

**THE NORTH OF SCOTLAND FACILITIES & CAPITAL PLANNING GROUP**

**SHORT LIFE WORKING GROUP RESPONSE TO ISSUES HIGHLIGHTED IN THE“COLE REPORTS”**

**MARCH 2020**

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**INTRODUCTION**

**The North of Scotland Facilities and Capital Planning Group**

The North of Scotland Facilities and Capital Planning Group (NoSF&CPG) comprises representation from NHS Grampian, NHS Highland, NHS Orkney, NHS Shetland, NHS Tayside, and NHS Western Isles

The purpose of this group is to develop regional collaborative opportunities through an agreed work plan for facilities and capital planning functions.

**Background to the “Cole Reports”**

In Feb 2018 Professor John Cole published his report on the independent inquiry into the closure of 17 Edinburgh schools, commissioned by Edinburgh City Council on the back of a collapsed wall at Oxgangs Primary School.

Two months later Professor Cole published another inquiry report into the construction of the DG One complex in Dumfries, commissioned by Dumfries and Galloway Council following serious defects that forced the closure of that facility in 2014.

The Cole reports, as both inquiries are collectively referred to, identify systemic failings throughout the construction industry. These failings have resulted in a poor building product being handed over to the client, as well as leaving a lasting legacy for maintenance teams whose task it is to maintain the facility for the next 30-40 years.

Many people have called the findings a watershed moment for the construction industry in Scotland.

As a result of concerns about defects in new hospitals and the impact they have had on patients and their families, which has garnered significant media coverage, a Public Inquiry is to be held to examine these matters”. A link to the Inquiry website can be found (<https://hospitalsinquiry.scot/>)

**About the** **Short Life Working Group**

In the spring of 2019, the NoSF&CPG commissioned a short life working group (SLWG) to consider how north regional Boards should respond to the issues highlighted within the “Cole Reports”.

This group is represented by Stan Mathieson (NHS Grampian), Derek Morgan (NHS Grampian), Lawson Bisset (NHS Shetland), Eric Green (NHS Highland) and Niall Deuchar (NHS Tayside), who have developed review findings through participation at a series of meetings.

The response to the issues highlighted within the “Cole Reports” is written up by Stan Mathieson and Derek Morgan.

**Key points about Our Response**

As one might expect, the recommendations contained in both Cole reports share similar themes. Rather than simply repeat responses (to both reports), we were directed to concentrate our review to a single report, that being the Edinburgh Schools inquiry.

That said, where the DG ONE report has highlighted a particular aspect or recommendation which is not covered by the Edinburgh Schools inquiry, for instance a call for enhanced governance around business cases, then the group have also given consideration to its implications.

The Edinburgh Schools findings were written from the viewpoint of the City of Edinburgh Council. A number of those recommendations have no correlation to the NHS’s sphere of control, for instance those directed towards Building Standards Departments to follow, or to the particular procurement used (on the inquiry projects), that may not directly correspond with procurement used by NHS Boards.

However these points have not deterred us from reviewing the north Boards current processes against the broader report findings, even if that’s meant interpreting some of the recommendations from an “in-principal” viewpoint rather than only concentrating on those as literally stated.

Our response has considered each of Cole’s recommendations, firstly from the perspective of “what is the current processes/procedures within Boards” then identifying “what improvements are still required by Boards” to adhere to, or even to improve upon Professor Cole’s principal intent.

In assessing the north Boards current position, we felt that a RAG status might provide a clearer perspective on the scale of change required by the north Boards to improve their current position – see status table below:

* + **Meets less than 25% of the recommendation – red**
  + **Meets between 25 & 50% of the recommendation – red/amber**
  + **Meets between 50 & 75% of the recommendations – amber/green**
  + **Meets between 75% & 100% of the recommendation - green**

In the course of our review, we identified a number of common themes running through each of Cole’s recommendations, for instance the need to carry out independent inspections. Rather than just repeat the same response many times over, we decided instead to concentrate a particular response to a single Cole recommendation. As such, we would encourage our identified improvement actions to be read as an entire response, and to assist this approach we’ve summarised each of action for the key individual stakeholders to take forward in Appendix A.

**RESPONSE TO RECOMMENDATIONS FROM THE ENQUIRY INTO**

**THE CONSTRUCTION OF EDINBURGH SCHOOLS**

**Please note that the foregoing numbering system refers directly to the Edinburgh Schools inquiry – remit 8 recommendations**

1. **Procurement Recommendations**

1.1 Expertise and Resources

The main theme from this recommendation requires public sector bodies to

have assured access to a level of expertise and resource to enable them to

act as “intelligent customers” when transacting with the private construction sector.

The recommendation doesn’t detail what public bodies actually need to do to be considered an intelligent customer, but does suggest that they should have requisite and appropriate people resources in place, such as governance arrangements, type of expertise, allocated time and funding before commencing a project.

**What is the Current Process/Procedures within Boards?**

We found no evidence of a consistent approach being adopted by North Boards to appoint their Project leads, or even for that matter how they constitute a Project Board.

Our review found that north Boards predominantly resource their project leadership roles, such as the Project Manager (PM) from within their organisation, but they invariably rely on external consultant support for other key project roles, the level of dependency being dictated by the capacity and availability of in-house expertise.

We considered project resourcing in general, and would conclude that Board’s using their own staff to deliver projects brings significant benefits in terms of governance arrangements and value for money, but only to the extent that those staff have the requisite competencies to fulfil the requirements of the role. Unfortunately we found no evidence to support that a consistent approach is being adopted by Boards to assesses the competency of their appointed PM’s, or other staff for that matter of fact.

We also looked at what other factors might be constraining Boards from fully resourcing their projects (internally). We recognised that smaller Boards rely on external support as their default position, as it’s clearly not cost effective to retain a full complement of specialist staff. However we concluded that larger Boards should be better placed to fully resource their projects internally, but the fact that feedback from these Boards is reporting capacity gaps is concerning to the group, and just reflects the scale of challenge faced in bridging Cole’s recommendations – on an aside we couldn’t identify a single conclusive reason behind the identified gaps, but conscious decisions by Boards not to fill vacant posts was suggested to be a main contributor.

In the course of identifying improvements, we discussed just simply recommending that Boards should recruit more and competent resources, which we believe would undoubtedly meet the intent of Cole’s recommendations. However we discounted that simplistic view in the belief that it was out with NoSF&CPG’s influence to commit the respective Boards to increase their revenue budgets.

Instead, we considered that ensuring projects are properly governed, and adequately resourced with a competent project team is more within the remit of the NoSF&CPG to mandate (within their respective Boards), whether that’s achieved be way of internal, external or regionally shared resource.

We also looked in-depth at the contribution provided by private sector consultants, and concluded their support enhances Boards credibility towards being considered an intelligent customer. However our review findings would also suggest that this approach is not without its shortcomings, such as:

* Consultants’ performance can be variable, particularly amongst those appointed on a lowest cost basis.
* Consultants' could be described as having a risk averse attitude towards their professional indemnity, potentially constraining the amount of advice that they provide to project leads.
* Knowledge transfer (from the private sector to the NHS) is variable, arguably this could impact on the learned development of internal PM’s etc.
* We found instances of the cost of employing external consultants to be considerably higher than the baseline cost of internal resource - although it was also recognised there is not enough data available to draw a direct comparison or evidence that this always the case.

