th 1111/1112 Interface Meeting

(5) At the 19th 1111/1112 Interface Meeting held on 18 January 2016, GKJV further specified that at the 1111/1112 Interface, "*T40 coupler is BOSA; others are Lenton*". The minutes again recorded that Leighton would "*check with their supplier regarding compatibility in later stage*".[11]

(6) Leighton was further reminded at the following meetings that at the 1111/1112 Interface, GKJV would use BOSA couplers only for T40 rebars and Lenton couplers would be used for other types of rebars and the minutes thereof stated that Leighton would "*check with their supplier regarding compatibility in later stage*":

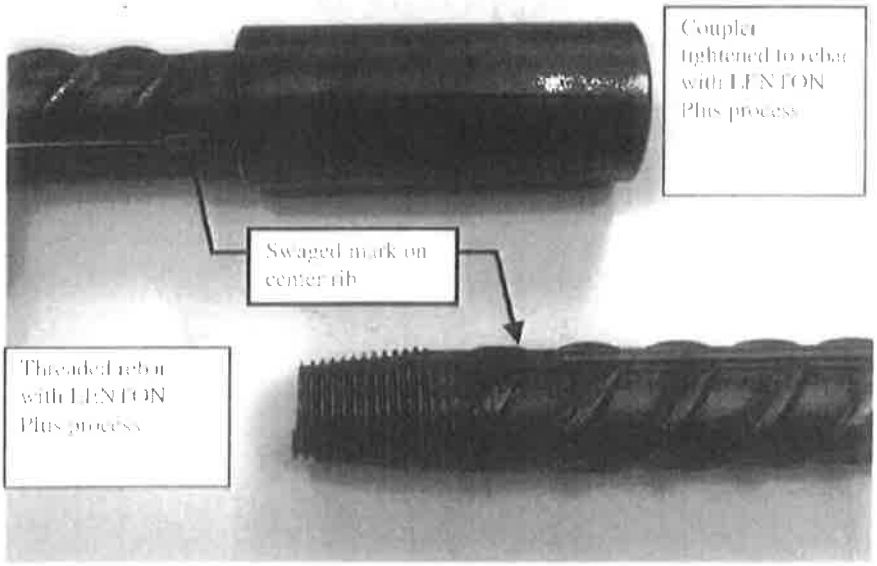
(i) the 20th 1111/1112 Interface Meeting held on 8 April 2016;[12]
(ii) the 21st 1111/1112 Interface Meeting held on 2 September 2016;[13]
(iii) the 22nd 1111/1112 Interface Meeting held on 6 January 2017.[14]

13. Accordingly, from December 2014 until at least January 2017, MTRCL and GKJV repeatedly reminded Leighton of GKJV's use of Lenton couplers at the 1111/1112 Interface. In this context it bears emphasis that:

(1) Lenton mechanical splices comprise a taper-threaded splicing system. To ensure proper thread engagement within a Lenton coupler, the connecting end of the rebar to be screwed into a Lenton coupler must be specifically taper-threaded ("**Lenton threaded rebar**") using the manufacturer's bar threading equipment.

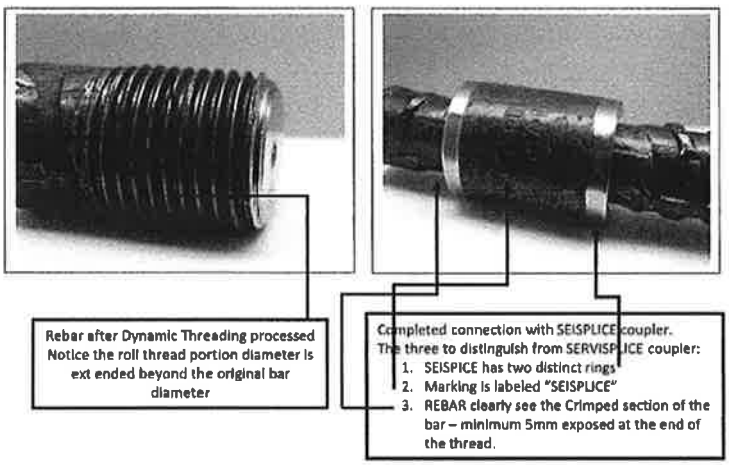
Image 1: Lenton coupler and Lenton threaded rebar[15]

