



Rebuttal Evidence to OBJ-06 (Cambridge University Hospitals NHS Foundation Trust)

**The Transport and Works (Inquiries Procedure)
Rules 2004**

January 2022

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1 INTRODUCTION

- 1.1 This proof of evidence has been prepared on behalf of Network Rail (“NR”) to the Proofs of Evidence prepared on behalf of OBJ-06 – Cambridge University Hospitals NHS Foundation Trust, which concern:
 - 1.1.1 OBJ-6-W1/2 evidence of Carin Charlton (Estates & Facilities Management);
 - 1.1.2 OBJ-6-W2/1 evidence of Ian Jackson (Estates & Facilities Engineering); and
 - 1.1.3 OBJ-6-W3/1 evidence of Elliot Page (Transport).
- 1.2 It is not intended that this rebuttal proof should address further points that witnesses for NR have previously covered in their evidence; however, cross-references to relevant paragraphs of those witnesses’ proofs of evidence are made where appropriate.
- 1.3 It is intended that this rebuttal proof should be a composite response to those issues raised by OBJ-06. In this respect, for cross-examination purposes the name of the NR witness who is responsible for each aspect of this rebuttal proof will be given at the beginning of each section below.
- 1.4 This rebuttal proof sets out the points raised by OBJ-06 under the topics identified above. For each of these sections, the point is summarised in plain font, with any quotations shown in italics. This is followed by NR’s response, preceded by the name of the witness making responsible for that part of the rebuttal. Within each sub-theme, there may be several points, each of which is dealt with separately in turn, and with the witness identified as described.

2 OBJ06-W1 – Proof of Carin Charlton

2.1 Point 1 – Blue light routes

- 2.2 *It is critical that the ‘Blue Light’ Routes remain available and unobstructed (by construction works, parked vehicles or vehicles queuing to access the station or construction worksites) during the construction and operation of the station. No provision is made in the Order or conditions attached the deemed planning permission for the protection of the Blue Light Routes*
- 2.3 *In order to address its concerns, CUH therefore seeks commitments from Network Rail (“NR”) that those Blue Light Routes will be protected. In particular:*

- 2.3.1 *NR to agree not to obstruct or reduce capacity on the Blue Light Route unless with CUH agreement in limited unavoidable circumstances.*
- 2.3.2 *If, during the construction works, it is anticipated that one of the Blue Light Routes would be affected by the works, for example, partial closure or traffic restrictions, or use by abnormal vehicles delivering plant, materials or equipment to the construction sites, NR would give to CUH a minimum of 5 working days' notice of works so that that appropriate alternate arrangements can be made by CUH, such as directing all ambulances to use a different Blue Light Route during that period, or avoiding scheduling non-urgent patient transports during that period;*
- 2.3.3 *NR and CUH agree to keep each other advised on any major incident/exceptional circumstance and to develop an "emergency protocol" which may require suspension of construction activities impacting on road usage;*
- 2.3.4 *NR provide CUH with at least 5 working days' notice of any temporary traffic management arrangements relation to all modes (to the extent possible) that impact on routes, maintenance, signage and parking during construction and operation of the station;*
- 2.3.5 *Monitoring of the station during operation to identify whether vehicular access to the station is causing congestion on Francis Crick Avenue or unauthorised waiting / parking on the Blue Light Routes, with a mechanism for measures to be taken to address the same if such issues are observed. CUH would suggest that such issues could potentially be addressed through the existing CBC Travel and Transport Group (the group is a forum of the different partner organisations who occupy the site and which function to specifically deal with transport related matters associated with the campus), with NR and/or the train operating company responsible for managing the station becoming a member or attendee of that Group. The group already has non-campus representatives who attend who are from the Greater Cambridge Partnership, Cambridge County Council and Cambridgeshire and Peterborough Combined Authorities who commission the local bus services.*

Response by Geoff Hilling (Transport)

- 2.4 The first four points are partially covered by in the Traffic & Transport Proof of Evidence (NRE2.2) under para 9.1.29 'Network Rail has met with the Cambridge University Hospitals NHS Foundation Trust to confirm the construction of the Project will have a minimal impact on blue light routes. Network Rail will continue to engage with the Trust to provide any necessary assurances it requires to protect blue light routes.'

