

## THE ROYAL HOSPITAL FOR CHILDREN AND YOUNG PEOPLE, EDINBURGH

### Key Issues Report No. 42 September 2018

<b>Site:</b>	Royal Hospital for Sick Children and Department of Clinical Neurosciences and Child and Adolescent Mental Health Services – Little France	
<b>Report:</b>	Independent Tester Key Issue Report No 42	
<b>Date:</b>	04/10/18	
<b>Present:</b>	<div style="background-color: black; width: 100px; height: 15px; margin-bottom: 5px;"></div> <div style="background-color: black; width: 100px; height: 15px; margin-bottom: 5px;"></div> <div style="background-color: black; width: 100px; height: 15px;"></div>	<b>Arcadis</b>  <b>Arcadis</b>  <b>Arcadis</b>

Introduction		Status / Compliance Risk Level
<p>This Key Issues Report has been issued to record and inform the project parties of the key issues identified and inform of the IT's activities undertaken during the reporting period, which for September has been extended over the first week of October to try and provide as up to date a status as possible with the planned completion approaching.</p> <p>The risk rating of items noted has been revised to reflect the limited time available to address the issues noted in advance of the planned completion date of 31<sup>st</sup> October 2018, when all issues including the complete ratification of all Changes required for non-compliant items, completion of the RDD process for all items, demonstration of compliance for all the items scheduled on the IT's Compliance Matrix, completion of all testing and commissioning and provision of all results and certificates for review by the IT and the achievement of all Tests on Completion.</p> <p>This report No 42 for RHSC and DCN has been issued to record the issues outstanding following the compliance reviews undertaken on the 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup>, 6<sup>th</sup>, 7<sup>th</sup>, 10<sup>th</sup>, 11<sup>th</sup>, 12<sup>th</sup>, 13<sup>th</sup>, 14<sup>th</sup>, 17<sup>th</sup>, 18<sup>th</sup>, 19<sup>th</sup>, 20<sup>th</sup>, 21<sup>st</sup>, 24<sup>th</sup>, 25<sup>th</sup>, 26<sup>th</sup>, 27<sup>th</sup>, 28<sup>th</sup>, of September and the 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> of October 2018. The report is issued on an exceptions basis with the exception of the progress noted; only issues identified by or that have been brought to the attention of the IT have been noted in the report.</p>		
1.0	<b>Activities undertaken</b>	
<b>Item</b>	<b>Comments</b>	
<b>1.0</b>	<p>To undertake a review of compliance and site progress and to inform the parties of the activities undertaken to date.</p> <p>The report comments on the following:</p> <ul style="list-style-type: none"> <li>▪ The key completion activities noted during site inspections</li> <li>▪ A review of progress to completion.</li> <li>▪ Review of the commissioning programme and processes (up to October 2018)</li> <li>▪ A review of compliance inspections to suitably complete areas</li> <li>▪ Witnessing of testing and commissioning</li> <li>▪ Reviews of test results uploaded to Zutec and approved by Multiplex</li> <li>▪ Review of major issues</li> <li>▪ A review of MPX closed out observations</li> <li>▪ Reviews of compliance issues identified</li> <li>▪ Review of compliance completion tracker</li> <li>▪ Review of actions being undertaken following the flooding incident 7<sup>th</sup> June 2018</li> </ul>	Note

1.2	Progress and Site Activity	
Item	Comments	
1.1	The IT has continued to review the remedial works carried out following the flooding incident through on-site inspections, and by use of the Multivista records of the process.	Multiplex
1.2	<p>Up to the point of the flooding, the IT considers that there had been good progress across all zones with finishing trades and specialist commissioning teams.</p> <p>The IT is in receipt of the programme to completion on 31<sup>st</sup> October 2018, on which they are basing their current and future site activities and reporting. At the time of writing, the IT has reservations on the readiness of the works.</p> <p>The IT has received the 20 working days' notice as clause 17:10 of the PA as issued by IHSL on the 3<sup>rd</sup> October 2018.</p> <p><b>The RAG categories of a number of issues has been escalated in this month's report on the premise of the time that they have been outstanding and the time remaining to the proposed PC on the 31<sup>st</sup> October.</b></p> <p><b>The IT has concerns that at the current rate of issue addressing and closure there will be excessive issues/snags outstanding on the 31<sup>st</sup> to allow Certification.</b></p>	Multiplex
1.2.1	<p><b>Core &amp; Stairs Progress</b></p> <ul style="list-style-type: none"> <li>▪ The IT noted that the opening to the stair head smoke vent is misaligned on core 4 and missing on core 2. (CIT 205)</li> <li>▪ It has been noted that all 7 stairs are classified as firefighting stairs, and as such a solution to the issue regarding the lighting/emergency lighting has been agreed at a meeting by the project parties; however subsequent tests of the lighting indicated lighting levels lower than that agreed at ground floor and basement levels on some staircases.</li> <li>▪ The IT notes that the majority of the stairs require further finishing to the stringer edges to provide an acceptable quality finish.</li> </ul>	Multiplex
1.2.3	<p><b>General External Works</b></p> <ul style="list-style-type: none"> <li>▪ Final drainage, final attenuation, slabbing, kerbing, and hard landscaping finishes are fundamentally complete.</li> <li>▪ During heavy rain, a drainage issue was noted on the section of paving running parallel to the Anne Rowling building, where the run is to the planted bed, and not out to the permeable monoblocks in the taxi stand. (CIT 196) – (Further observation Tuesday 3<sup>rd</sup> April).</li> <li>▪ <b>19/09/18 The IT noted further areas of ponding following heavy rain to both sides of the main entrance. The water source was run off from the entrance canopy.</b></li> <li>▪ The IT has been made aware of a potential technicality issue regarding the Waterproofing and Gas Proofing Performance specifications, where comments on the specification (RBG-SZ-XX-SP-260-005_D) have not been fully addressed. The IT awaits confirmation that these comments are being addressed.</li> <li>▪ The IT noted that there are significant numbers of broken / cracked paving slabs in the main entrance area.</li> </ul>	Multiplex

1.2.4	<p><b>Drainage Installations</b></p> <ul style="list-style-type: none"> <li>▪ The IT has raised a Compliance Issue Nr 220 for the Basement drainage sump that is picking up extensive areas over multiple upper level floors in addition to the basement and other floors. The IT believes that this arrangement is non-compliant with both the BCRs and PCPs. There are also concerns in respect of the storage volume associated with the pumped system.</li> <li>▪ Ongoing discussions to agree a solution are taking place.</li> <li>▪ In the reporting period further investigations of the discharge of the pumped system into the manhole situated in the main street were carried out in conjunction with Building Control, and the arrangement for the discharge found to be unsatisfactory. The IT awaits notification that rectification works have been completed.</li> </ul>	Multiplex
1.2.6	<p><b>Window Installation</b></p> <ul style="list-style-type: none"> <li>▪ All windows are installed.</li> <li>▪ Queries regarding privacy that has been incorporated on the positioning of all windows have been raised with particular regard to the ground floor areas. Multiplex have developed a strategy to address this issue including the use of film and external screening. The IT is in the process of reviewing the measures introduced.</li> <li>▪ The IT has been made aware that the Velfax windows do not conform with R3 security ratings. MPX to provide confirmation in accordance with the Project Agreement that the provision of Velfax fenestration takes priority over the requirement for R3 certification. The IT understands that the Board have been asked to provide confirmation of the request.</li> </ul>	Multiplex
1.2.7	<p><b>Vinyl flooring</b></p> <ul style="list-style-type: none"> <li>▪ The IT noted during the initial review that the quality of the vinyl floor finishes in the PICU areas are particularly poor, with significant bubbling, uneven finishes, dirt particles below the vinyl, and generally poor weld finishes. The IT will review further as part of the final fabric review process.</li> <li>▪ As a result of the flooding circa 10,000m<sup>2</sup> of Marmolum will require complete replacement, and subsequent reinspection. A number of observations on general standard of workmanship have been raised in regard of the consistency of the Marmoleum fitting.</li> <li>▪ The IT has noted significant variations in the colour match of the vinyl flooring as demonstrated by photograph 01, MPX to advise on batch variations from their supplier.</li> </ul>	Multiplex
1.2.8	<p><b>Envelope and Steel Framing System (SFS) / Cladding / Glazing Screens</b></p> <ul style="list-style-type: none"> <li>▪ The IT has noted areas of poor external render finish in a number of areas, with significant colouration variances recorded. (Photographs) CIT198 31/01/18 confirmation is being sought on the time difference between the application of the two areas of render. MPX are to review.</li> </ul>	Multiplex
1.2.9	<p><b>Internal Partitioning</b></p> <ul style="list-style-type: none"> <li>▪ The movement joint wall sections have now been installed; however, there is outstanding detailing to be applied.</li> <li>▪ The IT has become aware of issues with the cavity barriers throughout the building and have raised an issue Nr CIT 224 on the matter.</li> <li>▪ During the reporting period the IT has found further issues with the inclusion of cavity barriers and has written to MPX on the matter and has reflected the findings in CIT224.</li> <li>▪ The IT is concerned that there does not appear to be any cavity barrier schedule that has individual identification of each and every barrier to allow a full and comprehensive check of all component parts of the barrier where services pass through it. The Schedule would form a beneficial part of the H&amp;S file that is handed to the Client to ensure that all subsequent post-handover works carried out are able to have assurance that all fire cavity barriers are full reinstated on completion of the works.</li> </ul>	Multiplex

