Commission of Inquiry into the Construction Works at and near the Hung Hom Station Extension under the Shatin to Central Link Project (formerly Commission of Inquiry into the Diaphragm Wall and Platform Slab Construction Works at the Hung Hom Station Extension under the Shatin to Central Link

Project) ("the Commission")

WITNESS STATEMENT OF NG MAN CHUN

I, Ng Man Chun, aged 39, of

do state to the Commission as follows:-

Introduction

- I, Ng Man Chun, am presently employed by Loyal Ease Engineering Limited (referred to below as "Loyal Ease") as its site supervisor. Loyal Ease was the sub-contractor of Wing & Kwong Steel Engineering Co., Limited (referred to below as "W&K") for the steel reinforcement fixing works which form the subject of this Inquiry. As such, I was the site supervisor of the steel reinforcement fixing works at the North Approach Tunnels (referred to below as "NAT") and the Hung Hom Stabling Sidings ("HHS") undertaken by W&K. All construction site workers responsible for these steel reinforcement fixing works were employed by Loyal Ease (referred to below as "rebar fixing workers" or "W&K's workers").
- 2. I have been engaged in steel reinforcement fixing works for around 10 years, and am a registered skilled worker for steel reinforcement fixing works.
- 3. In relation to daily matters at the HHS and NAT sites, it was mainly I who represented W&K to contact the relevant personnel responsible for the sites of the main contractor, Leighton Contractors (Asia) Limited (referred to below as "Leighton"). My scope of work mainly consists of coordinating steel reinforcement fixing works, arranging for

manpower, assigning tasks, and supervising rebar fixing workers and the progress of the works at the HHS and subsequently the NAT site, while at the same time, carrying out steel reinforcement fixing works in accordance with the on-site instructions of Leighton's personnel.

- 4. I understand that W&K has in connection with this Inquiry received a total of two letters dated 29 March 2019 from the Commission, one pertaining to matters concerning the steel reinforcement fixing works discovered at the HHS (referred to below as "the HHS Letter" [EE1/25-33]), and the other pertaining to matters concerning the steel reinforcement fixing works discovered at the NAT (referred to below as "the NAT Letter" [EE1/1-24]).
- 5. In this witness statement, I endeavor to assist the Commission with respect to the matters mentioned in the HHS Letter and the NAT Letter to the best of my knowledge and ability.
- 6. 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.

The HHS Letter

Paragraph 1.1 of the HHS Letter

7. In relation to W&K's experience in steel reinforcement fixing works, the scope and terms of the relevant contract between W&K and Leighton with respect to the HHS section (referred to below as "the Sub-Contract") and the construction timetable for the steel reinforcement fixing works at the HHS, I understand that W&K's Quantity Surveyor Manager, Cheung Yick Ming ("Ben") will also be a witness in this Inquiry. I trust that he will clearly explain this, so I will not repeat the same here.

- W&K's steel reinforcement fixing works at the HHS mainly encompassed 2 broad categories: (1) bending reinforcement bars (colloquially known as 'rebar fixing'), and (2) installing couplers.
- 9. Within the HHS site, the rebar fixing works for which we were responsible at the time can largely be divided into 6 main areas (I will refer to each area as a 'zone' below), namely: (1) HHS-Underpass, (2) HHS-East, (3) HHS-West, (4) BOH 0-23+BOH 23-48, (5) HUH+A-9 Tank, (6) Grid Line K. The rebar fixing works in each zone can proceed concurrently or sequentially. Exhibit "NMC-1" [EE1/372-375] contains 3 layout plans, of which we used colours to designate the areas within the HHS where W&K took part in rebar fixing works.
- 10. In every zone, Leighton stationed staff at the site to coordinate the progress of construction, supervise works, or assist in the construction process. These Leighton staff stationed at the sites could broadly be divided into 2 main categories: we colloquially call them "administrative staff" (i.e. staff stationed at the site but not directly participating in actual construction works) and "workers" (i.e. staff directly participating in actual construction works).
- 11. To my knowledge, the "administrative staff" of Leighton include:-
 - (1) Chief manager;
 - (2) Senior site agent;
 - (3) Site agent;
 - (4) Sub-agent;
 - (5) Senior Engineer; and
 - (6) Engineer.
- 12. To my understanding, "workers" also had different gradings, including:-
 - (1) General foreman;
 - (2) Supervisor;
 - (3) Senior Foreman; and
 - (4) Foreman.

- 13. In the course of the carrying out of the rebar fixing works at the HHS, I maintained close contact and communication with these two teams of Leighton's personnel (colloquially referred to as administrative staff and workers), but I contacted most frequently with the engineer in charge of each particular zone.
- 14. As construction works at the HHS commenced around 4 years ago, I cannot entirely recall all of Leighton staff responsible for any particular zone. However, I record what I recall as follows (to assist the Commission, I will also categorise these personnel into their zones according to my recollection, but I do not know some of their full names) (see Exhibit "NMC-1" [EE372-EE375]):-
 - (1) HHS-Underpass:-
 - (a) Sub-agent: Daniel
 - (b) Engineer: "Ah Chong"
 - (c) General foreman: "Ah Wai"
 - (d) Site foreman: "Kam Fuk"
 - (2) HHS-East:-
 - (a) Senior Site Agent: Marco Chan
 - (b) Site Agent: Ronald Leung
 - (c) Engineer: Jeff, Yvonne
 - (d) General foreman: "Ah Ming", "Ah Wai"
 - (e) Supervisor: Mr. Lee
 - (f) Site Foreman: Mr. Leung, "Kam Fuk", "Zhu Jai"
 - (3) HHS-West:-
 - (a) Senior Site Agent: Marco Chan
 - (b) Site Agent: Ronald Leung
 - (c) Engineer: Jeff, Matthew, Yvonne
 - (d) General foreman: "Ah Wai"
 - (e) Supervisor: Mr. Lee
 - (f) Site Foreman: "Kam Fuk"

(4) BOH 0-23+BOH 23-48

- (a) Senior Site Agent: Marco Chan, Gary Chan
- (b) Site Agent: Benny
- (c) Engineer: Jeff, Matthew
- (d) General foreman: "Ah Wai"
- (e) Supervisor: Mr. Lee
- (f) Site Foreman: "Zhong Jai"
- (5) HUH+A-9 Tank
 - (a) Senior Site Agent: Marco Chan
 - (b) Sub-agent: Daniel
 - (c) Engineer: Alan
 - (d) Site Foreman: "Ah Ming"
- (6) Grid Line K
 - (a) Chief manager: Joe Tam
 - (b) Site agent: Joe Leung
 - (c) Engineer: Alex
 - (d) Supervisor: "Dai Wah"
 - (e) Site Foreman: "Ah Choi"

Paragraph 1.2 of the HHS Letter

- 15. Based on my understanding, the construction programme of the rebar fixing works within the HHS for which W&K was responsible was as follows (I assumed the role of site supervisor for W&K's rebar fixing works in February 2015):-
 - (1) Before W&K and Leighton entered into the Sub-Contract and the official commencement of construction works, Leighton provided to W&K the complete standard working drawings for the rebar fixing works to be carried out at the HHS, which could be divided into 4 main documents, respectively referred to in our industry as General Notes, Typical Details, Framing and RC Details. Exhibit

"NMC-2" [E1/376-385] is part of the working drawings for the works to be carried out at the HHS provided by Leighton to W&K at the time.