The use of complex procurements such as Hub/frameworks was also identified as further challenging the level of experience and knowledge currently residing within Boards, particularly as experienced staff retire, necessitating an even greater reliance on external consultants to provide support to project leads.

**Our Response to What Improvements are still Required by Boards**

**The** **Accountable Senior Responsible Officer** **(SRO) should**:-

* Prepare Terms of Reference (ToR), confirm the governance arrangements and the constituent members of the Project Board, giving due consideration to the value, complexity, and matters relevant to the projects objectives.
* Assess the capacity and competence of the Project Lead, to carry out the role relative to all stages of the project; the assessment should be made by reference to experience, and the competency matrix (see actions for NoSF&CPG).

**The** **Established Project Board** **should**:-

Agree the TOR, governance arrangements, programme and project aims & objectives, as promoted by the SRO.

* Confirm the SRO’s recommendation for the Project Lead.
* Approve the Project Lead’s required project resource assessment - a project that can’t meet any aspect of the minimum baseline assessment should not proceed without mitigations in place.

**The Appointed Project Lead should:-**

* Undertake a risk based required project resource assessment to ensure the project is sufficiently resourced (be that by means of internal or external resource) during all stages of the project; confirm outcome to Project Board.
* Include within the business case a requisite allowance for all resource requirements identified in the required project resource assessment.
* Assess the capacity and competence of the project team, relative to the required roles at all stages of the project; the assessment being made by reference to the required project resource assessment & the competency matrix (see actions for NoSF&CPG). The assessment must be confirmed by the Project Board.
* Review CV’s of external consultants for their suitability, based on experience relevant to the commission, and confirm outcome to the Project Board.

**The NoSF&CPG should:-**

* Develop a competency matrix detailing the training/accreditation/qualifications/experience required to carry out key project roles, such as:-
* Project Director
* Project Manager
* Service Planning Lead
* M&E Technical Supervisor
* Building fabric Technical Supervisor
* M&E Clerk of Works
* Building fabric Clerk of Works
* Health infection lead
* Commissioning lead
* Clinical lead

In the first instance consideration should be given to the education pathways for Capital Planning, Property Services and Asset Management disciplines that has recently been developed through Health Facilities Scotland (HFS) – for more information refer to link <http://communications.nes.digital/EANDFpathways_OCT2019/index.html>

* Develop a regional project resources matrix and agree opportunities to share suitably experienced professional and technical staff to support projects (in the region). Consideration should be given to the key project development stages of:-

* Inception/briefing documents
* Design development and review designs
* Construction and quality compliance
* Soft landings/commissioning
* Identify region wide training and/or seconded development opportunities to assist in-house staff in developing towards the minimum competencies identified (in the competency matrix)

1.2 Ensuring Compliance with Specification

The main theme from this recommendation is that public bodies should ensure

due diligence is undertaken at an appropriate level to confirm that the requirements of the contract are actually delivered in accordance with the terms of the contract, further recommending that the due diligence should be determined through an informed assessment of risk of the likelihood or implications of non- compliance.

**What is the Current Process/Procedures within Boards?**

We reviewed the extent of due diligence that Boards currently carry out, however our findings could only support the level being described as variable across the region.

Our review of the main procurements used by Health Boards, namely Scottish Future Trusts (SFT) Hub initiative and HFS’s Frameworks identified that each has a built-in review procedure to approve the design at key stages, so from that perspective we concluded that the use of these procurements does provide a degree of assessment.

Conversely though, we identified that neither procedure has a formal key stage review (KSR) during construction, to validate that the contractor has actually built to specification or has complied with the contract provisions, which we believe is a strange omission (within those processes), particularly given the risk profile during this stage of the project.

Summarising our above considerations, we concluded that Boards could be misplacing a reliance that SFT & HFS are providing sufficient protection & safeguards (when using those respective procurements). Instead, we endorse Cole’s recommendation that Board’s should be undertaking their own measures to provide a higher level of diligence and assurance.

**Our response to What Improvements are Still Required by Boards**

Our consideration, which we believe is consistent with Cole’s intent, is that diligence is a continuous process that should be validating every stage of a project, not just the design or business case approval (as at present), viz:-

* throughout the briefing stage to validate that the documents (contract, specification, Board requirements etc.) issued to contractors/designers have been independently reviewed for their consistency (between documents) and that the most up to date guidance is being specified
* during design development to ensure that the contractor’s design complies with the Board’s requirements (specified to their briefing documents), subject of course to agreed derogations
* during construction to monitor the quality being provided by the contractor, and to ensure that specified completion criteria requirements have been fulfilled before the building is handed over

Figure A below shows this continuation process in pictorial form:-

A mandatory requirement of the diligence review should be sign off of the final design proposals by the accountable Project Board, before the project can move to conclusion of the business case, and the start of construction

**Figure A**

For the avoidance of any doubt, our response is not promoting that our (above) diligence process replaces any of the current strategic interventions, such as KSR’s, but rather we are responding that the adoption of our diligence process would provide additionality to the current processes, and at the same time provide Boards with more assurance (than they current experience).

**The NoSF&CPG should:-**

* Request the respective HFS & SFT confirm what diligence they have carried out on the likelihood or implications of non-compliance the standard contact terms and conditions contained within their frameworks.
* If HFS/SFT are unable to provide satisfactory evidence of undertaking diligence in respect of the risks of non-compliance of (their) standard contract terms, then NoSF&CPG should take an informed risk based approach, for example by considering if KSR’s provide sufficient provisions for checking compliance of the delivered product, and hence determine the risk is low.
* Develop a mandatory design review checklist – the checklist must be signed off by each of the key department/specialist leads who have contributed towards the Board’s design review, so that the Project Board is further assured on the level and coverage of scrutiny/diligence that has been applied by the Board at this crucial stage.

**The Appointed Project Lead** **should**:-

* Commission an independent diligence review of the Board’s briefing documents, termed the “document review”, and confirm the outcome to the Project Board. The document review should validate:-
* Conformity with the most up-to-date guidance and regulations
* The expected quality of design & construction requirements
* Completion criteria requirements have been sufficiently specified to provide a benchmark of performance acceptability
* A risk based assessment of acceptable derogations
* Read across constancy between all documents
* Lead a peer review workshop of the contractors design proposals, termed the “design review”. The workshop should include a wide representation of technical and health infection expertise, and representation from another Health Board/HFS to reinforce governance.
* On receipt of final design proposals, arrange a formal presentation of the design to the Project Board. This should provide the Project Board with a final opportunity to confirm any required changes.
* Prior to approval of the contractors final design proposals, seek a formal assurance from the contractor that the design complies with the Board’s specified requirements, subject to any accepted derogations by the Board. This assurance should be reported to the Project Board.
* During construction, termed “construction monitoring”, coordinate the Board’s technical resources to ensure regular physical inspections are taking place. The Project Board should be provided with the following confirmations on a monthly basis:-
* any changes/variations
* assessment of the build quality
* sample of photographic records taken in the preceding period
* assessment on conformity with the Boards completion criteria requirements, culminating with a final report prior to completion

**The Accountable Project Board should:-**

* Sign off its acceptance of the contractor’s design proposals, subject to agreed schedule of outstanding/incomplete design development that has no material bearing on the approval, to allow the project to proceed to business case. A design that is not signed off by the Project Board should not proceed to final business case.