1.2.12	<p><b>Mechanical Services:</b></p> <ul style="list-style-type: none"> <li>▪ The IT has continued to witness a range of mechanical demonstrations and commissioning activities of individual building services and has now exceeded the 50% requirement; based on the Completion Commissioning Programme.</li> <li>▪ In the reporting period the IT has witnessed a number of Cause and Effect demonstrations that are detailed in section 1.5.2 below.</li> </ul>	Multiplex
1.2.12.1	<p><b>Ventilation:</b></p> <ul style="list-style-type: none"> <li>▪ The IT has continued to witness a range of ventilation demonstrations and commissioning activities of individual building services exceeded the 50% requirement; based on the Completion Commissioning Programme.</li> <li>▪ The IT is in the process of witnessing the critical operating theatre and isolation room ventilation systems including the Ultraclean canopies and the pressure balance.</li> <li>▪ In the reporting period the IT has witnessed a number of Cause and Effect demonstrations that are detailed in section 1.5.2 below.</li> <li>▪ In the reporting period the IT has witnessed a further Cause and Effect demonstrations that are detailed in section 1.5.2 below. The IT understands the cause and effect demonstrations have been successfully completed.</li> </ul>	Multiplex
1.2.12.2	<p><b>Domestic Hot Water</b></p> <ul style="list-style-type: none"> <li>▪ Domestic H&amp;C Water / LTHW and Chilled WS (Pipework) distribution and connections are complete.</li> <li>▪ The IT has witnessed a range of hot water systems and system treatments.</li> <li>▪ In the reporting period the IT has witnessed the Domestic Water Temperature checks, which had a small number of instances where anomalies were recorded.</li> </ul>	Multiplex
1.2.12.3	<p><b>Boilers</b></p> <ul style="list-style-type: none"> <li>▪ Boiler commissioning on both gas and oil firing has been completed for all boilers and is compliant.</li> <li>▪ During the Cause and Effect witnessing, it was identified that there is no interfaced isolation to the boilers of the oil supply. MPX to advise.</li> </ul>	Multiplex
1.2.13	<p><b>Electrical Services</b></p> <ul style="list-style-type: none"> <li>▪ The IT previously identified a number of issues with the HV supplies which are recorded together with the Multiplex actions in the Compliance Issue Tracker (CIT192,193, and 195) to which remedial works have been undertaken.</li> <li>▪ The IT previously noted that there is an outstanding concern on the compliance of the UPS through a potential single point of failure. MPX have undertaken modifications arrangement which the IT believes is compliant.</li> <li>▪ The swop out of the IPS circuits to provide non-IPS power in theatres and other areas is complete and tested, with visual checks currently being concluded with the Board.</li> <li>▪ The CIT192 – Cable Calculations issue remains outstanding with a four-stage process of information and review agreed between MPX and the Board.</li> </ul>	Multiplex

<p><b>1.2.13.1</b></p>	<p><b>Nurse Call</b></p> <ul style="list-style-type: none"> <li>▪ The Nurse Call commissioning is complete.</li> <li>▪ Fitting of Data Stations has been progressed to all zones.</li> <li>▪ Sections of the Nurse Call will be subject to review following inspection by the specialist contractor as a result of the flooding incident.</li> <li>▪ The IT notes that at the time of writing there are no Nurse Call test results on Zutec.</li> </ul>	<p>Multiplex</p>
<p><b>1.2.14</b></p>	<p><b>Fire Safety Systems</b></p> <ul style="list-style-type: none"> <li>▪ In the reporting period the IT has witnessed a further Cause and Effect demonstrations that are detailed in section 1.5.2 below. The IT understands the cause and effect demonstration have been successfully completed.</li> <li>▪ The IT believes that there are a number of non-compliances with the stated requirements of SHTM82 in respect of void detections in voids containing critical services and lack of detection in patient occupied areas. Further discussions between the project parties are ongoing.</li> </ul>	<p>Multiplex</p>
<p><b>1.2.13</b></p>	<p><b>Compressed Medical Gasses</b></p> <ul style="list-style-type: none"> <li>▪ The medical gas pipeline system tests were carried out on the 22<sup>nd</sup> February 2018, and at the time of testing the gas issuing from the above facilities was deemed to be of satisfactory quality. (iOQ Services Ltd)</li> <li>▪ Test for AVSU alarms and main valve tightness are approaching completion.</li> <li>▪ Medical Gas Surgeons panels and AVSU connections were tested and demonstrated during the reporting period</li> </ul>	<p>Multiplex</p>
<p><b>1.2.15</b></p>	<p><b>Lifts</b></p> <ul style="list-style-type: none"> <li>▪ On inspection of the Lift files in Zutec, the IT has noted that there are no certificates uploaded for inspection. – MPX have advised that documentation will follow on completion of the permanent power supplies.</li> <li>▪ At the time of writing, it is noted that some results have been uploaded but rejected by MPX</li> </ul>	<p>Multiplex</p>
<p><b>1.2.16</b></p>	<p><b>External Works</b></p> <ul style="list-style-type: none"> <li>▪ External works are complete to all areas around the building.</li> <li>▪ The IT inspected the hard landscaping finishes to the area in front of the RIE link in the reporting period. A number of staining and contamination issues were noted, along with finishes and positioning of the motor cycle parking racks.</li> <li>▪ Cycle path works at the energy center are also complete along with the area between the Blue zone and the Anne Rowling Building.</li> <li>▪ The IT has noted that all soft landscaped areas have suffered some neglect in the absence of a ground works subcontractor following Crummock going into liquidation. The IT has been advised that MPX have engaged a replacement sub-contractor who have commenced on site.</li> <li>▪ The IT has been made aware that there is a requirement for an additional high fence to prevent access to the drop level areas of the CAHMS courtyards from ground level by the cycle path area.</li> <li>▪ In the reporting period the high mesh fence has been installed, and the mature hedging installed. However, the IT notes that the positioning of the full height gate allow unrestricted views to the 1<sup>st</sup> floor PICU windows.</li> </ul>	<p>Multiplex</p>

1.3	Project Quality Plan (PQP)																																									
<b>Item</b>	<b>Comments</b>																																									
1.3.1	Appendix D - Compliance Issue Tracker for commentary and Multiplex feedback provides an update of the issues identified during ongoing reviews of the quality management documentation.	Multiplex																																								
1.4	Room Reviews																																									
<b>Item</b>	<b>Comments</b>																																									
1.4.1	<ul style="list-style-type: none"> <li>The IT arranged to attend site in accordance with the Multiplex's fit out inspection and handover schedule, in conjunction with the IT's own readiness assessment inspections. See Appendix B for full list.</li> </ul> <p>To the end of week 1 of October 2018, of the 90 Zones, the IT has completed the inspections of 73 Zones, equating to a total of 81%. The main areas of focus for the IT to complete their sample inspections are:</p> <ul style="list-style-type: none"> <li>8 Nr Ground floor, Orange zones</li> <li>7 Nr 1<sup>st</sup> floor Orange Zones - Will be delayed following flooding</li> <li>1 Nr 2<sup>nd</sup> floor Orange Zones, 2<sup>nd</sup> Floor Plant room</li> </ul> <ul style="list-style-type: none"> <li>In the reporting period the IT commenced their sampling of the Basement Plantroom. Unfortunately, due to a Zutec malfunction circa 10-15 Observations did not synchronize to Zutec and have been lost. The IT will revisit the area and upload the Observations at the earliest opportunity.</li> </ul> <p><b>Review of Signed off Observations</b></p> <table border="1"> <thead> <tr> <th>ARCADIS</th> <th>16-Aug-18</th> <th>19-Sep-18</th> <th>03-Oct-18</th> </tr> </thead> <tbody> <tr> <td>Total Issues raised by Arcadis</td> <td>444</td> <td>510</td> <td>549</td> </tr> <tr> <td>Client Observations</td> <td>78</td> <td>209</td> <td>123</td> </tr> <tr> <td>Closed by BYES</td> <td>11</td> <td>0</td> <td></td> </tr> <tr> <td>Closed by MPX</td> <td>157</td> <td>53</td> <td>90</td> </tr> <tr> <td>Closed by Arcadis (confirmed)</td> <td></td> <td>196</td> <td>231</td> </tr> <tr> <td>Completed by contractor</td> <td>18</td> <td>14</td> <td>72</td> </tr> <tr> <td>MPX No action required</td> <td>7</td> <td>2</td> <td>4</td> </tr> <tr> <td>Open</td> <td>26</td> <td>26</td> <td>29</td> </tr> <tr> <td>Total open (Client Obs. and Open)</td> <td>104</td> <td>235</td> <td>152</td> </tr> </tbody> </table>	ARCADIS	16-Aug-18	19-Sep-18	03-Oct-18	Total Issues raised by Arcadis	444	510	549	Client Observations	78	209	123	Closed by BYES	11	0		Closed by MPX	157	53	90	Closed by Arcadis (confirmed)		196	231	Completed by contractor	18	14	72	MPX No action required	7	2	4	Open	26	26	29	Total open (Client Obs. and Open)	104	235	152	Note
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1.4.2	<p><b>Review of Wayfinding and signage</b></p> <p>The IT undertook a review of the wayfinding relating to the signage in the reporting period and found a number of observations that have been fed back to MPX.</p> <p>The IT has met with the NHS and confirmed the protocols for patients and their visitors being called for appointments and how they find the specialist departments within wards.</p> <p>A full review of the wayfinding will need to be carried out on completion of the hanging signs, which has a dependency on all the ceilings being fully installed.</p>	Note																																								

1.5	Testing and Commissioning	
Item	Comments	
1.5.1	<ul style="list-style-type: none"> <li>The IT arranged to attend site in accordance with the 2 week look ahead and scheduled test and commissioning activities posted through Outlook invitations.</li> <li>In the reporting period to the end w/c 01/10/18, the IT has witnessed 132 commissioning tests. The IT will continue to use their best endeavors and maintain as much flexibility as possible to witness the necessary tests but note that the resource availability and ability to respond to short notice changes is limited, and should tests that the IT require to witness be undertaken without appropriate notice, the IT will ask for a repeat test to be undertaken in order to fulfil their obligation.</li> <li>The IT has continued to review test results confirmed by Multiplex on Zutec and has identified some issues in respect of the recording of pressure testing and water treatment (CIT 203) which have been advised to Multiplex. The IT understands that these issues have been addressed and that a record of water treatment and testing is being maintained separately and will be loaded on Zutec. The IT will monitor accordingly.</li> <li>See Appendix C for details.</li> </ul>	Note

1.5.2	<p><b>The IT witnessed the following Testing/commissioning</b></p> <p><b>Emergency Lighting levels Firefighting stairs</b></p>		
ISSUE			
REF NR	DATE RAISED	DATE CLOSED	OPEN - CLOSED RAG STATUS
1	26/09/2018		O
Emergency Lighting levels checked in the following stairwells: Core 2 - basement (40) Core 3 - basement (17.56) Core 3 - ground (39.7) Core 1 - ground (59.5) Core 2 - ground (28.98) Core 4 - ground (27.88) Core 5 - ground (23.15) Core 6 - ground (20.65) Core 7 - ground (20.81) Core 7 - 2nd (94.72) Compliance with standards for fire fighting stairs is under review as per correspondence from MPX on 27th September.			
<b>Cause and effect</b>			
COMMISSIONING ACTIVITY			
REF NR	DATE RAISED	DATE CLOSED	OPEN - CLOSED RAG STATUS
1	01/10/2018		O
The IT witnessed the Cause and Effect in the whole basement area. All 23 zones activated the desired effects. There was however one faulty call point that was identified on the pre checks that is still to be replaced. (Awaiting Parts)			
<b>Cause and effect</b>			
ISSUE			
REF NR	DATE RAISED	DATE CLOSED	OPEN - CLOSED RAG STATUS
1	01/10/2018		O
The IT witnessed the Cause and Effect on stairs 01, 02, 03 and 04. All desired effects were operational. One defective alarm head which was identified on the pre checks is still to be replaced (Awaiting Parts)			
<b>Cause and effect</b>			
ISSUE			
REF NR	DATE RAISED	DATE CLOSED	OPEN - CLOSED RAG STATUS
1	01/10/2018		O
The IT witnessed the Cause and Effect in risers T2-003 and T2-001. All adjacencies went to alert as required.			