(2)Since these standard drawings, especially the RC Details, are to my knowledge relatively complicated plans designed and drawn up by professional surveyors engaged by MTR Corporation Limited (referred to below as "MTRCL") and/or Leighton, general frontline rebar fixing workers would not completely understand them. As such, upon receiving the standard working drawings from Leighton, I would hand over the drawings to my subordinate Yeung Chun Bong (referred to below as "Ah Bong") for him to help me "deconstruct" the plans. Reference to "deconstructing" plans in this industry means splitting the complete HHS working drawings provided by Leighton into hand-drawn diagrams covering less surface areas, the primary purpose of which is to enable frontline rebar fixing workers to easily understand the construction details. These hand-drawn diagrams could be divided into two types: respectively referred to colloquially as "sample papers" for reinforced steel samples, and what is colloquially known as "material list papers". From the sample papers produced by Ah Bong according to Leighton's plans, the frontline rebar fixing workers would know during actual rebar fixing works what length of rebars should be used at which location, where couplers need to be placed, the distance from one rebar to another (what we call "centre-to-centre distance") etc. Exhibit "NMC-3" [EE1/386-389] is a template sample paper and material list paper produced by Ah Bong after he has "deconstructed" plans according to Leighton's working drawings. Since construction works at the HHS site have already been completed for a very long period of time, W&K has not since retained a full set of the relevant sample papers and material list papers.

(3) As the supervisor of the HHS site, after Ah Bong had deconstructed the working drawings, I would first inspect and review whether every sample paper and material list paper was accurate or not according to Leighton's RC Details, whether it correctly reflected the requirements of the working drawings provided by Leighton to W&K etc. If mistakes were discovered, I would immediately

correct them, before passing on the relevant sample papers to the frontline rebar fixing workers.

- (4) As could be seen from Exhibit "NMC-3" [EE1/386-389], we only had to specify in the material list papers the diameter and quantity of the required rebars, and whether the relevant rebars had to be connected to couplers, but would not specify the type of couplers or the type of rebar screw heads needed. This is because the types of couplers and rebar screwheads were all determined by Leighton, and W&K did not have any decision-making power or choice on the matter. Even before Leighton purchased or provided W&K with the relevant couplers, it would not and did not have to first consult with me nor any of W&K or Loyal Ease's personnel.
- (5) As stated above, we broadly divided the area of the rebar fixing works at the HHS into 6 zones. Every zone would then be further sub-divided into different bays (i.e. units for actual construction). Around 1 to 2 weeks before construction works commenced in each bay, the person-in-charge of the zone, for example the Engineer / sub-agent / site agent / senior foreman / general foreman will contact me to fix a period of time with me to see if they could commence construction works at a particular bay at that fixed period of time. After the period for commencing works at that bay has been fixed, I would submit what is known in the industry as the "bending schedule" (i.e. a table of the required materials (steel)), which specified the quantity of rebars of particular widths respectively required by W&K before a particular date, to Leighton's person-in-charge of the particular zone (usually, the zone's Engineer) in accordance with the reviewed sample papers and material list papers.
- (6) After I had submitted the bending schedule to Leighton's person-in-charge of the zone, that person would contact me to confirm the date and times for the delivery of the steel. When the ordered steel was delivered to the designated zone of the site, I would provide the required samples according to the determined quantities, and place them in a corner of the site so that Leighton's personnel could collect the

same for the purpose of inspection (i.e. colloquially known as "inspecting steel"). Whether inspections were carried out or when inspections would be completed was decided by Leighton, of which W&K was not entitled to question. Moreover, even if Leighton decided not to inspect steel, we nevertheless had to carry out rebar fixing works as usual. After all, it was Leighton that conducted inspections of these rebar fixing works at the end of the day.

- (7) After preparing the samples for inspection, I would arrange for workers to cut the remaining rebars into the required lengths, then submit the material list papers to Leighton's person-in-charge of that zone so as to allow Leighton to transport the rebars that needed to be connected to couplers or that needed threading to BOSA Technology (Hong Kong) Limited (referred to below as "BOSA") to conduct any necessary further processing (such as threading and the installation of couplers at the end of the rebars). After Leighton returned the required rebars, I would assemble the necessary manpower to officially commence rebar fixing works.
- (8) One or two days prior to the official commencement of construction works, I would first inspect the site and its surroundings in order to assess whether rebar fixing works could commence on the dates required by Leighton and to estimate manpower needs.
- (9) During the construction works, I would be stationed on site, supervising the progress of the rebar fixing workers and the construction quality. But since at least 3-5 bays would commence construction works at the same time, I could not only be stationed at one particular bay, but would constantly patrol the bays in which construction works were under way, back and forth on a daily basis.
- (10) Apart from myself, as far as I know Leighton would also send its personnel, mainly the foreman and engineer of the particular zone, to patrol the site 5-10 times every day (approximately once every 1-2 hours) in order to supervise the progress of the rebar fixing workers and the construction quality. If they discovered any problem with the construction works, they would speak directly to

me or directly to the rebar fixing workers who were carrying out works at the time. For example, on some occasions Leighton's staff have said to me during patrols that "this place needs to be fixed better", "there's not enough iron wires here", "there's too much of a gap here" or "this bar is not straight enough", and other indications for improvement during their patrols. Upon receiving such indications, I had immediately followed up and directed the workers to rectify the problem.

- (11) Apart from Leighton's personnel, based on my understanding, MTRCL would also send its staff (including its 'RE', i.e. registered engineer) to patrol the construction site. The main RE from MTRCL that I was acquainted with was called Rita (or a name of similar pronunciation, but he is a male so I do not know whether the pronunciation is accurate or not) and Tony (I do not know their full names). Like Leighton's staff, if they discovered any problem with the construction works, they would directly point that out on the spot, and I would also immediately follow up and rectify the problem.
- (12) As far as I know, once the rebar fixing works at each bay have been completed, Leighton's staff would conduct inspection on the construction quality of the relevant works (we colloquially call this "inspection") together with MTRCL's staff. Only after the inspection had been passed could a particular bay proceed to the next stage of the process, namely pouring concrete (we colloquially call this "pouring concrete"). Hence, after rebar fixing works at each bay were finished, I would contact Leighton's person-in-charge of that particular zone (usually the zone's engineer or foreman) informing him when approximately works would be completed (for example, say 4 pm that day), suggesting him to liaise with "Ah Sir" (i.e. MTRCL's inspection personnel) to conduct inspections.
- (13) After completion of the construction works in that bay, Leighton would in most situations require our staff to stay behind at the scene for after-care work during the inspection process (if necessary). Even if they did not request us to do so, I would endeavor to stay behind at the scene myself (or arrange for a few workers to stay at the scene) for after-care works (if necessary). Even if we were not at the

scene during the inspection process, if there was a situation where any after-care was needed, they would contact me requiring me to go back to take remedial measures. At the latter part of the construction works (i.e. during the inspections for these 3 Stitch Joints), maybe it was because Leighton had to catch up with works, they did not require us to be present during inspections. And during the process of Leighton and MTRCL's inspections, neither W&K nor I had to sign or submit any inspection documents.