[11] See: the minutes of the 19th 1111/1112 Interface Meeting
[12] See: the minutes of the 20th 1111/1112 Interface Meeting
[13] See: the minutes of the 21st 1111/1112 Interface Meeting
[14] See: the minutes of the 22nd 1111/1112 Interface Meeting
[15] Appendix G to Erico Limited's Technical and Quality Assurance Manual ELQ-01 attached to the Contractor's Materials Related Submission Form dated 22 December 2014 submitted by GKJV (CSF No: 1111-MSF-GKJ-OS-000808A)



(2) In contrast, BOSA couplers are cylindrical in shape. To ensure proper thread engagement within a BOSA coupler, the connecting end of the rebar to be screwed into a BOSA coupler ("**BOSA threaded rebar**") must be specifically cylindrically-threaded using the manufacturer's bar threading equipment.

Image 2: BOSA coupler and BOSA threaded rebar[16]



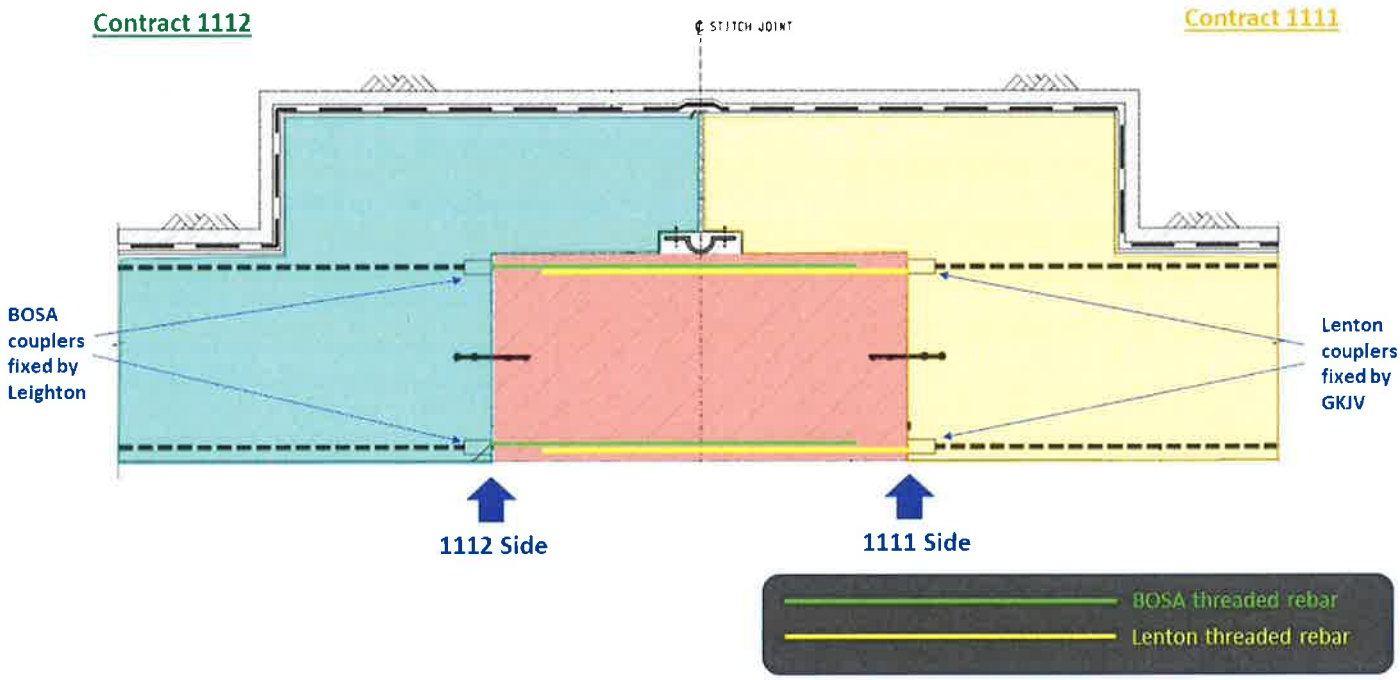
[16] Appendix 7 to BOSA's Technical and Quality Assurance Manual BOSA/Q/SEI/A/01 attached to the Contractor's Materials Related Submission Form dated 28 June 2013 submitted by Leighton (CSF No: 1112-MSF-LCA-OS-000005)

(3) Given their specific shapes and threading requirements, a Lenton threaded rebar cannot be screwed into a BOSA coupler, and a BOSA threaded rebar cannot be screwed into a Lenton coupler.

