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PLANNING PERMISSION APPLICATION NUMBER 119374-FO-2018
LISTED BUILDING CONSENT APPLICATION NUMBER 119373-LO-2018
LISTED BUILDING CONSENT APPLICATION NUMBER 119375-LO-2018
MINDEL HOUSE AND 11 BLOOM STREET MANCHESTER
SECTION 73 / SECTION 19 MINOR MATERIAL AMENDMENT
SUPPLEMENTARY REPORT

**MINDEL HOUSE AND 11 BLOOM STREET, SECTION 73 / SECTION 19 MINOR MATERIAL AMENDMENT
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1.0	PREFACE <u>General</u> Mindel House and 11 Bloom Street together form the development known as Piccadilly Warehouse. The development involves the conversion of both buildings into a total of circa 80 residential apartments. This document provides proposed minor material amendment details under Section 73 of the Town and Country Planning Act 1990 in relation to Planning Permission reference Application Number 119374-FO-2018 and Section 19 of the Planning (Listed Buildings and Conservation Areas) Act 1990 in relation to Listed Building Consent Conditions reference Application Numbers 119373-LO-2018 and 119375-LO-2018. The report supplements the application to seek minor material amendments to the relevant condition(s). The proposed amendments are not deemed to be substantially different from the development which has been approved. Final details are confirmed within this document where it is feasible to do so following visual and intrusive survey and testing work carried out on behalf of the Applicant prior to development (construction) works commencing. Where a specification material, individual item or methodology is labelled as TBC (to be confirmed) this is because such final detail can only be confirmed once the development (construction) work has commenced on site. All works proposed are to ensure the building is protected for future generations to enjoy. Works will be undertaken by approved experienced heritage contractors in order to restore and preserve the historic building fabric. A criteria based approach has been used to determine the level of intervention required following visual and intrusive surveys carried out by a range of specialists. Specification and photographic schedule information accompany this report. All works to be undertaken in accordance with the guidance and provisions set out in BS 7913: 2013 Guide to the conservation of historic buildings.	

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	<u>Approved Drawings</u> The minor material amendment applies to the approved drawings associated with Condition 2) of the above referenced Planning Permission and Listed Building Consents, specifically listed as follows: <i>Mindel House</i> 061_157_MS D 4TH FLOOR PLAN 061_174_MS E 4TH FLOOR CEILING PLAN 061_159_MS E ROOF PLAN 061_205_MS C SECTION A-A 061_206_MS C SECTION B-B 061_213_MS E ELEVATIONS 061_106_MS D 4TH FLOOR PLAN 061_107_MS C ROOF PLAN 061_114_MS E 4TH FLOOR CEILING PLAN 061_201_MS B SECTION A-A 061_202_MS B SECTION B-B 061_211_MS E ELEVATIONS 061_109_MS D LOWER GROUND FLOOR CEILING PLAN <i>11 Bloom Street</i> 061_914_BS D ROOF RETENTION PLAN 061_166_BS F 5TH FLOOR PLAN Rev H 061_214_BS F ELEVATIONS Rev G 061_240 C BLOOM STREET EXTENSION ELEVATIONS Rev E 061_127_BS D 1ST FLOOR CEILING PLAN <u>Proposed Section 73 / Section 19 Minor Material Amendment Drawings</u> The proposed minor material amendment drawings are listed as follows: <i>Mindel House</i> 061_106_MS EXISTING PLANS FOURTH FLOOR 061_107_MS EXISTING PLANS ROOF 061_114_MS EXISTING CEILING PLANS FOURTH FLOOR 061_157_MS PROPOSED PLANS FOURTH FLOOR 061_159_MS PROPOSED PLANS ROOF 061_169_MS PROPOSED CEILING PLANS LOWER GROUND FLOOR 061_170_MS PROPOSED CEILING PLANS UPPER GROUND FLOOR	