- (14) If in the course of the inspection process, Leighton or MTRCL discovered that the rebar fixing works had any problems, Leighton's relevant person-in-charge of the particular zone would immediately contact me, and require me (together with all rebar fixing workers that may be needed) to immediately head over to the scene to take such remedial measures under Leighton's supervision to their satisfaction and until the requisite standard is met.
- (15) The usual remedial works required to be carried out by us were requests from the inspection personnel to add a few rebars or wires or other remedial measures requested by them for us to carry out (but these remedial measures were not related to the situations mentioned in the HHS and NAT Letters). Upon receiving such directions, we would carry out these remedial measures.
- (16) As stated above, I have never been recalled to the scene to undertake remedial measures or required to redo works with respect to the situation with the connection between rebars and couplers in the course of the inspection process for the relevant connection points at the HHS and NAT which are the subject of the present Inquiry. In fact, as I will elaborate below, since the rebar fixing works done by me and the frontline workers led by me were in accordance with the requirements of Leighton's RC Details or the instructions or requests of Leighton's personnel, therefore except for the situation stated above, during the inspection process my frontline workers and I have not been recalled to the scene to carry out remedial measures (and did not expect to be so recalled).

Paragraph 1.3 of the HHS Letter

- 16. In relation to the details, procedure and frequency of the supervision, patrolling and construction quality management of the rebar fixing works at the HHS site, and the respective roles of W&K, Leighton and MTRCL in this regard, please see my response to paragraph 1.2 of the HHS Letter above.
- 17. As regards paragraph 1.3.1 of the HHS Letter, out of W&K's personnel, only I would participate in the daily operations, patrolling, supervision and construction quality management of the rebar fixing works.
- 18. As regards paragraph 1.3.4 of the HHS Letter, in relation to matters about inspections, please see paragraph 15 above. As for my supervision of the frontline workers, there are no documentary records for such daily onsite supervision.

Paragraphs 2.5 to 2.8 of the HHS Letter

- 19. As regards the construction timeline of the rebar fixing works at the HHS, to my understanding, W&K's Quantity Surveyor Manager, Ben, will also act as a witness in the present Inquiry. I trust that he will clearly explain this, therefore I will not repeat the same here.
- 20. In relation to matters about inspections, please see paragraph 15 above, and I am not clear about the procedure of these "RISC form inspections". I reiterate that I only know that after rebar fixing works had been completed at each bay, Leighton's staff had to conduct inspection of the construction quality of the relevant works together with MTRCL's staff. It was only after the inspections that the pouring cement process could proceed at that bay. However, I do not know whether or not these inspection procedures adopted between Leighton and MTRCL are actually the so-called "RISC form inspections".
- 21. In relation to matters about inspections, please see paragraph 15 above. According to my recollection, I have never been recalled to the scene to undertake remedial measures with

respect to problems with the connection between rebars and couplers in the course of the inspection process for the relevant connection points at the HHS and NAT which are the subject of the present Inquiry. My responsibilities were limited to informing Leighton's person-in-charge of the zone the time when rebar fixing works at a particular bay would be completed when such works at the bay were nearing completion, so that he could arrange for inspection of the works.

Paragraphs 2.9 to 2.11 of the HHS Letter

- 22. In relation to the change on the use of couplers instead of lapped bars at certain construction joints mentioned in paragraph 2.9 of the HHS Letter [EE1/29], I wish to respond as follows:-
 - (1) Generally speaking, whether a particular construction joint is to be connected by couplers or lapped bars would be stipulated in the RC Details. However, the main contractor could direct us to change from connecting with lapped bars to connecting with couplers in accordance with the actual circumstances and the needs of the main contractor.
 - (2) I recall that there was a change on the use of couplers instead of lapped bars as originally stipulated in the RC Details to connect some of the construction joints on the HHS site, precisely in accordance with the instructions given to us by Leighton. Exhibit "NMC-4" [EE1/390-392] is but 2 written directions provided by Leighton to me, requiring a change of the requirements stated in the RC Details by changing the use of lapped bars as required by the original working drawings to the use of couplers to connect certain construction joints.
 - (3) Based on my experience, these requests for and the situation of changing the use of lapped bars to connect to the use of couplers to connect are not uncommon in rebar fixing works. According to my recollection, the reason provided by Leighton to me at the time was mainly the need to reserve space for vehicular access (because

if lapped bars were used for connection purposes, the rebars will protrude, blocking vehicular access for a particular track section and causing inconvenience, whereas using couplers will prevent this problem), or there were rocks near the wall of the site, and Leighton's personnel were not able to dismantle them or were not able to dismantle them in time (in this situation, if lapped bars were insisted to be used for connection purposes there was a possibility of delay in the construction works, so Leighton would require to connect with couplers, as rebar fixing works could still continue to proceed in circumstances where the stones have not been dismantled). It could be seen from the bottom right-hand corner of Exhibit "NMC-4" [EE1/390-392] that the reason for the change in the area marked in red is the need to reserve space for vehicular access.

- (4) Since the change described above would lead to changes in material requirements, the request for such change would usually be given by the person-in-charge of a particular zone (i.e. Leighton's foreman or engineer) to me around one month before rebar fixing works would commence in that zone, specifically instructing me that "rebar fixing works will later be conducted in this zone, and only couplers will be used".
- (5) As W&K had to adhere to Leighton's instructions and requests when carrying out rebar fixing works, I would make the relevant changes in accordance with Leighton's instructions upon receiving such instructions for change. If this was considered a material change, I believe that Leighton should have made the decision to implement these changes only after having communicated with MTRCL.
- (6) During the course of rebar fixing works, as Leighton and MTRCL's personnel would come to the construction site to conduct patrols as stated above, therefore they must have been able to see the changes to the relevant connection joints (i.e. from the use of lapped bars to connect to the use of couplers to connect) during their patrols. These changes were very apparent upon sight. And Leighton or MTRCL's staff have never raised any queries or objections with me during their

patrols. In fact, as these changes were required by Leighton (and I believe that they also should have consulted MTRCL). Therefore, I did not expect them to raise any queries regarding these changes with me during their patrols, and I thought it was completely natural that they in fact did not raise any queries with me.

- (7) When rebar fixing works at a particular bay was near completion, I would notify the person-in-charge of the zone when construction works would be completed in accordance with the procedures described above in order to enable Leighton to liaise with the relevant personnel of MTRCL to conduct inspections. As stated above, these changes were very apparent upon sight, and I have never been recalled to a particular zone to take remedial measures nor required to explain the situation regarding these changes during the course of the inspection process.
- (8) Exhibit "NMC-5" [EE393-EE396] is 3 layout plans of the HHS, the coloured parts of which to my recollection are the locations within the HHS at which I changed from connecting with lapped bars to connecting with couplers pursuant to Leighton's instructions. Based on my recollection, I have also indicated on the plan which area's changes to the relevant connection joints were made pursuant to the direct instructions of which personnel of Leighton.
- 23. Furthermore, regarding the other observation mentioned in the HHS Letter, namely that no couplers were used in accordance with the plans in locations where couplers should have been placed, according to my recollection, I really do not recall that this situation ever arose at the HHS construction site. But in any event, if this problem is proven to have existed, namely that W&K did not install couplers in locations where couplers should have been installed, this situation is very obvious upon sight, so must have been discoverable in the inspection process. However, I have never been recalled to carry out remedial measures nor have been required to provide an explanation in respect of this situation during the inspection process.

- 24. As far as I know, unless Leighton otherwise directs, I have all along conducted myself in accordance with the RC Details provided by Leighton, and would not without Leighton's instructions or for no reason choose not to use couplers, because couplers were provided by Leighton for free, and this would inevitably be discovered during inspections.
- 25. Furthermore, I need to make clear that I do not know which locations on the construction site the relevant areas in which rebars were not placed as referred to in the HHS Letter [EE1/30] (i.e. the so-called "SER", "TER", "CER", and "E&M" rooms) belong to, because when we were carrying out rebar fixing works, it was not possible for us to know what the rooms we were working on would ultimately be used for. Hence, at this moment I cannot provide further information on the relevant rooms in this respect.