### Staff Attack

REF NR	DATE RAISED	DATE CLOSED	ISSUE	OPEN - CLOSED	RAG STATUS
1	27/09/2018		Staff attack commissioning witnessed in the following areas: L1 DCN, L2 Neurosurgical Ward, 3rd floor corridor and 4th floor classrooms. Some mismatches between drawing numbers / room numbers were noted when alarm was triggered meaning it would not be possible to identify where the attack was happening. Action to recheck room number programming against the list provided to MPX and update where required.	O	

### Lift Lobby Smoke extraction

REF NR	DATE RAISED	DATE CLOSED	COMMISSIONING ACTIVITY	OPEN - CLOSED	RAG STATUS
1	17/09/2018		The IT witnessed the Lift lobby smoke clearance ventilation systems over all floors at Cores 2 and 3. The system operated as per the commissioning Methodology with automatic window opening in the vicinity.	O	

### Water Supply Sterilization

REF NR	DATE RAISED	DATE CLOSED	ISSUE	OPEN - CLOSED	RAG STATUS
1	26/09/2018		The IT witnessed the Sterilisation to the incoming mains that feeds the basement storage tanks, Wash down tanks and direct supply feeds to the Kitchen. All process and procedures were carried out in line with the method statements.	O	

### Water Supply Sterilization

REF NR	DATE RAISED	DATE CLOSED	ISSUE	OPEN - CLOSED	RAG STATUS	Top 5	CR required
1	26/09/2018		The IT witnessed the Sterilisation to the incoming mains that feeds the basement storage tanks, Wash down tanks direct supply feeds to the Kitchen, and supply to the 4th floor tank room. All process and procedures were carried out in line with the method statements.	O			

### Water Supply Sterilization

REF NR	DATE RAISED	DATE CLOSED	ISSUE	OPEN - CLOSED	RAG STATUS
1	28/09/2018		The IT witnessed the Sterilisation to M1 riser services and heat station 4. Despite taking longer time than anticipated the checks were carried out as planned on the Method statements	O	

### Theatre Ventilation Air Supply Tests

REF NR	DATE RAISED	DATE CLOSED	ISSUE	OPEN - CLOSED	RAG STATUS
1	02/10/2018		The IT witnessed the Air Entrainment test in Theatre 37, being carried out by Medical air Technology. The area witnessed demonstrated that the air flows were excluding the contaminated air that was being introduced from the adjoining room.	O	

### Theatre Ventilation Air Supply Tests

REF NR	DATE RAISED	DATE CLOSED	ISSUE	OPEN - CLOSED	RAG STATUS
1	04/10/2018		The IT witnessed the 1m and 2m grid tests being carried out by Medical Air Technologies (MAT) All 1m readings were in excess of the minimum 0.2m/s flow rates, and the 2m readings averaged well above the 0.38m/s minimum.	O	

### Biological safety Cabinet Tests

REF NR	DATE RAISED	DATE CLOSED	ISSUE	OPEN - CLOSED	RAG STATUS	Top 5	CR required
1	26/09/2018		Biological Safety Cabinets (4th floor) - test repeated 5 times for each of the two cabinets. Witnessed the first two filter checks on one of the cabinets (tolerance level c. 60 specks on filter after running for 8 minutes). No issues noted.	O			



### Duct Cleaning

REF NR	DATE RAISED	DATE CLOSED	ISSUE	OPEN - CLOSED	RAG STATUS
1	13/09/2018		Duct cleaning (theatres) - subcontractor explained the process for cleaning the ducts and collecting samples. Two systems are being used (25m brush and compressed air systems) with similar results. Photos, samples locations and test results will all be included in Zutec reports. No issues noted.	O	

### AVSU – Surgeons Panel

REF NR	DATE RAISED	DATE CLOSED	ISSUE	OPEN - CLOSED	RAG STATUS
1	13/09/2018		Connection between AVSU alarms and surgeons panels were tested - witnessed Theatres 30, 31 and Angiography Proceures Room. No issues noted.	O	

### Medical Gas isolated flow rates

REF NR	DATE RAISED	DATE CLOSED	ISSUE	OPEN - CLOSED	RAG STATUS
1	05/09/2018		The IT witnessed the Medical Gas isolated flow rate tests in theatres 38, 37, 39, Angio, 36, 31, 30,32,33,34 and 35. Hulley and Kirkwood noted that the Surgical supplies to the pendants which have flexi pipework were below the required rate. A number of outlets had sticky releases, which were all noted on the record.		

1.6	Architectural Compliance	
Item	Progress on Architectural Compliance Tracker	
	IT AGREED / CLOSED	134
	DOCUMENT AWAITED	43
	ONSITE REVIEW REQUIRED	10
	N/A	4
	POST PC	2
	LAST CLAUSE	1
	ONGOING (MPX ACTION)	14
	IT TO CHECK	21

Note

1.6	Issues Raised by the IT	
Item	Comments / Issues raised in the Reporting Period	

KIR REF/Zutec Ref	KIR NR.	DATE RAISED	DATE CLOSED	ISSUE	OPEN - CLOSED	RAG STATUS
		03/09/2018		<b>Heliport - Fire Manual call points.</b> As R Henderson email 31/08/18 Water cannon areas on the helideck to have manual call points fitted to facilitate early as possible fire identification.	O	MULTIPLY
		03/09/2018		<b>Lighting levels to Sample Processing room - 1-H2-016</b> Confirm lighting levels to all areas as compliant.	O	MULTIPLY
19973		11/09/2018		<b>Corridor Obstructions</b> Two touch down bases on apex of curved corridor project 200 into circulation space. WHB on opposite side projects 300 in same area. Increased possibility of fixtures being damaged. This is contrary to BCR Clause 5.21 which states: "Project Co shall endeavour to minimise the extent of impact damage incurred by ensuring corridors are free of awkward corners / obstructions."	O	MULTIPLY
	KIR 42	05/10/2018		<b>Video access lighting levels</b> Following the demonstration of the video access system on 03/05/18 a number of areas were found to have insufficient lighting levels for the system to provide a suitable quality of image. MPX were to make alterations to/add additional directional lighting to the areas in question and re-demonstrate. 27/09/18 - The video access was represented for demonstration - it was recorded that there was no improvement.	O	MULTIPLY

Item	Comments / Issues closed in the Reporting Period	
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REFERENCE NR	KIR REF/Zutec Ref	KIR NR.	DATE RAISED	DATE CLOSED	ISSUE	OPEN - CLOSED	RAG STATUS
179	1.6.4.13			02/10/2018	<b>Water penetration basement - Rebar integrity</b> Water penetration through the ground floor slab is evident around the lightning protection down tape at high level in the basement. Whilst the completion of the building envelope will prevent further water ingress issues the IT is concerned on the effect the water will have had on the reinforcing in this area. The revision of the access arrangements and locations of these items is being actively reviewed by Multiplex. 11/01/2018 Response issued and discussed IH/DF with Arcadis?	C	MULTIPLY
213			04/05/2018	14/09/2018	<b>Rooms not on Zutec, or wrongly zoned</b> Not relevant	C	MULTIPLY
216	Zut: 3581		14/06/2018	13/09/2018	<b>Earth Bonding of metal Containment</b> As recorded under Zutec Nr 3581 - lack of earth bonding to individual metal containment. Contrary to SHTM 06-01 (14-19) 22/08/18 - Mercury issued reply 20/08/18 - JE to forward - Bob B. Information provided from MPX	C	MULTIPLY
217	Zut: 3591		14/06/2018	02/09/2018	<b>Positioning of heater batteries in patient occupied spaces</b> As recorded under Zutec 3591 - Heater battery placed in ceiling void of isolation room lobby (Critical area) contrary to SHTM 03-01 (4-72) 18/06/18 MPX advise that a change is being raised.	C	MULTIPLY

Key Issues							
Item	Key Issues Top 5						
KIR REF/Zutec Ref	KIR NR.	DATE RAISED	DATE CLOSED	ISSUE	OPEN - CLOSED	RAG STATUS	Top 5
1.6.4.12				<b>Drainage to sump for subsequent pumped discharge</b> The location of the access cover to the below basement slab drainage in the centre of the intersection between two corridors running at 90° raises a concern with the IT in respect of the impact on both corridors should this need to be accessed during an operation situation as, when appropriate barriers are located around the access, movement in both corridors would be stopped. Consideration should be given to relocating the access close to the side wall of one corridor.	O	MULTIPLEX	1
		27/06/2018		<b>Smoke detection risk assessed out in areas.</b> It has been noted that there are multiple instances where smoke detection sensors have been omitted where "the area does contain services that patients are dependent on" namely medical gasses, which is contrary to SHTM 82 - 3.4. The Risk assessment ME-XX-XX-DC-572-100 (Status B) has the following rooms being considered a low enough risk to omit void detection, 22.0 Treatments Rooms, 26.0 Single occupancy rooms, 27.0 Isolation rooms, 28.0 Operating Theatres, 32.0 4 Bed Ceiling void (not exhaustive). All of these and potentially other rooms where the medical gas pipelines pass through, but do not service, should have void detection according to SHTM - 82.	O	MULTIPLEX	2
TBC	33 Dec 2017	20/12/2017		<b>Cable design calculations</b> The IT requests full copy of the Cable Rating / Current carrying Capacity / Fire rated Sub Main Cabling / and evidence of the provision of spare capacity for future proofing.	O	MULTIPLEX	3
	33 Dec 2017	10/01/2018		<b>Fire fighting Stairs - Emergency/fire fighting lighting</b> Fire fighting stair cases do not have diverse lighting supplies, MPX to confirm solution with Wallace Whittle, and advise on solution. NB all 7 stairs are classified as Fire fighting stairs. 20/02/18 - BS 9999:2008 does not apply to this project and that a battery supported system in accordance with the requirements of SHTM 81 Part1 and its referenced documentation as set out below and meeting the required lighting levels would be compliant.	O	MULTIPLEX	4
		22/05/2018		<b>UPS - Single Point of Failure</b> A potential single point of failure on the UPS has been identified on the supply side. There is only a single board feeding all incoming power to the UPS and on to the buildings distribution.	O	MULTIPLEX	5

<b>HIGH</b>	High – Potential show stopper, Completion at risk
<b>MED</b>	Medium – Capacity to affect or halt construction, Completion unlikely to be at risk
<b>LOW</b>	Low – Cosmetic issues or resolved by later construction processes, Completion is not at risk