- 2.5 NR are continuing to engage with CUH. NR will provide CUH with at least 5 working days' notice of any temporary traffic management arrangements, temporary road closures or movement of abnormal loads which may affect blue light routes during both the construction and operational periods.
- 2.6 NR have also discussed Point 5 with CUH. NR and/or the TOC will be represented at in the CBC Travel and Transport Group. NR have also agreed to monitoring of the station during operation to identify whether vehicular access to the station is causing congestion on Francis Crick Avenue or unauthorised waiting / parking on the Blue Light Routes.

Response of John Pearson (Planning)

- 2.7 Proposed Condition 10 requires that prior to commencement of construction a Construction Logistics Plan (CLP), Construction Travel Plan (CTP) and Construction Traffic Management Plan (CTMP) will be produced and submitted to the local planning authority for approval as part of the Code of construction Practice Part B. The CLP, CTP and CTMP will take cognisance of the current users and access rights over Francis Crick Avenue and Robinson Way, in particular the 'blue light' route serving the hospitals. This is set out in paragraph 9.1.13 of Geoff Hilling's Proof (NRE2.2). The Proposed planning conditions are contained in the appendix to John Pearson's Proof (NRE9.3).
- 2.8 Para 9.1.28 of Geoff Hilling's Proof (NRE2.2) sets out that during the construction of the station eastern forecourt most of the construction traffic will access the construction site via a haul road to be constructed along the eastern boundary of the railway between Addenbrookes Road (Nine Wells Bridge) and the Guided Busway bridge. This will minimise any impact with existing traffic and emergency services using Francis Crick Avenue.
- 2.9 In addition, NR are seeking to enter into an agreement with CuH which will secure NR's commitment to consult with CuH on the CLP and CTMP prior to submission to the local planning authority. In addition, it would require NR and/or the TOC to be represented on the CBC Travel and Transport Group.

2.10 Point 2 Risk of increased traffic (s. 106 obligation in Phase 1; ANPR; exploration of options) and need to monitor

- 2.11 *There is currently an Automatic Number Plate Recognition (“ANPR”) system installed at the campus to manage the flow of traffic through the campus and to stop “rat running” through the site, which in turn prevents congestion on the roads within the campus and contributes to the effective management of the campus. The cameras are installed at key entrances/exits to the campus and record the times that vehicles enter/exit the property. If vehicles are recorded as having navigated through the site – i.e. entered and left the site at different points - within a short period of time that is registered on the system and a fixed penalty notice is sent out. The ANPR system is owned and managed by the CBC Estate Management Company and is enforced by the police (who issues the fines).*
- 2.12 *CUH is concerned that issues could arise if, for example, drivers choose to remain on the station forecourt beyond the time required for drop-off or pick-up - or if other vehicles visiting the campus regarded the station forecourt as a place where they could wait - in order to circumvent the restriction I have referred to above, which could result in vehicles unable to access the station backing up along Francis Crick Avenue, or if vehicles visiting the station sought other places within the campus where they could wait before leaving the campus by a different exit to circumvent that restriction.*
- 2.13 *CUH seek a commitment from NR to introduce real time traffic monitoring onto campus so that assurances can be provided in relation to the traffic impact of the new station when in operation. Should traffic levels be higher than anticipated as a result of the station being established, there would need to be a mechanism in place to monitor and manage any adverse impacts on the hospital. This could again be undertaken through the CBC Travel and Transport Group. There may be an increased monitoring cost and a cost in resolving issues. CUH would have confidence that the Travel and Transport Group, with NR and/or the train operators as members, would be an appropriate forum to receive reports on monitoring, consider where any issues are likely to have arisen from and to find appropriate mitigations and fair cost allocation.*
- 2.14 *CUH would look for a mechanism to address such issues with NR and/or the train operators being part of the Travel and Transport Group to support*

anticipation of such events and, again through the group, resolve them should they occur.

Response by Geoff Hilling (Transport)

