

**Title of meeting:** Cabinet Meeting

**Date of meeting:** 26<sup>th</sup> February 2019

**Subject:** Leamington House and Horatia House Next Steps

**Report by:** Director of Housing, Neighbourhood and Building Services

**Wards affected:** St Thomas Ward

**Key decision:** Yes

**Full Council decision:** No

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## **1. Purpose of report**

- 1.1. To report to Cabinet the results of the feasibility work to strengthen, clad and install sprinklers into Leamington House and Horatia House and the options for the next steps.

## **2. Recommendations**

- 2.1. That the Cabinet:
- 2.1.1 Notes the results of the feasibility work to strengthen, clad and install sprinklers into Leamington House and Horatia House
  - 2.1.2 Agrees that it is financially unviable to undertake the works to strengthen, clad and install sprinklers into Leamington House and Horatia House, and as a result
  - 2.1.3 Agrees that on completion of the permanent rehousing of all households from Leamington House and Horatia House, the two blocks will be removed from charge, decommissioned and secured.
  - 2.1.4 Gives delegated approval to the Director of Housing, Neighbourhood and Building Services authority to incur costs to carry out decommissioning works of Leamington House and Horatia House and secure both blocks.
  - 2.1.5 Agrees that there is an opportunity for the sites to be redeveloped to create affordable/social housing and regeneration in this area of the City and requests the Regeneration Directorate working with the Housing Directorate to provide a report to Cabinet with an options appraisal for the demolition of Leamington House and Horatia House and redevelopment of the sites in consultation with the local and wider Somers town community and stakeholders.

2.1.6 Notes the loss social housing units to the Housing Revenue Account and requests that the options appraisal for the development of the Leamington House and Horatia House sites includes the re-provision of a minimum of 272 social housing units to be held in the HRA.

### **3. Background**

- 3.1 Leamington House and Horatia House were constructed in 1965. All the blocks are Bison Large Panel System (LPS) construction, each block is 18 storeys high and consisting of a total of 136 No. flats. There are 8 No. flats per storey, there are no flats on the ground floor and there are two escape stairwells per block.
- 3.2 Leamington House and Horatia House each consist on every floor of of 2 No. one bedroom flats, 2. No two bedroom flats and 4 No. three bedroom flats.
- 3.3 Throughout the evaluation process the City Council has worked in partnership with key agencies for example Hampshire Fire and Rescue service and engaged appropriate qualified independent experts including the British Research Establishment.

#### Cladding Removal

- 3.4 The only Council owned high rise blocks of flats identified with Aluminium Composite Material (ACM) cladding were Horatia House and Leamington House, following the Grenfell tragedy work commenced on 23 June 2017 to remove all cladding to both blocks. The cladding at Horatia House was completely removed by 1 December 2017 whilst the cladding at Leamington House was completely removed by 19 January 2018.

#### Feasibility to replace the Cladding

- 3.5 The original intention had been to remove the ACM cladding and replace with an appropriate alternative. On 7 August 2017 ECD Architects were appointed to undertake a feasibility study to investigate options for recladding the blocks.
- 3.6 As part of the feasibility study they appointed Wilde Carter Clack, who are a market leader within the UK with regard to refurbishment and cladding of high rise building, to undertake a structural survey of the blocks to assess the structural adequacy and performance of both blocks including the ability of the buildings to resist disproportionate collapse should they be subjected to an accidental loading arising from a 'severe' internal non-piped gas explosion with reference to the Building Research Establishment (BRE) published handbook for the structural assessment of LPS dwelling blocks 2012. The BRE were also commissioned separately to provide an independent assessment of the structural robustness of the blocks based on the structural survey data.
- 3.7 Additional measures were put into place to enable occupation whilst the cladding was removed and the feasibility was undertaken, these included

- 24/7 fire watch current in place has been briefed by the Council
  - 100% property survey undertaken to check property fire doors, compartmentation and identify any potential resident fire risks
- 3.8 The feasibility study focused on the recladding options and the costs of undertaking the work. The report included the structural work recommended to address the issues identified from the structural surveys. ECD Architects incorporated the structural report conclusions into the final feasibility study report that was issued to the Council on 26 March 2018 and published on the Council website on 2 July 2018. These can be found at [www.portsmouth.gov.uk/ext/housing/leamington-house-and-horatia-house](http://www.portsmouth.gov.uk/ext/housing/leamington-house-and-horatia-house)
- 3.9 The conclusion of the feasibility reports were that extensive major structural works within the properties were deemed necessary including strengthening of internal walls and floors throughout the buildings that can only be undertaken when both blocks are empty.
- 3.10 The existing measures to mitigate the risks associated with a non-piped gas explosion were enhanced where appropriate and included:
- Existing 24/7 fire watch was briefed and the service enhanced to operate a concierge arrangement managing both entrances to each block
  - No piped gas to either block, communal heating and hot water from separate communal boiler off site
  - Residents not permitted portable gas appliances as part of tenancy agreement
  - Resident information published regarding not bringing portable gas appliances into building (posters and letters)
  - Contractors instructed to not to undertake 'hot works'
  - 100% property survey undertaken to check property fire doors, compartmentation and identify any potential resident fire risks

### Re-housing

- 3.11 A re-housing team was formed to manage the permanent rehousing of 252 occupied flats within both blocks. Residents were informed that they will be permanently rehoused on 5 June 2018 and rehousing commenced.
- 3.12 Households received a Statutory Home Loss Payment alongside additional support with removals as appropriate. All offers of alternative housing have been made on the basis of a permanent move, albeit that the residents could express a desire to return to the tower blocks depending on the decision for the future of the blocks.
- 3.13 There was one leaseholder in Leamington House and the Council bought back the lease in November 2018.

- 3.14 As of the 4<sup>th</sup> February 2018, 50 households remain in both blocks. Of the 50 households, 29 have accepted an offer (in the process of moving), 8 have been offered (viewing properties) and 13 are awaiting an offer.
- 3.15 Upon completion of the rehousing of all households from Leamington House and Horatia House, the two blocks will be removed from charge, decommissioned and secured. Decommissioning will include, decommissioning plant (lifts and boilers), physical security (hoarding site etc.), security monitoring (staff and cameras), temporary fire detection (advice required) and, further surveys prior to demolition (asbestos and structural).