Paragraph 2.12 of the HHS Letter

26. In relation to matters about inspections, please see paragraph 15 above. I repeat the responses given to paragraphs 2.5 to 2.8 of the HHS Letter above.

Paragraphs 2.14 to 2.16 of the HHS Letter

27. As stated above, the materials and specifications for steel reinforcement were provided and decided by Leighton, and testing materials was also its responsibility, and ultimately all rebar fixing works would be subject to inspections. Therefore, I hereby repeat the response given to paragraph 1.2 of the HHS Letter above.

Paragraph 3 of the HHS Letter

28. According to my knowledge and belief, besides the 3 main matters which are the subject of the present Inquiry, I am not aware of other problems which may raise concerns about public safety or substantial work quality relating to the rebar fixing works carried out at HHS.

Paragraph 4.1 of the HHS Letter

29. I have not met the Hong Kong police nor given any written statement to the Police on any matter in the present Inquiry. According to my understanding, W&K has also not given any written statement to the Police.

The NAT Letter

- 30. Before responding to any issues mentioned in the NAT Letter, I wish to clarify the following matters:-
 - (1) Firstly, according to my understanding of the NAT site, the "NAT Shunt Neck Joint" described in Issue 2, and "Joint 3" defined by Issue 1 should be referring to the same location. Hence, in this witness statement, I will respond to the issues arising in respect of these two Joints (connections) together.
 - (2) Secondly, based on my understanding, apart from the problems mentioned in Issue 1 stated above (i.e. rebars were not connected whatsoever to the couplers), there was actually also the problem of mismatch between the type of coupler (pointedend) and the type of rebars used (flat-headed) at certain locations in Joint 1. Regarding this issue, I will elaborate in detail below.

W&K's rebar fixing works at the NAT

- 31. In relation to W&K's experience in rebar fixing works, I trust that Ben will clearly explain this, so I will not repeat the same here.
- 32. Based on my understanding, the rebar fixing works within the NAT area were actually not within the scope of the area covered by the Sub-Contract. It was only afterwards that W&K was requested by Leighton to complete the rebar fixing works at the NAT altogether via what is known in the industry as an SCI form of request. Since the NAT

does not fall within the scope of the original agreement, W&K was entitled to charge additional fees in accordance with the quantity of workers and hours spent for the works at the NAT.

- 33. Even though rebar fixing works at the NAT were not within the scope of the Sub-Contract, the nature of such works were more or less the same as those at the HHS. I repeat the response to paragraph 1.1 of the HHS Letter above.
- 34. The construction process and steps described above apply equally to W&K's rebar fixing works at the NAT. I repeat the response to paragraph 1.2 of the HHS Letter above.
- 35. Regarding the construction timeline for the rebar fixing works at the NAT, I trust that Ben will clearly explain this, so I will not repeat the same here.
- 36. Within the NAT area, the rebar fixing works for which W&K was responsible could broadly be divided into 2 main areas, respectively: (1) CLP + NAT NSL Tunnel + EWL, and (2) NAT EWL. Exhibit "NMC-6" [EE1/397-398] is a layout plan, the coloured portions of which to my understanding designate the areas within the NAT where W&K participated in rebar fixing works.
- 37. As the construction works at Hung Hom's Station's NAT has been completed for nearly 3 years, I cannot entirely recall all Leighton personnel responsible for any particular zone. However, I record in Exhibit "NMC-6" [EE1/397-398] what I recall to the best of my ability as follows:-
 - (1) CLP + NAT NSL Tunnel + EWL:-
 - (a) Chief manager: Joe Tam
 - (b) Site agent: "Ah Sun" (I do not know the full name)
 - (c) Engineering: Billy (I do not know his full name), Henry Lai
 - (d) General foreman: "Tai Leung" (I do not know the full name)
 - (e) Supervisor: "Ah Yan" (I do not know the full name)

(2) NAT EWL:-

- (a) Chief manager: Joe Tam
- (b) Site agent: Ms. Wong (I do not know her full name)
- (c) Engineer: Duffy, Isaac (I do not know their full names)
- (d) General foreman: "Tai Leung" (I do not know the full name)
- (e) Senior site foreman: "Ah Kit" (I do not know the full name)

Overall response to Issue 2

- 38. As stated above, according to my understanding of the NAT site, the "NAT Shunt Neck Joint" described by Issue 2 and "Joint 3" as defined by Issue 1 refer to the same location. Since this location was where works were first carried out chronologically, I will thus first provide all the information I know in relation to Issue 2.
- 39. Based on my recollection, works commenced in respect of Joint 3 (i.e. the Shunt Neck Joint) at around the end of 2016. Joint 3 is located at the interface between Contract 111 and Contract 1112. As W&K was only responsible for construction works under Contract 1112, I only received the General Notes and RC Details in relation to Contract 1112, and have never seen nor been provided with the documents or plans in relation to Contract 1111.
- 40. Before the preparation to commence rebar fixing works in respect of Joint 3, I submitted to Leighton the bending schedule to order the requisite rebars and couplers upon confirming that the sample papers and material list papers "broken down" by Ah Bong conform with the RC Details in accordance with the usual procedure. Therefore, the ordered steel completely conformed with Leighton's working drawings.
- 41. I recall that the rebar fixing works in respect of the Shunt Neck Joint / Joint 3 mainly involved 4 walls and the base slab. The whole construction process lasted for around 3 days, and took place in two stages, each stage comprising rebar fixing works for 2 of the walls and their respective base slabs.

- 42. Around 1 day before the official commencement of the first stage of construction works, I first went to the site to inspect and observe the surrounding area in accordance with usual practice. At the time, I saw Leighton's workers chipping off the concrete of the wall under Contract 1111 to expose the couplers installed pursuant to Contract 1111, in preparation for the assembly of W&K's workers to commence rebar fixing works for Contract 1112. Although Leighton's workers only chipped off part of the concrete wall, I could clearly see that the couplers installed pursuant to Contract 1111 were different from those normally used pursuant to Contract 1112. Contract 1112 used flat-headed couplers, and the socket caps of flat-headed couplers were usually red or blue in colour, but the socket caps I saw that were exposed from the concrete at the time were yellow. At the time I already knew that something was wrong, and suspected that those couplers were pointed, not flat-headed, which did not match with the flat-headed rebars required by the RC Details under Contract 1112. I therefore immediately went forward to remove the cover of the socket cap, which revealed that the coupler was indeed pointed as I expected.
- 43. Exhibit "NMC-7" [EE1/399-400] is a picture which shows samples of a pointed coupler and a flat-headed rebar. From the picture, albeit that the two are of the same diameter, a flat-headed rebar could not be completely screwed into a pointed coupler. According to my experience, even screwing in the rebars as much as possible, the most that each rebar could be screwed in would only be 2-3 threads, thus a large part of the threads on the rebar would be exposed. Any person would immediately notice this upon sight.
- 44. In the construction sites I have worked at, I have never encountered this problem, namely a situation where the RC Details specified the use of flat-headed rebars, but for some reason, pointed couplers were left behind by the other side (i.e. the subcontractor for Contract 1111) instead.
- 45. I remember that at the time I immediately called the Engineer in charge of the zone, Henry Lai. As it has been a long time, according to my recollection and my usual attitude and tone during my conversations with Henry Lai, our conversation at the time was broadly as follows:-

"Me : Hey Henry, you screwed up! Henry : Brother Chun, what happened? Me : Do you fucking know the other side actually fucking left pointed heads? You're screwed! Henry : Wow really? Me : Do you fucking have to thread pointed-head rebars back before the assembly of workers to commence works? If not, I can't fucking screw them in. Do you have to talk to your boss first? Henry : It's too late though. Ok, let me handle this!"