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	061_171_MS PROPOSED CEILING PLANS FIRST FLOOR 061_172_MS PROPOSED CEILING PLANS SECOND FLOOR 061_173_MS PROPOSED CEILING PLANS THIRD FLOOR 061_174_MS PROPOSED CEILING PLANS FOURTH FLOOR 061_201_MS EXISTING SECTION A-A 061_202_MS EXISTING SECTION B-B 061_205_MS PROPOSED SECTION A-A 061_206_MS PROPOSED SECTION B-B 061_209_MS PROPOSED SECTION E-E 061_211_MS EXISTING ELEVATIONS 061_213_MS PROPOSED ELEVATIONS 061_501B_MS LATH AND PLASTER ROOF DETAILS <i>11 Bloom Street</i> 061_161_BS PROPOSED PLANS UPPER GROUND FLOOR 061_162_BS PROPOSED PLANS FIRST FLOOR 061_163_BS PROPOSED PLANS SECOND FLOOR 061_164_BS PROPOSED PLANS THIRD FLOOR 061_165_BS PROPOSED PLANS FOURTH FLOOR 061_166_BS PROPOSED PLANS FIFTH FLOOR 061_167_BS PROPOSED PLANS ROOF 061_177_BS PROPOSED CEILING PLANS LOWER GROUND FLOOR 061_178_BS PROPOSED CEILING PLANS UPPER GROUND FLOOR 061_179_BS PROPOSED CEILING PLANS FIRST FLOOR 061_180_BS PROPOSED CEILING PLANS SECOND FLOOR 061_181_BS PROPOSED CEILING PLANS THIRD FLOOR 061_182_BS PROPOSED CEILING PLANS FOURTH FLOOR 061_183_BS PROPOSED CEILING PLANS FIFTH FLOOR 061_184_BS PROPOSED CEILING PLANS ROOF TERRACE 061_203_BS EXISTING SECTION C-C 061_207_BS PROPOSED SECTION C-C 061_208_BS PROPOSED SECTION D-D 061_212_BS EXISTING ELEVATIONS 061_214_BS PROPOSED ELEVATIONS 061_240_BS PROPOSED EXTERNAL ELEVATIONS BLOOM 061_241_BS PROPOSED EXTERNAL ELEVATIONS BLOOM 2 061_502_BS ROOF EXTENSION DETAILS 061_910_BS RETENTION PLANS FIRST FLOOR 061_914_BS RETENTION PLANS ROOF	

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2.0	PROPOSED DEMOLITION OF EXISTING REDUNDANT LIFT HOIST BRICK SHAFT HOUSING ABOVE CENTRAL VALLEY ROOF, MINDEL HOUSE <u>Description</u> Mindel House features a centrally positioned redundant lift hoist shaft (a further lift shaft and external hoist are provided to the south west alleyway facing elevation). The central shaft serves the building from the lower ground to the fourth floor. The shaft structure extends through a concealed flat roof (located centrally within the valley of the main pitched slate roof) and rises to a height of approximately 4m from the flat roof (higher than the ridge line of the main pitched slate roof). The central flat roof is covered with bituminous waterproofing membrane. Access to the central flat roof is obtained by ladder via a small timber framed hatch. A drainage outlet is provided at the south east end of the central flat roof (draining via pipework through the ceiling voids). Externally, the shaft measures approximately 2250mm x 2250mm. The structure is built from solid brick walls and incorporates a reinforced concrete slab approximately 150mm thick incorporating a projecting step landing. The top of the shaft is capped with an exposed concrete slab (no waterproofing membrane is provided). Redundant aerials, satellite dishes, air conditioning condenser unit, associated bracketry, cabling etc, are fixed to the outer walls of the shaft. The exterior walls of the shaft are built tight up against the lowest row of slates to the surrounding inner valley roof pitches leaving a gap of 100mm-120mm for drainage. A glazed rooflight positioned at low level to the adjacent inner valley roof pitch on the north east side of the shaft is obstructed by the structure. Whilst there are no records, in view of its construction, positioning and configuration, it is possible that the hoist shaft was built as a later addition to the original building. It is presumed that the exposed roof level shaft housed lift hoist winding gear machinery. All elements of the shaft are obsolete with only some cabling and a few broken fragments remaining. Various plaster/plasterboard finishes are provided to the shaft walls on each floor throughout the building. <u>Condition Summary</u> The physical condition of the redundant lift hoist shaft at roof/attic level is summarised as follows: - Exposed concrete slabs are delaminated with steel reinforcement bar corroding and fragments of concrete spalled onto the roof. - Localised sections of brickwork are distorted having suffered from structural movement. Mortar pointing is extensively eroded with widespread vegetation growth to the masonry. A large quantity of	1, 14 7, 9 8, 10, 13

