

From: [Kolodziejczyk, Kamil K](#)
To: [brian.currie](#); "Mackenzie, Janice";
"Halcrow, Fiona";
[stuart.x.davidson](#); [Sansbury, Jackie](#); [Jane.Y.Campbell](#)
[Stillie, David](#)
Cc: [Greer, Graeme](#); [Gordon, Kelly J](#); [Macrae, Colin](#)
Subject: FW: Environmental Matrix
Date: 08 February 2016 16:33:07
Attachments: [image001.jpg](#)
[Environmental Matrix NHS comments track changes.pdf](#)
[Environmental Matrix NHS comments.docx](#)

All,

Further to environmental matrix meeting on 26th January, follow up discussion during PMG on 27th January and further meeting on 2nd February please see following draft response to PCo: "The Environmental Matrix shall be updated to reflect SoA, attached Board's comments (also discussed on 26th January and 2nd February), comments made during PGs reviews, and shall also include any changes resulting from Changes between the Board and Project Co. Including the following, but not limited to:

- Bio-chemistry Lab;
- Intra Operative MRI;
- Ebola change;
- Seclusion Room;

Due to the extent of Board's comments, which relate to both Financial Close and Design Development post Financial Close, the Matrix is given Status C."

Can you please review and suggest what other Changes should be listed in the response. Note the matrix will be given status C. I've attached both track changes and clean copy of comments fyi.

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~~1. Previous comment in relation on bedroom / corridor ventilation not resolved.~~

~~2.1. Technical Submittal MER-XX-SL-TS-015 appears to contradict environmental note 13 by way of radiant panel controls.~~

~~3.2.1-B1-010 medical gas cylinder store, SHTM 02-01 states internal cylinders stores may require mechanical ventilation, please confirm no ventilation provided.~~

~~4.3. IPS room max/min temperatures stated as "Manufacturer Dependant", this is not acceptable, temperatures to be stated. Room has 3ac/h mechanical extract therefore heating type should be Adjacent space transfer air and temperatures accordingly.~~

~~5. Isolation cubicles and bedrooms are not shown with any extract ventilation.~~

~~4.~~

~~6. Gowning lobby, supply stated as "in line with SHPN 04" and extract stated as "To match total bedroom air volume", design development review required.~~

~~7.5. Technical Submittal MER-XX-SL-TS-015 shows room 1-B1-057 with a radiant panel which appears to contradict Environmental Matrix room 1-B1-057 warm air reheat battery.~~

~~8.6. Where ventilation rates 10l/s per person are stated, room occupancy to be detailed and ventilation rates calculated.~~

~~9.7.1-B1-063 Stated as supply air 4ac/h, extract via en-suite, this room does not have en-suite facilities.~~

~~10.8. 1-B1-090 has an area of 8m2 which is not stated in the matrix. PCo to populate areas.~~

~~11.9. 3-C1.2-036 review ventilation type, only showing supply when 4ac/h supply and extract.~~

~~12. SHTM 03-01 table A1 single room toilets 3ac/h, only communal toilets 10ac/h.~~

~~13. 3-C1.3-011 and 013, extract via en-suites and wet room review ventilation rates to achieve bedrooms balanced or negative to corridor in accordance with SHTM 03-01.~~

~~14.10. Room 1-G3-003/005/007 Contradiction, bathroom temperatures stated as 28 / 20 with adjacent space transfer air from area with temperatures of 28 / 18.~~

~~15.11. Similarly isolation bedroom 3-C1.4-040, temperatures stated as 28 / 21 with adjacent space transfer air from area with temperatures of 28 / 18, ventilation described as "balanced".~~

~~16.12. 3-C1.7-003, 004, 005 supply and extract "to suit location" not acceptable.~~

~~17.13. G-D2-006 supply and extract "to suit location", statement "to suit location" is not acceptable.~~

~~18.14. Theatre ventilation stated as "in line with SHTM 03-01", correct, this is a BCR requirement. However dental surgeries are not mentioned in SHTM 03-01, I would suggest SHPN 36 part 2. The required ventilation to be designed and detailed.~~

~~19. G-E1-001, 002 review ventilation type only showing supply when 4ac/h supply and extract.~~

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~~20. G-F1-067, confirm single bedroom includes direct extract plus via en-suite.~~

~~21.15.~~ 1-H2-021 is currently labelled a single bedroom but it is an isolation room, review ventilation.