- 46. When I referred to "thread pointed-head rebars back before the assembly of workers to commence works" at the time, what I meant was to ask Henry Lai whether Leighton would take back the flat-headed rebars delivered to the construction site and arrange to provide pointed rebars to W&K, allowing W&K to carry out rebar fixing works.. As far as I know, this process required approximately 1-2 weeks' time (or even longer). Based on my understanding, Leighton experienced delays in construction works at the time, and was behind in progress. Therefore, they wanted to catch up as soon as possible and pour concrete. Standing from W&K and my perspective, Leighton's own delays would not cause any loss to W&K. When W&K could enter the site to commence works was completely dependent on when Leighton handed the site over to us. Conversely, if we take matters into our own hands and carry out rebar fixing works recklessly without Leighton's instructions, and could not pass the inspections and were required to redo the works, W&K would instead incur the costs of redoing the works, and will have to bear the responsibility of causing delays to the relevant progress.
- 47. After around 10 minutes, Henry Lai called me. Our conversation at the time was broadly as follows:-

"Henry : Brother Chun, how far could you screw in with the pointed heads and flat heads? Me : Around 2-3 threads only!

Henry : Then you just screw them in, screw them in as much as you could. It's not as if the wall would collapse? Me : Can you guarantee acceptance of the works? If there is a need to demolish, I will charge you for these labour works, I won't go easy on you!

Henry : Just proceed for now!"

- 48. Since W&K did not participate in the rebar fixing works under Contract 1111, W&K did not have the RC Details or any other plans in relation to Contract 1111. As such, I did not know why pointed couplers were used, nor did I know whether or not these pointed couplers accorded with the requirements of the plans under Contract 1111. I could only be sure that W&K did not order the wrong materials, and the rebars ordered entirely conformed with Leighton's working drawings.
- As stated above, in the many years I have worked in this industry, this was the first time 49. that I have encountered the situation described above (i.e. the RC details specified the use of flat-headed rebars, but the other side left behind pointed couplers for some reason), and was the first time that I encountered a situation where the main contractor clearly understood in the circumstances that it was not possible to completely screw the rebars into the couplers, but nevertheless instructed us to screw in the flat-headed rebars into the pointed couplers as much as possible whilst not taking remedial measures, e.g. providing rebars with appropriate screwheads, even telling me "it's not as if the wall would collapse". And because I was concerned with having to bear responsibility at the time, and was afraid of causing W&K to bear any responsibility, so I told Henry Lai very clearly that if in the end the construction works cannot pass the inspections and were required to be redone, we would charge for these additional labour works in full (because W&K and I would not be responsible). As this is the first time I have encountered this situation, therefore even if it has been a few years since my conversation with Henry Lai, these contents are still fresh in my memory.
- 50. During this conversation, by "labour works" I meant to refer to the fees arising from additional works that need to be carried out pursuant to Leighton's requests and not due to

W&K's fault. As such additional works would not be within the scope of the original agreement, Leighton would have to bear such additional costs.

- 51. Therefore, I told Henry Lai that if according to Henry Lai's instruction to screw in the flatheaded rebars into the pointed couplers under strain to complete the rebar fixing works, but in the end the inspections are not passed (as I have stated above, a large part of the threads of a rebar that has not been completely screwed in will be exposed, which would be apparent upon sight), such that W&K were required to dismantle the completed rebar fixing works and to redo works, W&K would treat the work that needs to be redone as additional / overtime work to be charged additionally. I said this in order to protect W&K, so this must be stated clearly.
- 52. In the morning of the day when construction works officially commenced, before the workers were gathered to commence works, I held a simple and short work meeting with all workers responsible for that particular bay as usual. I also told the workers that the other side has left behind pointed couplers, but the company (i.e. Leighton) told us to screw in as best as possible, and it was fine that we "screw them in as much as possible".
- 53. After W&K's workers have commenced the first stage of rebar fixing works at the Shunt Neck Joint / Joint 3, Leighton's workers moved to the location of the second stage to chip off the concrete on the remaining 2 walls. As the first stage works were nearing completion, I went to the location of the second stage to inspect the surroundings according to my usual practice. At the time, I discovered that the 2 walls at the second stage works had the same problem as the 2 walls at the first stage, namely that some of the couplers installed on the wall were pointed, not flat-headed.
- 54. Moreover, I discovered that although the rebar fixing works for the second stage were about to commence, there was still a lot of concrete that has not been chipped off by Leighton at the time, which means that there should still be couplers embedded in the concrete. In reality, in any rebar works, the situation that the main contractor has not completely chipped off the concrete such that the socket caps of the couplers were not exposed is not uncommon, because there is no any construction site that is 100% perfect.

This applies equally to the construction works here. I have encountered this situation before I carried out works at Joint 3. According to my usual practice:-

- (1)If the ratio of the couplers that have not been chipped out in a particular bay is continuous albeit small (for example, a row containing 3-5 couplers has not been chipped open) or the ratio is relatively high, I will inform that zone's Engineer of the situation, and hand it over to him to decide what ought to be done or whether to notify MTRCL's RE (after all, it was Leighton and MTRCL who ultimately decided whether to accept the works during the inspection process). As far as I recollect, the instruction I received in this situation was "If you really cannot screw them in, just leave the bar there first!". In fact, regardless of the Engineer's instruction, we also had the responsibility to place the rebars at the correct locations in accordance with the RC Details to the best of our ability, and it was not possible that we do not adhere to the RC Details by not placing the rebars where they belong just because Leighton did not chip open the couplers. Because if we do not adhere to the RC details in placing the rebars, it would be our inadequacy. As stated above, we had the responsibility to adhere to the RC Details to the best of our ability. Speaking for myself, after the rebar fixing workers have done all that they could within their ability, whether Leighton chooses to take remedial measures (e.g. by drilling a hole to add lapped bars or to send personnel to chip open the concrete in that location or to replace the couplers) is entirely Leighton's decision and responsibility. And if these remedial measures require the use of the relevant rebars stipulated in the RC Details, it would be more convenient for us to accommodate by connecting the rebars left behind at that location with the corresponding lapped bars or the couplers that have been subsequently chipped open.
- (2) If there were sporadic couplers that have not been chipped open at that bay (e.g. out of a few hundred couplers only 3-5 have not been chipped open) and the situation is not continuous (e.g. there is only one in between 20-30 couplers), I would not specifically inform the Engineer of that zone, but will try our best to

adhere to the RC Details by placing the couplers at the locations required by the RC Details, in accordance with the usual practice, and for the above reasons.

