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North Street Arcade, Havant PO9 1PX

**Flood Risk Assessment & Planning
Statement for Drainage and Services**

1.0 Introduction

- 1.1 This planning statement offers a general overview to the feasibility of providing services and drainage to the above site in Havant.

2.0 Foul Water Drainage

- 2.1 The foul drainage from the site will be discharged to the existing public sewerage system at the North Street Arcade using the existing on site foul sewer connections as shown by the existing foul and surface water drainage layout drawing included within Appendix D.
- 2.2 Minor modifications to the existing foul drainage system will include access manholes and pipe runs located and sized in accordance with the current edition of 'Sewers for Adoption'.

3.0 Storm Water Drainage

- 3.1 The Code of Practice for Sustainable Drainage Systems provides a flexible approach to drainage systems with a wide range of components and includes a hierarchy of techniques. These are:-
1. Prevention - The use of good site design and housekeeping measures on site to prevent run-off and pollution.
 2. Source Control - Control of run off at or very near to its source.
 3. Site Control - Management of water from several sub catchment areas.
 4. Regional Control - Management of run off from several sites, typically in a detention pond or wetland.
- 3.2 With the above in mind surface water disposal will respect the hierarchy of techniques outlined above.
- 3.3 Prevention will be at the forefront of the development of the site with the site set out to maximise the areas of soft landscaping.
- 3.4 Source control is to be introduced in the following ways:-

The Environment Agency / Planning Authority require surface water run off after development to be no greater than the surface water runoff prior to development.

The attached PLC Architects drawings, included within Appendix C, show the existing and proposed development with additional residential units and reduced hardstanding areas.

Surface water will be discharged to the existing surface water drainage system in a similar manner to that which exists.

- 3.5 Rainfall within soft landscaped areas, which are minimal, will be allowed to permeate through the ground in order to mimic as closely as possible the natural drainage from the site before development.

4.0 Water

- 4.1 An existing water main, reference Appendix D, runs in North Street & Prince George Street and will be used for domestic and fire water supply for the development using existing connections.

5.0 British Telecom / Virgin

- 5.1 A BT & Virgin network exists adjacent to the site, reference Appendix D, and can supply the development with the required communications and telephone.

6.0 Gas

- 6.1 The existing gas connection from a gas main running down North Street, reference Appendix D, will be used to supply gas to the proposed development.

7.0 Electricity

- 7.1 The existing electricity supply, as shown by Scottish & Southern drawings included within Appendix D, to the existing building will be enhanced to provide electricity to the proposed development.

8.0 Communications / CATV

- 8.1 The existing BT / Virgin connections, reference Appendix D, will be enhanced to serve the new development.

9.0 Summary

- 9.1 The site can be serviced for all gas, electrical, water, BT and communication utilities with enhanced connection to existing services.
- 9.2 Foul drainage from the site can be connected to the existing public foul sewerage system within North Street & Prince George Street using existing connections.

- 9.3 The site will not increase the risk of flooding, reference the flood risk assessment included within Appendix A, as the area of roofs and impermeable hardstanding will be decreased as a result of the development.

Appendix A

Flood Risk Assessment

North Street Arcade, Havant PO9 1PX

Flood Risk Assessment dated May 2108

1.0 Introduction

- 1.1 Planning consent is to be sought for a proposed mixed use development including part conversion and extension to the existing building.
- 1.2 Hamill Davies Limited drawing 18-3139-900P1, included within Appendix E, shows that the site is generally flat set at a level of approximately 8.9m AOD.
- 1.3 The Technical Guidance to the National Planning Policy Framework was published to ensure that flood risk is taken into account at all stages in the planning process to avoid inappropriate development in areas at risk of flooding with the requirement for a flood risk assessment which appraises, manages and reduces the risk of flooding.
- 1.4 This site specific flood risk assessment is required to meet the minimum requirements set out in the Technical Guidance to the National Planning Policy Framework

2.0 Flood Risk Assessment

Tidal Flood Risk

- 2.1 The site is located inland 1.4 kilometres from the Langstone / Emsworth Channel of Langstone Harbour and thus is not susceptible to Tidal Flood Risk.