2.0	Statutory Authorities	
Item	Comments	
2.1	<ul style="list-style-type: none"> <li>The Building Warrant tracker is to be monitored on Aconex and through the MPX tracker issued to CEC Building Control.</li> </ul>	Note
2.2	<ul style="list-style-type: none"> <li>The IT will review comments made by Building Control and accompany the Building Control Surveyor on their weekly site inspections.</li> </ul>	Note

**Appendix A – Example Photographs  
September 2018**



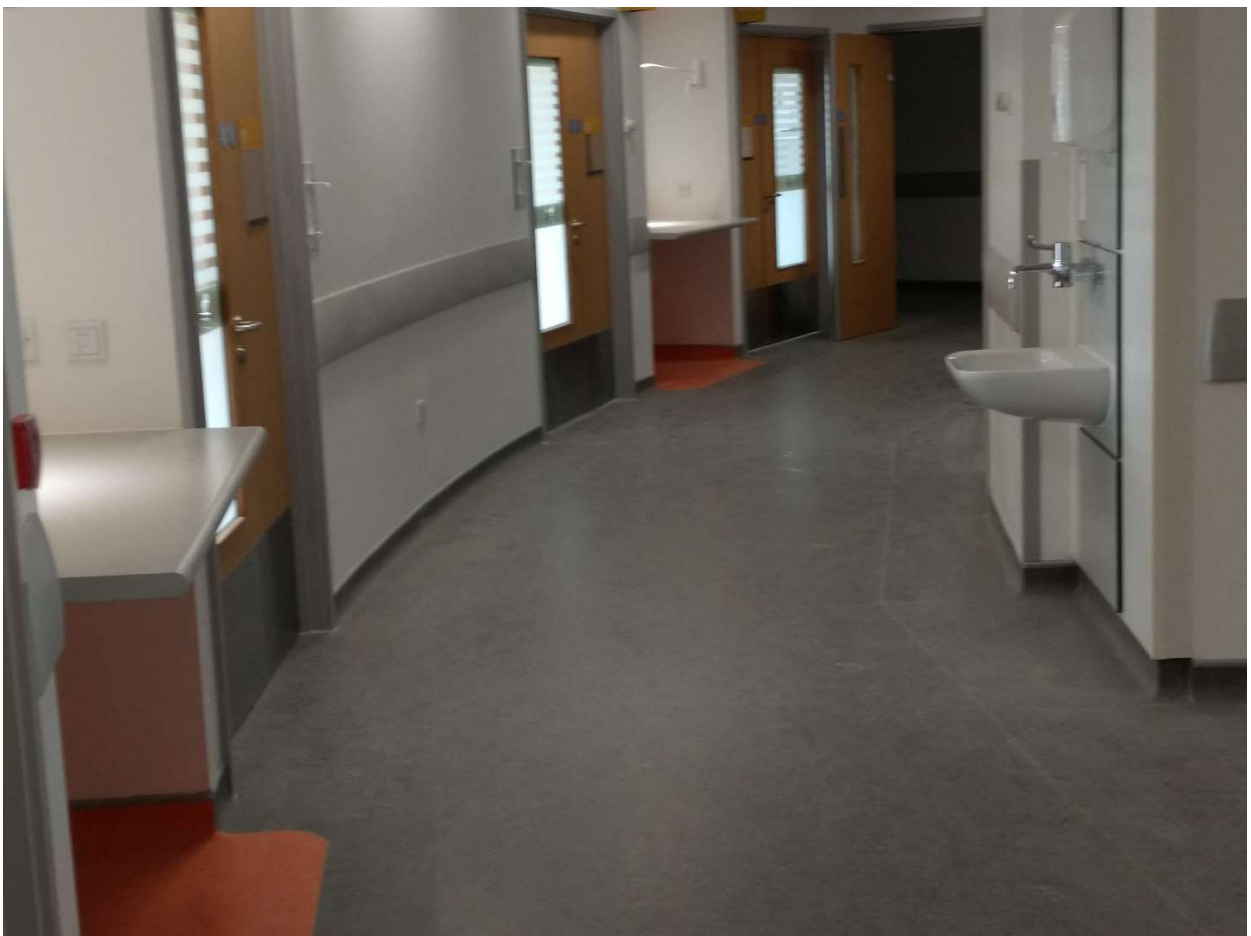
1 – Very noticeable batch variations between rooms – Dental room



2 – Fence / hedge gate position allowing clear view to PICU



3 – Evidence of damp proofing requiring QA



3 - Obstructions in corridors as CIT 229 and Zutec 19973





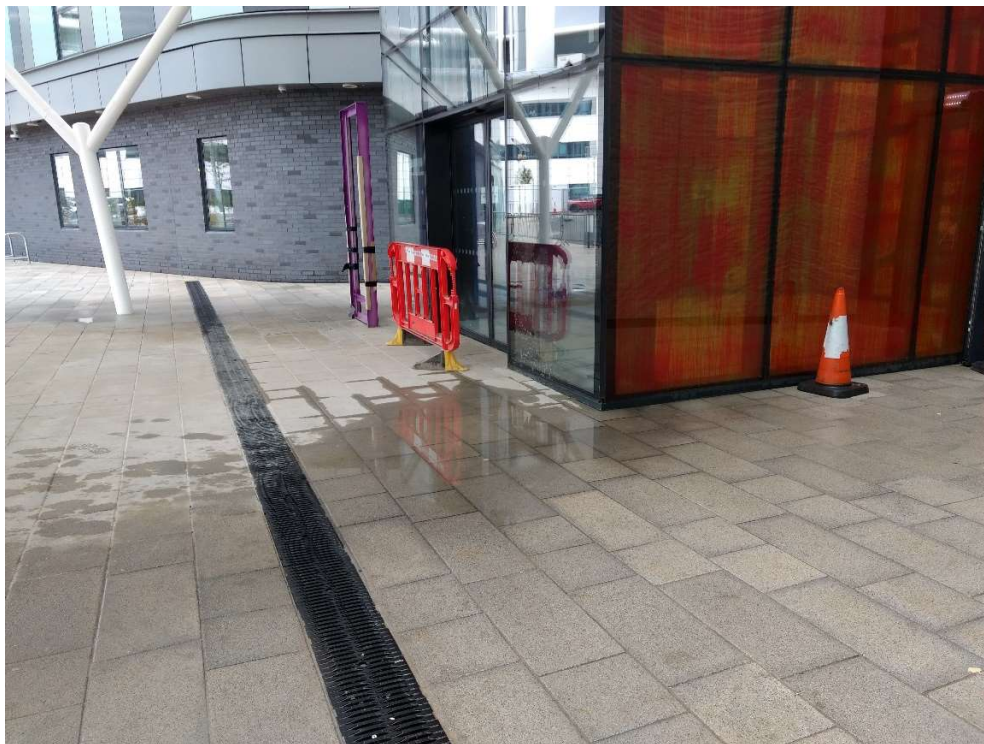
4 – Extent of replacement slabs to main entrance



6 – Numerous trees have sustained wind damage



7 – Heavy machinery operating on paved areas without adequate weight spreaders



8 – Areas of ponding either side of main entrance – CIT196



## Appendix B – Room Review Schedule

### Sample Rooms Inspected in the period – (September 2018)

Room No	Room name	DATE IT INSPECTED	INSPECTOR	ZUTEC	COMMENT	REVIEW TARGET
G-M1-003	Consult/Examination	03/10/2018	Rachel Frazier		H00022 - single hook installed instead of double	
G-M1-010	Pre Op Clinic Team Office (3 person)	03/10/2018	Rachel Frazier			
G-M1-014	Treatment Room (with prep area)	03/10/2018	Rachel Frazier		H00022 / H00024 - 2 single hooks installed instead of 2no. Hat & coat and 1no. Double OUT052 - connection unit missing?	
G-M1-020	Consult/Examination	03/10/2018	Rachel Frazier		H00022 - single hook installed instead of double	
G-M1-042	Phlebotomy Room	03/10/2018	Rachel Frazier		H00024 - 1no. Hat & coat hook missing	<b>09/02/1900</b>
G-M1-045	WC - Wheelchair Accessible	03/10/2018	Rachel Frazier			<b>09/02/1900</b>
4-PLANT-004	Plant Room	20/09/2018	Christian Darbyshire Rachel Frazier	20/09/2018		30/10/2018
4-PLANT-005	Plant Room	20/09/2018	Christian Darbyshire Rachel Frazier	20/09/2018		30/10/2018
4-PLANT-006	Plant Room 06	20/09/2018	Christian Darbyshire Rachel Frazier	20/09/2018		30/10/2018

## Appendix C –Testing and Commissioning Witnessing to end September 2018

Path name	Name	DATE	WITNESSED BY	IDENTIFIER			COMMENTS
\\High Voltage Switchgear\\HV	Generator G1-G3 Factory Acceptance Testin	01/07/2016	Stuart Davey	Factory Acceptance Tests.			
	Generator Load Bank Testing	31/01/2018	Christian Darbyshire	<a href="#">Generators</a>			
	Generator Load Bank Testing	01/02/2018	Christian Darbyshire	<a href="#">Generators</a>			
	Generator Load Bank Testing	01/02/2018	Christian Darbyshire John Edwards	<a href="#">Generators</a>			
	Generator Load Bank Testing	01/02/2018	Christian Darbyshire John Edwards	<a href="#">Generators</a>			
\\Low Voltage\\Main Switchboard 1\\Energy centre Section Board EC2	Test & Energise Node Room 1	08/03/2018	Christian Darbyshire	<a href="#">Main node room Chiller</a>			
\\Low Voltage\\Main Switchboard 1\\Ground Floor Section Board E1/G	Test & Energise DB E1/G/LP1 - Radiology Lighting & Power (ZG8,G9, G11)	20/10/2017	Christian Darbyshire				Circuits live tested OK. Only supply from E1 Riser checked and energised. 60-70% of lights in are complete. <b>NB DB E1/G/LP1 is situated in a cupboard where there is also a Power Unit that creates significant heat which has no means of being dispersed.</b>
\\Low Voltage\\Main Switchboard 1\\Lift section Board LE1	Test & Energise BD1 - Lift 6 Supply (Dual From LE4)	07/03/2018	Christian Darbyshire	<a href="#">180307 Lift 6 Power supply testing.xlsx</a>			
\\Low Voltage\\Main Switchboard 2\\Misc Supplies	Test & Energise PV (2/1) - Photovoltaic Array Supply	07/02/2018	Christian Darbyshire	<a href="#">180207- PV system 4th floor Plant .xlsx</a>			
\\Low Voltage\\Main Switchboard 2\\Misc Supplies	Test & Energise PV (3/18) - Photovoltaic Array Supply	07/02/2018	Christian Darbyshire	<a href="#">180207- PV system 4th floor Plant .xlsx</a>			
\\Low Voltage\\Main Switchboard 2\\Second Floor Section Board PE3/2	Test & Energise AHU 02-20	19/10/2017	Postponed				Cable pulling and connections not complete
\\Low Voltage\\Main Switchboard 2\\Second Floor Section Board PE3/2	Test & Energise AHU 02-25	07/02/2018	Christian Darbyshire	CIT 206	<a href="#">180207 - AHU 02-025.xlsx</a>		Issue with Supply output in riser V3 being below design at max motor output.
\\Low Voltage\\Main Switchboard 2\\Second Floor Section Board PE3/2	Test & Energise AHU DB 7	17/10/2017	Christian Darbyshire				-
\\Low Voltage\\Main Switchboard 2\\Fourth Floor Plant Room Section Board PE 2/4 Chilled Water Plantroom T3-001	Test & Energise AHU DB 12(Dual From PF3/4)	17/10/2017	Christian Darbyshire				Test Completed Steve Colquhoun to check design (160A supply to 25mm cable) OK - checked and labled live
\\Low Voltage\\Main Switchboard 2	Fourth Floor Plant Room Section Board PE3/4 Wet Plantroom R6	19/10/2017	Christian Darbyshire				Board checked with additional check to phases as lables have been fixed upside down. (Manufacture error) (Photo) Initial readings N-E showed fault - N isolated and fault cleared. Damage noted to side of main isolator (Photo)