### Retaining the Blocks

- 3.16 Mace Cost Consultancy Ltd were engaged on 11 July 2018 to prepare a report detailing an outline budget estimate and project programme to refurbish both blocks including enablement works, structural repairs, building envelope works (cladding and window replacement), internal refurbishment, mechanical and electrical services including sprinklers and lift renewal, external works and all professional fees. The report would also highlight the financial and commercial risks associated with the project.
- 3.17 Wilde Carter Clack were also instructed to progress the recommendations from the March 2018 reports and develop the structural designs to enable cost estimates for the remedial strengthening work to the structure that is required to both blocks. They provided a summary report (Appendices 1) together with typical CAD design drawings, a structural specification suitable for cost estimating purposes, general method statements, work schedules and construction notes.
- 3.18 The summary report confirms that the extent of the structural design required to strengthen both blocks is extensive and depending on the specific defects identified in each block requires replacing of the floor screed, strengthening floor slabs, replacing external flank wall concrete outer panels to be tied to the existing structure and strengthening internal walls by fixing metal plates.
- 3.19 The summary report notes the buildings will remain Large Panel System (LPS) construction after the strengthening works and will still not comply with the requirements of the current building regulations, therefore specific risks as a result of this type of construction will remain. Piped gas will still not be permitted in the buildings and residents will need to continue to be managed to prohibit the use of bottled LPG or similar volatile bottled gas which could cause an explosion.
- 3.20 Mace Cost Consultancy Ltd submitted their final report 23 January 2019 (Appendices 2). The report concluded that the outline budget estimate forecasts for the refurbishment of both blocks is a total order of cost range of circa £81M - £86M including professional fees and contingency provisions but excluding inflation, financial impact of Brexit and the Council or Third Party Costs.

- 3.21 The report confirms that if the enabling works including further investigations, design and procurement, commenced once the blocks are empty, it is estimated that the works on site for this project could commence during 2021 and could be programmed to be completed by early of 2025 (approx. 42 months).
- 3.22 The report notes that the nature and complexity of the works together with the associated risks are likely to result in the capital cost for these works to exceed this estimate. The project constraints would almost certainly see the Council retain a significant accountability for cost and programme risk throughout the project lifecycle. Furthermore market testing through interaction with regional and national contractors has indicated that there is very low appetite to undertake works of this nature. The report concludes that the complexity of the works proposed together with the condition of the existing structure, that it is unlikely that the Council will be able to secure the appropriate warranties for the work and it will be commercially unviable.
- 3.23 The conclusions arising from both the Wilde Carter-Clack and Mace Cost Consultancy Ltd reports demonstrate the difficulty in practically strengthening the blocks. The estimated costs to carry out the full package of works are high with likelihood to increase and there is an associated commercial and financial risk for the Council.

#### Selling the blocks

- 3.24 Given the structural issues with Leamington House and Horatia House as outlined in the published reports (see 3.7) it is anticipated that there would be little interest in the blocks as they are, given the remedial works required it is unlikely to be commercially viable as an investment asset so officers do not believe that this is a realistic option. Specialist advice would need to be sought do determine a meaningful valuation.
- 3.25 Once the rehousing is complete the Council could demolish the blocks and sell the land sites to a third party. The Value of the land is likely to be worth £2m once the Council have incurred the estimated £5m to £6m in demolition costs. See 3.29 for the demolition estimated cost reference.
- 3.26 If the Council sold the land as is, it is anticipated that the value of the land will be a negative equivalent to the cost of demolition, therefore a negative £3m to £4m.

#### Option to demolish and redevelop the sites

- 3.27 Preliminary work undertaken by CGL Architects demonstrates that the development of Horatia House and Leamington House sites could provide 441 new dwellings on the site (Appendices 3).
- 3.28 Extensive consultation would need to take place with the wider Somers town Community and stakeholders to inform the options appraisal and then to take these options forward
- 3.29 The demolition of the blocks would require the engagement of specialists to determine a robust methodology that will enable the safe and effective

deconstruction/dismantling of the LPS structure. The Mace Cost Consultancy Ltd final report (Appendices 2) provides a preliminary indication of the demolition budget cost estimate.

#### **4. Reasons for recommendations**

- 4.1. To retain Leamington House and Horatia House requires strengthening works and cladding alongside a desire to install sprinkler systems. The feasibility reports and financial appraisal demonstrate that this option is practically difficult and financial unviable.
- 4.2. Selling the blocks to a third party does not deliver a return to the council
- 4.3. Demolishing the blocks and selling the land to a third party does not deliver a return to the council
- 4.4. The sites provide the council with an opportunity to explore the development and regeneration of the sites with a view to creating affordable/social housing. Preliminary work demonstrates the potential for the development of the Leamington House and Horatia House sites.
- 4.5. Consulting the community and stakeholders will be essential to inform the options appraisal and to take any of the options forward

#### **5. Equality impact assessment**

- 5.1. The Preliminary Equality Impact Assessment is contained in Appendices 4. A full impact assessment is not required for this report.

#### **6. Legal implications**

- 6.1 The report outlines the options with respect to the relevant sites. When the decision is made with respect to most preferred option it will be at that point the legal consequences will crystallise. This said the ultimate decision will most likely be a key decision.

#### **7. Director of Finance's comments**

- 7.1 As a result of the issues at Leamington and Horatio house the Council will see a fall in its annual rental income of £1.1m per annum. This is partially offset by an assumed loss of expense associated with maintenance of around £400,000, meaning a net loss of revenue of around £700,000 per annum. The works to strengthen these blocks will mean that the Council are unlikely to be able to start to let these properties until 2024 meaning there could be a potential loss of income of between £3.5m to £5.5m.

- 7.2 The Council additionally has already incurred £1.3m when it initially removed the cladding from the building in the wake of the Grenfell tragedy and the Council have applied to the Governments ACM Cladding Remediation fund to reclaim this money.
- 7.3 Additionally the Council have incurred nearly £1.6m in Statutory home loss payments to former residents of Leamington and Horatia House, as well as other costs associated with the re-housing these residents, and the opportunity cost of using the Council's housing stock to home these 252 households.
- 7.4 Following work carried out by Housing, Neighbourhood and Building Services looking at the cost of strengthening, re-cladding and fitting sprinklers in these block the cost has been estimated at £81m - £86m, this equates to a cost per unit of between £298,000 to £317,000. At this cost if the Council rented these properties at Social Rent, or even affordable rent they would not be able to meet the cost of borrowing associated with this and would be in breach of the prudential code as they would not be able to prove that this was affordable, sustainable or prudent.
- 7.5 Once modelled assuming a re-provision of the same tenure mix, socially rented the net present value of the refurbishment is between £16m to £20m losses once modelled over a 30 year period.
- 7.6 It has also been confirmed that even with this work carried out the super structure only has a remaining useful life of 30 years and therefore this level of investment cannot be justified from a financial point of view.