- 55. According to my recollection, I also called Henry Lai at the time, telling him which locations had pointed couplers and the situation that the concrete has not been sufficiently chipped off. However, he only told me again to "get as many as you can, and screw them in as best as possible".
- 56. In fact, Leighton was fully responsible for providing rebar materials and chipping off the concrete. W&K and I did not have any right to control this, and could only proceed in accordance with Leighton's instructions.
- 57. Therefore, during the rebar fixing works for the 2 remaining walls in the second stage, I told my workers that if there were pointed couplers within the body of the wall then "screw them in as much as possible", pursuant to the instructions of Leighton's Henry Lai. If the couplers have not been chipped open by Leighton, then "leave a bar there to sustain it".
- 58. All in all, according to the instructions given by Leighton's Henry Lai to me, the instructions I gave to the workers were:-
 - As long as the couplers could be seen, could be viewed, and could be screwed in, I told them to screw them in as much as possible;
 - (2) If the couplers could not be seen, and have not been chipped open, then just place the rebars at the locations where there should have been couplers according to the working drawings but Leighton's personnel did not chip open the relevant concrete to expose the socket caps, and stick on concrete, pursuant to the requirements of the RC Details (because the couplers inside have not been chipped open to allow the workers to insert the rebars), in order to sustain the distance from one rebar to another as required by the plans (centre-to-centre distance), and these rebars will all be secured by steel wires.

- 59. The above two situations would be very obvious to the naked eye. As stated above, flatheaded rebars can only be screwed into pointed couplers by 2-3 threads, so many threads would be exposed. This situation would be even more apparent where the rebars were not connected to the couplers, because it could be clearly seen that there were only rebars in this location, and not couplers.
- 60. Throughout the whole course of the rebar fixing works at the Shunt Neck Joint / Joint 3 which lasted around 3 days, similar to the practice at the HHS site, Leighton and MTRCL will send personnel to patrol the site every day in order to supervise the progress and construction quality of the rebar fixing workers. As stated above, the two problems of not being able to completely screw in the rebars into the couplers, or the couplers remaining embedded into the concrete and not being exposed, should have been readily apparent upon sight. Within these 3 days, neither Leighton nor MTRCL's representatives have ever asked me or complained about the above situation. In fact, since these instructions were given to us by Leighton's Henry Lai, and he should have consulted his superiors or made the relevant internal enquiries, therefore it was completely normal that we proceeded according to his instructions and have not been questioned.
- 61. After completion of the whole of the rebar fixing works for the Shunt Neck Joint / Joint 3, I notified Henry Lai and invited him to arrange for inspection as usual. I later learned that concreted has been poured on the location of the Shunt Neck Joint / Joint 3, and it was my understanding that the pouring of concrete could only have been proceeded with when Leighton and MTRCL's inspections have been passed.
- 62. Based on my recollection, in terms of ratio, within the whole of the Shunt Neck Joint / Joint 3 location:-
 - The problem of mismatch between pointed couplers / flat-headed rebars covered around 30% of all the connection points between rebars / couplers. ;

- (2) Whereas the situation that couplers were not exposed as a result of the concrete not having been completely chipped off was relatively less, which should have covered approximately 2-3%.
- I understand that at paragraph 2.7 of the NAT Letter [EE1/8], the problem of the mismatch 63. between the respective diameters of the couplers and rebars raised by the Commission does not seem to tally exactly with the problem of the pointed couplers / flat-headed rebars I have described above. But according to my recollection, the situation where rebars with smaller diameters were inserted into couplers with larger diameters probably did not arise at the Shunt Neck Joint / Joint 3 or the entire HHS/NAT site. Rather, this problem seemed to have occurred at Joint 1 before. As I recall that this problem only occurred once, my recollection about the details of this occasion are a bit blurred. Under my impression, in the course of construction works at Joint 1, a worker under my supervision (I do not remember which one) had told me that when screwing in the rebars, they discovered that some couplers left behind under Contract 1111 had relatively bigger diameters, whereas the diameters of the rebars we have ordered according to the RC Details were smaller, and asked me what should be done. I recall that I probably called Henry Lai immediately at the time to ask him what we should do. Based on my recollection, he said at the time "just stick them in, it's not as if the wall would collapse?". I therefore relayed the instructions given by Henry Lai to the workers in terms, instructing them to just "stick in" the rebars with smaller widths into the larger couplers.
- 64. The materials ordered by W&K from Leighton (including rebars or couplers) were all in accordance with the requirements of the Contract 1112 RC Details. As all the material list papers have been reviewed by me, I am very sure that there has not been any situation in which materials have been wrongly ordered. Therefore, the occurrence of the situation where the width of the rebars were relatively smaller than that of the couplers was definitely not caused by me ordering the wrong materials.
- 65. Besides, even if there really was a situation where the wrong orders were made and materials not conforming to the RC details were ordered, there was no need for W&K to

recklessly screw in non-applicable rebars or rebars with relatively small diameters into the couplers. According to my recollection, the rebars used at the Shunt Neck Joint / Joint 3 and the corresponding couplers could be divided into 3 types, respectively with diameters of 40 mm, 32 mm and 25 mm, which means that the difference in diameter of each type of rebar would be 7-8 mm (32-25 mm), and this gap of 7-8 mm would appear very obvious to the naked eye. Therefore, unless we received Leighton's express instructions, we would not take the risk of recklessly inserting rebars with relatively smaller widths into couplers with larger diameters, because these would ultimately be subjected to Leighton's inspections.

- 66. Moreover, even if I really ordered the wrong materials, that batch of wrongly ordered materials would not be put to waste, because they could be used at other locations on the construction sites where rebar fixing works are about to commence. Even if those rebars could not be used at other locations and were wasted, and W&K had to bear the costs of these wasted materials, such costs are negligible as compared with the cost of redoing the rebar fixing works upon being required to dismantle all the works that have already completed during inspections.
- 67. As for the issue regarding the RISC forms inspection in paragraph 2.21 of the NAT Letter[EE1/10], I repeat the responses to paragraphs 2.5 to 2.8 of the HHS Letter above.

Overall response to Issue 1

- 68. As far as I know, there are 3 main causes of Issue 1 (i.e. the issue that the rebars and couplers were not connected at all):-
 - (1) The other side (i.e. the subcontractor for rebar fixing works under Contract 1111) did not install couplers at the locations where couplers should have been installed;

- (2) Leighton's personnel did not go deep enough when chipping off the concrete, or did not chip off part of the concrete due to insufficient time, with the result that the couplers embedded in the concrete could not be exposed;
- (3) Leighton negligently damaged the couplers in the process of chipping off the concrete, causing W&K's workers not being able to properly connect the rebars and couplers.
- 69. From what I know, insofar as the 3 Stitch Joints of Issue 1 are concerned, rebars and couplers not being connected at all is an instance of (2) above. Whereas reason (3) may also have been relevant, but the quantity of couplers involved is much less than that due to reason (2) above. With respect to reason (2), I have communicated with Henry Lai more than once, because this situation occurred relatively more frequently. But with respect to reason (3), because the ratio of occurrence of this problem was very small, I do not now remember whether or not I have communicated with Henry Lai about this problem. However, based on my usual practice, if the workers mention this problem to me, I probably would have consulted Henry Lai.
- 70. As far as situation (2) is concerned, this process was under the full responsibility and control of Leighton, and did not fall under the work and technical scope of Leighton's frontline workers, and as I will elaborate below, although I have raised the relevant issue with Henry Lai at the time, Leighton did not carry out the relevant remedial works or allocate additional manpower to chip open the concrete. Henry Lai only instructed that we complete the relevant construction works as much as possible. In these circumstances, W&K as subcontractor was not entitled to insist that Leighton first chip off the concrete completely before gathering the workers to commence rebar fixing works. We could only connect the rebars with the chipped open couplers pursuant to Henry Lai's instructions. As far as situation (3) is concerned, if the couplers were damaged, Leighton had the responsibility to replace the damaged couplers, because materials were provided by Leighton.