Fluvial Flood Risk

- 2.2 The Environment Agency has been consulted to determine whether the site is at risk of flooding. The Floodplain Map, included within Appendix B, centred on North Street Arcade shows that the site is outside the designated Flood Zone 3 (High Probability - flooding from a river with a 1 in 100 or greater chance of happening each year) or Flood Zone 2 (Medium Probability - flooding from rivers with up to a 1 in 1000 chance of occurring each year). The development site can therefore be designated as being within Flood Zone 1 assessed to have a less than 1 in 10000 annual probability of river or sea flooding in any year.
- 2.3 The closest source of fluvial flooding is a culverted stream running in a north south direction through the site as shown by the EA flood map included within Appendix B. The EA flood map shows that the site is not susceptible to fluvial flooding.
- 2.4 Land within Flood Zone 1 is appropriate for all uses.

Groundwater Flood Risk

- 2.5 The OS map shows that the site is set at a level of 8.9m AOD and thus will not be at risk of flooding from groundwater.

Other Sources of Flood Risk

- 2.6 The site is generally flat set at a level of 8.9m AOD.
- 2.7 The buildings are to be extended upwards. Finished ground floor levels will be unaltered. Proposed external levels will be set following the natural contours of the site falling away from the properties to ensure that flows through the site are redirected away from properties in the unlikely event of flooding taking place from other sources such as foul sewers as well as surface water sheet run off or infrastructure failure.

3.0 Surface Water Management

- 3.1 The Code of Practice for Sustainable Drainage Systems provides a flexible approach to drainage systems with a wide range of components and includes a hierarchy of techniques. These are:-
5. Prevention - The use of good site design and housekeeping measures on site to prevent run-off and pollution.
 6. Source Control - Control of run off at or very near to its source.
 7. Site Control - Management of water from several sub catchment areas.
 8. Regional Control - Management of run off from several sites, typically in a detention pond or wetland.
- 3.2 With the above in mind surface water disposal will respect the hierarchy of techniques outlined above.
- 3.3 Prevention will be at the forefront of the development of the site with the site set out to maximise the areas of soft landscaping.
- 3.4 Source control is to be introduced in the following ways:-

The Environment Agency / Planning Authority require surface water run off after development to be no greater than the surface water runoff prior to development.

The attached PLC Architects drawings, included within Appendix C, show the existing and proposed development with buildings extended upwards and a small reduction in hardstanding areas.

HDL drawings, included within Appendix E, show that impermeable areas will be reduced as a result of the development.

Surface water will be discharged to the existing surface water drainage system in a similar manner to that which exists.

- 3.5 Rainfall within soft landscaped areas which are minimal will be allowed to permeate through the ground in order to mimic as closely as possible the natural drainage from the site before development.