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Signed by:

Director of Housing, Neighbourhood and Building Services

**Appendices:**

Appendix 1 - Wilde Carter-Clack Report upon required structural works and future life (Summary Report)

Appendix 2 - Mace Cost Consultancy Ltd Final Report Refurbishment & Structural Remedial Proposals

Appendix 3 - Development Site

Appendix 4 - Preliminary EIA

The following documents disclose facts or matters, which have been relied upon to a material extent by the author in preparing this report:

Title of document	Location

The recommendation(s) set out above were approved/ approved as amended/ deferred/ rejected by

..... on .....

.....

Signed by:  
Leader of the Council





Horatia and Leamington

Report upon required structural works and future life.

Job No. 5305

January 2019

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## **1. Introduction**

Horatia and Leamington Houses are Large Panel System buildings which were constructed in the 1960's.

Following the removal of the over-cladding panels on the outside of the building, Portsmouth City Council requested that an appraisal of the buildings be carried out prior to replacing the cladding. Detailed intrusive investigations were therefore undertaken and samples of the concrete were taken to determine the current condition and the likely future life of the structure of the building.

It was determined that strengthening works would be necessary in order to extend the future life and make the building compliant with current recommendations for the strength of LPS buildings.

Documents which set out the structural works required to Horatia House and Leamington House were issued in the last week of November and at the beginning of December.

The documents were provided in order to obtain a sensible estimate of the cost of the structural works necessary in repair, protection and strengthening of the buildings to meet with the recommendations set out in the Building Research Establishment for the Assessment of Large Panel System Building which was published in 2012.

## **2. Summary of the proposed strengthening works**

Horatia House

The works proposed for Horatia House are primarily limited to the flats which adjoin the flank walls and to the flank walls. There is some strengthening of certain walls at the top stories of the building.

The work to the slabs in these flank wall flats involves removing the existing concrete screed, which is on top of the precast structural slab, and replacing it with a new bonded reinforced concrete topping. This will increase the strength of the floor slab

On the outside of the flank walls, the existing outer concrete cladding panels will be removed to expose the inner concrete wall which is the structural load-bearing element. This flank wall is then strengthened and also tied to the slabs at each level by means of a steel framework which is erected against the outer face of the wall. This steel framework can then also be used to provide support for the new insulation and cladding on the flank wall elevations.

At upper levels, certain internal walls also need strengthening. This will be carried out by fixing metal plates to each face of the wall. These are then covered by a sheet of lining board.

Upon completion, the structural works will all be concealed.

The works proposed will strengthen the building so that it complies, by calculation, to the requirements set out in the Appraisal of LPS Buildings 2012 by the BRE. It will not however comply with the requirements of current Building Regulations.

Piped gas is not permitted in the building and future residents should be restricted from using bottled LPG or similar volatile bottled gases which could cause an explosion if released.

#### Leamington House

Leamington House has been found to have weaker concrete and therefore the structural strengthening works required are much more extensive.

All slabs within the building have to be extensively strengthened by removing, not only the existing screed, but also part of the precast slab. The existing slab is effectively used as a shutter for a new slab and beam construction and the concrete strength is provided by the new construction. Every one of the main slabs would be effectively re-cast so that adequate strength is assured.

The flank walls are strengthened by a steel frame in the same manner as Horatia House.

All the internal cross walls at every level are strengthened using plates bonded to each face which is then concealed by a lining sheet.

The new slab construction increases the weight of the building but it is considered that the foundations should be adequate to carry the increased load.

The works will strengthen the building so that it complies, by calculation; to the requirements set out in the Appraisal of LPS Buildings 2012 by the BRE. It will not however comply with the requirements of current Building Regulations.

Piped gas is not permitted and future residents should be restricted from using LPG or similar volatile gases.

### **3. Building Control**

The proposed works will be subject to Building Control approval and it is proposed that, following the budget costing exercise, a meeting is held with Building Control to ensure that they are fully aware and in agreement with the proposals.

### **4. Pre-construction trials**

Detailed on site testing of the proposed strengthening works needs to be carried out prior to completion of the final design in order to confirm the assumptions made in the scheme design. This will allow refinement and confirmation of the construction method and therefore cost of the work which will be repeated at each floor level up the building.

The work will include testing the bond between the new and existing concrete and techniques for removing the existing screed without damaging the structure.

## **5. Tests and inspection**

Other investigations to be carried out prior to commencement include further concrete testing (the current testing was restricted by the availability of empty properties) and a structural inspection of every part of the building to ensure that there are no defects or other modifications which may inhibit or change the works. These checks will also confirm that all existing screeds are de-bonded as removal would be virtually impossible without significant damage to the existing slab if the insulation layer beneath the screed had been omitted.

## **6. Future Repairs**

The tests on the concrete which form the structural elements of the building indicated some elevated levels of chlorides within the concrete.

Chlorides in concrete can speed the rate of corrosion of the steel reinforcement which then causes damage to the concrete. This corrosion requires there to be regular repairs carried out as eventually the reinforcement could corrode so badly that it will be weakened.

Coatings and other techniques can be used to reduce the rate at which corrosion occurs and if the concrete is kept dry the process of corrosion is very slow.

It is considered, based on the test information obtained, that corrosion will only occur in very local areas over the next 20 years and will not be detrimental to the structural integrity of the building. However, it is much harder to be certain of the behaviour over a 40 year time period and repairs may be necessary in order to maintain the structure.

## **7. Programme**

It is not considered that the works can be carried out with any residents in occupation of any flats within the building.

The structural work specified requires a strict programme and sequence of operations in order to safely carry out the works. The works involve significant cutting into or close to structurally critical elements.

The sequence will be to strengthen each level working from the bottom storey upwards so that temporary propping required to support each floor has adequate support from the slab below. The works must ensure that no loss of support or restraint is allowed at any level as this may cause disproportionate collapse of the un-strengthened structure above.

The works will be carried out by hand using light percussive tools and continuous clearance will be required to ensure that there is no build-up of spoil which could overload the slabs. No machines or heavy mechanical plant will be allowed in the building.

The bonding of the new elements to the existing construction requires clean surfaces and therefore conditions not usually found on a construction site. There will need to be

extensive vacuuming and sheeting of areas to ensure that these clean surfaces can be achieved.

No LPG or solvents will be permitted in the building during demolition and strip out works or during the new construction.