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	bricks are loose, spalled and delaminating. - Flashing at the junction between the shaft structure and the central valley flat roof is missing. Gutter widths between the brick shaft walls and the adjoining slate pitched roofs are insufficient with an extensive build-up of debris and vegetation. Due to the existing configuration of the surrounding inner valley roof pitches the current gutter arrangement is deemed to be an inherent defect. - The shaft structure is open to the elements and the existing drainage and waterproofing arrangement is convoluted and ineffective as a direct result of the existing redundant shaft structure penetrating the central valley flat roof. The current arrangement exacerbates problems with rainwater drainage and is permitting direct water ingress. - Access for roof maintenance is restricted and hazardous. - Specialist timber decay investigation (such investigations are restricted at this time for safety reasons) into the roof void undertaken by Hutton + Rostron (Historic Building Pathologists) has revealed evidence of long-standing water ingress to ceiling structures and to principal roof timbers immediately adjacent to the central valley roof / redundant lift hoist shaft structure. The wall plate, common rafter bearings, valley rafters and principal rafters are all decayed in this area. The structural deck to the central valley flat roof (concealed) is assumed to be decayed given the condition of the surrounding roof timbers and the condition of the existing roof arrangement. - Structural engineers are unable to confirm that the roof timbers, specifically in the vicinity of the decayed wall plate, are structurally sound and there is a risk of collapse if the current arrangement continues unabated. Temporary works design is being finalised in order to provide necessary temporary support at this location. GM Structures (Structural Engineers) have stated <i>'There is no way we can say that this area is structurally sound. It may not cause significant collapse but may cause localised collapse due to its condition. At some point if left in the state it is, the area will collapse, knowing how long that will be is a different matter'</i>. <u>Options</u> <i>Retain redundant lift hoist shaft at roof level ✖</i> The existing redundant exposed lift shaft structure could be repaired in-conjunction with the external building fabric repairs, structural repairs and re-roofing works. Such repairs would be	6, 11 12 2, 3, 4, 5, 15

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	extensive and would involve localised re-building works, repointing, specialist concrete repairs, waterproofing improvement works (where none exist) etc. No guarantee could be provided against preventing future roof leaks. Whilst it is recognised that the structure has a history of its own, on a balance of probability, it is regarded to be a later addition, it projects higher than the natural sight lines of the main original roof and the structure is not considered to be of special architectural interest. Retention will introduce ongoing maintenance liabilities and the likelihood of future roof leaks which may damage historic fabric and structure, as well as the newly created apartments. 2. <i>Demolish the existing dilapidated redundant lift hoist structure (at roof level only)</i> ✓ Refer to the following Proposed Amendment. <u>Proposed Amendment</u> The proposed amendment involves demolition of the existing dilapidated redundant lift hoist structure (at roof level only) to a level below the line of the existing central valley flat roof. The existing defective central valley flat roof is to be re-roofed with a new insulated built-up flat roof laid to falls on new structural timber decking. The central valley / well flat roof surface will be waterproofed with a new blue grey coloured high performance elastomeric mineral surfaced three layer felt system (a modern equivalent redesigned and enhanced to replace the existing defective felt waterproof coverings). The newly waterproofed central valley flat roof would be provided with a 20 year guarantee to cover design, materials and workmanship. In the interests of safety, programming and to enhance the long term performance of the main roof, the demolition of the existing dilapidated redundant lift hoist structure at roof level would need to be undertaken at the earliest opportunity for the following reasons: • To facilitate safer undertaking of essential re-roofing works and improvements to the existing roof drainage. • Mitigate risk of localised collapse where roof timbers are decayed around the central valley flat roof. • Eliminate pathway for direct water ingress, which is causing decay to structural timbers and original historic plaster / internal finishes generally.	

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3.0	• Prevent disruption to internal restoration and fit out works. • Enable safer access for ongoing roof level maintenance, in turn mitigating risk of future roof leaks and consequential damage to internal historic plaster / internal finishes generally.	
	PROPOSED REMOVAL AND REPLACEMENT OF EXISTING DILAPIDATED FOURTH FLOOR LATH AND PLASTER CEILINGS (INCLUDING REMOVAL OF EXISTING SPRINKLER SYSTEM), MINDEL HOUSE	
	<u>Description</u> The ceiling structure consists of 75mm deep x 50mm wide ceiling joists at 415mm centres, with a clear span of 4.2m between the supporting truss tie beams. The ceiling joists, which run parallel to the trusses, are supported on the tie beams and typically lap the ceiling joist of the adjacent bay. The ceiling joists are supported mid-span by timber hangers nailed to the common rafters and purlins. The hangers vary in dimension but are typically 80 x 25mm. The ceiling joists support a timber lath and horse hair lime plaster (keyed into the timber laths) ceiling nailed to the underside of the joists. The lath and plaster ceiling is largely concealed beneath a substantial build-up of dust and loose lime mortar debris (old original lime mortar 'torching' debris in the roof void which has been knocked off the underside of the original roofing slates). A redundant sprinkler system, which is fixed to the underside of the lath and plaster ceiling, also extends into the attic. The redundant sprinkler system is provided throughout the building. <u>Condition Summary</u> The condition of the fourth floor ceilings is summarised as follows (refer to Section 5.0 for a condition summary of the existing sprinkler pipework): • Timber specimen analysis conducted by Hutton + Rostron has revealed the ceiling joists (and structural roof timbers) to be Eastern White Pine (Pinus Strobus). This timber species originates in North-Eastern America and was exported during the 18th and 19th centuries. Its use in Manchester's 19th century industrial buildings is understood to be common but elsewhere in the UK its use appears less common. This species is no longer commercially imported for structural use in the UK and is not included in BS EN 338 Structural timber - Strength Classes. Eastern White Pine is approximately 30% weaker in bending than Scots Pine.	