Path name	Name	DATE	WITNESSED BY	IDENTIFIER	COMMENTS
\\Low Voltage\\Main Switchboard 2\\Fourth Floor Plant Room Section Board PE3/4 Wet Plantroom R6	Test & Energise CHW Pump 3	23/10/2017	Christian Darbyshire		Completed test to Pump Nr3 to facilitate full circulation flush
\\IPS / UPS Commissioning	UPS System on Site testing & Commissioning (inc Load testing)	10/04/2018	Christian Darbyshire	<a href="#">UPS System Load testing 180410</a>	Required to add load, and recommence, new corre
\\IPS / UPS Commissioning\\U.P.S Output Switchboard 3\\DB8/B	IPS S/3/1 (Zone T6) Test & Commission	31/01/2018	Christian Darbyshire	SYS-008472	Initial review of procedure. Demonstration to b
\\IPS / UPS Commissioning\\U.P.S Output Switchboard 3\\DB8/B	IPS V/1/32 (Zone F6) Test & Commission	07/02/2018	Christian Darbyshire	<a href="#">180207 - IPS 3rd floor</a>	
\\Photovoltaic Array	PV3 (MSB2) Commissioning	07/02/2018	Christian Darbyshire	<a href="#">180207- PV system 4th floor Plant.xlsx</a>	All OK
\\Photovoltaic Array	PV4 (MSB 1) Commissioning	07/02/2018	Christian Darbyshire	<a href="#">180207- PV system 4th floor Plant.xlsx</a>	One string reading low - investigated and rectified at time of demonstration
\\Emergency Lighting Testing	Third Floor T1, T2	23/01/2018	Christian Darbyshire Rachel Frazier	<a href="#">180123 - Emergency lighting Test sample DB -E4-3-LP2 lighting.xlsx</a>	
\\Emergency Lighting Testing	Third Floor T3, T4, T7, T10	23/01/2018	Christian Darbyshire Rachel Frazier	<a href="#">180123 - Emergency lighting Test sample DB -E4-3-LP2 lighting.xlsx</a>	
\\Emergency Lighting Testing	Third Floor T5, T6, T8, T9	23/01/2018	Christian Darbyshire Rachel Frazier	<a href="#">180123 - Emergency lighting Test sample DB -E4-3-LP2 lighting.xlsx</a>	
\\Lighting Control\\Second Floor	DB/E2/2/LP1 - DCN Neurophysiology (S7,S8)	17/10/2017	Christian Darbyshire		Lighting circuits checked out of sequence by request to facilitate other works.
\\Fire Alarms\\Second Floor	FAP 18 -Second Floor (S7 & S8)	19/01/2018	Christian Darbyshire	<a href="#">119 - Fire Alarm Test sample Panel 18 - 20 Zone S4 - S8</a>	
	FAP 18 -Second Floor (S7 & S8)	19/01/2018	Christian Darbyshire	<a href="#">119 - Fire Alarm Test sample Panel 18 - 20 Zone S4 - S8</a>	
\\Fire Alarms\\Second Floor\\FAP 18 - Second Floor (S7 & S8)	Cable Test (2 Loops)	19/01/2018	Christian Darbyshire	<a href="#">119 - Fire Alarm Test sample Panel 18 - 20 Zone S4 - S8</a>	
\\Fire Alarms\\Second Floor	FAP 19 -Second Floor (S6)	19/01/2018	Christian Darbyshire	<a href="#">119 - Fire Alarm Test sample Panel 18 - 20 Zone S4 - S8</a>	
	FAP 19 -Second Floor (S6)	19/01/2018	Christian Darbyshire	<a href="#">119 - Fire Alarm Test sample Panel 18 - 20 Zone S4 - S8</a>	
\\Fire Alarms\\Second Floor\\FAP 19 - Second Floor (S6)	Cable Test (2 Loops)	19/01/2018	Christian Darbyshire	<a href="#">119 - Fire Alarm Test sample Panel 18 - 20 Zone S4 - S8</a>	
\\Fire Alarms\\Second Floor	FAP 20 -Second Floor (S4 & S5)	19/01/2018	Christian Darbyshire	<a href="#">119 - Fire Alarm Test sample Panel 18 - 20 Zone S4 - S8</a>	
	FAP 20 -Second Floor (S4 & S5)	19/01/2018	Christian Darbyshire	<a href="#">119 - Fire Alarm Test sample Panel 18 - 20 Zone S4 - S8</a>	
\\Fire Alarms\\Second Floor\\FAP 20 - Second Floor (S4 & S5)	Cable Test (2 Loops)	19/01/2018	Christian Darbyshire	<a href="#">119 - Fire Alarm Test sample Panel 18 - 20 Zone S4 - S8</a>	
\\Fire Alarms\\Third Floor	FAP 23 -Third Floor (T7 & T10)	11/01/2018	Christian Darbyshire	<a href="#">S/Royal%20Hospital%20for%20Sick%20Children/Full%</a>	
	FAP 23 -Third Floor (T7 & T10)	11/01/2018	Christian Darbyshire	<a href="#">S/Royal%20Hospital%20for%20Sick%20Children/Full%</a>	
\\Fire Alarms\\Third Floor\\FAP 23 -Third Floor (T7 & T10)	Cable Test (2 Loops)	11/01/2018	Christian Darbyshire	<a href="#">S/Royal%20Hospital%20for%20Sick%20Children/Full%</a>	
\\Fire Alarms\\Third Floor	FAP 24 -Third Floor (T4 & T3 )	11/01/2018	Christian Darbyshire	<a href="#">S/Royal%20Hospital%20for%20Sick%20Children/Full%</a>	
	FAP 24 -Third Floor (T4 & T3 )	11/01/2018	Christian Darbyshire	<a href="#">S/Royal%20Hospital%20for%20Sick%20Children/Full%</a>	
\\Fire Alarms\\Third Floor\\FAP 24 -Third Floor (T4 & T3 )	Cable Test (2 Loops)	11/01/2018	Christian Darbyshire	<a href="#">S/Royal%20Hospital%20for%20Sick%20Children/Full%</a>	
\\Fire Alarms\\Third Floor	FAP 25 -Third Floor (T5,T6 & T8)	11/01/2018	Christian Darbyshire	<a href="#">S/Royal%20Hospital%20for%20Sick%20Children/Full%</a>	
	FAP 25 -Third Floor (T5,T6 & T8)	11/01/2018	Christian Darbyshire	<a href="#">S/Royal%20Hospital%20for%20Sick%20Children/Full%</a>	



Path name	Name	DATE	WITNESSED BY	IDENTIFIER	COMMENTS
	FAP 24 -Third Floor (T4 & T3 )	11/01/2018	Christian Darbyshire	<a href="#">/Royal%20Hospital%20for%20Sick%20Children/Full%20Oc</a>	
\\Fire Alarms\Third Floor\FAP 24 -Third Floor (T4 & T3 )	Cable Test (2 Loops)	11/01/2018	Christian Darbyshire	<a href="#">/Royal%20Hospital%20for%20Sick%20Children/Full%20Oc</a>	
\\Fire Alarms\Third Floor	FAP 25 -Third Floor (T5,T6 & T8)	11/01/2018	Christian Darbyshire	<a href="#">/Royal%20Hospital%20for%20Sick%20Children/Full%20Oc</a>	
	FAP 25 -Third Floor (T5,T6 & T8)	11/01/2018	Christian Darbyshire	<a href="#">/Royal%20Hospital%20for%20Sick%20Children/Full%20Oc</a>	
\\Fire Alarms\Third Floor\FAP 25 -Third Floor (T5,T6 & T8)	Cable Test (2 Loops)	11/01/2018	Christian Darbyshire	<a href="#">/Royal%20Hospital%20for%20Sick%20Children/Full%20Oc</a>	
\\Fire Alarms\Third Floor	FAP 26 -Third Floor (T8 & T9)	11/01/2018	Christian Darbyshire	<a href="#">/Royal%20Hospital%20for%20Sick%20Children/Full%20Oc</a>	
	FAP 26 -Third Floor (T8 & T9)	11/01/2018	Christian Darbyshire	<a href="#">/Royal%20Hospital%20for%20Sick%20Children/Full%20Oc</a>	
\\Fire Alarms\Third Floor\FAP 26 -Third Floor (T8 & T9)	Cable Test (2 Loops)	11/01/2018	Christian Darbyshire	<a href="#">/Royal%20Hospital%20for%20Sick%20Children/Full%20Oc</a>	
\\IT\Data\Basement	Hub Room 04 test & label (B2 - Serves B2 and 4,5)	17/01/2018	Christian Darbyshire	<a href="#">180117 - Structured Cable tests Basement B1-B5.xlsx</a>	Room untidy and messy, Leak detection incomplete, plasterboard patched, no floor finish, Corrosion on cabinets.
\\IT\Data\Basement	Hub Room 02 test & label (B2 Serves B2, G10 and G8))	17/01/2018	Christian Darbyshire	<a href="#">180117 - Structured Cable tests Basement B1-B5.xlsx</a>	Room untidy and messy, plasterboard patched, no floor finish. 01.15- label missing, identified, and relabeled.
\\IT\Data\Basement	Hub Room 03 test & label (B3 Serves B1 and B3,G12 )	17/01/2018	Christian Darbyshire	<a href="#">180117 - Structured Cable tests Basement B1-B5.xlsx</a>	Room untidy and messy, Leak detection incomplete, no floor finish. 02-17 - FAIL, cut at 17m!
	Access Control	03/05/2018	Christian Darbyshire	<a href="#">Security Access system</a>	Big turn out form NHS - Some confusion over
\\Nurse Call	First Floor	25/09/2017	Basheer Youssef		
\\Misc Electrical Systems	Lightning Protection Testing	14/03/2018	Christian Darbyshire	Abandoned - <a href="#">Lightning Protection</a>	
\\Lift Commissioning	Final lift Checks	05/07/2018	Christian Darbyshire	<a href="#">Lift Commissioning</a>	
\\Low Temperature Hot Water\Energy Centre & Primary Circuits	Pressurisation Unit Commissioning & Pump Pre-Commissioning	20/10/2017	Christian Darbyshire		By Request : SB P2/4 -> AquaTech pump pressurisation unit for pumps 1 and 2.  Pigeon droppings were present over the cover pate, and inside the unit. (See photo) Cleaned sufficiently to complete test and left powered down as a full clean will be required. Circuits checked and tested OK - left isolated till full clean is completed
\\Low Temperature Hot Water\Energy Centre & Primary Circuits	Boiler Commissioning - Oil	14/06/2018	Christian Darbyshire	<a href="#">Boilers - Oil fired 180614</a>	
\\Low Temperature Hot Water\Energy Centre & Primary Circuits	CHP Commissioning	01/06/2018	Christian Darbyshire		
\\Low Temperature Hot Water	Heat Station 1	09/02/2018	Christian Darbyshire	<a href="#">180209 Heat station pressure tests.xlsx</a>	
	Heat Station 1	09/02/2018	Christian Darbyshire	<a href="#">180209 Heat station pressure tests.xlsx</a>	
\\Low Temperature Hot Water\Heat Station 1	Hydraulic Pressure Test Basement Circuit Kitchen direct main supply	04/05/2018	Christian Darbyshire	<a href="#">ens Hospital 'Little France' IC\CL - Commissioning lists\Hy</a>	
\\Low Temperature Hot Water\Heat Station 1	Hydraulic Pressure Test - Window and Garden supplies	04/05/2018	Christian Darbyshire	<a href="#">Hospital 'Little France' IC\CL - Commissioning lists\Hydrau</a>	
\\Low Temperature Hot Water\Heat Station 1	Hydraulic Pressure Test Level Bib taps	03/05/2018	Christian Darbyshire	<a href="#">Childrens Hospital 'Little France' IC\CL - Commissioning li</a>	
\\Low Temperature Hot Water\Heat Station 1	Hydraulic Pressure Test Level 4Laboratory water	11/05/2018	Christian Darbyshire	<a href="#">itchen - WindowsGarden bibs\Laboratory water supplies</a>	