4.0 SUDS Maintenance Schedule

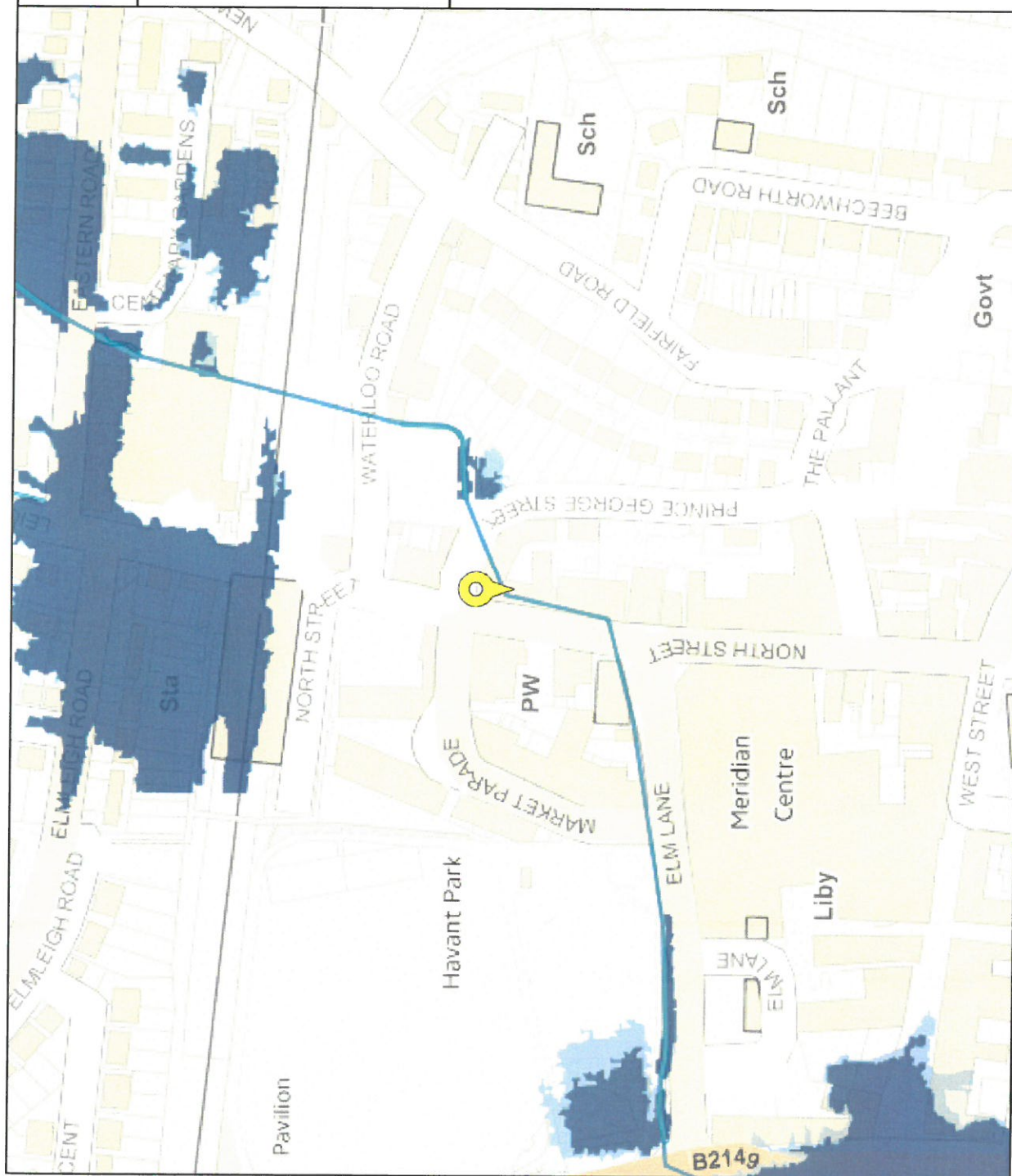
- 4.1 The existing on site surface water drainage system will be maintained by a private management company.
- 4.2 Regular sweeping of hardstanding areas will be undertaken with cleaning of gullies in the Spring and after leaf fall in Autumn.
- 4.3 Above ground rainwater goods, including gutters and rainwater down pipes, will be cleaned in the Spring and after leaf fall in Autumn.

5.0 Conclusions

- 5.1 The flood risk assessment indicates that the proposed development is not vulnerable to flooding from tidal, fluvial, ground water or other sources of flooding and is thus appropriate.
- 5.2 In the unlikely event of flooding taking place an alternative over land flood route will be formed through the site to direct any flooding through the site and away from properties.
- 5.3 The proposed development allows for a small reduction in impermeable areas, as outlined above, to ensure that surface water run off rates do not exceed the existing rainfall run off rates.