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	- Capstone Consulting Structural Engineers and GM Structures (Structural Engineers) confirm the existing joists are undersized and have deflected significantly under load. Both Hutton + Rostron and the structural engineers confirm that there is significant deflection in almost all ceiling joists with timber hangers ruptured. The deflection, generally in excess of 50mm, is primarily due to an undersized section and a low quality timber species having been used (Eastern White Pine) on an excess span. The deposited lime 'torching' as well as the sprinkler system has also added loading on the ceiling joists. There are no noggins present between the ceiling joists to stiffen the ceiling structure. In the opinion of GM Structures <i>'the ceiling in particular, is in poor structural condition.....we suggest this is removed and replaced for a more suitable structure...'</i>. - Hutton + Rostron confirm that the condition of the plaster 'keys' varies but, invariably, they are damaged and or non-existent. Deflection of the joists combined with the deposited 'torching' are the most significant contributing factors to the damage observed. The extent of broken plaster keys is causing increased loading on the adjacent plaster keys, increasing the risk of unstable plaster detaching. - A history of water penetration to the perimeter and centre of the ceiling has resulted in partial decay of the timber laths. Lath and plaster and ceiling joists have also been removed in part to provide access to repair decayed roof timbers. New softwood joists with plasterboard and skim has been reinstated in such areas. Survey by Hutton + Rostron has revealed extensive localised ceiling and roof timber defects. <u>Options</u> 1. <i>Retain existing ceiling joists and lath and plaster ✕</i> The existing deflected shape would remain as a historic characterisitc. The undersized ceiling joists could in theory be strengthened by doubling up with new joists, or by potentially introducing binders and further hangers off the roof structure. The deflected or partially collapsed areas of ceiling could potentially be supported and propped from below using soft matting (e.g. sheep's wool) to avoid damaging the face of the ceiling. Traditional methods to repair damaged lath and plaster include plastering from above, sometimes using metal lath mesh to strengthen the ceiling structure. Subject to the ceiling structures being stabilised,	16, 18, 17, 19, 20, 21

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	the lath and plaster could be repaired or reinstated on a like for like basis. Materials would be subject to testing to enable the closest match possible. In-situ repairs as above would further increase load onto the ceiling and, moreover, onto the roof structure. Provision of (breathable natural) ceiling level insulation material would also need to be taken into account. Repairing the ceilings in-situ prevents further investigation works from taking place within the roof void which are essential in order to verify the load bearing capacity and performance of the roof structure. Furthermore, no testing can be carried out to determine the fire resistance of the existing retained lath and plaster ceilings. 2. <i>Retain existing ceiling joists and lath and plaster and install new fire resisting ceiling boards ✕</i> The existing ceilings could be repaired and adapted as above but with the additional provision of suitable vapour permeable fire resistant ceiling boarding. However, as noted above, this option would further increase load onto the ceiling and, moreover, onto the roof structure. From investigations undertaken to date, structural engineers have recommended that the existing ceiling structures cannot safely be repaired in-situ under load so this option is discounted. 3. <i>Carefully remove existing fourth floor ceiling structures (including sprinkler system) and replace with new ceiling joists, 60 minute fire resisting and vapour permeable encapsulated ceiling boards, natural insulation and reinstated exposed lath and plaster ceiling ✓</i> Capstone Consulting Structural Engineers have recommended <i>'In this instance, because these ceilings were originally flawed..., it is recommended that these deflected ceilings be fully replaced'.</i> Refer to the following Proposed Amendment. <u>Proposed Amendment</u> Investigations to date by the structural engineers and Hutton + Rostron substantiate that retention of the existing fourth floor lath and plaster ceilings is overly ambitious. Considering the significance of the identified timber species, the inadequate structural integrity of the existing ceiling and any proposed increase in loadings, no guarantee can be given against complete failure of the ceiling. Attempting to counteract the deflection in the ceiling joists is not recommended. Structural engineers have advised	