1.3 Public Bodies Cannot Delegate Duties

This recommendation reinforces the point that public bodies should understand that they can’t delegate their duties, despite them seeking to transfer risk through design and build procurement, and proposes that there should be a level of independent scrutiny in all aspects of design and construction that have historically been largely or partly self-certified by those producing them.

The level of scrutiny suggested by the recommendation is undefined, but in terms of addressing the wider intent of the Cole report, the level of scrutiny must include both the design and construction stages.

**What is the Current Process/Procedures within Boards?**

During the course of our review, we noted Cole’s recurring promotion of independent scrutiny running throughout a number of his recommendations. We would take this opportunity to highlight that various responses on independent scrutiny are covered elsewhere in this review.

That aside, we did also consider Cole’s call for the appropriate levels of scrutiny to include all aspects of design and construction, and concluded that a key challenge of adhering to Cole’s recommendation will be balancing Board scrutiny of design against the contrary advice that SFT and HFS have provided to Boards, that being design responsibility sits wholly with the contractor (in their design and build procurement).

Our review also concluded that this understanding (of previous advice on design responsibility) has reflected the level of project resources previously provided by Boards, and the consequences of adopting Cole’s recommendation to carry out more scrutiny will invariably result in:-

* + More resource employed to scrutinise design proposals and build quality – the assessment of required project resources and the competency of those resources is covered in our response to 1.1
  + Programmes will need to include time requirements to carry out key strategic interventions (such as the adoption of our 3 stage diligence review described in 1.2), and consequently the business case will need to reflect time & cost implications.

Finally, we found little evidence to support a notion that all project staff (involved in delivering projects) fully understood and/or appreciated the difference between them reviewing and checking design information, and significantly the implications for their Board if they crossed the line by inadvertently taking on some design liability.

**Our Response to What Improvements are still Required by Boards**

**The Appointed Project Lead should:-**

* Brief members of the project team, who have a direct interface with contractors and designers to ensure they understand the limitations on checking and reviewing design information. This responsibility should also extend to consultants appointed by the Board. \*

\* Please refer also to our response on the adoption of a communication protocol within recommendation 3.1

1.4 Building It Right First Time

The theme of this recommendation follows on from **recommendation 1.3,** promotingpublic bodies to invest in the provision of informed independent scrutiny of their projects when they are being designed and constructed, rather than relying on contractual remedies seeking remediation or compensation if they are not built correctly. The recommendation goes further (than 1.3) by stating that savings through cutting investment in quality assurance is inevitably a false economy.

Similar to recommendation 1.3, the level of independent scrutiny suggested by this recommendation is undefined (certainly within the text of this recommendation), but in terms of addressing the wider intent of Cole it is recognised that Boards need to be investing more time and resource in the provision of informed independent scrutiny during the design stage and the construction stage.

**What is the Current process/procedures within Boards?**

Our review found that Boards are predominantly using their own technical staff to review and sign off contractor’s design drawings, and are using a combination of Technical Supervisors (TS’s) and Clerk of Works (COW’s) to inspect build quality during construction. So in that respect we concluded that there is a degree of informed scrutiny currently taking place?

However, at the same time our findings are leading us towards the conclusion that the current processes aren’t providing Boards with the failsafe position being promoted by Cole’s recommendation, for instance:

* Boards reported that their TS’s were sometimes unsure if the design (presented to them) was fully complete, or still in development. Another issue they reported was lack of clarity on what further development was being undertaken on drawings that they had approved subject to compliance with comments – we believe adoption of the Design Review (see recommendation 1.1) and quality management responses (see recommendation 1.5) would significantly improve this situation
* We looked at whether or not TS’s had the full range of competencies to fully review conformity of design against the Boards specifications, particularly in complex building engineering designs? Our conclusion to this was unfortunately inconclusive, partly because we considered that competencies range from individual to individual - however we do promote the adoption of a competency matrix (see 1.1) would help bridge any gaps that currently exists
* Under the current procurements (Hub or Frameworks) we identified there is no formal contractual right for COW’s to visit site – that said, we did find numerous instances of informal access arrangements successfully being agreed with contractors.

Finally, we looked at whether or not Board’s using their internal staff met the intent of Cole’s call for independent scrutiny. Apart from the fact we considered Cole’s actual recommendation to be fairly inconclusive on this point, we concluded that the adoption of our 3 stage diligence review, (see 1.2) would in any case provide a higher degree of independent scrutiny than is currently carried out, which is measured and appropriate given the balancing challenges discussed in 1.1 (performance of external consultants).

**Our Response to What Improvements are still Required by Boards**

**The Appointed Project Lead should:-**

* Ensure there is a contractual mechanism for the Boards own/external appointed COW to have unfettered access to visit site. This can be achieved by preparing a delegation of duty from the appropriate lead (who does have these same contractual access rights).
* Procure a client hosted photo record portal, to compliment the work of TS’s and COW’s so that the Board has a historical record of the build as it progresses – the outcome of the tender should be confirmed to the Project, and the costs included within the business case.

1.5 Quality of Design and Construction

The first part of this recommendation suggests there should be a more informed approach amongst public bodies as to how best practice methodologies aimed at optimising the quality of design and construction can be incorporated into current procurements. The recommendation is non-specific about the approach to be adopted, but does suggest such a process should start with the brief, in particular highlighting the methodology to be used for clearly defining quality objectives and for ensuring the achievement of quality objectives is met in both design and construction phase terms.

**What is the Current Process/Procedures within Boards?**

Throughout our review of current processes, we found instances where project teams had specified robust quality and performance criteria (within their tenders requirements), but found they had no process in place to hold those same designers and contractors to account (for what they had said/committed to during their interview/or had described in detail within their quality management plans) – some examples we highlight below had a material impact on quality outcomes:

* To monitor and check the quality of subcontractor workmanship
* To coordinate the design and construction of the M&E installations with building structure/fabric
* To self-snag and rectify all defects before the Boards TS/COW’s final snagging pre handover
* To complete of all tests and technical commissioning before handover, i.e. handing over “as fitted” drawings.

**Our Response to What Improvements are still Required by Boards**

**The NoSF&CPG should:-**

* Developa regional performance methodology for standardising and establishing clear quality objectives in both design and construction phases – this methodology should be clearly set out in briefing documents

**The Appointed Project Lead should:-**

* Review the contractor’s quality management plan to ensure that it addresses the quality objectives outlined in the NoSF&PG developed performance methodology – a contractor should not be appointed without validation that the quality plan meets the performance methodology, and the outcome of the validation should be confirmed to the Project Board

* Ensure the contractor identifies a dedicated quality manager, who demonstrates the necessary capacity, capability, and clear responsibility for co-ordinating all aspects of design and construction – this person should have no other role involvement in the project.
* Ensure there is a process for the named quality manager to confirm (by issue of a report at each progress/update meeting) that all aspects of the design and construction are being coordinated.
* Carry out benchmark quality compliance reviews during the design and construction stages, to review the contractor’s actual performance against the quality management plan – the outcome to be reported periodically to the Project Board.