Appendix B

EA Floodplain Map



**Your reference
flood map**

Location (easting/northing)
471827/106476

Scale
1:2500

Created
11 May 2018 7:59



Selected point



Flood zone 3



Flood zone 3: areas benefitting from flood defences

Flood zone 2



Flood zone 1



Flood defence



Main river



Flood storage area



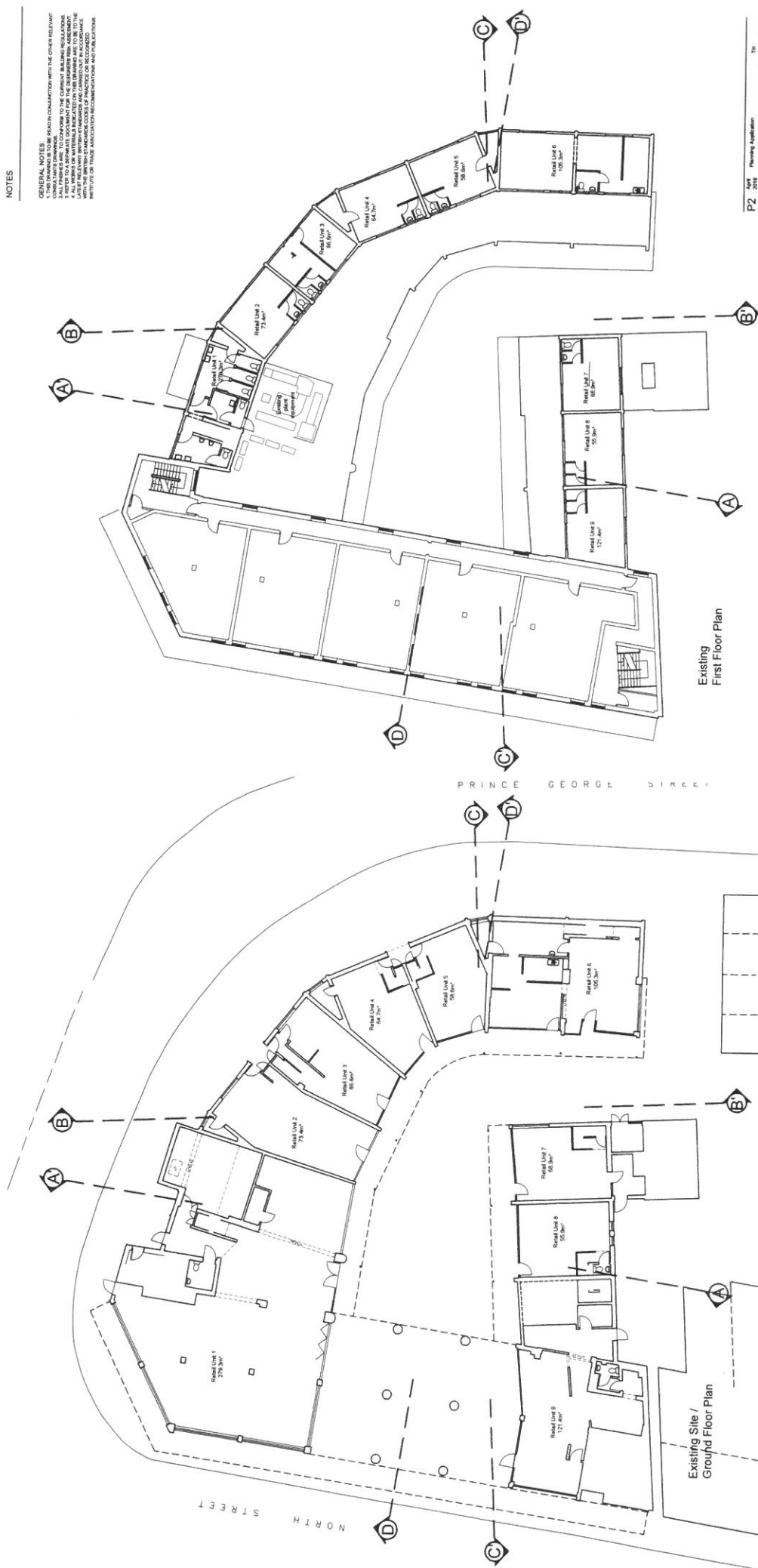
Page 2 of 2

Appendix C

PLC Architects Drawings

NOTES

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Existing
First Floor Plan

Existing Site /
Ground Floor Plan

P2 April 2016 Planning Application		TH	
Revision	Date	Description	Date

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1

North Street Arcade
North Street
Havant

Existing Plans



1:200 scale

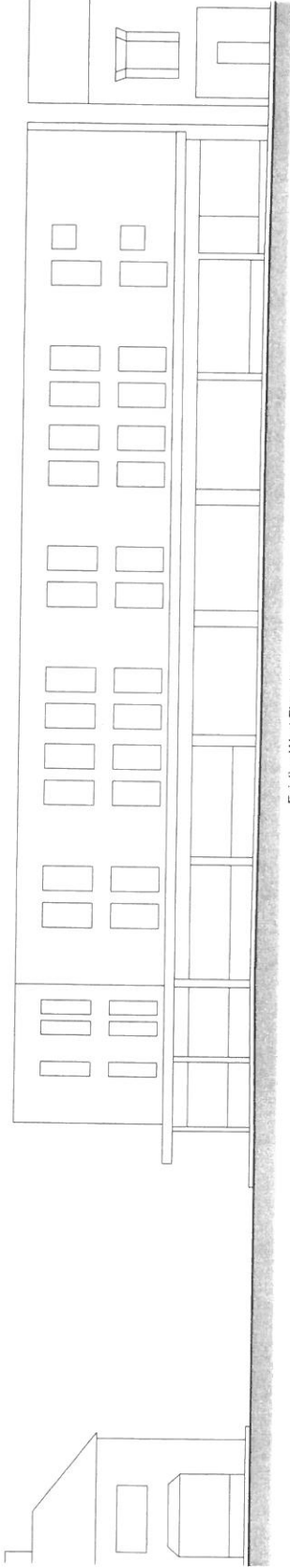


Drawn By TH	Date Jan 17	Checked By	Date	Approved By	Date
Drawing No. 16-2199-100		Revision P2		Scale 1:200 @ A2	