- 2.15 The operation of the ANPR system is partially covered by in the Traffic & Transport Proof of Evidence (NRE2.2) under para 9.1.31 *‘Having been provided with the information on how the ANPR system currently operates (discussed further below in relation to ‘Enforcement and monitoring’), I am satisfied that it can continue to operate as existing to enforce no-through routes within the Campus. NR is determined to continue to liaise with CUH including on the operation of the ANPR system, to ensure that the Campus would not become a through route.’*
- 2.16 NR and/or the TOC will be represented at in the CBC Travel and Transport Group. NR have also agreed to monitoring of the station during operation to identify whether vehicular access to the station is causing congestion on Francis Crick Avenue or unauthorised waiting / parking on the Francis Crick Avenue
- 2.17 NR have agreed that CUH will be consulted on a signage and information strategy to be provided in the forecourt at the drop off bay to advise passengers of the ANPR system and penalties applied if existing rules are breached. The drop off bay will have 10 minute waiting limit.
- 2.18 Point 3 – Risk of increased parking and need for monitoring**
- 2.19 *CUH has limited parking and our car parks operate at or close to capacity. There are times when finding a parking space on site can cause stress for patients and missed appointments*
- 2.20 *CUH are concerned that the new station may give rise to increased use of our car parks (or indeed cycle parks) either during construction or in the operational phase. Again, CUH is looking to NR to support the monitoring of on-site parking and to propose ways of managing any impacts. As in the case of through traffic, CUH believes that use of the Travel and Transport Group, with NR and/or the train operators as members, would be an appropriate forum for this.*

Response by Geoff Hilling (Transport)

- 2.21 Increased use of CUH car parks during construction is partially covered by in the Traffic & Transport Proof of Evidence (NRE2.2) under para 7.1.33 *'a construction workforce Green Travel Plan would be prepared by the appointed contractor as part of the CoCP Part B with the aim of encouraging the use of sustainable modes of transport to reduce the impact of workforce travel on local residents and businesses. This will be secured as a planning condition of the planning consent as identified in Schedule 1 of the Request for Deemed Planning Permission (NR12).'*
- 2.22 NR and/or the TOC will be represented at in the CBC Travel and Transport Group to support the monitoring of on-site parking at CUH car parks. NR are awaiting costs from CUH and have offered a period of 2 years of monitoring.
- 2.23 Point 4 – Integration with CSET**
- 2.24 *Several new travel schemes are proposed to interact with the campus in the near future. This includes the Cambridge South East Transport (CSET) scheme and Sawston Greenway. CUH strongly support the improvements to active and public transport travel options and look to NR to work with other providers of schemes to support safe inclusive travel environments. We look forward to seeing NR's proposals as to how these schemes can be successfully integrated*

Response by Geoff Hilling (Transport)

- 2.25 Sawstons Greenway will be delivered as part of the CSET scheme. The integration of transport schemes and cumulative effects is covered by in the Traffic & Transport Proof of Evidence (NRE2.2) under para 9.1.39 *'NR are negotiating a Protocol Agreement with GCP to manage the interfaces between the two projects that confirm that both schemes can be delivered concurrently in order to minimise construction impacts on the local area. The agreement also demonstrates how both schemes will interact during operational phases and maximise intended benefits of each scheme by complementing each other.'*
- 2.26 Point 5 – Impact on Robinson Way**
- 2.27 *CUH notes that both during construction and once the station has opened, there will be impact upon the infrastructure of Robinson Way.*

2.28 *CUH understands that NR only seeks to acquire rights over Robinson Way, however is concerned that the use of the route, particularly for construction traffic, but also during the operational phase, could cause damage to the road or increased maintenance costs. Notwithstanding the proposal for NR to acquire rights pursuant the Order, CUH would be happy to look to agree rights of access across Robinson Way during construction period. In relation to any damage and increased maintenance costs, CUH seeks a commitment from NR to provide a financial contribution to CUH towards the cost of any repairs and maintenance required to the route both during and as a result of the construction phase of the Project along with ongoing general maintenance, with a sum to be agreed for both aspects.*

Response by Geoff Hilling (Transport)

2.29 NR will provide a commitment to CUH to provide a financial contribution towards the cost of any repairs and maintenance required to the Robinson Way both during and as a result of the construction phase of the Project along with ongoing general maintenance during operation, with a sum to be agreed for both aspects.

2.30 Network Rail have proposed draft Heads of Terms for a legal agreement with CUH which commits Network Rail to mitigate the construction and operational impact of the CSIE Project on Robinson Way. Furthermore, section 7 of my Proof of Evidence describes the provisions for landowners to claim should compensatable losses arise as a result of the CSIE Project.