14. As only Lenton threaded rebars could be screwed into Lenton couplers, Leighton and its sub-contractor had to use Lenton threaded rebars to screw into the Lenton couplers for the connections at the "***1111 side***" of the 1111/1112 NSL Stitch Joint and of the 1111/1112 EWL Stitch Joint (see Diagram 1 below).

15. In this context, it is noteworthy that at the "***1112 side***" of the 1111/1112 NSL Stitch Joint and of the 1111/1112 EWL Stitch Joint, Leighton could use either BOSA couplers or, subject to making the requisite submissions, Lenton couplers (notwithstanding that GKJV used Lenton couplers at the "1111 side" of the stitch joints), because the 1111 rebars and the 1112 rebars could still be lapped together regardless of what types of couplers they were screwed into (see Diagram 1 below).

Diagram 1: materials that should be used at the stitch joints



16. Similarly, given that GKJV used Lenton couplers at the tunnel structures under Contract 1111 adjacent to the Shunt Neck at the 1111/1112 Interface, Leighton and its sub-

contractor had to use Lenton threaded rebars to screw into those Lenton couplers in order to construct the 1111/1112 Shunt Neck Joint.

Defective workmanship or design issue

Item 1.18: Please describe and explain the alleged "defective workmanship issue" and "design issue"

17. I am not aware that there was any design issue in relation to the 3 Stitch Joint locations. I did not attend PSC Meeting No 67 and I understand that Mr. Lee Tsz Man will explain what transpired at that meeting.

Item 1.22: Notwithstanding the Requirements, Standards and Practice for the supervision and inspection of the rebar fixing and concreting works, explain why MTRCL did not, at any stage prior to concreting and completion of the construction of the 3 Stitch Joints, detect and discover:

Item 1.22.1: that wrong rebars and/or couplers were ordered and used by Leighton and its contractor for the construction of the 3 Stitch Joints;

Item 1.22.2: that the rebars at the 3 Stitch Joints were not connected to couplers and/or were not properly connected;

and that the defects were only discovered some time after the completion of the 3 Stitch Joints and as a result of investigation on subsequent water seepages.

Item 2.22: Notwithstanding the Requirements, Standards and Practice for the supervision and inspection of the rebar fixing and concreting works for the Shunt Neck Joint, explain why MTRCL did not, at any stage prior to concreting and completion of the construction of the Shunt Neck Joint, detect and discover :

Item 2.22.1: that there was a mis-match in materials between Contract 1112 and Contract 1111 and that wrong rebars were ordered and used by Leighton and its contractor under Contact 1112 for the construction of the Shunt Neck Joint.

Item 2.22.2: that Leighton has proceeded on the basis of constructing a stitch joint instead of a construction joint as required.

Item 2.22.3: that the wrong rebars acquired under Contact 1112 were simply slotted into the couplers installed at the Contract 1111 interface and not properly screwed into the couplers,

and that the Shunt Neck Joint was not constructed in accordance with the Requirements, Standards and Practice and that the defects were only discovered some time after the completion of the Shunt Neck Joint and only as a result of subsequent investigation carried out in 2018.

18. Whenever Leighton reached a hold point, they should submit a RISC form to the Administrative Assistants of MTRCL, one of whom was Fung Po Yee Audrey. The RISC form would then be passed on to the Senior Inspector of Works ("**SIOW**") for him to distribute the RISC forms to the relevant IOWs (and, if necessary, the ConEs) to conduct an inspection for their respective areas.

19. However, on this project Leighton was often behind in terms of their paperwork, with the consequence that RISC forms were not always made available by Leighton at the time the inspections were conducted. The ConEs/IOWs would receive phone calls from their opposite number in Leighton (before RISC forms were submitted), and the ConEs/IOWs would conduct the relevant inspection and, if appropriate, give the relevant permission to proceed. In order not to hold up the works which were becoming time critical and on the promise of Leighton to provide the RISC forms later, we would inspect and give permission to proceed, if appropriate.

20. To this extent, there was more of a partnering relationship, rather than an employer-contractor relationship between MTRCL and Leighton. At times, Leighton would subsequently furnish the RISC forms but as time went by it progressively failed to do so and the number of outstanding RISC forms grew. What I wish to emphasise is that the absence of RISC forms does not mean that no inspections were carried out. In fact, as and when we received calls from Leighton to inspect, we would inspect and give permission to proceed, if appropriate. What was lacking was the submission of the RISC forms as a result of Leighton's omission/failure to submit the same, but in the event that we had insisted on receiving such forms before the inspections took place the reality is that the works would have taken far longer to complete than would otherwise have been the case.