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	that the deflected ceilings need to be fully replaced. The proposed amendment involves careful vacuuming / removal of all excess lime mortar debris and all other detritus to expose the top of the ceilings. The existing plaster keys will be removed and the existing timber laths will be carefully removed and set aside for re-purposing, where practicable. Replacement re-sized timber ceiling joists will be installed (according to the structural engineers recommendations) and new vapour permeable non-combustible fire resistant ceiling boards will be installed to ensure compliance with Building Regulations. The lath and plaster ceiling will be reinstated to provide a finished ceiling level. Salvaged laths are to be re-used, supplemented with replacement laths where necessary (e.g. riven chestnut or larch) from an approved supplier to complement existing, and nailed to the underside of the replacement timber ceiling joists. Subject to testing, lime plaster appropriately mixed with approved fine sharp washed sand and cashmere goat hair / horse hair will be scratched into the lath. Subject to dampening and adequate drying between coats, a floating coat will be applied with a key provided before the final finishing coat of lime plaster is provided. After adequate drying time, the newly plastered ceilings will be painted with a suitable vapour permeable paint system. Breathable natural insulation material will be laid across the ceiling in accordance with English Heritage / Historic England technical recommendations. In order to facilitate the proposed fourth floor ceiling reinstatement works, existing redundant sprinkler ceiling pipes will be plotted, photographically recorded, carefully dismantled and removed from site. Refer to Section 5.0 for details. In the interests of safety, the removal of the existing timber / lath and plaster ceilings needs to be undertaken at the earliest opportunity for the following reasons: • Mitigate risk of localised collapse. • Enable safe access to the main structural roof timbers for further detailed analysis by the structural engineer. • Prevent disruption to internal restoration and fit out works. • Enable safer access for future roof void maintenance, in turn mitigating risk of future consequential damage to internal historic plaster / internal finishes generally.	

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4.0	PROPOSED REMOVAL OF EXISTING DILAPIDATED LATH AND PLASTER IN ISOLATED LOCATIONS TO INTERMEDIATE CEILINGS; LOWER GROUND FLOOR IN PART, MINDEL HOUSE AND FIRST FLOOR IN PART, 11 BLOOM STREET <u>Description</u> Other than to the fourth floor ceiling, lath and plaster ceilings in Mindel House are provided to a localised area in part at lower ground floor level and also in part within the main corner entrance lobby. To 11 Bloom Street, isolated areas of lath and plaster ceiling are provided on the first floor and in part to the upper ground floor former main entrance lobby. Original exposed timber millboards otherwise predominantly make up all other existing ceilings / floors throughout. A redundant sprinkler system is fixed to the underside of the lath and plaster ceilings throughout Mindel House (refer to Section 5.0). <u>Condition Summary</u> Superficially, the localised areas of lath and plaster ceiling to the lower ground floor level at Mindel House and to the first floor at 11 Bloom Street are in a poor condition and are generally commensurate with the age and overall dilapidated condition of the buildings. Various portions of the lath and plaster are cracked and damaged with some sections chased or cut out. The proposed apartment layouts will impact on the lath and plaster ceilings at lower ground floor level in Mindel House and also the isolated areas of lath and plaster ceiling on the first floor to 11 Bloom Street. <u>Options</u> 1. <i>Retain existing localised sections of lath and plaster ceiling ✕</i> The existing exposed timber beams and timber mill boards are being retained, repaired on a like for like basis and coated with an intumescent paint system to the underside with a new acoustic floor build up above. In order to achieve a fire compartmentation of 60 minutes fire resistance between floors and walls, it is impractical to work up an approvable detail that compartments the floors whilst retaining the existing residual lath and plaster ceilings. Compartment walls require fire stopping at the junction with the underside of the existing fire protected timber floor structures in order to satisfy Building Control. The proposed compartment walls need to penetrate the existing lath and plaster ceilings and a working zone is required to enable a person	25, 26