## **8. Risk**

The construction and financial risk of carrying out complex strengthening work to a 50-year-old LPS building is significantly greater than that involved in new build construction or normal building refurbishment. The work will be difficult and slow as it is all carried out by hand.

Physical risks include:

Unidentified defects in the building.

Difficulty in removing the existing screeds especially if any are bonded to the slab

Damage to the existing slab during screed removal

Structural cracking or movement uncovered or created during the works.

Difficulty in removing the Reema flank wall cladding panels

Failure of the new topping to adequately bond with the existing slab

Construction vibration causing damage to building elements or dry-pack packing under walls

Financial and programme risks include:

Work sequencing extending the programme

Difficulty in finding a contractor or specialist sub-contractors

Risk of delay/project cancellation due to construction difficulty or further building defects

Future risk

Building is only strengthened to Appraisal of LPS buildings Handbook BRE 2012 and not compliant with current Building Regulations.

Continuing risk and gas management to prevent an explosive or similar event which is higher than the special, reduced level permitted by design to Appraisal of LPS buildings Handbook BRE 2012 which may therefore cause disproportionate collapse. The report is based upon limited testing of the structure in empty flats and communal areas. Further testing and investigation may find other or further defects which may alter the conclusions reached or make execution of the works impractical. Extensive investigation of the buildings is recommended before any contract works are instructed.

**Appendix 2**

Mace Cost Consultancy Ltd Final Report

## **Outline Budget Estimate**

### **Leamington & Horatia House - Refurbishment & Structural Remedial Proposals**

for

### **Portsmouth City Council**

Rev: 1      Date: 23rd January 2019

Project Nr: 35340  
Prepared by: Onesai Ndoro  
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**Document Issue Sheet**

<b>Rev Nr.</b>	<b>Document</b>	<b>Issue Date</b>	<b>Parties Sent To</b>	<b>Prepared By</b>	<b>Checked By</b>	<b>Reviewed By</b>
1	Outline Budget Estimate: Leamington & Horatia House - Refurbishment & Structural Remedial Proposals	23.01.19	Steve Groves	Onesai Ndoro / Oliver North	Sam Veck	Oliver North

Authorised by	
Date	23.01.19



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## 0.0 Introduction

- 0.1 The Outline Budget Estimate currently forecasts a total order of cost range of circa £81M - £86M including professional fees and contingency provisions but excluding VAT, Inflation and Portsmouth City Council (henceforth PCC) or Third Party Costs.
- 0.2 The information provided herein is based on a desktop undertaking by Mace following the receipt of the Wilde Carter Clack structural proposals issued on 27th November 2018 and 10th December 2018 outlined in Section 3 of this document. This Outline Budget Estimate seeks to provide an indicative cost and programme assessment of the proposals for means of the budgeting of construction costs only.
- 0.3 The basis of this Outline Budget Estimate can be found in Section 3,4,5,6 and 7 of this document. This includes a list of Assumptions, Exclusions & Risks. Please note the Exclusions to these figures.
- 0.4 The industry appetite for work of this nature and complexity, associated risk and public profile remains low. This has been validated following our regional and national supply chain interface. This poses a significant risk to the viability of the scheme commercially and in regards to programme and quality. As such, it is our opinion that the capital cost for these works is likely to exceed this estimate in order for PCC to secure a Principal Contractor appointment. Moreover, the project constraints would almost certainly see PCC retain a significant accountability for cost and programme risk throughout the project lifecycle.
- 0.5 The proposed structural solution generated by Wilde Carter Clack, whilst may be structurally viable, in our opinion is commercially unviable given the potential inability to construct the drawn proposals. Furthermore, given the nature and condition of the existing structure and proposed scope of works, it is our opinion that PCC would be unlikely to secure the appropriate warranties as desired for works of this nature and level of capital expenditure. In summary, it is our recommendation that deconstruction and new build option be implemented in lieu of the proposed refurbishment, which will likely represent a better value alternative to PCC.
- 0.6 The costs are a budget estimate of costs assuming procurement through a competitive single stage traditional procurement process for the Enablement Works, and a competitive two stage design and build tendering process as proposed by Portsmouth City Council for the Structural Repairs & Refurbishment works (henceforth 'Main Works'). Note, inflation and uncertainty pertaining to the impact of Brexit remain a risk to the project and is currently excluded. Construction indices and data indicates a potential circa 24% increase in construction cost to mid-point of the proposed construction programme (Q2, 2023). This could be in the region of circa £15m and represent an addition to all costs shown herein.

**0.0 Introduction (cont'd).**

0.7 Should PCC wish to continue further investigation into this option, we would highly recommend the following immediate actions;

- Further structural assessment, survey, design and modelling be carried out to validate the proposals currently tabled as referenced in Section 3 of this report.
- A full intrusive asbestos survey.
- A full condition survey of the MEP installations.
- Below ground investigations
- Trial works to determine methodology for proposed slab removal, external envelope fixing, foundation works etc.

It should be noted that due to the structural condition of the building the full extent of required surveys and investigations cannot be fully undertaken until the construction works have commenced.

0.8 The execution of the proposed works will require the buildings to be fully decanted and vacated. No persons can be in occupation in any form during the execution of any construction works or related activities. This includes the undertaking of surveys, testing, strip-out, preparatory works and pre-construction activities.

0.9 Following the completion of the enablement works undertaking and subsequent surveys, should the decision be made not to undertake the proposed main works or should it be found to be unviable, the costs associated therewith are not deemed wholly abortive as in our opinion a vast extent would be required to enable safe and effective deconstruction of the structures. Moreover, should a deconstruction option be investigated we would recommend supply chain engagement in the first instance to determine a robust methodology and associated costs, given the building characteristics and site constraints. At this stage we would anticipate a budget of £5m - £6m for these works subject to confirmation of scope, methodology and timing of proposed works.



**1.0 Executive Summary - Commercial Update**

1.1 The table below identifies a summary of the Outline Budget Costs. The Total Construction Cost includes adjustment for Main Contractors Preliminaries and On Costs. The Total Order of Cost includes all adjustments for professional fees, contingency but excludes adjustment for inflation.

	<b>Order of Cost Estimate (£)</b>
Leamington & Horatia Building Clearance & Enablement Works	1,680,000
Leamington & Horatia Structural Repairs & Refurbishment	60,200,000
<b>Total Construction Cost</b>	<b>61,880,000</b>
Professional Fees	10,940,000
Contingency	7,300,000
Inflation	Excluded
<b>Total Order of Cost</b>	<b>80,120,000</b>
<b>Say</b>	<b>81,000,000</b>
<b>Cost Range (£)</b>	<b>£81m-£86m</b>

**Note:**

- Inflation is currently excluded. Industry indices and data indicates a potential circa 24% increase in construction cost to mid-point of the proposed construction programme (Q2, 2023). This could be in the region of circa £15m and represent an addition to all costs shown herein. The impact of Brexit also remains subject to determination which is excluded.