- 71. The rebar fixing works at the Shunt Neck Joint / Joint 3 were completed in the end of 2016 or at the start of 2017. A few months after completion of the rebar fixing works at the Shunt Neck Joint / Joint 3, at or around July to August 2017, rebar fixing works at the base of Joint 1 (base slab) commenced.
- 72. As with previous practice, 1-2 days before workers were gathered to commence rebar fixing works at the base of Joint 1 (base slab), I first went to the location to conduct inspections. I recall that once I arrived at the scene I saw large quantities of water spilling down from the top of Joint 1, but since the floor has not yet been flooded at the time (I think that was because there were other construction works that were being carried out at the time, therefore there were pumps to pump away the water that has seeped down), I did not take exception to this, and only focused on the progress of Leighton chipping off concrete. At the time, although we were about to gather the workers to commence rebar fixing works, I realized that there was still a lot of concrete that has not been chipped open. I therefore immediately called Henry Lai. It has been almost 2 years since this incident, but since this was the first time I have encountered a Joint with water seepage in this construction, therefore I remember that the contents of my conversation with him were broadly as follows:-

"Me : Hey, there hasn't been sufficient chipping off again! Do we need to call your fucking bastards to work overnight?

Henry : They will handle it. Just proceed to assemble the workers to commence works tomorrow! If some really cannot be chipped off just proceed tomorrow morning, just screw in as many as you could."

73. I thus arranged for workers to assemble to commence rebar fixing works the following day pursuant to Henry Lai's instructions. On the morning of that day, I arrived at the scene, and saw that the interior of Joint 1 was severely flooded due to large quantities of water continuing to spill down from the top of the joint, and the water level reached around the knee position (I think this was because when no construction works were carried out at night, the water pump was switched off, causing the accumulation of a lot of water at the base of Joint 1 overnight).

- 74. When I saw this situation I immediately contacted Henry Lai by phone, and requested him to immediately arrange to pump away the water inside Joint 1, and to cover the top of Joint 1 by tarpaulin, because we just could not carry out rebar fixing works at the base of Joint 1 due to the situation of water seepage and flooding. With respect to these requests, Henry Lai carried out each of them, enabling the rebar fixing works at the base of Joint 1 to continue to proceed. But throughout the whole process, the problem of water seepage at the top of Joint 1 continued to persist.
- 75. The rebar fixing works at the base of Joint 1 lasted 3-4 days. As construction works were nearing a close, I notified Henry Lai as per usual practice to enable him to arrange for inspection. During the inspection process, I was not recalled to conduct remedial measures with respect to the connection between rebars and couplers.
- 76. Shortly following this I led W&K's workers to the adjacent Joint 2 to carry out rebar fixing works for the Joint 2 base slab. Around one day prior to the workers assembling to commence rebar fixing works, I arrived at the location to inspect the surrounding area and to observe the progress of chipping off concrete in accordance with usual practice. As with the situation at the base of Joint 1, I saw that much concrete remains to be chipped off at the time. Since construction works at the base of Joint 1 and the base of Joint 2 proceeded almost concurrently (i.e. Leighton's workers were chipping off concrete at the base of Joint 2 while I and W&K's workers were carrying out rebar fixing works at the base of Joint 1 at the same time), therefore I recall that Henry Lai was present to supervise the works at the time. When I saw that much concrete remained to be chipped off at the base of Joint 2, I went forward to tell Henry Lai, but received the same answer as before, which was to tell us to just proceed.
- 77. According to Henry Lai's instructions, when rebar fixing works were completed at the base of Joint 1, I immediately went to the base of Joint 2 together with W&K's workers to assume our positions with a view to commencing rebar fixing works. According to my observation and recollection, around 6-8% of the couplers were embedded in the concrete

at the location of the base of Joint 2, with the result that they cannot be connected with the rebars. When the relevant construction works have been completed, I notified Henry Lai as usual to conduct inspection. Based on my recollection, during the course of inspection, I had not been recalled to conduct remedial measures with respect to the connection between rebars and couplers. But subsequently, I came to know that the works with respect to the pouring of concrete have been completed at the base of Joint 1 and the base of Joint 2, so I believed that the works have passed inspections. As stated above, since the problem that part of the rebars has not been connected with the couplers was very apparent, any inspection personnel could have clearly noticed it upon sight. Therefore, we would not have proceeded this way without Leighton's instructions.

- 78. Around one week after rebar fixing works have been completed at the base of Joint 2, I was notified that we could regroup at Joint 1 in order to continue with rebar fixing works at the wall and the top of Joint 1. As usual, around one day before officially arranging for the assembly of workers to resume rebar fixing works, I went to the scene to inspect its surroundings. At the time, I found out that the wall and the top of Joint 1 not only had concrete that had not been chipped off, but also the problem of yellow socket caps (i.e. mismatch of pointed couplers). I therefore called Henry Lai once again, and told him *"You have the same problem down here! The couplers at the wall and the top part have pointed heads!"*. The reply I received was the same as before, which was to screw in as many as possible.
- 79. As for the concrete not having been completely chipped open, as this situation has already occurred many times at different bays, and the response I received from Henry Lai was the same, so I do not recall whether or not I mentioned this problem during the above conversation.
- 80. According to my observation and recollection, the situation that the rebars and couplers at Joint 1 cannot be connected (whether due to reason (2) or (3)) comprised approximately 10%+, and the situation of the mismatch of pointed couplers also comprised approximately 10%+.

- 81. Based on my recollection, the rebar fixing works at the wall and top of Joint 1 took place for 4-5 days. Near the time of completion, I also notified Henry Lai to conduct inspection, then prepared to go to Joint 2 to continue rebar fixing works at the wall. As before, throughout the inspection process, I had not been recalled to conduct remedial measures with respect to the connection between rebars and couplers.
- 82. Based on my understanding, there were a total of 3 walls at Joint 2, one of which is slanted. A distinguishing feature with the situation at Joint 1 and the Shunt Neck Joint / Joint 3 is that Joint 2 was not situated at the interface between Contract 1111 and Contract 1112. Hence, the couplers within the 3 walls at the Joint 2 location were installed by me and my team (i.e. Loyal Ease's workers) under my supervision in around the end of 2016.
- 83. I recall that when couplers were installed at Joint 2, I arranged for workers to install 2 rows of couplers placed side-by-side on the body of the slanted wall in accordance with the RC Details. To ensure that the angle of the couplers were the same and in line with the angle of the slanted wall, I recall I specifically requested Leighton Henry Lai to get the nail board contractor to install a wooden board, and this wooden board had to be perpendicular to the slanted wall, because only by doing so could the 2 rows of couplers be installed side by side on the slanted wall. The function of this wooden board was to enable workers to know from what angle and at what location to install the couplers.
- 84. As stated above, there should have been 2 rows of couplers on the body of the slanted wall, but when I went to the scene of Joint 2 to inspect the surrounding area before gathering workers to commence construction works, I saw that the slanted wall only had 1 row of couplers chipped open, but the other row was not chipped open at all. I suspect that this was because Leighton's workers did not chip off the concrete in accordance with the perpendicular angle formed with the slanted wall, but instead treated the slanted wall as a straight wall when chipping off concrete.
- 85. When I saw this situation, I immediately called Henry Lai. Based on my recollection, the contents of our conversation was broadly as follows:-

"Me : Hey, a whole row of couplers has not been chipped open on the slanted wall! Henry : No way? Would it be because you did not leave the couplers there in the first place?

Me : You would know if you chip away the concrete! Henry : There's not enough time, just proceed!"