Path name	Name	DATE	WITNESSED BY	IDENTIFIER			COMMENTS
\\Chilled Water\Spot Cooling Circuit	Hydraulic Pressure Test Circuit - CT cooling pipes	15/06/2018	Christian Darbyshire	Commissioning lists\Hydraulic Pressure CT Cooling (pipes			
\\Water Services	Domestic Cold Water Services	29/01/2018	Christian Darbyshire	180129 - Domestic water Zone 2 Blue.xlsx			
\\Water Services\Domestic Cold Water Services	Hydraulic Pressure testing Incoming Mains, Transfer Tk (Basement), Raw to Filtered Tank (Level 4 wet Pm)	01/05/2018	Christian Darbyshire	burgh Sick Childrens Hospital 'Little France' IC\CL - Comm			
\\Water Services\Landscape\Window Cleaning Cat 5 Water	Hydraulic Pressure Testing	03/05/2018	Christian Darbyshire	burgh Sick Childrens Hospital 'Little France' IC\CL - Comm			
\\Ventilation\Fire Damper Drop Testing	Level 0 Zone G3,5,8,10	06/07/2017	Alick Doyle				
\\Ventilation\Fire Damper Drop Testing	Level 1 Zone F1 & F2	16/11/2017	Christian Darbyshire	Dampers witnessed: 01-412-001 01-412-025 01-413-015	01-413-011 01-413-009 01-413-008 01-420-001	Dampers on second floor feeding Theatres: 01-441-006, 01-411-005 01-410-009, 01-410-008 01-410-010, 01-412-003 01-412-017, 01-413-020	All dampers tested drop activated OK and reset. All dampers tested were easily accessible with the exception of 01-411-012, which had a degree of complexity.
\\Ventilation	Combined Smoke & Fire Damper System	29/01/2018	Christian Darbyshire	180129 - Combined smoke fire damper Zone 2			
\\Ventilation	AHU 02-01 (L2 Zone A Clinical Management Suite)	16/08/2017					
\\Ventilation\AHU 02-10 (Level 01 - Operating Theatre 2 (RHSC))	Pre-Commissioning	24/01/2018	Christian Darbyshire Rachel Frazier			180124 - Clean air checks	clean air test, some AHU air flow sampling holes to plug, Confirmation of link cables being
\\Ventilation\AHU 02-15 (Level 01 - Operating Theatre 1 (DCN))	Pre-Commissioning	24/01/2018	Christian Darbyshire Rachel Frazier			180124 - Clean air checks	clean air test, some AHU air flow sampling holes to plug, Confirmation of link cables being correctly secured, Confirmation of filters being correctly installed.
\\Ventilation\AHU 02-16 (Level 01 - Operating Theatre 2 (DCN))	Pre-Commissioning	24/01/2018	Christian Darbyshire Rachel Frazier			180124 - Clean air checks	clean air test, some AHU air flow sampling holes to plug, Confirmation of link cables being correctly secured, Confirmation of filters being correctly installed.
\\Ventilation\AHU 02-17 (Level 01 - Operating Theatre 3 (DCN))	Pre-Commissioning	24/01/2018	Christian Darbyshire Rachel Frazier			180124 - Clean air checks	clean air test, some AHU air flow sampling holes to plug, Confirmation of link cables being correctly secured, Confirmation of filters being correctly installed.
\\Ventilation\AHU 02-20 (Level 01 - Operating Theatres and RHSC Surgical Day Case Unit (P1))	Pre-Commissioning	24/01/2018	Christian Darbyshire Rachel Frazier			180124 - Clean air checks	clean air test, some AHU air flow sampling holes to plug, Confirmation of link cables being correctly secured, Confirmation of filters being correctly installed.
\\Ventilation	AHU 04-01 (The Pod Level 00 - RHSC Main Outpatients (D1), Cardiology and Respiration (D2), Family Support Services (K1), Paediatric Dentistry (D5), Social Work (D8). Pod (E1), Ambulatory Care (D10), RHSC Entrance (I1))	21/09/2017	Christian Darbyshire				
\\Ventilation	AHU 04-02 (The Pod Level 03 - Family Hotel (K2))	30/08/2017	Basheer Youssef				
\\Ventilation	AHU 04-03 (The Pod Level 01 - RHSC Main Outpatients (D1), RHSC Therapies (D6), Plastics Dressing Clinic (D7), Orthoptics (D4), Audiology	14/09/2017 21/09/2017	Alick Doyle Christian Darbyshire				Test cancelled at short notice Test completed

Path name	Name	DATE	WITNESSED BY	IDENTIFIER	COMMENTS
	AHU 04-03 (The Pod Level 01 - RHSC Main Outpatients (D1), RHSC Therapies (D6), Plastics Dressing Clinic (D7), Orthoptics (D4), Audiology (D4))	19/10/17 20/10/17	Christian Darbyshire		Checked Extract system at Plantroom. Device: DP Measurement Oxford Serial Number: 5501HV06/1 Date Calibrated: 18/09/17 Issue with readings compared to previous commissioning. Ian Harding requested re-test with original device. Results confirmed as consistent on retest and minor adjustment to SG38 damper.
Wentilation	AHU 04-04 (The Pod Level 03 - Clinical Education Suite (H3))	26/07/2017	Basheer Youssef		
Wentilation	AHU 04-05 (Level 04 - Child Life & Health (H1) & Health Records (R2))	08/03/2018	Christian Darbyshire	<a href="#">2014\214 - Edinburgh Sick Childrens Hospital 'Little Fr</a>	
Wentilation	Clinical Management Suite (R1), Restaurant (S7)	12/04/2018	Christian Darbyshire	<a href="#">AHU 04-09</a>	
Wentilation	DEF 02-01 (Level 00 Radiology, DCN)	12/04/2018	Christian Darbyshire	<a href="#">DEF 02-01</a>	
Wentilation	DEF 02-04 (Level 01 - Operating Theatres, RHSC Surgical Day Case)	19/10/2017	Christian Darbyshire		Both circuits to fans tested OK. Earth connection to cover plate not fixed - corrected at test and left secure.
Wentilation	DEF 02-06 (Level 02 - DCN Neurophysiology, DCN Therapies, DCN Inpatients, DCN wards/Health Records Support, Equip Library)	08/03/2018	Christian Darbyshire	<a href="#">DEF 02-06</a>	
Wentilation	DEF 04-02 (RHS of Level 00, 01, 02 & 03)	24/08/2017	Basheer Youssef		
Wentilation	Isolation Room Extract Fans 01, 09, 15 & 16	12/04/2018	Christian Darbyshire	<a href="#">Isolation room Extract</a>	
Wentilation/Fume Cupboards & Safety Cabinets	Duct work integrity testing	06/06/2018	Christian Darbyshire	<a href="#">Fume Cupboards Duct integrity tests 180606</a>	
	Medical Gas	28/09/2017	Basheer Youssef		
	Medical Gas	05/10/2017	Basheer Youssef		
	Medical Gas	05/10/2017	Christian Darbyshire		Checked all 4 pendants in all theatres, some difficulty in access due to position of power connector.
	Medical Gas	28/09/2017	Christian Darbyshire	AVSM v17.6, 17.5, 17.4, 17.3, 17.2, 17.1	
WMedical Gas	First Fix Pressure Test A.V.S.U to Bedhead	05/10/2017	Basheer Youssef		
WMedical Gas	First Fix Pressure Test A.V.S.U to Bedhead	28/09/2017	Basheer Youssef		
WBuilding Management System	HVAC Serviced Areas				
	Zone A				
	Level 04				
	Zone G-1 (DB/E4/G/LP1, LP2 & LP3)				
	ZAL0G-1 BMS Final Commission	11/04/2018	Christian Darbyshire	<a href="#">BMS - AHU</a>	Partial - abandoned due to BMS software problem
	Above Ground Drainage	12/06/2017	Basheer Youssef	#112 & 114	
	Above Ground Drainage	06/09/2017	Basheer Youssef	#191 & 192	
WAbove Ground Drainage	G1 Stacks Soundness testing	20/09/2017	Basheer Youssef	#55 & 111	
WAbove Ground Drainage	G2 Stacks Soundness testing	12/06/2017	Basheer Youssef	#112&113	
	Syphonic Drainage	20/09/2017	Basheer Youssef		
	Syphonic Drainage	20/09/2017	Basheer Youssef		
WHelipad Commissioning	Fire Fighting System Commission and Testing	26/01/2018	Christian Darbyshire	<a href="#">2014\214 - Edinburgh Sick Childrens Hospital 'Little Fr</a>	Awaiting documentation from CAA
	Disabled Refuge Stairs 5,6&7	11/04/2018	Christian Darbyshire	<a href="#">Disabled refuge call points</a>	
	Macerators	12/06/2018	Christian Darbyshire	<a href="#">Edinburgh Sick Childrens Hospital 'Little France' (IC)C</a>	
	Automatic Powered door systems	04/07/2018	Christian Darbyshire	<a href="#">Automatic door systems</a>	
	Fire alarm loop retests - Post flooding	03/07/2018	Christian Darbyshire	<a href="#">Fire Alarm testing</a>	