~~22. Review ventilation to single bedroom 1-L1-068, en-suite 1-L1-069 and associated isolation lobby 1-L1-104.~~

~~23. 2-L2-136 confirm room name Isolation Shower Room or en-suite.~~

~~24. 2-M2-017, 018, 019 and 020 changing cubicles, confirm high ventilation rates.~~

~~25.16.~~ 1-P1-003 and 005 are bedrooms, not bathrooms.

~~26. Equipment storage rooms G-Q1-099, 100 and 124, confirm ceiling cassette chilled water cooling.~~

~~27.17.~~ Kitchen states DW172 dependant, actual design detail to be added.

~~28.18.~~ Complete Estates SOA areas.

~~29. 4-S9-002 RFFS Changing /Support, confirm comfort cooled fresh air for area infrequently used.~~

~~30.19.~~ Room B-S3-002 and 005 stated in Environmental Matrix as Adjacent Space Transfer Air, however shown with radiant panel on drawing.

~~31.20.~~ ADB code reference should be confirmed.

~~32.21.~~ Last column not titled. What does it refer to?

~~33. G-S6-016 refers radiant panel however dry underfloor heating was requested.~~

~~34.22.~~ B-S3-002 & B-S4-001 can min temp be increased to 18?

~~35.23.~~ Disposal hold – can min temp be reduced to 16, ~~and max to 25?~~

~~36.24.~~ During a recent PG it was made clear that due to the nature of the research being carried out in the Clinical Research Department in rooms H2-013, 014, 016 and 020 the temperature cannot at any time exceed 25oC.

~~37.25.~~ Further to the recent discussion regarding hepa filtration in the isolation rooms the matrix should have been updated to reflect this.

~~38.26.~~ G-F1 Bedrooms with 6ac/h where most bedrooms are taken as 4ac/h.

~~39.27.~~ B-S4-004, no supply air.

~~28.~~ G-S6-016, Cooling - Yes, Cooling Type – None.

~~40.~~

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~~41.~~ Changing facilities, supply 6 ac/h, extract 10 ac/h, where did these come from as they seem high.

~~42-29.~~ G-Q1-007, Cooling – No, Cooling Type - Comfort cooled fresh air.

~~43-30.~~ G-Q1-161, Heating type – Adjacent space transfer air, supply at 10 l/s/p positive pressure. Diagnostic rooms, “To suit location”.

~~44-31.~~ G-A1-004, supply 4 ac/h extract 3 ac/h positive, different to other diagnostic rooms.

~~45-32.~~ Confirm where natural ventilation, i.e. ~~1-B1-063/065/067.~~

~~46-33.~~ 3-C1.3-018, supply 4 ac/h extract 3 ac/h positive, different to other offices.

~~47-34.~~ 1-L1-005 Resus area 30m2 with extract at 3 ac/h.

~~48-35.~~ G-A1-028/029, Resus area with central general extract with supply at 10 ac/h extract at 6 ac/h.

~~49-36.~~ Consider absence detection to all offices, meeting rooms and node rooms.

~~50-37.~~ 1-D3-002 Circulation Equipment Storage Bays, all others are presence detection.

~~51-38.~~ Disposal hold, LG2 recommends 200 lux.

~~52-39.~~ IPS rooms normal lux stated as n/a.

~~53-40.~~ G-F1-028, 030, 053, 045 and 1-L1-028 are described as offices but have local lux of 1000.

~~54-41.~~ Anaesthetic rooms, LG2 recommends local lux 1000 and Ra 80.

~~55-42.~~ Theatre exit bays (transfers), LG2 recommends normal lux 300 local lux not required and Ra 80.

~~56-43.~~ Preparation rooms and scrub up, LG2 does not require local lux 10,000 – 100,000, or Ra 90.

~~57-44.~~ Theatre utility rooms, LG2 recommends local lux 100 – 150 and does not require local lux 10,000 – 100,000, or Ra 90.

~~58-45.~~ Recovery areas, LG2 does not require local lux 1000 but does recommend Ra90.

~~59-46.~~ Nurse/touchdown bases not shown to have night lighting, confirm this achieved by dimming.

~~60-47.~~ Resus trolley bay 1-D1-009 to be as other trolley bays, Ra 80 and presence detection.

~~61-48.~~ Review colour rendering, e.g. theatre suite, prep, anaesthetic, scrub utility, exit bay all Ra 80. Review consult/ examination rooms to have the higher colour rendering of Ra 90. All to be as CIBSE LG2.

~~62-49.~~ No absence detection or daylight control detailed included from drawings.

| ~~63.50.~~ Medical location column states "See Guidance Notes" for every entry and not mentioned in those guidance notes.

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