1. **Independent Certifier recommendations**

2.1 Nature of Inspection

The main theme for this section of the Cole report refers to an Independent Certifier (IC) role principally related to an older style of PFI/PPP procurement. The nearest modern equivalent is SFT’s Hub/NPD initiative incorporating a role for an Independent Tester (IT).

**What is the Current Process/Procedures within Boards?**

In terms of addressing Cole’s recommendations, we concluded that it’s unlikely any north Board will procure another facility using the Hub/NPD revenue procurement initiative, because of new accounting treatment.

So, a first glance of Cole’s recommendations (on using an IC) would appear to have no direct relevance to our review, unless of course another revenue type procurement is found to replace Hub/NPD.

However, during the course of our review we also considered ways and means of achieving Cole’s intent for independent scrutiny, and concluded that one way could be to engage an independent advisor (through the HFS Framework) to carry out a scope of service akin to that traditionally carried out during construction by the IC/IT, accepting of course that the appointment would need to be tailored to suit a completely different procurement objective such as acting solely on behalf of the Board.

**Our Response to What Improvements are still Required by Boards**

**The NoSF&CPG should:-**

* Develop a regional template scope of service for the appointment of an independent reviewer, through the HFS Framework which specifically considers a standard approach for the following:-
  + The reporting lines (appreciating there is no contractual role for an independent reviewer in current procurements)
  + The amount of inspections to be carried out
  + Option for a Board to use their own COW’s, for instance the consultant specifically validating compliance with specification, and the COW reporting on build quality.
  + The process for attending tests, reviewing and/or signing off test certificates, completion criteria and the like
  + Provision for an enhanced review of known high risk/specialist installations such as water, ventilation, fire compartment
  + The level of Professional Indemnity (PI) insurance required
  + Option to include a collateral warranty to ensure a greater level of coverage in respect of latent claims

2.2 Professional Indemnity Insurance and Liability Period

The main theme for this section of the Cole report refers to the need for those elements relating to the appointment of Independent Certifiers to be assessed properly and appropriately to reflect the significance of their certification process and the degree of reliance placed upon it.

The consideration of a response to 2.2 is included within 2.1 above

2.3 Method of Appointment of Independent Certifier

The main theme for this section of the Cole report refers to the need to ensure that Independent Certifiers are truly independent and for there to be proper advertising and appointment through the public procurement process and not through recommendation by the private sector party.

The consideration of a response to 2.3 is included within 2.1 above

2.4 Fees of Independent Certifier

The main theme for this section of the Cole report refers to a requirement for the fees to reflect the level of service required rather than the service being restricted to fit a predetermined budget.

The consideration of a response to 2.4 is included within 2.1 above

2.5 Independent Inspection of the works

The main theme for this section of the Cole report refers to a requirement for only appropriately qualified and experienced individuals to be appointed to undertake ongoing inspections of the construction of buildings and for there to be a recognition that the traditional role of resident architects, engineers and Clerks of Works needs to be provided for by alternative arrangements under new procurement forms.

The consideration of a response to 2.5 is included within 2.1 above

**3. Client’s Relationship with the Design Team**

3.1 Scope of service of design team members

Under current models of procurement, Cole considers that the relationship between the client and key members of the design team has tended to become at least one or more steps removed, with the level of involvement of the designers (either with clients or on site) now frequently delegated to contractors to determine.

Cole further recommends that public bodies should review their current procurements to ensure they (the procurements) are providing the optimal level of communication between clients and key members of the design team, so that clients are able to benefit from their (the designers) professional advice and expertise. Cole also suggests that clients may wish to consider how more direct communication could be incorporated into existing procurements

**What is the Current Process/Procedures within Boards?**

Consideration of communication was given significant prominence throughout the whole of our review.

More specifically in terms of the above recommendation, we recognised that both procurement vehicles (Hub & Frameworks) have the stated objective to promote collaboration between the partners, so in that respect we concluded that there is a mechanism for Boards to have access to members of the contractors design team, should they wish, and hence meets some aspects of Cole’s intent.

However, building on our earlier response (in 1.3), we have also identified instances where project staff are interpreting direct access too literally, in other words their meetings with contractors/designers to discuss aspects of the emerging design could be interpreted as blurring the lines of responsibility, particularly if that design subsequently failed and the contractor is wishing to find mitigations against their responsibility.

Not helping the above situation, our review also uncovered numerous instances of poor quality and/or incomplete drawings having been issued for Board approval, which had necessitated technical staff reverting to the contractor/designers to discuss the design proposal in more detail – we considered the consequences of these actions and identified the potential risk that Boards ending up “doing the designers or contractors co-ordination job for them”, again compromising the lines of design responsibility – the group felt that adoption of our response (in 1.5) to hold the contractor to account for quality management plans and co-ordinating services would help mitigate these situations.

Our review also found little evidence that Boards had fully considered the consequences of their project staff meeting designers, particularly in the absence of the main contractor being present, and we found no processes in place to ensure discussions were being recorded.

Finally, reflecting on Cole’s other statements about retro-fitting more direct communication into existing contracts, we concluded that this was a matter for the Framework procurers (HFS and SFT) to determine, and as such was out with the scope of our/the NOSF&CPG influence to determine.

**Our Response to What Improvements are Still Required by Boards**

**The Appointed Project Lead should:-**

* Ensure that a protocol is formally established between the Board and the contractor to record the extent of communication permitted between the Board’s project team and any designers engaged directly by the contractor.
* Ensure that the communication protocol also covers a requirement for all meetings to be recorded, and that the contractor will only act on instructions formally issued by letter/agreed actions recorded at meetings

**The NoSF&CPG should:-**

* Make formal contact with HFS & SFT to inquire as to how they (HFS &SFT) intend to incorporate more direct communication into their existing procurements

3.2 Role of design teams in inspecting works on site

Following on from recommendation 3.1, Cole goes further by suggesting public sector clients should require submitted tenders (by Contractors) to include a full description of the proposed scope of the design team services, including any proposed role in the inspection of works on site. This in addition should be important factors in the assessment of tenders.

**What is the Current Process/Procedures within Boards?**

Our review found that whilst Boards are involved in the selection of a principal contractor, they are considerably less so when it comes to the design team members that a contractor proposes to use.

That said, we looked at the current frameworks (SFT and HFS) concluded that they did provide some comfort by way of the fact that all design team members needed to pre-qualify (to get on the supply chain and hence had faced some level of scrutiny). We also took a view that contractors were unlikely to use designers within the HFS Framework, who the Board would find unacceptable (i.e. past performance) because the design team forms part of that overall interview evaluation. Unfortunately we couldn’t form a view that the SFT Hub process had had similar safeguards, due to its lack of perceived input from the Board on design team evaluation.

Finally, whilst we identified ways that that Boards could overcome limitations in designer selection, of greater concern to us, and one recognised by Cole in recommendation 3.1 is the tendency of the design team to be less visible during the construction phase, leaving the contractor to be the sole interface with our PM’s – our review found no evidence to support that the current procurement processes mitigates this tendency, and we would go further by suggesting that KSR’s concentrating on benchmark design fees has in part contributed towards this situation. We believe this suggested view is backed up by Cole’s assertions in 1.4 that savings through cutting investment in quality assurance is inevitably a false economy, and Boards may need to accept paying higher design fees going forward.