2.31 Point 6 – Wayfinding and routeing

2.32 *It is essential that those attending the campus to access the railway station are easily able to find their way and that new signage is integrated with existing. CUH would be keen to work with, and be a stakeholder in the approvals process with NR, in relation to wayfinding infrastructure as they bring forward proposals to support this across the campus. CUH would also be keen to work with the County Council as plans come forward to support access from adjacent roads to the new station. CUH anticipates that a planning condition may be appropriate to secure this.*

Response of Geoff Hilling (Transport)

- 2.33 The wayfinding and routing is covered by in the Traffic & Transport Proof of Evidence (NRE2.2) under para 9.1.73 'NR are only responsible for the wayfinding within the scheme boundary, all other elements would sit with the campus stakeholders.'
- 2.34 As part of the CBC Travel and Transport Group, CUH will be consulted on wayfinding and routing within the scheme boundary.

Response of John Pearson (Planning)

- 2.35 NR are seeking to enter into an agreement with CuH which will secure NR's commitment to be part of the CBC Travel and Transport Group. This agreement would also include NR's commitment to update the wayfinding structures on the CBC campus in relation to the proposed station.
- 2.36 In terms of wayfinding within the limits of the TWAO Network Rail would update the landscape planning condition (No. 29) to include 'wayfinding structures' and provide a new Design Principle which would require that wayfinding details within the TWAO limits are consulted on with the CBC Travel and Transport Group in order to tie into the wider CBC wayfinding strategy.

2.40 Conclusion

- 2.41 The overall principle of Cambridge South Station is strongly supported by CUH. The concerns raised relate to matters of detail which require further information to be provided, or appropriate protections to be introduced to ensure that the proposed scheme does not have an adverse effect on CUH's operations on the CBC site. In order to address its concerns, CUH therefore seeks commitments from NR, summarised as follows:
- NR and/or the TOC will be represented at in the CBC Travel and Transport Group;
 - NR will provide CUH with at least 5 working days' notice of any temporary traffic management arrangements, temporary road closures or movement of abnormal loads which may affect blue light routes during both the construction and operational periods;

- NR have agreed to monitoring of the station during operation to identify whether vehicular access to the station is causing congestion on Francis Crick Avenue or unauthorised waiting / parking on the Blue Light Routes;
- NR and/or the TOC will be represented at in the CBC Travel and Transport Group to support the monitoring of on-site parking at CUH car parks; and
- CUH will be consulted on wayfinding and routing within the scheme boundary through the CBC Travel and Transport Group.

2.42 Given that Network Rail commits to these assurances sought by CUH, it is considered that all concerns identified in the Proof of Carin Charlton are addressed.

3 OBJ06-W2 – Proof of Ian Jackson

3.1 Point 1 – Relocation of sampling point

3.2 *Para 3.6 –CUH undertakes sampling of water entering the Conduit, on a quarterly basis, to ensure that the water quality is recorded. The purpose of the sampling is to ensure that there is no contamination. Currently, samples are taken from a non-culverted part of the drainage ditch at Francis Crick Avenue (location shown indicatively at Figure 1 above) however, as the Project includes culverting this part of the ditch, this will prevent CUH using the location for future sampling. Therefore, the sampling location will need to be relocated upstream, in the location of Robinson Way to ensure that CUH can continue to undertake sampling in order to comply with its existing commitments to the Trust.*

Response of Sue Brocken (Drainage)

- 3.3 NR are in discussions with CUH about relocation of the sampling point to the east side (upstream) of Francis Crick Avenue and have undertaken to cover any additional costs incurred by CUH in seeking permission/ revised licences from Cambridge Medipark Limited (CML).
- 3.4 Alternative options to relocating the sampling point may be possible should a relocation to an open upstream point not be acceptable to CML.

4 OBJ06-W3 – Proof of Elliot Page

4.1 Point 1 – Guarantees (blue light routes)

4.2 *Addenbrooke's Road, Francis Crick Avenue and Robinson Way are all Blue Light Routes. Construction traffic and operational traffic all have the potential to adversely impact these routes. Given the sensitive nature of these routes, additional assurances are sought by CUH to ensure that adverse impacts on the Blue Light Routes do not occur.*

4.3 *Additional monitoring is sought by CUH to confirm whether actual vehicular movements accord with those forecasts in the TA, and if they are exceeded to identify whether the additional vehicle movements are having or have the potential to have adverse impacts on the Blue Light Routes. CUH would also wish to see a mechanism in place by which if such exceedances are identified that measures can be identified and implemented to make sure that the adverse impacts on Blue Light Routes do not occur.*

Response by Geoff Hilling (Transport)

4.4 Impact on Blue Light Routes is covered in Section 9 (para 9.1.25-9.1.29) of my Proof of Evidence (NRE2.2). Traffic levels will reduce on Blue Light Routes as result of modal shift from road to rail so this will have a positive impact for emergency vehicles.