Path name	Name	DATE	WITNESSED BY	IDENTIFIER	COMMENTS
Fire Alarms\Fourth Floor\FAP 27 - Fourth Floor (R1 & R6)	Local Cause & effect Testing	28/08/2018	Christian Darbyshire Rachel Frazier		
Fire Alarms\Fourth Floor\FAP 28 - Fourth Floor (R2 & R5)	Local Cause & effect Testing	28/08/2018	Christian Darbyshire Rachel Frazier	<a href="#">180828 - Cause and Effect - 4th floor all zones.xlsx</a>	
Fire Alarms\Fourth Floor\FAP 29 - Fourth Floor (R3 & R4)	Local Cause & effect Testing	28/08/2018	Christian Darbyshire Rachel Frazier		
Blue Zone All floors inc Atrium	Local Cause & effect Testing	27/08/2018	Christian Darbyshire Rachel Frazier	<a href="#">and Effect180824 - Cause and Effect - Zone 2 (Blue Zone).xlsx</a>	
Fire Alarms\Energy Centre\FAP 30 - Energy Centre	Local Cause & effect Testing	23/08/2018	Christian Darbyshire	<a href="#">180824 - Cause and Effect - Energy Centre.xlsx</a>	
Water Services\Domestic Cold Water Services	Water Temperature Record Hot & Cold Water	21/08/2018	Rachel Frazier	<a href="#">_1Domestic Water</a>	

### September 2018

Emergency Lighting Testing	Fire Stair lighting Levels	26/09/2018	Rachel Frazier	<a href="#">Lighting Levels - Fire Stairs</a>	
Fire Alarms\Basement\FAP 1 - Basement (B1, B2, B3)	Local Cause & effect Testing	01/10/2018	Christian Darbyshire	<a href="#">Basement 01102018</a>	
Stairs 1, 2, 3, 4.	Local Cause & effect Testing	01/10/2018	Christian Darbyshire	<a href="#">Stairs 1-4.</a>	
Risers T2-003 and T2-001	Local Cause & effect Testing	01/10/2018	Christian Darbyshire	<a href="#">Risers T2-003 and T2-001</a>	
Security	CCTV & Access Control	27/09/2018	Rachel Frazier	<a href="#">Video entry - low light retests</a>	Retest of areas that were poorly lit - No improve
Nurse Call\Integration-Global	Staff Attack Commissioning	27/09/2018	Rachel Frazier	<a href="#">Staff Attack Alarms 2018 - 09</a>	
	Ventilation Lobby Smoke Stairs 2 & 3	17/09/2018	Christian Darbyshire	<a href="#">_1Corridor smoke extraction vents</a>	
Water Services\Domestic Cold Water Services	Sterilise Mains to Basement Tanks, Basement tanks to Level 4 Tanks	26/09/2018	Christian Darbyshire	<a href="#">Incomming supply Basement level</a>	
Water Services\Domestic Cold Water Services	4th floor Second Tank (Filtered Water) - supplys to Zone 2 risers M4 and V13	27/09/2018	Christian Darbyshire	<a href="#">4th floor Tank 2 and supply to Zone 3</a>	
			John Edwards Christian Darbyshire		
Ventilation	Theatre 37 - Entrainment test	02/10/2018	Rachel Frazier	<a href="#">1Entrainment MAT.xlsx</a>	
Theatre Ventilation	Theatre 32 - Grid tests	04/10/2018	Christian Darbyshire	<a href="#">Grid Test flow rates</a>	
Ventilation\Fume Cupboards & Safety Cabinets	Check	26/09/2018	Rachel Frazier	<a href="#">Safety Cabinets Check</a>	
Ventilation\Miscellaneous Fans	Duct cleaning	13/09/2018	Rachel Frazier	<a href="#">Duct cleaning 2018 - 09</a>	
	Connectivity AVSU - Surgeons pannel	13/09/2018	Rachel Frazier	<a href="#">Surgeons Panel.xlsx</a>	
Medical Gas	Single Flow Rate Testing - Theatres	05/09/2018	Christian Darbyshire	<a href="#">Single point flow rates - Theatres</a>	



## Appendix D Compliance Issues Outstanding

REFERENCE NR	KIR REF/Zone Ref	KIR NR	DATE RAISE	DATE CLOSE	ISSUE	OPEN - CLOS	RAG STATUS
151/164/224	App E	27	Jul-17		<p><b>Fire Stopping</b></p> <p>The IT has advised Multiplex that there are rooms/areas where fire stopping appears to have been completed but where additional services have subsequently installed penetrating walls which are currently without Fire Stopping.</p> <p>- Multiplex advised that all rooms/areas/walls will be inspected before the ceiling is completed. All remaining fire stopping will be attended to and a full video record of completed fire stopping in each area will be confirmed prior to Practical Completion.</p> <p>- The contractor Astins will undertake the survey using a methodology and technology called Firetronic</p> <p>- 11/01/18 Andrew Eagleton has confirmed the process to be adopted with further discussions.</p> <p>Feb 2018 - Reviewing with Chris Aitken process for close out and confirmation by Firetronic and Multivista.</p> <p>20/02/18 - Rechecked basement, initial RWG collar issue now made good. However others still to have collar fitted, CA is aware.</p> <p>Slab penetrations for showers are fitted with fire rated gulleys which are not visible from below the slab. The gully is the stopping point for the spread of fire. - Ref 154.</p>	0	MULTIPLEX
158	1.6.1				<p><b>Movement Joints</b></p> <p>The IT has previously noted that a number of movement joints run through critical areas.</p> <p>The IT raised two concerns in respect of this issue:</p> <ul style="list-style-type: none"> <li>- The ability to provide appropriate surfaces to allow infection control.</li> <li>- Meeting the requirements of 3.7 Services Contract - Schedule 5 - FM Guide to Design and Construction Page 23 in respect of movement joints in critical areas</li> </ul> <p>- The IT understands that Multiplex have agreed solutions with the Board to reconfigure spaces or to use an agreed type of movement joint. The IT would advise that where an agreed movement joint is to be installed in a critical area an agreed derogation would be required.</p> <p>11/01/18 - This has been agreed with Board and await agreement to Change control.</p> <p><b>22/08/18 - The IT has identified a number of areas where AHU wet heating or cooling systems are sited directly over or adjacent to the movement joint above the theatre suites. Any leak in the systems has the ability to find its way through the movement joint to the area below.</b></p>	0	MULTIPLEX
<a href="#">160</a>	1.6.4.12				<p><b>Drainage to sump for subsequent pumped discharge</b></p> <p>The location of the access cover to the below basement slab drainage in the centre of the intersection between two corridors running at 90° raises a concern with the IT in respect of the impact on both corridors should this need to be accessed during an operation situation as, when appropriate barriers are located around the access, movement in both corridors would be stopped. Consideration should be given to relocating the access close to the side wall of one corridor.</p> <p>- Multiplex replied they do not consider the installation to be non-compliant. Position is as per reference design and FC</p>	0	MULTIPLEX
<a href="#">162</a>	1.6.7				<p><b>Tall Building Ventilation</b></p> <p>The IT has previous raised concerns of non-compliance in respect of ventilation systems. These items were incorporated into a schedule issued to IHS by multiplex in respect of changes. The IT has advised that specific derogations will be required in respect of any agreed changes.</p> <p>Multiplex replied - Please resubmit schedule for our information.</p> <p>IT - A change (derogation) is required in respect of the common supply air to the isolation rooms as SHTM 03-01 only permits this type of system for tall buildings.</p> <p>IT - A change (derogation) is required in respect of the air change rates for the four rooms and WCs to ratify the agreement with the Board.</p> <p>18/12/2017 - IT - Multiplex reply - Aconex - Air test leakage results. Relevance under question.</p> <p>09/01/2018 - Colin G to review with JE</p> <p>30/01/18</p> <p>HBN 04-01 supplement 1 states</p> <p>2.37 Ideally each isolation suite should have its own dedicated supply and extract system. If two or more suites share a</p>	0	MULTIPLEX
181	TBC	33 Dec 2017	14/12/2017		<p><b>Render colour variance</b></p> <p>Variance in render colour has been noted on the render to the Zone 4 North West Elevation above the main entrance, with one side being darker than the other.</p> <p>There is also a band and some patching that has a poor colour match at North Elevation Zone 3 (Photographs)</p> <p>06/02/18</p> <p>With regards the above variation in Render - Render applied at different time intervals will show shading. This will weather out during time. -</p> <p>As discussed can I get confirmation of the two dates when the render was applied. QA record documentation. I have also since noted a variation at the other side of the building, please provide the documentation for that elevation also.</p>	0	MULTIPLEX