## 2.0 Executive Summary - Programme Update

2.1 The table below identifies a summary of the outline estimated programme dates. The overall programme is forecast at circa 51 months. This equates to a forecast programme for Building Clearance and Enablement Works of 9 months and the Main Works of 42 months.

	<b>Building Clearance &amp; Enablement Works Programme</b>
Forecast Commencement	2Q/19
Forecast Duration	9 months
Forecast Completion	1Q/20
	<b>Structural Repairs &amp; Refurbishment</b>
Forecast Commencement	3Q/21
Forecast Duration	42 months
Forecast Completion	1Q/25

The above programme is subject to validation of proposed works methodology and sequencing with the appointed design team and Principal Contractor.

## 2.0 Executive Summary - Programme Update (Cont'd)

2.2 The key factors influencing the programme timescales are mainly due to the following;

- Screenshot reinforcement requirements to Horatia, and additional proposed hollow core slab reinforcement requirements to Leamington. The proposed floor by floor phasing methodology, driven by building structural constraints, generates an extended and inefficient programme duration due to works sequencing. This is a significant programme and cost risk and represent a critical path activity.
- Proposed requirement for false façade exoskeleton and associated groundwork's and connections to existing building. This is a significant undertaking and represents a significant programme and cost risk.

2.3 We would advise the following next steps to further investigate and validate the proposed durations;

- Seek expert advice on sequencing and construction timelines from specialist supply chain partners pertaining to key critical path structural activities following intrusive survey outputs.
- In addition to validating these timeframes and providing more information around sequencing, the proposal would need to be market tested with a suitably qualified Principal Contractor.
- Efficiencies can be further investigated to enable Leamington & Horatia to run concurrently but this would require further detailed investigation, survey outputs and supply chain interface.

### 3.0 Information Used

#### 3.1 Information Used

##### Leamington House

- Wilde Carter Clack - Typical Tower Floor Plan - DWG No.S.101 Rev P1	Dec-18
- Wilde Carter Clack - Typical Residential Flat Floor Plan - DWG No.S.102 Rev P1	Dec-18
- Wilde Carter Clack - Ground Floor RC Beam Layout - DWG No.S.103 Rev P1	Dec-18
- Wilde Carter Clack - Typical Cross Wall Layout Plan - DWG No.S.104 Rev P1	Dec-18
- Wilde Carter Clack - Typical Flank Wall Elevation - DWG No.S.105 Rev P1	Dec-18
- Wilde Carter Clack - Sections Sheet 1 - DWG No. S.110 Rev P1	Dec-18
- Wilde Carter Clack - Sections Sheet 2 - DWG No. S.111 Rev P1	Dec-18
- Wilde Carter Clack - Sections Sheet 3 - DWG No. S.112 Rev P1	Dec-18
- Wilde Carter Clack - Sections Sheet 4 - DWG No. S.113 Rev P1	Dec-18
- Wilde Carter Clack - Details Sheet 1 - DWG No. S.115 Rev P1	Dec-18
- Wilde Carter Clack - Elevation Sheet 1- DWG No. S.120 Rev P1	Dec-18
- Wilde Carter Clack - Structural Specification Rev P2	Dec-18

##### Horatia House

- Wilde Carter Clack - Typical Tower Floor Plan - DWG No.S.01 Rev P2	Nov-18
- Wilde Carter Clack - Typical Residential Flat Floor Plan - DWG No.S.02 Rev P2	Nov-18
- Wilde Carter Clack - Ground Floor RC Beam Layout - DWG No.S.03 Rev P1	Nov-18
- Wilde Carter Clack - Typical Cross Wall Layout Plan - DWG No.S.04 Rev P1	Nov-18
- Wilde Carter Clack - Typical Flank Wall Elevation - DWG No.S.05 Rev P2	Nov-18
- Wilde Carter Clack - Sections Sheet 1 - DWG No. S.10 Rev P1	Nov-18
- Wilde Carter Clack - Sections Sheet 2 - DWG No. S.11 Rev P1	Nov-18
- Wilde Carter Clack - Sections Sheet 3 - DWG No. S.12 Rev P1	Nov-18
- Wilde Carter Clack - Sections Sheet 4 - DWG No. S.13 Rev P1	Nov-18
- Wilde Carter Clack - Details Sheet 1 - DWG No. S.15 Rev P1	Nov-18
- Wilde Carter Clack - Elevation Sheet 1- DWG No. S.20 Rev P1	Nov-18
- Wilde Carter Clack - Structural Specification Rev P1	Nov-18

23rd January 2019

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#### 4.0 Assumptions

##### Generally

- Decanting of existing buildings including any temporary moves to be executed and funded by PCC in advance of any works commencement.
- The buildings are to be fully vacated and decanted. No persons can be in occupation in any form during the execution of any construction works or related activities. This includes the undertaking of surveys, testing, strip-out, preparatory works or pre construction activities in their entirety.
- The existing structure can accommodate the proposed works and associated loads etc. No allowance has been made for substructure and/or structure enhancement, reinforcement, alteration, or upgrading over and above proposals included herein.
- Programme of 51 months for both phases, with both buildings being executed concurrently.

##### Building Clearance & Enablement Works

- Start on Site Q2 2019 for period of 9 months
- Works to be executed as a single contract with no sectional completion with the appointed Demolition / Specialist Contractor
- Single Stage Procurement Approach with Pre Qualified Tenderers.
- Demolition / Specialist Contractor Appointment via applicable framework or equivalent mechanism to ensure delivery of best value.  
Main Contractors OH&P of 10%
- Nominal allowance for asbestos removal included at £300k - subject to validation via intrusive survey.
- All waste produced as result of enablement works undertakings will be extracted from the building via existing lifts - these will be in poor condition as a result on completion with no works proposed thereto until their replacement as part of the main works.
- No scaffold required or associated hoists etc. for the proposed enablement works.
- No requirement for making good on completion of works other than where required to leave works in a safe condition only. This includes external areas.
- No permanent hoarding or site setup will be installed and retained as part of enablement works for the main works undertakings.