4.5 Section 7 of my Proof of Evidence (NRE2.2) summarises the potential traffic and transport impacts and effects of the CSIE Project during the construction phase, the mitigation proposed, and any residual effects anticipated. As demonstrated in the ES (NR16) and the Proof (NRE2.2) the predicted effects on existing road users, including emergency vehicles using Blue Light Routes are assessed as Not Significant due to the temporary nature of this impact and the mitigation measures set out above to be implemented in the CTMP.

4.6 With regard to the impact from operational traffic, as shown in Table 6.8 of the TA (NR-16, Appendix 17.2), vehicular trips are predicted to account for 5% of total trips (2% car passenger drop off and pick up and 3% taxi) which equates to 36 vehicular trips (72 movements) during the peak hours, or approximately one every minute. Given this level of operational traffic the potential impact

from traffic generated by the station on the Blue Light Routes is not considered to be discernible.

- 4.7 Furthermore, most drop offs most likely will involve less than a minute dwell time, whilst pick-ups are likely to be limited to 10 minutes dwell time. Given the above, 3 pick-up/drop off bays and 3 taxi bays will provide sufficient capacity for the predicted level of demand. For this reason, the possibility of vehicles stacking back onto Francis Crick Avenue and impacting upon through traffic is unlikely.
- 4.8 Notwithstanding the above, in order to reassure CUH, Network Rail is prepared to commit to assurances sought by CUH concerning monitoring of the station forecourt and Francis Crick Avenue.
- 4.9 In particular, NR have agreed to install 4 ANPR cameras, 2 on the eastern station forecourt and 2 on Francis Crick Avenue adjacent to the station. This is subject to CBC granting NR licences to install and subject to CBC agreeing for those cameras to link into the current ANPR system.

4.10 Point 2 – Car parking and additional monitoring cost

- 4.11 *Overall CUH car park occupancy is in excess of 90% with little spare capacity to accommodate any increase in parking demand without detriment to existing users. Whilst staff car parking is managed through the distribution of permits, visitor parking is not controlled but is an important asset to CUH and to the visitors who are often at the hospital for health-related reasons. The opening of a new station less than 500 metres from MSCP2 has the potential to adversely impact the supply of visitor car parking spaces used by CUH and its visitors. It is acknowledged that the opening of Cambridge South will result in the shift of some staff and visitor car trips to rail, but this shift is required to accommodate permitted growth at the campus and must not be back filled by rail commuters.*
- 4.12 *The need to avoid commuter car parking impacting on the available visitor stock is essential and again additional monitoring assurances are sought by CUH to confirm compliance with forecasts and so that suitable management can be implemented should the forecasts be exceeded.*

Response by Geoff Hilling (Transport)

- 4.13 Cambridge South station will be a destination station which will result in a mode shift from road to rail. This in turn should reduce demand at CUH car parks. NR and/or the TOC will be represented at in the CBC Travel and Transport Group to support the monitoring of on-site parking at CUH car parks. NR has offered to meet any additional monitoring costs regarding usage of CUH car parks for a period of 2 years of monitoring following the station become available for use by the public.

4.14 Point 5 – Impacts on forecourt area and sensitivity testing

- 4.15 *The appropriate design of the forecourt area and the access will depend on the adequacy of assumptions within the Technical Appendix 17.2 of the TA. CUH is not aware as to whether further 'sensitivity testing' has been undertaken (and would be grateful for sight of the same if it has been). This would have demonstrated that sufficient tolerance exists in the designs to avoid adverse impacts from the following:*

- *Insufficient capacity of the access design and signal plan if operational vehicle movements are higher than forecast.*
- *Insufficient capacity of pick up / drop off spaces if operational vehicle movements are higher than forecast.*
- *Conflicts between pedestrians using the forecourt area. No pedestrian demand modelling (dynamic or static) has been undertaken or reported to evidence the designs and capacities of accesses or routes to and from the forecourt and station building.*
- *Insufficient cycle parking to cater for growth resulting in parking around the campus. The detailed design and proportional split of cycle parking should be developed with key stakeholders. As part of the detailed design process, we will seek assurances on the quality of these routes, cross sections, street-lighting, CCTV coverage and active monitoring*

Response by Geoff Hilling (Transport)

- 4.16 NR are continuing to engage with CUH to confirm the commitment to engage with CUH on these issues through NR and/or the TOC representation at in the CBC Travel and Transport Group. CUH will be consulted on cycle parking

design, quantity and split, Station forecourt and interchange modelling and sensitivity tests to refine detailed designs.