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	to effectively install the required fire rated wall head termination detail. This working zone is estimated to be approx. 600mm either side of a proposed compartment wall, although it could be increased on site, subject to the actual structural layout. The required fire compartmentation works will therefore leave a minimal amount of original lath and plaster ceiling for retention. It may be possible to reinstate the affected zones with new lath and plaster to match existing. However, due to the limited amount of lath and plaster in these locations such intervention is considered to be of low historic value to the overall scheme and would create unnecessary variances between the treatment of the apartment ceilings. 2. <i>Carefully remove existing residual lath and plaster ceiling finishes and treat all floors and ceilings uniformly ✓</i> Refer to the following Proposed Amendment. <u>Proposed Amendment</u> The retention of the existing lath and plaster basically inhibits the required levels of fire protection. Due to the practical implications outlined above, it is proposed that the existing residual lath and plaster ceilings will be carefully removed. Existing timber laths will be salvaged where reasonably practical and set aside for re-use elsewhere i.e. for the fourth floor ceiling reinstatement and restoration work. The new compartment walls and floors will be detailed as per the proposed detailed drawings. In order to facilitate the proposed works, existing redundant sprinkler ceiling pipes will be plotted, photographically recorded, carefully dismantled and removed from Mindel House. Refer to Section 5.0 for details. Note: existing lath and plaster and plaster cornices etc to the main entrance lobby ceilings are not being removed or disturbed by the proposed apartment layouts.	

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5.0	PROPOSED DEMOLITION AND REMOVAL OF EXISTING REDUNDANT SPRINKLER PIPES, MINDEL HOUSE <u>Description</u> An automatic sprinkler system (by Mather & Platt – who acquired rights to the Frederick Grinnell automatic fire sprinkler system) is installed in Mindel House. The sprinkler system is redundant and will not be re-commissioned. The system incorporates valves and pipework to ceilings and walls on each floor of the building. It is understood such sprinkler systems were commonly introduced into mills and warehouse buildings. The redundant sprinkler system is deemed to be a later modification to the building. <u>Condition Summary</u> Parker Wilson (Building Services Consultant) have reported the following: • The pipework is internally corroded and on the whole is in a deteriorating condition. • Existing corroded pipework cannot be guaranteed for air tightness. • The corroded pipework presents a potential route for the passage of smoke between apartments in the event of a fire. • Corroded pipework could also, in future, provide a route for the passage of sound between apartments, compromising acoustic separation. • Rust and biofilm are likely to form, increasing the risk of the growth of moulds, legionella and other potentially harmful organisms. If the existing sprinkler pipe network remains there is a risk of such organisms spreading between apartments thus bringing about a potential risk to public health. <u>Options</u> 1. <i>Retain existing redundant sprinkler system ✕</i> Retention and incorporation of the sprinkler system and pipework would have a moderate positive heritage benefit. The redundant sprinkler system could be plotted / photographically recorded, and where necessary to facilitate lath and plaster ceiling demolition and or reinstatement works (as previously described in this report) the system could be carefully dismantled and reinstated as necessary on a like for like existing basis. Such works would be managed by a specialist historic sprinkler / loss prevention consultant. However, as explained above, retention of	

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	the sprinkler system increases the risk of harmful bacteria spreading between the proposed apartments. Furthermore, whilst original sprinkler pipework could be retained as a heritage feature there will be interface issues with essential new building services and complexities with maintaining and achieving approvable fire stopping and horizontal and vertical fire compartmentation between apartments. 2. <i>Carefully remove existing redundant sprinkler pipework from ceilings and walls where affecting buildability and compartmentation between apartments whilst retaining existing 'feature' valves and pipework where present within apartment rooms ✓</i> Refer to the following Proposed Amendment. <u>Proposed Amendment</u> In order to facilitate the proposed lath and plaster ceiling removal / reinstatement works (refer to Section 3.0 and Section 4.0), and to facilitate construction of the apartments and essential new building services, the existing redundant sprinkler ceiling and wall pipework will be plotted, photographically recorded, carefully dismantled / capped off where necessary and removed from site. Removal of the affected ceiling and wall pipework will have no heritage impact. Existing valves and wall pipework where present (and where there will be no impact on compartment between apartments) will be retained within individual apartment rooms as heritage features. It is a legal requirement under the Construction (Design and Management) Regulations to identify and, where possible, design out risks during construction and throughout the functional life of the building. It is the view of Parker Wilson (Building Services Consultant) <i>'that a design retaining redundant pipework which has been left unmanaged for a number of years leaves an unnecessary residual risk.'</i> Design risk assessment to date does not justify why the redundant sprinkler systems should otherwise be left in-situ as existing.	