##### Structural Repairs & Refurbishment

- Start of Site Q3 2021 for period of 42 months
- Works to be executed as a single contract with no sectional completion.
- Works to be executed to both buildings concurrently.
- Two Stage Design & Build Procurement Approach.
- Main Contractor Appointment via applicable framework or equivalent mechanism to ensure delivery of best value.
- Main Contractors OH&P of 10%



#### 4.0 Assumptions (cont'd)

- All proposed works to the external envelope can be undertaken from scaffolding and craneage. No provision for mast climbers, external lifts or haul cages.
- Existing screeds can be removed by hand only without detriment to the existing structure.
- Scaffold and associated hoists etc. are required for the proposed full duration of the project and all proposed works can be executed therefrom.
- Minor breaking out to existing foundation only to facilitate formation of new ground beam - no requirement for building underpinning.
- No requirement for upgrading below ground substructure to accommodate proposed building loads.
- Exoskeleton is formed to flank walls only with fixings at 500mm centres at each floor level.
- Provision of a tower crane required for each building for the duration of the project is required.
- Steel bracing to internal cross walls to be bolted to slab with resin anchors - no requirement for breaking out existing walls or bolting through entirety of slab.
- Slab adaptations (Leamington) have to be installed independently of the screed with curing allowed prior to screed installation.
- Building Overclad - assumed the existing cladding frame will be removed and a new frame installed, fixed to the existing external walls, to receive the new cladding. The new cladding will consist of frame, insulation and cladding which will be in the form of Rock panel FS-Extra or similar Class 0 system suitable for residential developments over 18m high.
- All windows to be removed in their entirety and replaced to match existing.
- No works to the roof are required as specified by PCC with exception of the over clad to the envelope parapet.
- MEP Infrastructure to be replaced, not retained and serviced.
- All MEP installations and appliances are electrically fed, with no gas provision servicing the building, with the exception of centralised boiler plant housed on the Ground Floor.
- Sprinkler coverage within the properties to include all areas, other than residential bathrooms or where the floor area is less than 5m<sup>2</sup>. No requirement for coverage to communal areas on residential floors. Assumed sprinkler tanks will be housed externally within the site demise (location tbc).
- External Works - full reinstatement of existing hard and soft landscaping to the respective plot areas to match existing proposals only. No allowance for wholesale re-design/re-profiling.
- Street Furniture - assumed requirement to replace with new to match existing proposals. No provision for wholesale re-design/re-profiling.

## 5.0 Exclusions

### Generally

- VAT
- Inflation
- Costs arising from a Section 106 and/or 278 agreements.
- Costs arising from Construction Infrastructure Levy.
- Monitoring costs; adjacent buildings, noise, dust, vibration, environmental audits, modelling, wind studies and the like.
- Local Authority charges, road closures, etc.
- Any necessary off-site reinforcement of services infrastructure including diversions, upgrades and wayleaves required by proposed works.
- Temporary accommodation
- Decanting of existing buildings including any temporary moves or requirements to facilitate early occupation.
- Effects of working condition restrictions, such as Environmental Management Plans.
- Renewable energy technologies as may be required by the Local Planning Authority (henceforth LPA).
- Works required to comply with Part 2B of the Building Regulations (Consequential Improvements)
- Portsmouth City Council, stakeholder and/or third party costs.
- Air rights, rights of light, boundary wall issues, over sailing rights/licences (or any third party compensation settlements).
- Revenue costs/occupation costs/running costs (outside the scope of the construction project).
- Removal, mitigation or treatment pertaining to contaminated materials. Nominal allowance included herein for asbestos removal subject to confirmation of requirement following intrusive survey.
- Ecological requirements and associated costs.
- BREEAM assessment costs and fees.
- Out of hours working - normal weekday working hours assumed.
- All works to the roof with the exception of the parapet over clad
- Legislative or regulatory policy changes including outputs following Grenfell Tower proceedings.
- Undertaking works whilst the building is occupied. Based on the scope it is assumed that no persons can be in occupation in any form during to execution of any construction related activities. This includes the undertaking of surveys, testing, strip-out, preparatory works or pre construction activities in the entirety.
- Substructure and/or structure enhancement, reinforcement, alterations to facilitate proposed works over and above provisions stated herein.

## 5.0 Exclusions (cont'd)

### Enablement Works

- Requirement for installation of scaffolding or building wrap during enablement works execution. All works to be managed and contained within envelope of the existing structure.
- Requirement for temporary works, propping, structural enhancements/repairs etc. to facilitate the proposed enablement works in advance of structural works being undertaken as part of the main works.
- Requirement for craneage or other form of lifting equipment

### Structural Repairs & Refurbishment

- Major Refurbishment/Remodel - no provision for enhancements to building envelope design/specification to address site location, constraints, stakeholders and adjacencies. Assumed like for like replacement with proposed alternative at base date of this report.
- Loose FF&E, IT and other tenant and/or client specialist items.
- Upgrading or enhancement of services infrastructure
- Reinstatement of central play park and associated works - by PCC.
- Additional cost associated with parallel working as the programme assumes sequential working floor by floor.
- Underpinning to existing structure to facilitate proposed works.
- Modifications to existing foundations to facilitate formation of new ground beam to receive flank wall steel frame over and above those included herein.
- Works to existing structural frame, slabs (other than screed) and external walls unless identified herein.

## 6.0 Risks

### 6.1 Generally

- Inflation & impact of Brexit.
- Legislative or regulatory policy changes including outputs following Grenfell Tower proceedings.
- Programme - subject to validation following confirmation of exacting project requirements.
- Building decant and resident relocation to meet programme requirements.
- The industry appetite for works of this nature and complexity, associated risk and public profile remains very low. This has been validated following our regional and national supply chain interface.
- Securing of a competitive tender from a competent Principal Contractor and supply chain.
- Buildability of Wilde Carter Clack drawn structural proposals - yet to be validated.
- Outputs of surveys and outputs not yet undertaken.
- Ability to undertake all required surveys and investigations prior to works commencement, this will likely see PCC retain significant risk accountability throughout the project lifecycle.
- Unavoidable damage caused in the execution of the proposed remedial works and associate cost and programme impact.
- Financial viability of proposal for Portsmouth City Council.