**Our Response to What Improvements are still Required by Boards**

**The Appointed Project Lead should:-**

* In terms of drafting invitations to tender, include a requirement for contractors to confirm:-
  + The full scope of the design team’s services, including details of the amount of hours included for each respective member of the design team during design and during construction
  + The elements that are proposed to be contractor designed versus elements designed by the design team members
  + That the design team will attend all technical/design meetings with the Board.
  + That each design team member will (by issue of a report at each construction progress/update meeting) validate that they have visited the site and are satisfied that what the contractor has installed meets their design intent/design drawings

3.3 Notification of Issues to Public Sector Client

This recommendation principally states that, where possible there should be a mandatory provision built into contracts to ensure that any professional design team member who has made the contractor aware of issues that could impact on the subsequent safety of the building or functionality of the building, and that contractor has failed to take the appropriate action (as advised by the team member), can inform the public sector client of the advice provided to the contractor.

**What is the Current Process/Procedures within Boards?**

In considering the above recommendation, our findings concluded that the currently used procurements (HFS Frameworks & Hub) are both based on a standard form of contract/agreement that has little leeway to be amended by public sector users, so drafting of such a mandatory clause requiring designers to inform the Board of advice they have provided to the Board could only be incorporated by the respective administers the scheme contracts.

**Our Response to What Improvements are still Required by Boards**

**The NoSF&CPG should:-**

* Make formal contact with HFS & SFT to inquire how they (HFS &SFT) intend to incorporate a mandatory provision built into their contracts to ensure that any professional design team member who has made the contractor aware of issues that could impact on the subsequent safety of the building or functionality of the building, and that contractor has failed to take the appropriate action (as advised by the team member), can inform the Board of the advice provided to the contractor.

**4. Information Sharing Recommendations**

4.1 Production, retention and updating of information

This recommendation relates to the management of construction, operational and related documents, specifically making the point that public bodies should establish a mandatory protocol for receipt and processing of all such project information within their own organisation.

**What is the Current Process/Procedures within Boards?**

Our review of Boards current arrangements around managing documents (receipt, processing and filing) unfortunately identified more examples of poor practice than good or exemplary practice.

Some examples of recurring themes we identified:-

* + No common electronic repository system
  + Where Boards have their own central servers, lack of protocols to file key documents or information separately from general project correspondence
  + Lack of common project files – we identified instances where departments and individuals (within the same department) had their own personal filing system, often with little or no access to other members of the project team or other departments
  + Difficulty establishing “who” within each of the Boards actually had overall responsibility for updating/managing whatever systems were currently in place

Our investigations also identified that all Boards were relying on the contractor’s own collaborative document management systems to approve drawings and/or transfer communications between parties during the contract. We consider this current approach to be fraught with issues for Boards, and highlight some of our concerns we identified as part of our review:-

* The quality of contractors own systems is variable across a range of projects
* Boards have advised that their staff need to be trained every time a new or unfamiliar system is used by a contractor. It’s also been reported that it’s not uncommon for TS’s/COW’s to be working with 2 or 3 different systems at any one time
* Boards are only given access rights to areas of the system that the contractor is willing to provide it with
* Problems accessing historical information i.e. post construction, particularly if it’s been in relation to a dispute.

**Our Response to What Improvements are still Required by Boards**

**The NoSF&CPG should:-**

* Ensure that all North Boards are linked into HFS’s national initiative to procure a Common Data Environment solution for use in relation to all major construction projects being developed across NHS Scotland.
* If HFS do not procure a common data system, then investigate options around North Boards procuring common (the same supplier) electronic document management/project repository systems.
* Identify opportunities to share document management resources, for instance by identifying a lead for the whole of the region to develop standard filing protocols.

**The Appointed Project Lead should:-**

* Make it explicitly clear in future tenders, that they (contractors/advisors) will be mandated to use the Board’s host document management system: and that purchase of licenses for contractor’s use should be identified as part of their preliminaries project cost.

4.2 Provision of as-built drawings

Cole commences the recommendation by outlining the process of producing “as- built” drawings, recognising the practical limitations placed on design team members who may not always be aware of the detail of contractor/supply chain site changes to their issued drawings and/or specifications. The recommendation also identifies that contractors should be required to put in place appropriate arrangements for recording all changes and for providing “construction issue” drawings and as-built sets of documents to the client as a certified and permanent record of the project.

**What is the Current Process/Procedures within Boards?**

Our review found many instances of contractors submitting poor quality and late “as built drawings”, with more examples found of Boards having to chase contractors for the necessary information rather than contractors actually complying with contract provisions – the group felt this was extremely disappointing, particularly as these projects are delivered though HFS/SFT Frameworks, and those respective administrators should be doing more to drive improvement of the situation.

Even when drawings were eventually provided, Boards reported that the information was often incorrect, which had resulted in them reverting to the contractor to have them corrected – see also our comments about doing the contractors job for them in recommendation 3.1.

The comments from Cole redesign team members may not always being aware of the detail of the main contractor/other supply chain site changes to their issued drawings and/or specifications was also recognised by the group – we believe that adoption of our recommendations on the requirement for the quality manager to co-ordinate services and review drawings **(see our responses in 1.5)** would mitigate this.

**Our response to what improvements are still required by Boards**

**The Appointed Project lead** **should**:-

* Ensure that the Board’s construction requirements includes a requirement for contractors to provide accurate construction and operational documentation. We suggest this requirement includes as a minimum:-
  + A clause to mandate the contractor to record and advise the Board of all subsequent changes to construction drawings
  + Specify performance methodologies to measure the quality of the final “as-built” drawings
  + The completion criteria to include a reference that all “as-built” documentation is to be certified by the contractor, and the relevant designer/manufacturer
* Report any failure by a contractor to provide “as fitted drawings” in compliance with the above requirements to the administering Framework body viz HFS & SFT and to the NoSF&CPG

**The NoSF&CPG** **should**:-

* + Discuss options with HFS/SFT to temporarily suspended contractors from tender invitations, as a result of failing to comply with providing “as fitted drawings”, until such time as they rectify the default.

4.3 Provision of As-Built Drawings to Building Control – N/A

This recommendation is for Building Control to establish, possibly as a requirement of building control completion certificate, which we consider to be out with the scope of our review.

4.4 On-site Accessibility of Design Information – N/A

This recommendation relates to bricklayers and cavity walls, which we consider to be out with the scope of our review.

4.5 Communication of design intent

This recommendation specifically relates to communication of structural engineers detailing the full extent of their design intent in relation to the structural integrity of masonry panels, in particular to those reviewing the documentation and those actually constructing.

**What is the Current Process/Procedures within Boards?**

Our review found that Boards were including high level references (within their specifications) intimating structural engineers to communicate design intent to those involved with reviewing documentation and constructing the buildings, however the group felt that these references needed to be specific to adhere to Cole’s intent.

We also felt that this recommendation was equally relevant to other disciplines, such as the architect, so that those responsible for reviewing documents and those responsible for construction understand the design intent being proposed within documents that they review – we believe that adoption of our response in 1.2 re’ design review would also assist reviewers in interpreting the full of design intent being proposed.

**Our response to what improvements are still required by Boards**

**The Appointed Project lead should:-**

* Ensure, as part of the Board’s document review (refer to 1.2), that the specification provides specific requirement to communicate design intent for all design disciplines.
* Ensure, as part of the design review (refer to 1.2), that the contractor has evidenced their design intent, behind all key elements of design has been communicated.