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6.0	PROPOSED DEMOLITION OF EXISTING ALLEYWAY FACING SECTION OF BRICKWORK TO THE FORMER LIFT HOIST SHAFT HOUSING AT ROOF LEVEL, 11 BLOOM STREET <u>Description</u> 11 Bloom Street incorporates a redundant lift hoist shaft housing which also provides access to the flat roof. The north west alleyway facing elevation of the housing is built with brickwork closely matching the original warehouse outer solid brick walls below. The remainder of the structure incorporates solid brick walls finished with cement render and a flat concrete roof slab waterproofed with mineral surfaced bituminous felt. The redundant lift hoist shaft is regarded to be a non-original alteration to the original warehouse building. All elements of the lift shaft are obsolete. Planning approval has already been granted for demolition of the redundant lift hoist shaft housing at roof level but with retention of the north west alleyway facing exposed brick elevation to the housing at roof level / proposed fifth floor extension level. <u>Condition Summary</u> The physical condition of the north west alleyway facing brick elevation to the redundant lift hoist shaft housing at roof level is summarised as follows: 1. Access is restricted to the north west alleyway facing brick elevation serving the redundant lift hoist shaft housing at roof level. The remaining rendered outer brick walls to the redundant lift hoist shaft housing, which exhibit localised cracking, are to be demolished. From limited observations, there are no known specific defects affecting the north west alleyway facing section of brickwork to the redundant lift hoist shaft housing. 2. Following demolition of the main redundant lift hoist shaft housing structure, including the rendered outer brick walls and roof, the section of brickwork to the north west alleyway facing elevation will physically obstruct daylight to and views from proposed apartment number 503. 3. Detailing for the necessary structural restraint of the north west alleyway facing brick elevation of the redundant lift hoist shaft housing (to be demolished) has not been finalised.	22, 23, 24

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	<u>Options</u> <i>Retain existing north west alleyway facing brick elevation to the redundant lift hoist shaft housing at roof level / proposed fifth floor extension level ✖</i> The existing north west alleyway facing brick elevation to the redundant lift hoist shaft housing at roof level could be retained and repaired in-conjunction with the external building fabric repairs, structural repairs and proposed fifth floor level extension / roof level works. Whilst it is recognised that the structure has a history of its own, it is a later addition and projects higher than the existing main roof level and the structure is not considered to be of special architectural interest. Retention will physically obstruct daylight to and views from proposed apartment number 503 and also introduce unnecessary structural restraint works and additional maintenance liabilities. <i>Demolish existing north west alleyway facing brick elevation to the redundant lift hoist shaft housing at roof level / proposed fifth floor extension level ✓</i> Refer to the following Proposed Amendment. <u>Proposed Amendment</u> The proposed amendment involves demolition of the existing north west alleyway facing brick elevation to the redundant lift hoist shaft housing at roof level down to the level of the existing parapet wall. Reclaimed stone copings will be used to reinstate the parapet wall to match existing where the redundant lift hoist shaft housing walls are demolished. The roof perimeter will be treated the same as the rest of the roof in-conjunction with the fifth floor extension at this location. The proposed demolition of the existing north west alleyway facing brick elevation at roof level needs to be undertaken for the following reasons: - The proposed amendment will prevent loss of daylight to and views from proposed apartment number 503. - To be undertaken in-conjunction with approved demolition of the redundant lift hoist shaft housing structure at roof level. - Eliminate unnecessary structural restraint works and additional maintenance liabilities.	

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7.0	PROPOSED RE-ROUTING OF EXISTING RAINWATER DRAINAGE PIPES FROM EXTERNAL TO INTERNAL PIPE SYSTEM, MINDEL HOUSE <u>Description</u> The main pitched roofs to Mindel House drain to outlets at the midpoint of the elevations on Bloom Street and Richmond Street (as well as to outlets on the alleyway elevation). The two outlets on Bloom Street and Richmond Street originally drained internally into lead lined open top timber chutes in the roof space. The original chutes are obsolete and rainwater drainage from these outlet locations is currently via two UPVC pipes which drop down the respective elevations of the building before offsetting at cornice level and continuing to the alleyway elevation. <u>Condition Summary</u> The existing UPVC pipe drops are convoluted, in poor condition, clearly non-original, and are deemed unsightly. There is evidence of long standing leaks to the external rainwater drainage pipework with surrounding brickwork heavily stained. <u>Options</u> 1. <i>Retain existing external pipework on current route*</i> The simplest option would be to retain the existing route for the external pipework, but to replace it in a more sympathetic material. This would be the simplest and cheapest option which would keep most pipework external, and thus more accessible. However, it would leave the unsightly and lengthy pipework routing in place, which is not in keeping with the building facades. 2. <i>Retain external pipework but diverted into basement*</i> It may be possible to retain the existing pipework drops on the two facades but move them centrally between the windows. The pipes would then be cut through the existing cornice, run through the wall and drop into the basement, before offsetting to the main drainage manholes under basement slab level. This option would involve considerably more work, as a notch would have to be cut in the cornice to accept the pipework, cores drilled through the external walls and connections found for the underground runs. Although there are toilets in the basement, investigations to date have not identified these drainage points (existing pipes below ground that have been identified are in poor condition).	27, 28