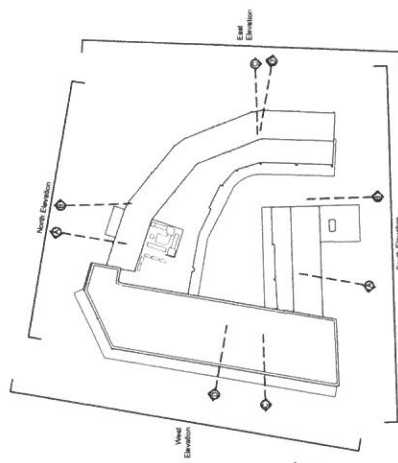
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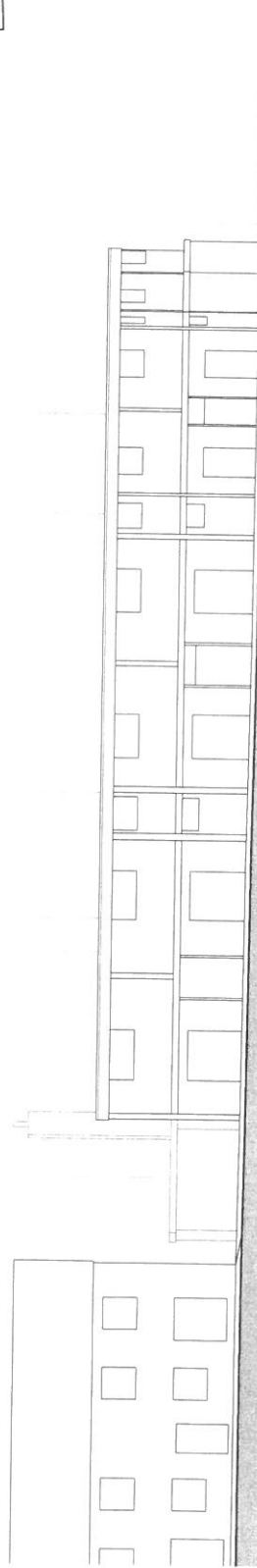
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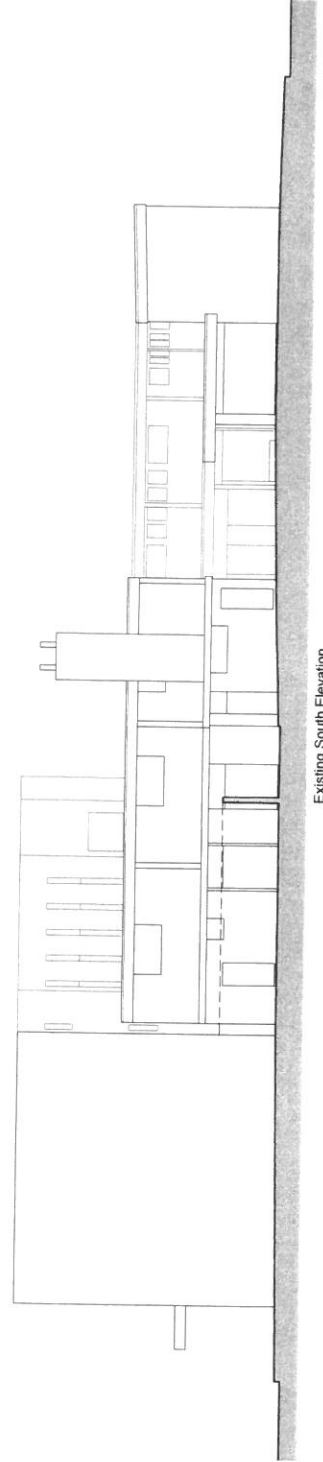
Existing West Elevation



Existing North Elevation



Existing East Elevation



Existing South Elevation

1:100 scale
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Project	Planning Application	T11	Site	Drawn
P2	April 2018			



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Project
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 North Street
 Havant

Existing Elevations

Drawn By	Check	Approved By	Date	Project	Scale
T11	JBT117				
16 - 2198 - 101	P2	1:100 @ A1			

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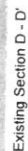
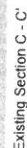
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Revision	Date	Description	Drawn	Checked
02	April 2018	Planning Application	TH	

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North Street Arcade
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Existing Sections

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Project No. 16-2199-102		Revision P2	Scale 1:100 @ A1		

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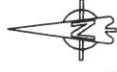
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1:1250 scale



Project	Date	Planning Application	TH
P3	2015		
Drawn	Check	Rev	Other



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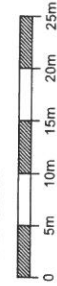
Project
North Street Arcade
North Street
Havant