- 4.17 NR have also agreed to install monitoring equipment requested by CUH. This involves 4 ANPR cameras, 2 on the eastern station forecourt and 2 on Francis Crick Avenue adjacent to the station. This is subject to CBC granting NR licences to install and subject to CBC agreeing for those cameras to link into the current ANPR system.
- 4.18 Monitoring equipment is to be consistent with Cambridgeshire County Council specifications and will allow data to be collected and provided to the CBC Travel and Transport Group with regard to forecourt performance, cycle and car parking utilisation.

4.19 Point 6 – Stage 1 Road Safety Audit

Response by Geoff Hilling (Transport)

- 4.20 Elliot Page states that he is not aware that a Stage 1 Road Safety Audit has been provided for the station access. CUH would want confidence that Cambridgeshire County Council Road Safety Team have reviewed and approved, at Stage 1, the designs.
- 4.21 A Stage 1 and 2 Road Safety Audit will be undertaken as part of the detailed design process in accordance with Road Safety Audit guidelines. The Road Safety Audit report will be undertaken by a suitably qualified person not associated with the design of the Station access. The RSA report will be reviewed and approved by Cambridgeshire County Council Road Safety Team. CCoC have been consulted on the station access proposals and have not raised objections on safety grounds.

4.22 Point 7 – Diversion of NSCN11

- 4.23 *The Network Rail (Cambridge South Infrastructure Enhancements) Order Drawing No.1 58454-ARC-00-ZZ-DRG-EMF-200003 indicates that NCN 11 will be being diverted from its existing route under the Addenbrooke's Road bridge. The diversion sees the path diverted to meet the CBC network at the Addenbrooke's Road / Francis Crick / Robinson Way roundabout at the Robinson Way arm of the junction. Whilst a temporary diversion to facilitate construction activities,*

its design needs to be compliant with LTN 1/20 and this includes a safe a proper interface with the Addenbrooke's Road / Francis Crick roundabout.

Response by Geoff Hilling (Transport)

4.24 The timing of the construction works affecting NCN Route 11 and other cycle routes would be carefully planned to minimise disruption to users.

4.25 CUH will be consulted on any required short term diversion to NCN Route 11. The temporary diverted path will be compliant with LTN 1/20 and will include a safe and proper interface with the existing road infrastructure.

4.26 Point 8 – Specific Guarantees (transport issues)

4.27 *Given the concerns raised relating to the Blue Light Routes, car parking, pedestrian routes cycle access and cycle parking, CUH seeks further commitments or assurances from Network Rail. These commitments are aimed at providing assurance to CUH that any unforeseen issues, or impacts exceeding those assessed in the ES, are identified and managed before more significant adverse impacts effect CUH and their business and healthcare duties occur. CUH would therefore request that:*

- *NR and/or the TOC to be represented at in the CBC Travel and Transport Group.*
- *In liaison with the CBC Travel and Transport Group, CUH to be consulted on:*
 - a) *cycle parking design, quantity and split*
 - b) *Station forecourt and interchange modelling and sensitivity tests to refine detailed designs*
 - c) *The detailed design of the temporary diversion of NCN11 and other cycle routes.*
 - d) *The preparation of the CTMP*
 - e) *A signage and information strategy to advise passengers of the ANPR system and penalties applied if existing rules are breached*
 - *NR agrees to not obstruct or reduce the capacity of the Blue Light Routes save by agreement with CUH in limited circumstances which cannot be avoided. CUH is also seeking a protocol to manage emergencies.*

- *In relation to any abnormal vehicle movements in, out or through the campus and any road closures, NR agrees to provide CUH with a minimum of 5 Working Days' notice along with any associated traffic management plans.*
- *Any temporary traffic management arrangements relating to all modes (to the extent applicable) that impacts routes, maintenance, signage, parking during construction and operation are provided to CUH with a minimum of 5 Working Days' notice.*
- *CUH requests monitoring equipment to be installed. Monitoring equipment to be consistent with Cambridgeshire County Council specifications and will allow data to be collected and provided to the CBC Travel and Transport Group with regard to forecourt performance, cycle and car parking utilisation.*
- *With these commitments in place, I consider that the risks around design and associated impacts to the Blue Light Routes, car parking, pedestrian routes cycle access and cycle parking can be mitigated prior to implementation, monitored after implementation, and managed if issues and adverse impacts were to arise.*