4.6 Structural amendments to be approved – N/A

This recommendation specifically relates to structural drawings approved on building warrants, which we consider to be out with the scope of our review.

4.7 Access to original construction information

This recommendation specifically relates to Edinburgh City Council and the lack of contractual rights to access design, construction and survey information relevant to that specific contract. The issue of access to original construction information is similarly recognisable throughout a host of past projects.

Cole goes further by stating that contract arrangements should incorporate clearly the right for public sector clients to be provided by members of current and original project supply chains with copies of all design and technical documentation in relation to their projects.

Cole also highlights that it may require payment of a relevant fee to secure copies of all design and technical information.

**What is the Current Process/Procedures within Boards?**

In the course of reviewing current procurements (Hub & Frameworks) we recognised their stated aims to promote transparency & collaborative working between the parties, therefore we concluded that Boards had a mechanism to access all the relevant design, construction and survey information that they required.

However in practice we have previously identified issues Boards have had accessing historical information, such as construction drawings held on contractor’s collaborative systems due to size etc. – **see our response in 4.1**. Concerning, we were also advised of one instance where a Board had been prevented from obtaining project information (they had tried to access) because the contractor had taken a position that they were not contractually required to share.

We also considered Cole’s suggested rights to access historical information, and in the course of review identified a number of challenges in following through with this recommendation, not least:-

* The practicalities of trying to retrofit a right into previously signed contracts, bearing in mind it’s SFT & HFS who have developed those contracts, and they have previously cautioned Boards about making changes to the standard form template agreements.
* The scale of the undertaking to identify “what project information is missing”, bearing in mind the group has already identified challenges around capacity gaps – see recommendation 1.1
* How far should Boards revert to reviewing historical information i.e. projects completed in last 5 years, or 10 years?
* The cost of securing historical information is unknown, but the group estimate it could be significant – the group also questioned whether this is the best use of constrained budgets, or whether money might be better directed towards investing in new processes that would improve project outcomes

The group were also unclear as to “who” (the individual Board, or NoSF&CPG collectively on behalf of north Boards) we might direct a recommendation to identify the extent of historical information retained on past projects, or more specifically what information was missing?

**Our response to What Improvements are still Required by Boards**

In response to future projects, please refer to our earlier response in 4.1 recommending Boards invest in a common data environment solution, and to mitigate issues over access to current design documents our recommendations around Board’s hosting the collaborative system.

**5. Construction Recommendations – N/A**

5.1 Building of leaves of cavity walls separately

5.2 Design of wall ties

5.3 Design and use of head restraints

5.4 Payment of bricklayers

5.5 Contractor quality assurance processes

5.6 Inspection and sign off of cavity walls

5.7 Bricklaying profession

5.8 Fire-stopping and fire-proofing

The above recommendations (5.1 – 5.8) are for the construction industry generally, which we consider to be out with the scope of our review.

**6. Training and Recruitment Recommendations**

6.1 Provision of training and recruitment

The main theme from this recommendation is the identified shortage of bricklayers, Clerk of Works and Building Standards Inspectors and a requirement for the relevant authorities to undertake a review of the current level of training in these areas.

**What is the Current Process/Procedures within Boards?**

Our initial view of this recommendation considered that it was directly targeted at Boards.

However by taking a wider perspective of Cole’s principal intent, we believe that Boards are facing their own similar challenges around shortages of suitably competent professional and technical staffs, such as PM’s, COW’s, TS’s etc, either by way of training and development, and/or an inability to recruit suitably qualified staff who do not require a high degree of development by the Board.

**Our Response to What Improvements are still Required by Boards**

Please refer to **recommendation 1.1 -** NoSF&CPG actions to develop a competency matrix), to review the level and provision of training previously/currently being undertaken by each key project team discipline, and to identify opportunities to share training and development

6.2 Apprenticeships – N/A

This recommendation is related to bricklayers generally, which we consider is out with the scope of our review

**7. Building Standards Recommendations – N/A**

7.1 Scope of building standards inspection and certification

7.2 Sanctions for non-compliance with Building Standards

7.3 Temporary Occupancy Certificates

7.4 Prioritisation of risk factors

7.5 Building Standards Department of the City of Edinburgh Council

All of the above recommendations (7.1 – 7.5) are for the construction industry and local authorities generally, which we consider is out with the scope of our review.

**8. Information Sharing Recommendations.**

8.1 Sharing of information on matters of structural concern

Whilst this recommendation principally relates to matters of structural concern, there is sufficiently enough other content to suggest that Boards should be sharing full details of any investigations undertaken into defective design or construction on any of their existing buildings with other Boards

**What is the Current Process/Procedures within Boards?**

The group identified there are a number of expert groups in existence, such the Regional Strategic Facilities Group (RSFG), the Scottish Property Advisory Group (SPAG), and the Scottish Technical Advisory Group (SETAG) that provide forums for regional/national matters to be discussed.

We therefore conclude there are sufficient processes in place to either formally, or informally disseminate such information (as addressed by Cole), although our findings have identified that feedback from some attendees (at these groups) can be variable, which is more a weakness in communication (of those attending) rather than the processes themselves.

**Our Response to What Improvements are still Required by Boards**

**The NoSF&CPG** **should**:-

* Ensure that key issues relating to defective design or construction affecting proposed or existing buildings, that have been captured as part of localised lessons learned processes are reported to (with appropriate confidentiality safeguards) an appropriate national level, such as SPAG and if appropriate escalated to RSFG.

**9. Recommendations for the City of Edinburgh Council – N/A**

9.1 Minor Changes within PPP1 schools

9.2 Parent’s and school’s review of management of closure

9.3 Fire-stopping

All of the above recommendations (9.1 –9.3) are for the City of Edinburgh City Council, which we consider is out with the scope of our review.

**10. Further Investigations**

10.1 Other Clients of Recently Constructed Buildings

The first part of this recommendation related to Edinburgh Council undertaking a proportionate and structured risk based approach to investigating their wider estate for evidence of wall tie embedment and the provision of appropriate restraints to masonry panels – in that respect there is no response offered here.

However the second part of the recommendation calls on other clients of recently constructed buildings, of a similar scale and form of construction to PPP1 schools to adopt a risk-based approach and carry out their own investigations for similar defects (wall ties).

**What is the Current Process/Procedures within Boards?**

Feedback from our review confirms that Boards have carried out extensive reviews of their estate, adopting a similar proportionate and risk based approach to identify & review all brick/block constructed buildings stretching back to 1990, combining a mixture of visual and intrusive investigation methods.

The feedback also confirms that Boards are continuing the principal of this recommendation by following other nationally reported building failures and applying the same proportionate and risk based approaches to inspect their wider estate for evidence of other highlighted and subsequently known defects. For example, following the Grenfell fire external wall insulation (EWI) panels were inspected in applicable buildings having these systems installed.