Location plan
Block plan

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TH	Jan17		
Drawing No.	Date	Project	Scale
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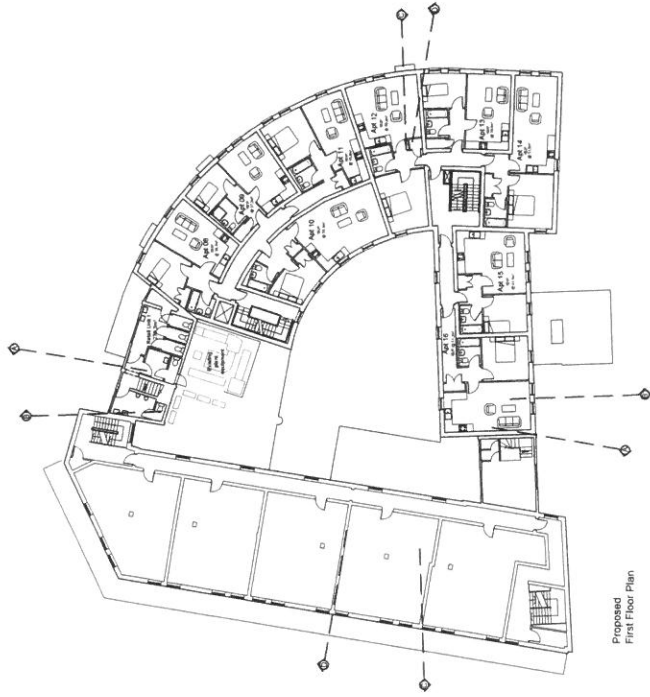
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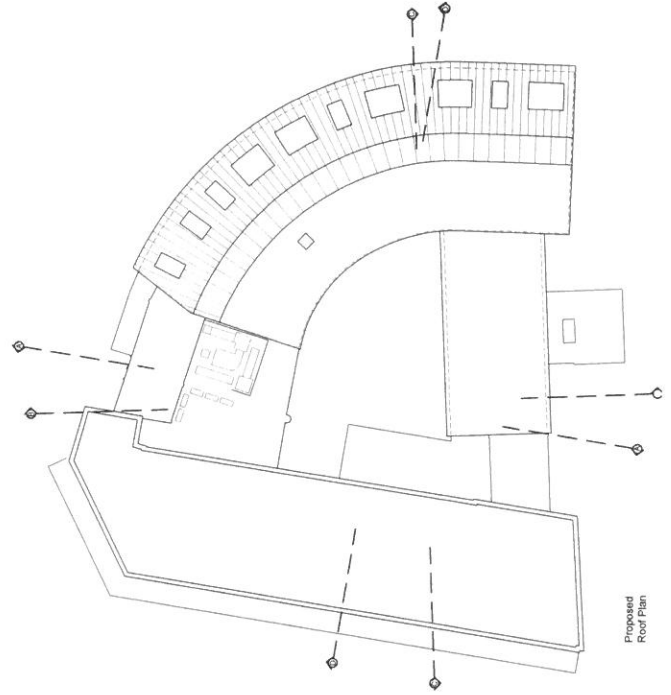
Project:
 North Street Arcade
 North Street
 Havant