7.0 Area Schedule

Leamington House

Site footprint (m2): 3,600 External area (m2): 2,876

Functional Space (GIA)						Totals (m2)
Level	Dwelling Apartments	Communal	Offices	Plant	Other	
Ground	n/a	242	19	36	427	724
Level 01-18	10,098	2,040	n/a	136	n/a	12,274
Roof	n/a	n/a	n/a	n/a	n/a	0
<b>Totals (m2)</b>	10,098	2,282	19	172	427	12,998

Horatia House

Site footprint (m2): 4,900 External area (m2): 4,176

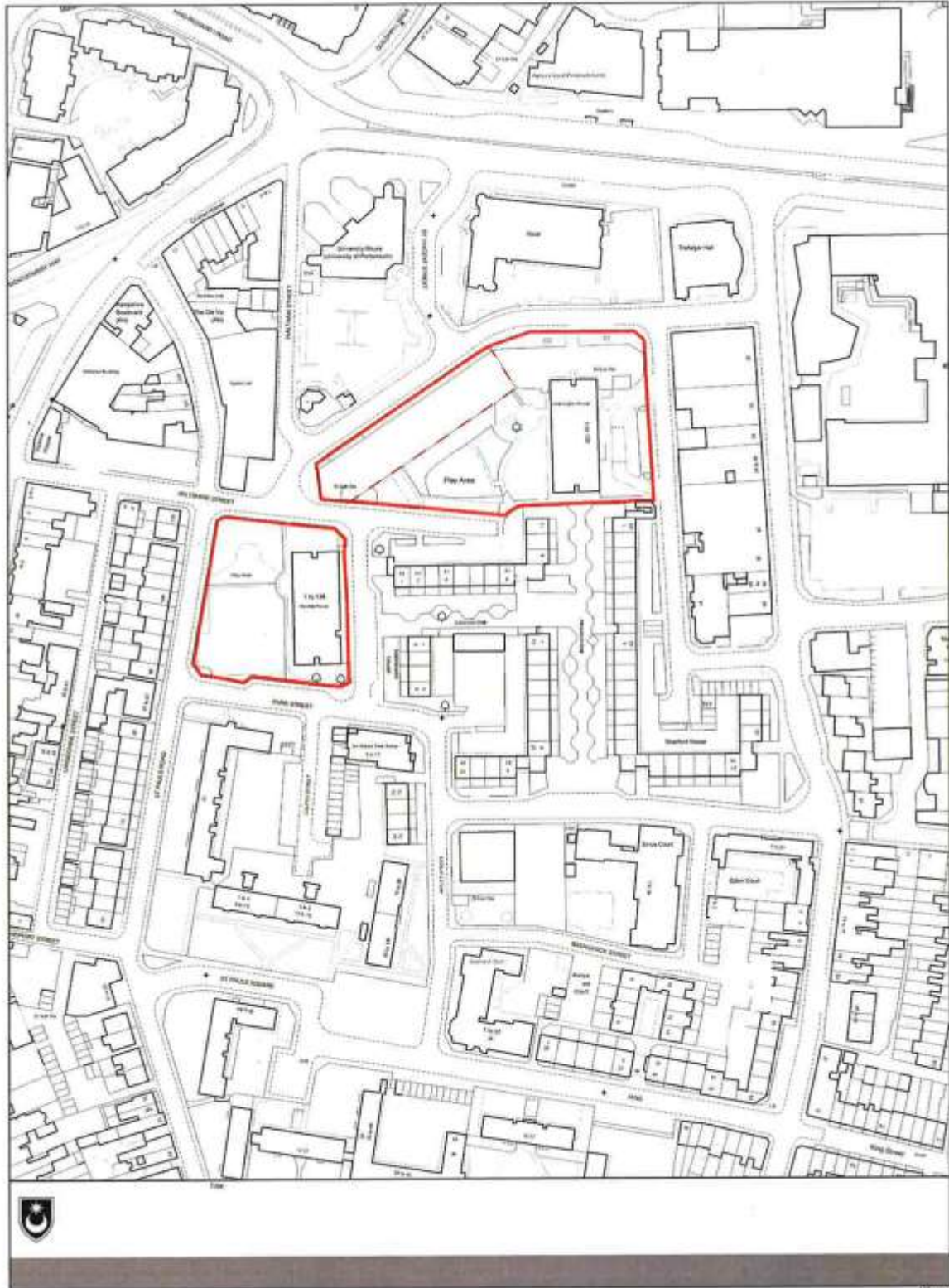
Functional Space (GIA)						Totals (m2)
Level	Dwelling Apartments	Communal	Offices	Plant	Other	
Ground	n/a	242	19	36	427	724
Level 01-18	10,098	2,040	n/a	136	n/a	12,274
Roof	n/a	n/a	n/a	n/a	n/a	0
<b>Totals (m2)</b>	10,098	2,282	19	172	427	12,998

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 Winchester  
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Port Phillip Council  
1062-076-014  
Leamington & Horatia House - Refurbishment & Structural Remedial Proposals  
23rd January 2019