- 86. Upon receiving this reply, I could only arrange for workers to commence rebar fixing works at the scheduled time pursuant to Henry Lai's instructions. According to my observation and recollection, the situation that the rebars and couplers at Joint 2 cannot be connected due to the latter not having been chipped out comprised of approximately 15%.
- 87. Similarly, in the course of the construction works, Leighton and MTRCL would send personnel over to patrol the site and supervise the rebar fixing works. Same as what has been stated above, the situations of the couplers not being chipped open or the rebars and couplers not being connected were very apparent, and can be clearly noticed upon sight. We proceeded according to the instructions of Leighton's Henry Lai, and I believe that Henry Lai has communicated with Leighton or MTRCL about this matter. I only know that no one has ever raised with me during the patrols any problem relating to couplers not having been chipped open or rebars and couplers not having been connected.
- 88. As construction works were drawing to a close, I notified Henry Lai. As before, throughout the inspection process, I had been not recalled to conduct remedial measures with respect to the connection between rebars and couplers.

Overall response to Issue 3

89. With respect to the issue regarding RISC forms inspection mentioned at paragraphs 3.5 to
3.8 of the NAT Letter [EE1/13], I repeat the responses to paragraphs 2.5 to 2.8 of the HHS Letter above.

90. As for the issue regarding deviations mentioned at paragraphs 3.9 to 3.12 of the NAT Letter [EE1/13-14], I repeat the responses to paragraphs 2.9 to 2.11 of the HHS Letter above.

The contents of the phone conversation with Ben Cheung in February 2018

- 91. In relation to all of the problems above, whether it be Issue 1 or Issue 2, since this involves actual construction works, I would not make any reports to Ben, because I would usually find him only in relation to issues concerning money, for example, when additional manpower was required on site to speed-up progress etc. With regards to problems encountered in the daily operation of the site or problems arising from the actual execution of construction works, W&K has left it to me to be fully in charge. We completed the rebar fixing works for the entire construction site in around February 2018.
- 92. Until early February 2018 Ben received Leighton's notice, stating that a crack and water seepage were discovered on a concrete wall at the NAT construction site, and also stating that this may involve problems with the rebar fixing works for which W&K was responsible for.
- 93. Ben thus called me, informing me of this situation and telling me that Leighton's staff requested to have a meeting with me in the office at the construction site. Following from this, he asked me what this was all about, and why Leighton would say that there were problems with our rebar fixing works.
- 94. As it has been some time since this incident, I already do not fully recall the exact contents of the conversation I had with Ben at the time. But I could clearly remember the main points of the contents of our conversation, because when I heard him say that Leighton reckoned that the water seepage may have been caused by problems with our construction works, my first reaction was probably that of anger as everything we have done throughout the entire construction was done pursuant to the RC Details or the instructions provided to us by Leighton (especially Henry Lai). All relevant construction works should also have passed Leighton and MTRCL's inspections before the pouring of

concrete was arranged. Therefore, I felt that criticizing us upon discovering the water seepage problem was irresponsible and blame-shifting conduct on Leighton's part.

- 95. At the time Ben asked me what actually happened, so I answered truthfully. According to my recollection now, I said the following points to him at the time:-
 - (1) I told him that the water seepage was definitely not W&K's problem;
 - (2) To ensure that rebar fixing works could proceed smoothly, around 5 months before the commencement of construction works at the NAT, I already confirmed with Henry Lai all the requirements in terms of materials, and all other details concerning construction works at the NAT, before arranging to order the materials from Leighton;
 - (3) Leighton was responsible for providing materials, and W&K was not entitled to specify to Leighton the types of couplers or rebars. What is more, it was not possible for W&K to know before-hand whether the couplers left behind under Contract 1111 were pointed or flat-headed. We could only adhere to the requirements of Contract 1112's working drawings to arrange for the ordering of materials;
 - (4) When rebar fixing works were being carried out at the NAT, on many occasions it was only until one day before the workers were assembled to commence works when I went to the site to conduct inspections that I discovered that a lot of concrete has not been chipped off, resulting in the couplers still being embedded within the concrete, or discovered at the interface between Contract 1111 and 1112 that the couplers left behind by the subcontractor for Contract 1111 were pointed, which did not conform with the flat-headed couplers designated by the RC Details of Contract 1112;
 - (5) When I discovered these problems I would immediately called Henry Lai to inform him, and ask him what remedial works Leighton could take, and whether Leighton needs some more time to carry out the necessary remedial works, for example to allow more time to Leighton's workers to chip off concrete, or for Leighton to arrange to thread the rebars all over again, before we would assemble

our workers to commence works. It was Henry Lai who told me that there was no time, and asked me to just proceed, to screw in as much as possible, and to screw in the flat-headed rebars into the pointed couplers;

- (6) Besides, according to usual procedure, all construction works before the pouring of concrete have passed through the inspection process. At the time, no one during the inspection of the relevant construction joints has summoned me back to the scene to take remedial measures pertaining to the issue in respect of the connection between rebars and couplers.
- 96. Around 2 days after I spoke to Ben on the phone, I went to the office at the construction site to have the meeting with Leighton's staff. Apart from myself, there were also 3 staff members of Leighton who attended the meeting, including (1) Ms. Wong (to my understanding she was a site agent, but I do not know her full name), (2) Henry Lai, and (3) someone who I believe to be Henry Lai's superior (I do not know his name, but as far as I recall, I have not seen him on the construction site or anywhere else prior to that day).
- 97. Based on my recollection, the meeting took place for about 20 minutes. During the meeting, we patrolled the site while discussing at the same time which concrete at which locations should be chipped off to be inspected. I recall that my interaction with Leighton's three representatives at the time was limited, but I clearly remember that the man who I believe to be Henry Lai's superior did ask me "*Around what percentage has actually been screwed in*". I replied him saying "*definitely at least 70%, you could chip open to see!*" Following from this, he told me to go back and await instructions, await for arrangements to be made, and said that he also did not wish that the works had to be redone. Clearly, this superior knew that not all rebars have been screwed into the couplers, which was why he asked me around what percentage of the rebars has actually been screwed in. Therefore, I believe that Henry Lai did report the relevant problem to his superiors.
- 98. After this, I have not since received any news regarding this matter from Leighton's part, and have not been invited to conduct joint inspections. I came to know from Ben that W&K had requested that joint inspections or verifications be conducted after Leighton has

chipped off the concrete, before it could be decided which side was at fault and which side should bear the costs of repair works. But even after chipping off the concrete, Leighton has never allowed W&K or me to go to the construction site to conduct joint inspections. That they did not allow us to inspect, while at the same time alleging that there were problems with W&K's constructions and no problems with the materials, clearly show that they were all along only concerned with shifting the blame on W&K. Since a crack was already discovered on the concrete wall before train services commenced, repair works were almost certainly necessary, so the only issue was who should carry out repair works, and who should bear the costs.

- 99. Until we received the two letters from the Commission, no one (including Leighton's staff) came to ask me in detail about matters relating to the Hung Hom station construction, and I personally was extremely busy, being occupied with different steel reinforcement fixing works in order to maintain a living.
- 100. I have not met with the Hong Kong Police nor provided the Police with any written statement on any of the matters concerned in the present Inquiry.
- 101. I confirm that the contents of this witness statement are true to the best of my knowledge, information and belief.

Dated this 17th day of May 2019

Ng Man Chun Site Supervisor Loyal Ease Engineering Limited

Statement of Truth

I believe that the contents of this witness statement are true, and the opinions expressed therein are truly and honestly held.

Dated this 17th day of My 2019

Ng Man Chun Site Supervisor Loyal Ease Engineering Limited