Volume 1 of 1
 Proposed Floor Plans

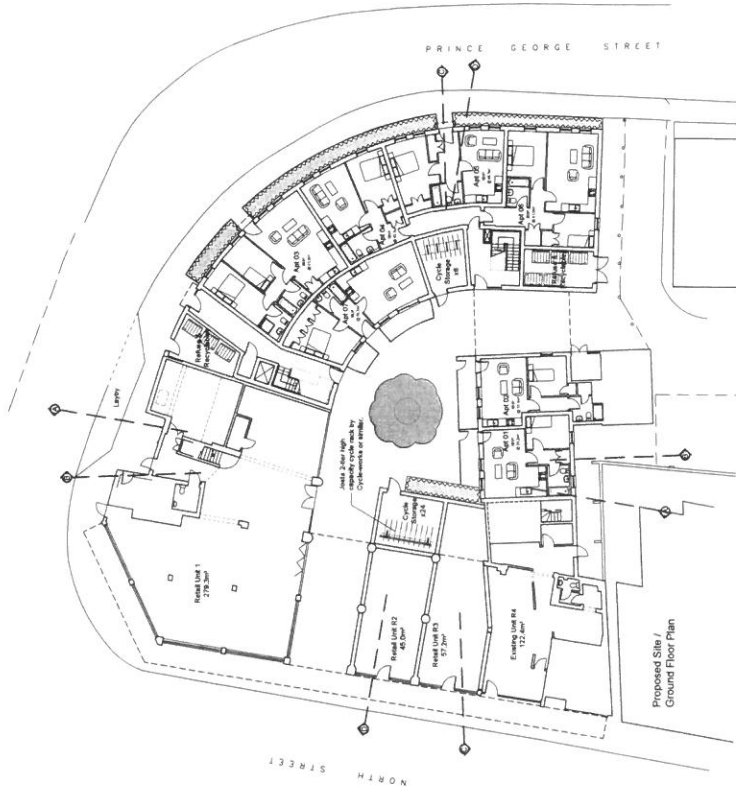
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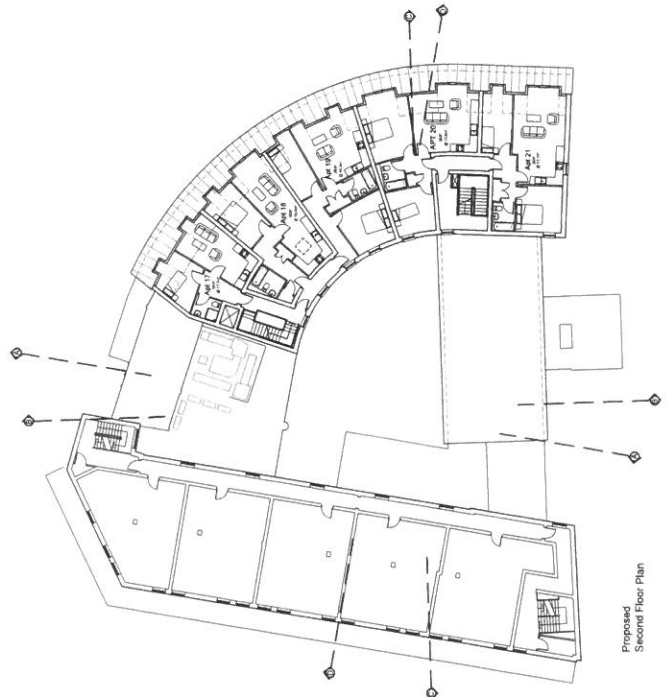
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Proposed Roof Plan



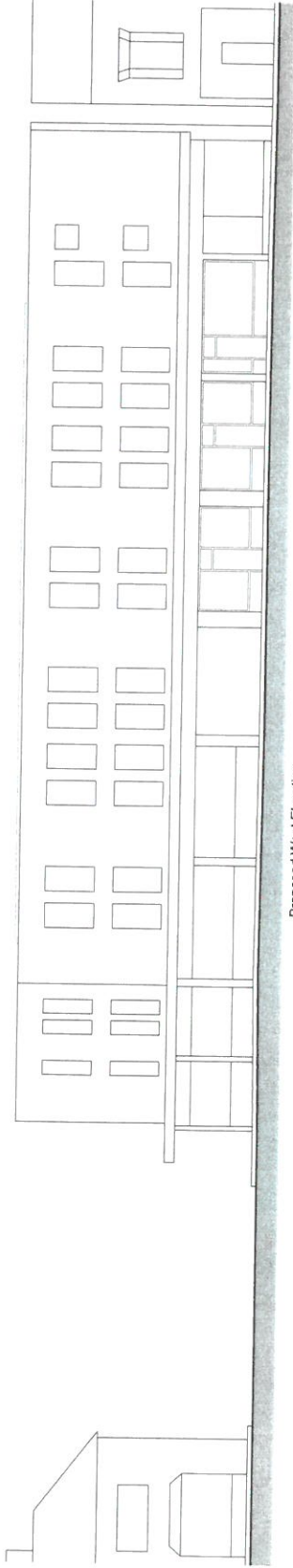
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Proposed Second Floor Plan