**Our Response to What Improvements are still Required by Boards**

**The NoSF&CPG should**:-

* Arrange an inaugural north region workshop and invite key staff (who have recently been involved in projects/investigations and the like) to share their experiences/lessons learned. The workshop should also include representation from HFS (those principally in architectural & engineering roles) to ensure any relevant information is formally documented and shared nationally.
* On becoming aware of a reported building failure, ensure that all north Boards are taking a consistent, proportionate and risk based approach to review the appropriate parts of their estate. In particular, this should extend to the NoSF&CPG collating responses to Scottish Government, HFS etc. on behalf of north region Boards

**NEXT STEPS**

We conclude our review of the issues highlighted in the Edinburgh Schools report by identifying improvements that we still believe are required by Boards to adhere to, or even improve upon Professor Cole’s principal intent.

These improvements are summarised in **Appendix A**, identified as actions for each of the key stakeholders to enact.

The next stage of our review envisages that the NoSF&CPG will endorse our recommendations, either in full or amended form so that consideration can start be given towards extending them across north Boards, to form a standard baseline of quality outcomes that will contribute towards improving the way that health buildings are designed and constructed.

Our review recognises that a number of our recommendations require further development, for instance preparing standard template documents. In this regard we suggest the NoSF&CPG may wish to form sub-group(s), not just to build momentum on our initial work, but also to report on the continuing monitoring of quality compliance and contractor performance.

Finally, it’s worth highlighting that our findings are written at a point in time. Since commencing our review, a national programme of review “Scottish Centre for Reducing Infection Risks in the Healthcare Built Environment” has emerged, who may bring forward mandatory standards and guidance for Boards to follow that could supersede some of our own responses to Cole’s recommendations. Similarly, the recommendations contained within this review will need to be reviewed in light of any recommendations that are made by the Scottish Hospitals Inquiry, once the Inquiry Report has been issued <https://hospitalsinquiry.scot/>

Should this be the case, then the NoSF&CPG will need to provide clarity to north Boards on what recommendations are to be revised, or no longer applicable, as part of its regional collaborative role.

**GLOSSARY OF ABBREVIATIONS USED**

|  |  |
| --- | --- |
| CLO | Central Legal Office |
| COW | Clerk of Works |
| EWI | External wall insulation |
| Frameworks | Where “Frameworks” is referred to this means the HFS Framework |
| HFS | Health Facilities Scotland |
| HLIP | High Level Information Pack |
| Hub | Where “Hub” Is referred to this means the SFT Hub Initiative |
| IC | Independent Certifier |
| IT | Independent Tester |
| KSR | Key Stage Review |
| NoSF&CPG | North of Scotland Facilities and Capital Planning Group |
| PI | Professional Indemnity insurance |
| PM | Project Manager |
| RSFG | Regional Strategic Facilities Group |
| SETAG | Scottish Technical Advisory Group |
| SFT | Scottish Futures Trust |
| SLWG | Short Life Working Group |
| SPAG | Scottish Property Advisory Group |
| SRO | Senior Responsible Officer |
| ToR | Terms of reference |
| TS | Technical Supervisor |

**APPENDIX A – RESPONSES SUMMARY**

The following identified improvements, for key stakeholders to action are copied from the main body of the short life working group response to Cole’s Edinburgh Schools report.

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| **Identified Improvements for the appointed Project Lead to action** | | **Cole**  **ref** |
| **1** | Undertake a risk based required project resource assessment to ensure the project is sufficiently resourced (be that by means of internal or external resource) during all stages of the project; confirm outcome to Project Board. | **1.1** |
| **2** | Include within the business case a requisite allowance for all resource requirements identified in the required project resource assessment. | **1.1** |
| **3** | Assess the capacity and competence of the project team, relative to the required roles at all stages of the project; the assessment being made by reference to the required project resource assessment & the competency matrix (see actions for NoSF&CPG). The assessment must be confirmed by the Project Board. | **1.1** |
| **4** | Review CV’s of external consultants for their suitability, based on experience relevant to the commission, and confirm outcome to the Project Board. | **1.1** |
| **5** | Commission an independent diligence review of the Board’s briefing documents, termed the “document review”, and confirm the outcome to the Project Board. The document review should validate:   * Conformity with the most up-to-date guidance and regulations * The expected quality of design & construction requirements * Completion criteria requirements have been sufficiently specified to provide a benchmark of performance acceptability * A risk based assessment of acceptable of derogations * Read across constancy between all documents | **1.2** |
| **6** | Lead a peer review workshop of the contractors design proposals, termed the “design review”. The workshop should include a wide representation of technical and health infection expertise, and representation from another Health Board/HFS to reinforce governance. | **1.2** |
| **7** | On receipt of final design proposals, arrange a formal presentation of the design to the Project Board. This should provide the Project Board with a final opportunity to confirm any required changes. | **1.2** |
| **8** | Prior to approval of the contractors final design proposals, seek a formal assurance from the contractor that the design complies with the Board’s specified requirements, subject to any accepted derogations by the Board. This assurance should be reported to the Project Board. | **1.2** |
| **9** | During construction, termed “construction monitoring”, coordinate the Board’s technical resources to ensure regular physical inspections are taking place. The Project Board should be provided with the following confirmations on a monthly basis:   * any changes/variations * assessment of the build quality * sample of photographic records taken in the preceding period * assessment on conformity with the Boards completion criteria requirements, culminating with a final report prior to completion | **1.2** |

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| **10** | Brief members of the project team, who have a direct interface with contractors and designers to ensure they understand the limitations on checking and reviewing design information. This responsibility should also extend to consultants appointed by the Board. | **1.3** |
| **11** | Ensure there is a contractual mechanism for the Boards own/external appointed COW to have unfettered access to visit site. This can be achieved by preparing a delegation of duty from the appropriate lead (who does have these same contractual access rights). | **1.4** |
| **12** | Procure a client hosted photo record portal, to compliment the work of TS’s and COW’s so that the Board has a historical record of the build as it progresses – the outcome of the tender should be confirmed to the Project, and the costs included within the business case. | **1.4** |
| **13** | Review the contractor’s quality management plan to ensure that it addresses the quality objectives outlined in the NoSF&PG developed performance methodology – a contractor should not be appointed without validation that the quality plan meets the performance methodology, and the outcome of the validation should be confirmed to the Project Board | **1.5** |
| **14** | Ensure the contractor identifies a dedicated quality manager, who demonstrates the necessary capacity, and clear responsibility for co-ordinating all aspects of design and construction – this person should have no other role involvement in the project. | **1.5** |
| **15** | Ensure there is a process for the named quality manager to confirm (by issue of a report at each progress/update meeting) that all aspects of the design and construction are being coordinated. | **1.5** |
| **16** | Carry out benchmark quality compliance reviews during the design and construction stages, to review the contractor’s actual performance against the quality management plan – the outcome to be reported periodically to the Project Board. | **1.5** |
| **17** | Ensure that a protocol is formally established between the Board and the contractor to record the extent of communication permitted between the Board’s project team and any designers engaged directly by the contractor. | **3.1** |
| **18** | Ensure that the communication protocol also covers a requirement for all meetings to be recorded, and that the contractor will only act on instructions formally issued by letter/agreed actions recorded at meetings | **3.1** |
| **19** | In terms of drafting invitations to tender, include a requirement for contractors to confirm:   * The full scope of the design team’s services, including details of the amount of hours included for each respective member of the design team during design and during construction * The elements that are proposed to be contractor designed versus elements designed by the design team members * That the design team will attend all technical/design meetings with the Board. * That each design team member will (by issue of a report at each construction progress/update meeting) validate that they have visited the site and are satisfied that what the contractor has installed meets their design intent/design drawings | **3.2** |
| **20** | Make it explicitly clear in future tenders, that they (contractors/advisors) will be mandated to use the Board’s host document management system: and that purchase of licenses for contractor’s use should be identified as part of their preliminaries project cost. | **4.1** |
| **21** | Ensure that the Board’s construction requirements includes a requirement for contractors to provide accurate construction and operational documentation. We suggest this requirement includes as a minimum;   * A clause to mandate the contractor to record and advise the Board of all subsequent changes to construction drawings * Specify performance methodologies to measure the quality of the final “as-built” drawings * The completion criteria to include a reference that all “as-built” documentation is to be certified by the contractor, and the relevant designer/manufacturer | **4.2** |
| **22** | Report any failure by a contractor to provide “as fitted drawings” in compliance with the above requirements to the administering Framework body viz HFS & SFT and to the NoSF&CPG | **4.2** |
| **23** | Ensure, as part of the Board’s document review (refer to 1.2), that the specification provides specific requirement to communicate design intent for all design disciplines. | **4.5** |
| **24** | Ensure, as part of the design review (refer to 1.2), that the contractor has evidenced their design intent, behind all key elements of design has been communicated. | **4.5** |