Response by Geoff Hilling (Transport)

- 4.28 NR are continuing to engage with CUH to confirm these commitments. NR will provide CUH with at least 5 working days' notice of any temporary traffic management arrangements, temporary road closures or movement of abnormal loads which may affect blue light routes during both the construction and operational periods.
- 4.29 NR and/or the TOC will be represented at in the CBC Travel and Transport Group. To address concerns over impact on Francis Crick Avenue and minimise rat-running NR has offered to install 4 ANPR cameras, 2 on the eastern station forecourt and 2 on Francis Crick Avenue adjacent to the station. This is subject to CBC granting NR licences to install and subject to CBC agreeing for those cameras to link into the current ANPR system.

4.30 Point 9 – Inadequate modelling

Response by Geoff Hilling (Transport)

- 4.31 Additional interchange demand between the two schemes is acknowledged but no pedestrian demand modelling (dynamic or static) is undertaken.
- 4.32 As indicated in my Proof of Evidence (NRE2.2) para 9.1.41-9.1.42, The CSET scheme will involve a complete reconfiguration of the Francis Crick Avenue/ Guided Busway junction and Francis Crick Avenue, as well as the adjacent pedestrian and cycle infrastructure. The final junction layout is to be confirmed by GCP. As such, undertaking pedestrian modelling of the CSET scheme for the layout proposed as part of the CSIE Project would be meaningless (because it effectively involves replacing the current arrangements). Therefore, the pedestrian modelling taking into account both schemes will have to be undertaken by GCP as part of their TWA0 application.

4.33 Point 10 – Rail Replacement Buses

Response by Geoff Hilling (Transport)

- 4.34 As indicated in my Proof of Evidence (NRE2.2) para 2.1.10 It is anticipated that replacement rail bus services would be available from Francis Crick Avenue; the final location for rail replacement buses to serve the station will be confirmed in later design stages.

4.35 Point 11 - MOIRA forecasting

- 4.36 *As part of the more detailed disaggregation of travel demand for peak hours CUH has concerns that the 'standardised' MOIRA approach conflicts with other utilised data sources such as the Atkins Transport Needs Assessment. This conflict in the assumptions used is demonstrated by the comparison of Tables 6.2 and 6.6 of the TA.*
- 4.37 *MOIRA forecasts a split of 47/53 between arrivals and departures at the station during the AM peak and this is used to establish arrivals and departures as shown in Table 6.6 as being 337 arrivals and 382 departures. However, given the principal role of the station is to act as a destination station for CBC, I would expect the arrivals and departures to be reflective of the forecasts in the Atkins*

“Transport Needs Review” which forecast 81% with destinations within CBC and 19% using Cambridge South to travel elsewhere which is shown in Table 6.2.

- 4.38 *CUH is concerned that the application of standard methodologies for ‘typical’ stations may fail to account for the more specific characteristics of the Scheme in the context of CBC and that these demands are then being used to inform designs which may, if incorrect, not accommodate the required capacity for the proposals.*
- 4.39 *CUH also has some concern that pedestrian and cyclist demand resulting from direct demand for the Scheme or because of interchange between modes has not been fully assessed. The TA comprehensively assigns base demands to the pedestrian and cycle network but fails to assign forecast demand to the same networks and consider the implications of the change and the adequacy therefore of the mitigation proposed.*
- 4.40 *Whilst I raise some concerns over the adequacy of the TA in some areas, I am satisfied that if the commitments identified for resolution of concerns to SOM 3 and 5 can be secured, the monitoring of impacts can provide the necessary assurance needed by CUH, in the event that the assumptions and demand forecasts used in the TA do not accord with what in fact occurs when the Scheme becomes operational.*

Response by Geoff Hilling (Transport)

- 4.41 The AM (07:00-08:00) and PM (17:00-18:00) peak hour demand and trip split between arrivals and departures for 2026 and 2031 was derived using the MOIRA forecasting. MOIRA is a software package widely used in the rail industry to calculate the impact of timetable changes on demand levels and on revenue allocations. It is also used to show the effects on demand of changes in journey time and in other attributes of the journey.
- 4.42 Using the 47/53 split between arrivals and departures during the AM peak, rather than 81/19 split from Transport Needs Review allowed the worst case scenario to be tested in terms of demand for cycle parking. This is based on the assumption that departing passengers are more likely to cycle to and park their cycle at the station compared to arriving passengers who are much less likely to have a cycle at their destination station. For the 81/19 split the demand for

parking would be significantly less than identified in the TA (NR16) and the Proof of Evidence (NRE2.2)