Ref. No.	Section 73 / Section 19 Minor Material Amendment Report	Photo Ref. No.
	It should therefore be assumed that new connections under the basement slab would be needed for this option to work. 3. <i>Divert existing external pipework from Bloom Street and Richmond Street elevations into new internal pipework whilst retaining and refurbishing existing external pipework to the alleyway elevation</i> ✓ Refer to the following Proposed Amendment. <u>Proposed Amendment</u> The proposed amendment most closely follows the original rainwater drainage concept and involves running new internal solvent weld UPVC pipework connected to outlets serving the Bloom Street and Richmond Street elevations and also a new outlet serving the central valley flat roof. The new internal pipework will connect at basement level into the combined drainage system. All pipework will be fully sealed and installed in accordance with BS EN 877. This approach makes the two existing UPVC downpipe arrangements dropping down the Bloom Street and Richmond Street elevations redundant and enables them to be removed. Existing masonry where disturbed as a result of removing the existing UPVC pipework will be repaired on a like for like basis using stone indent / brick repairs to match existing, all as specified elsewhere. The existing outlet connection openings through the walls to the Bloom Street and Richmond Street elevations will be retained, lined in Code 6 lead, and repurposed as high level overflow spitters. The existing rainwater outlets and rainwater downpipe general arrangement to the alleyway elevation will be retained and refurbished with existing UPVC downpipes replaced with new cast iron heritage pipework. All new and existing cast iron pipework will be finished with a traditional semi-gloss black paint.	

Ref. No.	Section 73 / Section 19 Minor Material Amendment Report	Photo Ref. No.
8.0	PROPOSED LEAD WATERPROOF LINING FROM THE EXISTING BOX GUTTER TO ENCAPSULATE THE EXISTING PERIMETER PARAPET STONE COPINGS AND REPLACE THE EXISTING FELT WATERPROOFING, MINDEL HOUSE <u>Description</u> The main pitched roofs to Mindel House drain to a perimeter box gutter concealed behind a brick parapet wall which is capped with stone copings. From a limited inspection, the parapet upstand height averages circa 200-250mm and the gutter width is circa 250-270mm. The box gutter is stepped and lined with lead. The top of the parapet stone copings have been dressed in mineral felt. In localised areas the parapet upstand reduces to a height of approximately 20mm at which points the surface of the lead gutter is almost level with the top of the parapet stone coping. <u>Condition Summary</u> Close inspection of the gutter around the perimeter of the building is restricted without full scaffold access. Nonetheless, the existing gutters have been leaking extensively over a prolonged period of time causing major damage and decay internally to the original historic structure, fabric and finishes. Water has cascaded down the outside faces of the stone copings penetrating the solid masonry walls. The exact cause of the gutter leaks cannot be established until full scaffold access is in place. <u>Options</u> 1. <i>Retain and maintain existing gutters on a like for like basis ✕</i> Whilst there are obvious access restrictions presently, on a balance of probability there will be numerous defects associated with the existing box gutter coupled with there being insufficient gutter upstand height in places. The existing gutter arrangement is failing and even with planned maintenance and patch repairs no guarantee can be given against further leaks recurring, even if the main pitched slate roofs are repaired or even re-covered. The felt capping to the top of the stone copings is poorly detailed and unsightly and is an inappropriate repair intervention, especially for a building of listed status.	29

Ref. No.	Section 73 / Section 19 Minor Material Amendment Report	Photo Ref. No.
	<i>2. Reline existing box gutters in lead including lead to encapsulate the existing parapet upstands and stone copings ✓</i> Refer to the following Proposed Amendment. <u>Proposed Amendment</u> In-conjunction with wholesale stripping and re-roofing of the main pitched slate roofs (to be undertaken on a like for like basis) and also in-conjunction with the proposed rainwater drainage system, the proposed amendment involves complete removal and renewal of the lead lined gutters (including the underlying gutter boards). Allowance will be made for new structural plywood gutter boards (insulated and at lower levels where feasible) and new Code 6 stepped lead flashing. New Code 6 lead flashing will be installed onto external grade plywood and taken up and over the top of the existing parapet copings in order to encapsulate and provide full weathertightness (in lieu of the existing felt cappings). All leadwork installation and detailing will be undertaken strictly in accordance with Lead Sheet Association technical recommendations.	

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Section 73 / Section 19 Minor Material Amendment

Mindel House and 11 Bloom Street, Manchester