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| **Identified Improvements for the North of Scotland Facilities and Capital Planning Group to action** | | **Cole**  **ref** |
| **25** | Develop a competency matrix detailing the training/accreditation/qualifications/experience required to carry out key project roles, such as:   * Project Director * Project Manager * Service Planning Lead * M&E Technical Supervisor * Building fabric Technical Supervisor * M&E Clerk of Works * Building fabric Clerk of Works * Health infection lead * Commissioning lead * Clinical lead   In the first instance consideration should be given to the education pathways for Capital Planning, Property Services and Asset Management disciplines that has recently been developed through Health Facilities Scotland (HFS) – for more information refer to link <http://communications.nes.digital/EANDFpathways_OCT2019/index.html> | **1.1** |
| **26** | Develop a regional project resources matrix and agree opportunities to share suitably experienced professional and technical staff to support projects (in the region). Consideration should be given to the key project development stages of:   * Inception/briefing documents * Design development and review designs * Construction and quality compliance * Soft landings/commissioning | **1.1** |
| **27** | Identify region wide training and/or seconded development opportunities to assist in-house staff in developing towards the minimum competencies identified (in the competency matrix) | **1.1** |
| **28** | Request the respective HFS & SFT confirm what diligence they have carried out on the likelihood or implications of non-compliance the standard contact terms and conditions contained within their frameworks. | **1.2** |
| **29** | If HFS/SFT are unable to provide satisfactory evidence of undertaking diligence in respect of the risks of non-compliance of (their) standard contract terms, then NoSF&CPG should take an informed risk based approach, for example by considering if KSR’s provide sufficient provisions for checking compliance of the delivered product, and hence determine the risk is low. | **1.2** |
| **30** | Develop a mandatory design review checklist – the checklist must be signed off by each of the key department/specialist leads who have contributed towards the Board’s design review, so that the Project Board is further assured on the level and coverage of scrutiny/diligence that has been applied by the Board at this crucial stage. | **1.2** |
| **31** | Developa regional performance methodology for standardising and establishing clear quality objectives in both design and construction phases – this methodology should be clearly set out in briefing documents | **1.5** |
| **32** | Develop a regional template scope of service for the appointment of an independent reviewer, through the HFS Framework which specifically considers a standard approach for the following:   * The reporting lines (appreciating there is no contractual role for an independent reviewer in current procurements) * The amount of inspections to be carried out * Option for a Board to use their own COW’s, for instance the consultant specifically validating compliance with specification, and the COW reporting on build quality. * The process for attending tests, reviewing and/or signing off test certificates, completion criteria and the like * Provision for an enhanced review of known high risk/specialist installations such as water, ventilation, fire compartment * The level of Professional Indemnity (PI) insurance required * Option to include a collateral warranty to ensure a greater level of coverage in respect of latent claims | **2.1** |
| **33** | Make formal contact with HFS & SFT to inquire as to how they (HFS &SFT) intend to incorporate more direct communication into their existing procurements. | **3.1** |
| **34** | Make formal contact with HFS & SFT to inquire how they (HFS & SFT) intend to incorporate a mandatory provision built into their contracts to ensure that any professional design team member who has made the contractor aware of issues that could impact on the subsequent safety of the building or functionality of the building, and that contractor has failed to take the appropriate action (as advised by the team member), can inform the Board of the advice provided to the contractor. | **3.3** |
| **35** | Ensure that all North Boards are linked into HFS’s national initiative to procure a Common Data Environment solution for use in relation to all major construction projects being developed across NHS Scotland. | **4.1** |
| **36** | If HFS do not procure a common data system, then investigate options around North Boards procuring common (the same supplier) electronic document management/project repository systems. | **4.1** |
| **37** | Identify opportunities to share document management resources, for instance by identifying a lead for the whole of the region to develop standard filing protocols. | **4.1** |
| **38** | Discuss options with HFS/SFT to temporarily suspended contractors from tender invitations, as a result of failing to comply with providing “as fitted drawings”, until such time as they rectify the default. | **4.2** |
| **39** | Ensure that key issues relating to defective design or construction affecting proposed or existing buildings, that have been captured as part of localised lessons learned processes are reported to (with appropriate confidentiality safeguards) an appropriate national level, such as the RSF group. | **8.1** |
| **40** | Arrange an inaugural north region workshop and invite key staff (who have recently been involved in projects/investigations and the like) to share their experiences/lessons learned. The workshop should also include representation from HFS (those principally in architectural & engineering roles) to ensure any relevant information is formally documented and shared nationally. | **10** |
| **41** | On becoming aware of a reported building failure, ensure that all north Boards are taking a consistent, proportionate and risk based approach to review the appropriate parts of their estate. In particular, this should extend to the NoSF&CPG collating responses to Scottish Government, HFS etc. on behalf of north region Boards | **10** |

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| **Identified Improvements for the accountable Project Board to action** | | **Cole**  **ref** |
| **42** | Agree the TOR, governance arrangements, programme and project aims & objectives, as promoted by the SRO. | **1.1** |
| **43** | Confirm the SRO’s recommendation for the Project Lead. | **1.1** |
| **44** | Approve the Project Lead’s required project resource assessment - a project that can’t meet any aspect of the minimum baseline assessment should not proceed without mitigations in place. | **1.1** |
| **45** | Sign off its acceptance of the contractor’s design proposals, subject to agreed schedule of outstanding/incomplete design development that has no material bearing on the approval, to allow the project to proceed to business case. A design that is not signed off by the Project Board should not proceed to final business case. | **1.2** |

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| **Identified Improvements for the Senior Responsible Officer to action** | | **Cole**  **ref** |
| **46** | Prepare Terms of Reference (ToR), confirm the governance arrangements and the constituent members of the Project Board, giving due consideration to the value, complexity, and matters relevant to the projects objectives. | **1.1** |
| **47** | Assess the capacity and competence of the Project Lead, to carry out the role relative to all stages of the project; the assessment should be made by reference to experience, and the competency matrix (see actions for NoSF&CPG). | **1.1** |