- 4.43 Furthermore, given that cyclists take more space than pedestrians, the 47/53 split is also represents a worst case scenario in terms of impact on the station forecourt and pedestrian and cycle networks in the vicinity of the station.
- 4.44 For these reasons, the assessed 47/53 split is considered robust.
- 4.45 The commitments identified for resolution of concerns to SOM 3 and 5 and the monitoring of impacts to provide the necessary assurance needed by CUH have been discussed with NR who are prepared to agree to these commitments as already identified above.

4.46 Point 11 – Coordination with CSET Proposals

- 4.47 *The CSET access design will result in the station access being sited 12 metres further south than is currently shown in the Deemed Planning Drawings Proposed Plan Sheet 1 of 5 (Drawing Number 158454-ARC-ZZ-ZZ-DRG-LEP-000051). Whilst this needs to be considered when CSET comes forward, a more co-ordinated design approach would have located the access in a location consistent with the CSET proposals and without need to then reduce the attenuation pond.*
- 4.48 *Given the concerns raised relating to the impacts and interaction of the Scheme with CSET proposals, CUH requests that Network Rail agree to the following:*
- 4.49 *In liaison with the CBC Travel and Transport Group, CUH to be consulted on:*
- a) The potential for sensitivity testing of the necessary 'left in/ left out' junction changes and the impacts on up and down stream junctions.*
 - b) The potential for Station forecourt and interchange modelling and sensitivity tests with CSET interchange and public transport demand included.*

Response by Geoff Hilling (Transport)

- 4.50 The station access has been sited to align with the CSET design. NR have fully engaged with GCP and the CSET design team during the design development of both schemes.

- 4.51 As indicated in my Proof of Evidence (NRE2.2) para 9.1.41-9.1.42, The CSET scheme will involve a complete reconfiguration of the Francis Crick Avenue/ Guided Busway junction and Francis Crick Avenue, as well as the adjacent pedestrian and cycle infrastructure. The final junction layout is to be confirmed by GCP. As such, undertaking sensitivity testing of the CSET scheme for the layout proposed as part of the CSIE Project would be meaningless (because it effectively involves replacing the current arrangements). Therefore, the sensitivity testing taking into account both schemes will have to be undertaken by GCP as part of their TWAO application.

5 CONCLUSION

Response by Geoff Hilling (Transport)

- 5.1 Network Rail are engaging with CUH and is prepared to agree to the following commitments sought by CUH.
- 5.2 NR and/or the TOC are to be represented at in the CBC Travel and Transport Group.
- 5.3 CUH to be consulted on:
- a) cycle parking design, quantity and split (as part of GRIP 5 design)
 - b) Station forecourt and interchange modelling and sensitivity tests to refine detailed designs
 - c) The detailed design of the temporary diversion of NCN11 and other cycle routes. (as part of GRIP 5 design)
 - d) The preparation of the CTMP
 - e) A signage and information strategy to advise passengers of the ANPR system and penalties applied if existing rules are breached
- 5.4 NR agrees to not obstruct or reduce the capacity of the Blue Light Routes save by agreement with CUH in limited circumstances which cannot be avoided
- 5.5 In relation to any abnormal vehicle movements in, out or through the campus and any road closures, NR agrees to provide CUH with a minimum of 5 Working Days' notice along with any associated traffic management plans.
- 5.6 Any temporary traffic management arrangements relating to all modes (to the extent applicable) that impacts routes, maintenance, signage, parking during construction and operation are provided to CUH with a minimum of 5 Working Days' notice

- 5.7 Network Rail will install monitoring equipment requested by CUH. This involves 4 ANPR cameras, 2 on the eastern station forecourt and 2 on Francis Crick Avenue adjacent to the station. Monitoring equipment to be consistent with Cambridgeshire County Council specifications and will allow data to be collected and provided to the CBC Travel and Transport Group with regard to forecourt performance, cycle and car parking utilisation.
- 5.8 Given that Network Rail is prepared to agree to these commitments sought by CUH, it is considered that all concerns identified in the Proof of Elliot Page are addressed.