21. I was full time on site and regularly conducted site walks on Wednesdays (focussing on general inspection) and Thursdays (focussing on safety issues). In addition, I would be asked on an ad hoc and on an as required basis to go on site to resolve specific issues, for example safety, utilities, and operations. I would like to point out that during my regular site walks, I would be inspecting the site as a whole. If there was anything which workers were doing incorrectly, I would certainly voice out my concern or objection. I would not specifically just devote the entirety of my site visits to one location of the site (for example the stitch joints) at the expense of other parts of the site. I would inspect all my areas of the site for which I was responsible and which the CoI will have realised from its site visits were substantial in size.

22. With regard to the locations where the 3 Stitch Joints and the 1111/1112 Shunt Neck Joint were located, during my regular site walks I would cover those areas and if I observed workers, for example, not installing the couplers I would object to that. During my site walks of these locations, I did not observe any sub-standard works at the locations where the 3 Stitch Joints and 1111/1112 Shunt Neck Joint were located. I note from the 2nd Stitch Joints Report and the 2nd Shunt Neck Report of MTRCL that couplers were either not installed at all or not installed properly. During my site walks, I did not observe any instance where the workers of Leighton "cut corners" that way.

23. With regard to my ad hoc visits, I would go straight to that area of the site which I had to go to in order to discuss the works in question to be done at that particular area. The reason for that is that these were specific visits for a specific purpose and I would simply focus on the purpose and location of the visit.

24. Rebar fixing was a relatively simple and straight forward matter for inspection. I initially conducted some inspections of the rebar fixing, but I became more occupied with other more pressing issues. I therefore delegated the inspection of the rebar fixing to the IOWs working in my team and as well as ConE II. In mid-late 2017, I was preoccupied with interfacing issues involving a number of designated contractors, for example Contract 1173 (Building Services), Contract 1120 (EWL Track Works), Contract 1120B (NSL Track Works), and 1155 Trackside Services. Such interfacing issues were of paramount contractual significance, as they impacted on MTRCL's obligation under its various

contracts with the designated contractors to give site possession to the designated contractors to carry out their works and therefore progress the same timeously. In addition to the foregoing, I was also responsible for dealing with the co-ordination of civil provisions (including their defect identification and rectification). Administratively, there were a number of regular meetings which required my attendance, such as the weekly internal team meeting (Monday morning), the weekly works meeting with contractors (Monday afternoon), the weekly meeting with the design team (Tues morning) and the weekly co-ordination meeting with the Building Services contractors (Contract 1173). There were also ad hoc meetings in relation to, for example, railway protection and with the operations department.

25. I was never asked to inspect the 3 Stitch Joints or the 1111/1112 Shunt Neck Joint. This was because I expected that Leighton would have contacted MTRCL's lOWs or ConE II to conduct the necessary inspection. I must emphasize that I was never informed of any rebar coupling problems relating to the 3 Stitch Joints and/or the 1111/1112 Shunt Neck Joint.

26. Having said that, I should point out that the progress and timely completion of the Stitch Joints works were under constant monitoring and a topic of discussion during the Works Meetings attended by staff of both MTRCL and Leighton and at the MTRCL weekly team meetings. However, Leighton had never raised any rebar coupling issues during any of these meetings.

27. I should also point out that on the issue of inspection, Leighton has the primary responsibility to provide full-time and continuous supervision of the coupler assembly process. It is also for Leighton, having satisfied themselves that a particular location was ready for inspection, to initiate the RISC form inspection process. As stated above, on the issue of inspection, whilst MTRCL treated Leighton as a partner and would co-operate in the inspection process even without RISC forms being formally submitted because of the delay to the works which would otherwise have been caused, Leighton did not alert me to any rebar coupling problems at the material time relating to the 3 Stitch Joints and/or the 1111/1112 Shunt Neck Joint.

Item 2.15: We refer to paragraph 3.8 of the 2nd Shunt Neck Report (as extracted above). Identify the recipient of the RFI submitted by the Contractor on 23 May 2016. Produce the RFI and exchange of correspondence between the Contractor and the recipient of the RFI on this subject thereafter. The joint is at the interface between 1111/1112. While the instructions given by the recipient at the time were that there should be "no stitch joint except at interface with 1111", which means a stitch joint should be constructed at the interface, please explain why it was alleged in the Report that Leighton was at fault by following instructions and constructing a stitch joint.