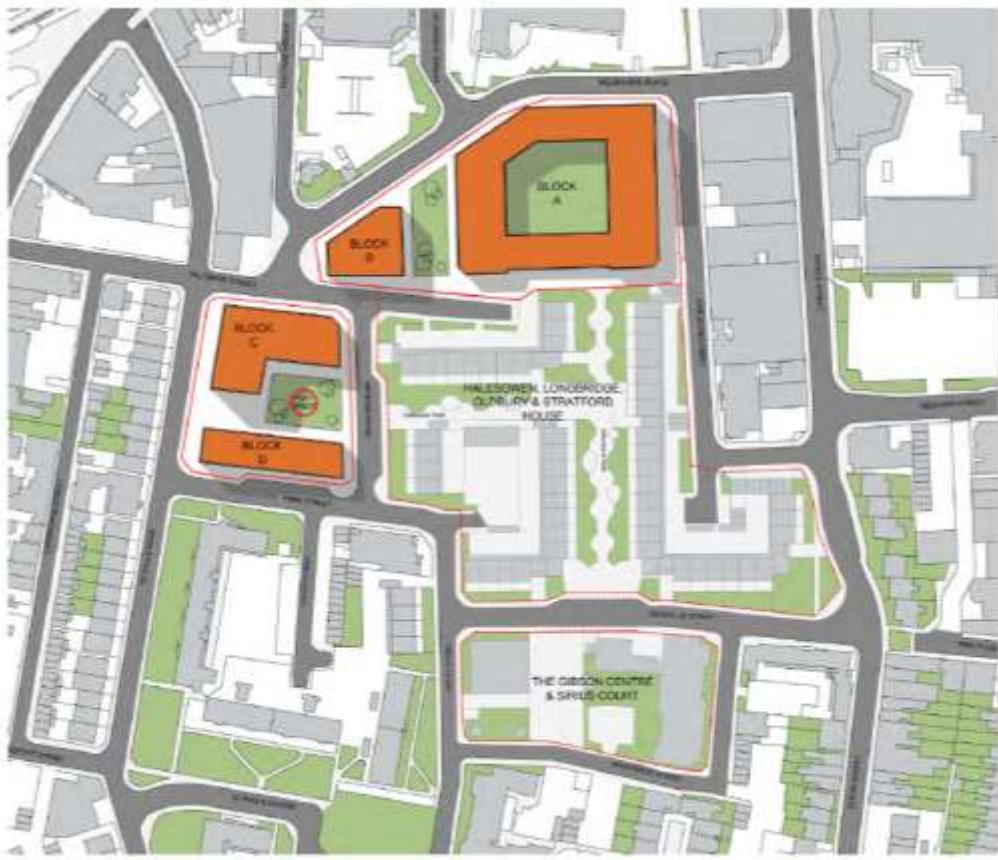
**Appendix 3**

**DEVELOPMENT SITE - HORATIA AND LEAMINGTON HOUSES**





## DEVELOP ON EXISTING SITE



- 441 new dwellings
- Minimum re-provision of 272 social housing units
- Cost of development £71m
- Cost per unit £161k



## Appendix 4

### Preliminary EIA

The banner features the NHS logo on the left and the Portsmouth City Council logo on the right. The text 'Portsmouth Clinical Commissioning Group' is positioned below the NHS logo. The main title 'Equality Impact Assessment' is centered in a large, bold font. Below the title, a purple bar contains the text 'Preliminary assessment form 2018'. At the bottom, a black bar contains the website addresses 'www.portsmouthccg.nhs.uk' and 'www.portsmouth.gov.uk'.

The preliminary impact assessment is a quick and easy screening process. It should:

- identify those policies, projects, services, functions or strategies which require a full EIA by looking at:
  - negative, positive or no impact on any of the equality groups
  - How are going to mitigate or remove any potential negative impacts
  - opportunity to promote equality for the equality groups
  - data / feedback
- prioritise if and when a full EIA should be completed
- justify reasons for why a full EIA is not going to be completed

Directorate:

Service, function:

Title of policy, service, function, project or strategy (new or old) :

Type of policy, service, function, project or strategy:

- Existing
- New / proposed
- Changed

**Q1 - What is the aim of your policy, service, function, project or strategy?**

To determine the next steps in the Leamington House and Horatia House project

**Q2 - Who is this policy, service, function, project or strategy going to benefit or have a detrimental effect on and how?**

The buildings are part of the Housing Revenue Account which is a ring fenced account and accordingly the financial position of this account is impacted. The impact has been noted in the HRA budgets going forward.

**Q3 - Thinking about each group below, does, or could the policy, service, function, project or strategy have a negative impact on members of the equality groups below?**

Group	Negative	Positive / no impact	Unclear
Age	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Disability	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Race	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sex	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Gender reassignment	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sexual orientation	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Religion or belief	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Pregnancy and maternity	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Marriage & civil partnership	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other excluded groups	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**Note:**Other excluded groups examples includes,Homeless, rough sleeper and unpaid carers. Many forms of exclusion are linked to financial disadvantage. How will this change affect people on low incomes, in financial crisis or living in areas of greater deprivation?

**If the answer is "negative" or "unclear" consider doing a full EIA**

**If there are any potential negative impacts on any of the protected characteristics, What have you put in place to mitigate or remove the negative impacts/barriers?**

N/A None

**Q4 - Does, or could the policy, service, function, project or strategy help to promote equality for members of the equality groups? e.g. A new service has been created for people with a disability to help them gain employment this would mean that this helps promote equality for the protected characteristic of disability only.**

Group	Yes	No	Unclear
Age	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Disability	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Race	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sex	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Gender reassignment	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sexual orientation	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Religion or belief	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Pregnancy or maternity	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Marriage & civil partnership	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other excluded groups	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

If the answer is "no" or "unclear" consider doing a full EIA

**Q5 - Do you have any feedback data from the equality groups that influences, affects or shapes this policy, service, function, project or strategy?**

Please add in the text boxes below what feedback / meetings you have attended for each specific protected characteristic

Group	Positive or negative feedback
Age	N/A - no specific data collected
Disability	N/A - no specific data collected
Race	N/A - no specific data collected
Sex	N/A - no specific data collected

Gender reassignment	N/A - no specific data collected
Sexual orientation	N/A - no specific data collected
Religion or belief	N/A - no specific data collected
Pregnancy and maternity	N/A - no specific data collected
Marriage & civil partnership	N/A - no specific data collected
Other excluded groups	N/A - no specific data collected

**Q6 - Using the assessments in questions 3, 4 and 5 should a full assessment be carried out on this policy, service, function or strategy?**

yes  No

**PCC staff-**If you have to complete a full EIA please contact the Equalities and diversity team if you require help Tel: 023 9283 4789 or email: [equalities@portsmouthcc.gov.uk](mailto:equalities@portsmouthcc.gov.uk)

**CCG staff-**If you have to complete a full EIA please email: [sehccg.equalityanddiveristy@nhs.net](mailto:sehccg.equalityanddiveristy@nhs.net) if you require help

**Q7 - How have you come to this decision? Summarise your findings and conclusion below**

The decision to rehouse the residents of Horatia and Leamington Houses has already been made and there is therefore no impact on the current residents of the buildings. This report does determine that it is not feasible to strengthen the blocks but does not make a decision as to the future of the blocks. That will be subject to further work to consider how best to develop the sites. The Regeneration Directorate will be asked by Cabinet to produce and options appraisal to demolish (upon completion of the rehousing of all households) the blocks and develop. The community will be consulted and a separate EIA as part of a development / regeneration work will be considered.

**Q8 - Who was involved in the EIA?**

Jo Bennett - Head of Business Growth, Relationships and Support

**This EIA has been approved by:** James Hill, Director of HNB

**Contact number:** 02392688606

**Date:** 6 February 2019

**PCC staff-**Please email a copy of your completed EIA to the Equality and diversity team. We will contact you with any comments or queries about your preliminary EIA.

Telephone: 023 9283 4789, Email: [equalities@portsmouthcc.gov.uk](mailto:equalities@portsmouthcc.gov.uk)

**CCG staff-**Please email a copy of your completed EIA to the Equality lead who will contact you with any comments or queries about your preliminary . Email: [sehccg.equalityanddiversity@nhs.net](mailto:sehccg.equalityanddiversity@nhs.net)