REFERENCE NR	KIR REF/Update Ref	KIR NR	DATE RAISE	DATE CLOSE	ISSUE	OPEN - CLOS	RAG STATUS
<a href="#">184</a>	TBC	33 Dec 2017	14/12/2017		<b>Glass balustrading – finger gaps</b> Glass balustrade panel gaps – finger gaps. The IT has noted that there is a significant gap – child finger size between all of the glazed baluster panels, particularly on the external corners. Multiplex to confirm the strategy to prevent injury to patients, members of staff and members of the public. 05/02/18 JW referred to LES to take up with Principal Designer.	0	MULTIPLEX
185	TBC	33 Dec 2017	14/12/2017		<b>Fire rated ducts – damage to fire coating</b> There is significant damage to the fire protection on the protected ducts in risers, example, T2-004: KEF particularly at 1st floor level. Multiplex to confirm procedure to ensure full fire protection is maintained. 05/04/18 – JW – Chris Aitken – 30/05/18 – Firemac to complete works. – Method statement and certificates to follow. 11/07/18 Methodology supplied – Drawing to be supplied and sample repairs followed through to certification to follow Works in progress appear to be appropriate. Final certification required to close this item.	0	MULTIPLEX
189	TBC	33 Dec 2017	20/12/2017		<b>Heaters in Manifold room</b> There are exposed heating element fan heaters in the manifold room & Cylinder store in the (g-Y1-008) energy centre which is considered non-compliant with the SHTM's 09/01/2018 Heaters to be replaced with covered element type. 22/08/18 Awaiting max surface temperature info.	0	MULTIPLEX
219			27/06/2018		<b>Smoke detection risk assessed out in areas.</b> It has been noted that there are multiple instances where smoke detection sensors have been omitted where "the area does contain services that patients are dependent on" namely medical gasses, which is contrary to SHTM 82 – 3.4. The Risk assessment ME-XX-XX-DC-572-100 (Status B) has the following rooms being considered a low enough risk to omit void detection, 22.0 Treatments Rooms, 26.0 Single occupancy rooms, 27.0 Isolation rooms, 28.0 Operating Theatres, 32.0 4 Bed Ceiling void (not exhaustive). All of these and potentially other rooms where the medical gas pipelines pass through, but do not service, should have void detection according to SHTM – 82. 22/08/18 – SHTM 82 wording very concise.	0	MULTIPLEX
<a href="#">192</a>	TBC	33 Dec 2017	20/12/2017		<b>Cable design calculations</b> The IT requests full copy of the Cable Rating / Current carrying Capacity / Fire rated Sub Main Cabling / and evidence of the provision of spare capacity for future proofing.	0	MULTIPLEX
<a href="#">196</a>		32 Nov-2017	30/11/2017		<b>Paving area – ponding</b> During heavy rain, a drainage issue was noted on the section of paving running parallel to the Anne Rowling building, where the run is to the planted bed, and not out to the permeable monoblocks in the Taxi stand. 30/11/17 – T3SG 14/09/18 – areas to left hand and right hand side of main entrance canopy ponding – See photographs	0	MULTIPLEX
<a href="#">198</a>	1.2.8	33 Dec-2017	10/01/2018		<b>Solar roof – access</b> Access route to fixed stair/ access to PV roof has clash with large bore pipework, and is excessively steep for carrying materials/tools. 06/02/18 Access and Maintenance strategy will alter for personnel to use ladder at Core 3 and onto walkway to PV roof. CED – Can we get some drawings of that access please? Is the provision for taking tools/materials to the PV roof improved?	0	MULTIPLEX
204		34 Jan-2018	31/01/2018		<b>Helipad</b> The IT notes that the change from HBN 15-03 superseded by CAP1264 requires following the process as laid out in the Project Agreement Part 8 Changes in the Law. On notification of completion of the change process, the IT will be able to close out the issue that was originally raised, and any other issues that may come about with regard to the conformance of the Heliport resulting in the change from HBN 15-03 to CAP1264.	0	MULTIPLEX
<a href="#">205</a>		35 Feb -2018	08/02/2018		<b>Fire stairs – Smoke ventilation</b> Provision of smoke vents to all fire fighting stairs as 8.3 of the Fire Strategy Plan. – See separate survey report. 20/02/18 – Stair 7 has vent ducted through Plant room 4-PLANT-004	0	MULTIPLEX

REFERENCE NR	KIR REF/ Zute c Ref	KIR NR	DATE RAISE	DATE CLOSE	ISSUE	OPEN - CLOS	RAG STATUS
206		35 Feb - 2018	07/02/2018		<b>AHU 02-025</b> Issue with Supply output in riser V3 being below design at max motor output.	0	MULTIPLEX
207		36 Mar - 2018	08/03/2018		<b>FCU positioning - Records library</b> Records Library 4-R2-008 Ventilation grills and fan coil units obstructed by racking preventing correct air flows. 22/08/18 - MPX to monitor temperatures	0	MULTIPLEX
<a href="#">209</a>		36 Mar - 2018	24/03/2018		<b>Basement Slab - Waterproof injection</b> The IT noted remedial floor slab injection works in the Basement corridor B-COR-013 - details and confirmation to be provided.	0	MULTIPLEX
<a href="#">212</a>			2016		<b>4 Bedroom Ventilation</b> 30/04/18 The IT understands that NHS Lothian and Multiplex are currently discussing an arrangement by which 14 of the 4 bedded rooms would receive negative pressure to the corridor ventilation systems. The IT is awaiting confirmation of this agreement in a format that would take preference to any other stated requirement MPX are going to forward the Aconex Transmittal document to progress close out.	0	MULTIPLEX
<a href="#">194</a>		33 Dec 2017	10/01/2018		<b>Fire fighting Stairs - Emergency fire fighting lighting</b> Fire fighting stair cases do not have diverse lighting supplies, MPX to confirm solution with Wallace Whittle, and advise on solution. NB all 7 stairs are classified as Fire fighting stairs. 20/02/18 - BS 9993:2008 does not apply to this project and that a battery supported system in accordance with the requirements of SHTM 81 Part 1 and its referenced documentation as set out below and meeting the required lighting levels would be compliant.	0	MULTIPLEX
215 X Ref 200			31/05/2018		<b>Fire Protection to HV cables in high risk areas</b> Where HV cables run through what have been identified as high risk areas, a Hilti system of fire protection wrap is being carried out. Hilti have provided MPX with assurances that the product will provide the necessary protection, and will follow up with an "Engineering Judgement" to progress close out.	0	MULTIPLEX
218	Zut: 2985		14/06/2018		<b>Use of Flexi joints in ventilation systems</b> As recorded under Zuteo 2985 - Flexi joints should not be in excess of 1m in length and is not to be used in lieu of a bend - SHTM 03-01 (5-15 & 5-55) As with CIT 211 above. 18/06/18 - MPX awaiting response from Mercury 22/08/18 - Mercury have replied 20/08/18 27/09/18 - IT requests specifically noted bends to be inspected. See Zuteo Nr 2985	0	MULTIPLEX
214			22/05/2018		<b>UPS - Single Point of Failure</b> A potential single point of failure on the UPS has been identified on the supply side. There is only a single board feeding all incoming power to the UPS and on to the buildings distribution.	0	MULTIPLEX
221	Zut: 19675		18/06/2018		<b>Fire rated duct and fan</b> 1. The duct either side of the fan is fire rated, but the fan and adjoining bellows does not appear to be fire rated. 2. The fire rated duct either side of the fan has open test holes, as does the duct further around the corner where it drops through the floor. 3. The supports to the duct only have under support, with no top loops. 13/09/18 - further fan type identified above AHU 02:20	0	MULTIPLEX
222			24/07/2018		<b>Atrium steel stair finishes to glazing margin and top step alignment.</b> The glazing junction to the stringer is a poor finish quality. The top step is poorly aligned to the 1st floor walkway.	0	MULTIPLEX



REFERENCE NR	KIR REF/Issue Ref	KIR NR	DATE RAISE	DATE CLOSE	ISSUE	OPEN - CLOS	RAG STATUS
<a href="#">223</a>			01/08/2018		<b>Child Life Health access doors</b> Both the external card reader and internal door release button are poorly positioned relative to the door. On approaching the door from the external corridor, the reader is not visible from the vestibule. On exiting the department, the push button release is completely out of view around the corner of the doors The emergency fire breakglass is very visible and accessible, and is highly likely to be activated in error.	0	MULTIPLEX
<a href="#">224</a>			07/08/2018		<b>Cavity Fire Barriers</b> The following issues have been noted in respect of the cavity fire barriers: - We understand there are instances where cavity barriers have been omitted due to drawing inconsistencies - Instances where enclose electrical trunking is missing sticker confirmation of intumescent pillows being installed - Instances where photocopies of the Envirograf sticker has been applied using selotape - Instances where no evidence of intumescent pillow tethers is apparent The IT requires to see evidence that confirms that all aspects of the cavity barriers have been certified/confirmed as being fully compliant with the rating required of that barrier. 22/08/18 Check of fire barriers in basement area, some instances where intumescent pillows missing and not tethered. 24/08/18 K Miller recheck of fire barrier pillows -reported as OK. Spacing of fire barriers is in some instances in excess of 20m standard. 29/08/18 Email to John McGregor requesting confirmations and progress of change to capture deviation from Building Standards. 31/08/18 Corridor 4-COR-003 on the 4th floor, you noted that the barrier was on a schedule of "works outstanding" The IT seeks reassurance from Multiplex on how the whole void barrier installations are proposed to be fully checked by Multiplex prior to a further random check by Building Control and the IT. <b>13/09/18</b> <b>The IT has been made aware that Linear are now involved in Fire Stopping as well as Astons. Having scrutinised the Astons QA, the IT requires to similarly review the Linear QA methodology. The IT's concerns on the lack of a Cavity barrier Schedule remain open.</b>	0	MULTIPLEX
<a href="#">225</a>			31/08/2018		<b>4th Floor Terrace escape routes</b> The fire strategy for the 4th floor shows escape routes in both directions between the various segregated terraces on the 4th floor. The IT seeks clarification on the access control that is to be engaged that will prevent unauthorised access to the individual restricted areas from the publicly accessible restaurant terrace, while maintaining escape access in the event of an emergency.	0	MULTIPLEX
226			09/07/2018		<b>Parapet capping interface with cover flashing.</b> There are significant areas where the parapet capping and upstand do not meet, or have sufficient or any lap, along with the chipped and cracked edges of the upstand. (2nd floor area outside the plant room is a typical example.	0	MULTIPLEX
227			03/09/2018		<b>Heliport - Fire Manual call points.</b> As R Henderson email 31/08/18 Water cannon areas on the helideck to have manual call points fitted to facilitate early as possible fire identification.	0	MULTIPLEX
228			03/09/2018		<b>Lighting levels to Sample Processing room - 1-H2-016</b> Confirm lighting levels to all areas as compliant.	0	MULTIPLEX
229	19973		11/09/2018		<b>Corridor Obstructions</b> Two touch down bases on apex of curved corridor project 200 into circulation space. WHB on opposite side projects 300 in same area. Increased possibility of fixtures being damaged. This is contrary to BCR Clause 5.21 which states: "Project Co shall endeavour to minimise the extent of impact damage incurred by ensuring corridors are free of awkward corners / obstructions."	0	MULTIPLEX
230		KIR 42	05/10/2018		<b>Video access lighting levels</b> Following the demonstration of the video access system on 03/05/18 a number of areas were found to have insufficient lighting levels for the system to provide a suitable quality of image. MPX were to make alterations to add additional directional lighting to the areas in question and re-demonstrate. 27/09/18 - The video access was represented for demonstration - it was recorded that there was no improvement.	0	MULTIPLEX