Item 2.16: It was also suggested in paragraph 3.8 of the 2nd Shunt Neck Report that while there was still ambiguity in the "connection requirement at this interfacing location", "the Contractor had not further raised any queries seeking for clarification". Explain why the recipient of the RFI could not have, on its own initiative, cleared the ambiguity and clarified the connection requirements with Leighton when Leighton was expressly instructed by the recipient of the RFI that a stitch joint should be constructed at the interface.

28. Leighton's RFI numbered 1112-RFI-LCA-CS001510 ("**RFI-1510**") was sent by Ian Rawsthorne to MTRCL's Tsang Wing Wai Joe ("**Joe Tsang**") and copied to, *inter alia*, Kappa Kang and myself.

29. RFI-1510 in fact referred to an attachment titled "NAT-NAT-Clarification of Stitch Joint" at "Location 3.1 – North approach – North fan area" ("**Attachment**"). The Attachment was sent by Leighton's Malcolm Plummer and addressed to MTRCL's Chan Kit Lam. The Attachment referred to a number of drawings, namely 1112/W/HUH/ATK/C10/A82, 1112/W/HUH/ATK/C10/E82 ("**Drawing E82 Rev C**"), 1112_W_000_ATK_C11_101A and 1112_W_000_ATK_C11_102A (collectively "**RFI 1510 Drawings**").

30. Drawing E82 Rev C was concerned with the 1111/1112 Interface and therefore covered both the stitch joint and the shunt neck locations.

31. RFI-1510 raised seven requests for information ("**Requests**"). Request Nos 1 to 6 were concerned with the stitch joints and Request No 7 was concerned with the shunt neck. The Requests were circled or clouded in the RFI 1510 Drawings. In particular, Request No 7 was only circled in Drawing E82 Rev C.

32. Request No 7 was in the following terms:

"*As no stitch joint of Shunt Neck shown on [Drawing E82 Rev C], please confirm stitch joint is not required at shunt neck.*"

33. On 6 June 2016, MTRCL provided its Reply to RFI-1510 ("**Reply**"). The Reply was sent by Kappa Kang (for Joe Tsang) and copied to me. In relation to Request No 7, the Reply answered as follows ("**Relevant Answer**"):

"*For item 7, No stitch joint at shunt neck* ***except at interface with 1111.***" (emphasis added)

34. I confirm that I drafted the Relevant Answer. The Relevant Answer must be read in its proper context. First, RFI-1510 raised a number of queries concerning **both** the stitch joint and shunt neck locations at the 1111/1112 Interface. Secondly, Leighton's markings on Drawing E82 Rev C covered Request Nos 1a, 2 and 7. Request Nos 1a and 2 were concerned with the stitch joint locations. There was only one shunt neck location in Drawing E82 Rev C, as clearly demonstrated by Leighton's own marking for Request No 7.

35. Therefore, when I added the emboldened words "*except at interface with 1111*", I simply wished to clarify that stitch joints were still required at locations at the interface with 1111 at EWL other than at the shunt neck, which was in fact the correct position. As there was only one shunt neck in Drawing E82 Rev C, so far as I am concerned, that answer in the context of Drawing E82 Rev C could only mean that no stitch joint was required at the shunt neck location.

36. In any event, there could not have been any confusion given the actual site conditions. As set out at paragraph 3.1 of the 2nd Shunt Neck Report, the concrete casting for the shunt neck under SCL1111 (as constructed by GKJV) had already been completed on 9 January 2016, well before Leighton commenced its re-bar fixing for the Shunt Neck Bay 3 base under SCL1112 in January 2017.

37. If a stitch joint had to be built, GKJV would have constructed collars (or a "recess" as referred to in the 2nd Shunt Neck Report) at the shunt neck location. However, GKJV did not construct any such "recess", and given the obvious visible difference, Leighton must have known that the structure constructed by GKJV was not a stitch joint.

38. I note also that MTRCL provided its Reply on 6 June 2016. Leighton only commenced its re-bar fixing at Shunt Neck Bay 3 about seven months later, in January 2017. Given the as-built conditions (by GKJV) on site, Leighton should have sought further clarification from MTRCL as they reached the point of actually carrying out the works in the event that there was any doubt as to what was required, but they did not.

39. In any event, at the 1111/1112 Shunt Neck Joint, no collars (or structural recess) were constructed by Leighton, which was entirely consistent with the fact that Leighton knew that a construction joint, rather than a stitch joint, was required at that location.

CHAN CHUN WAI CHRIS

Dated 2 May 2019