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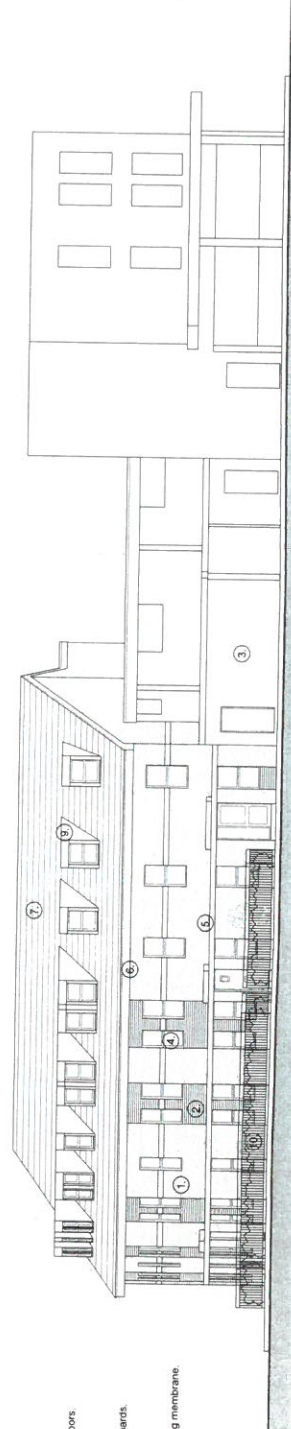
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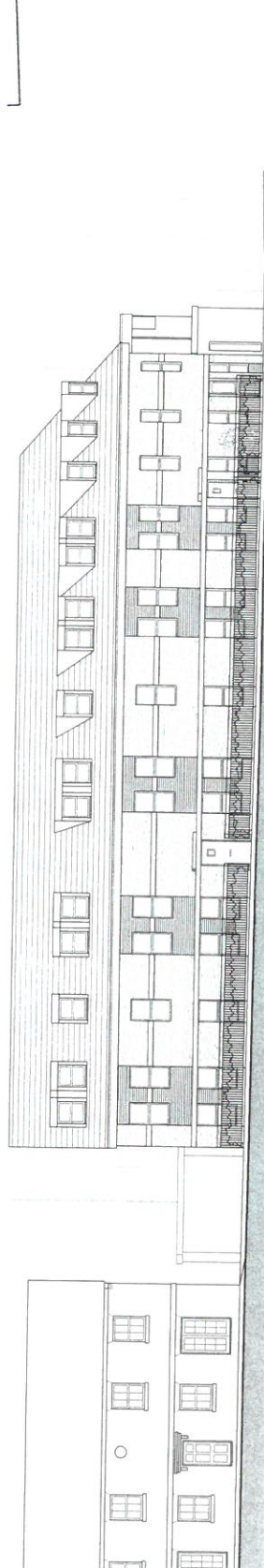
Proposed West Elevation

External Materials

1. Red facing brickwork to LA approval.
2. Grey facing brickwork to LA approval.
3. Painted render to match existing.
4. Grey uPVC double glazed windows / doors.
5. Recon stone feature banding.
6. Grey uPVC fascias, soffits and bargeboards.
7. Artificial slate roof.
8. Grey single ply high performance roofing membrane.
9. Lead look GRP domer.
10. Black painted wrought iron railings.



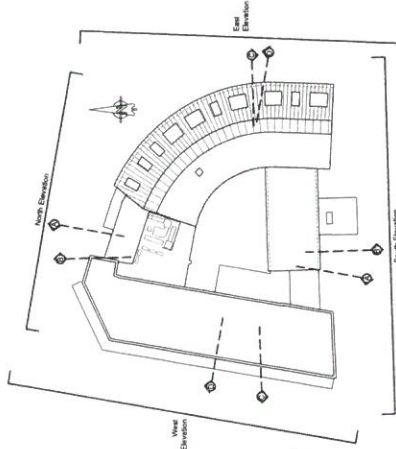
Proposed North Elevation



Proposed East Elevation



Proposed South Elevation



1:100 scale



Number	Date	Description	TH	CH	CH
P4	April 2018	Planning Application			

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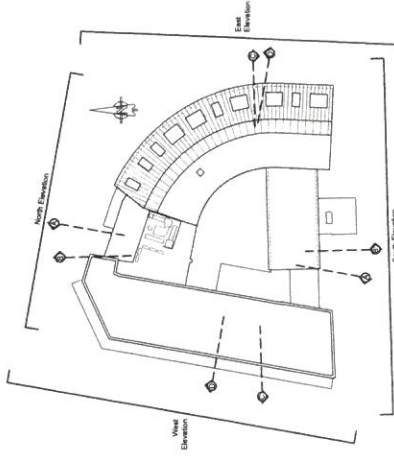
Project:
North Street Arcade
North Street
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Drawing No:
Proposed Elevations

Drawn By	TH	Date	Check By	CH	Approved By	Date
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Drawing No	16 - 2198 - 135	P4	1:100 @ A1			

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Project	Planning Application	T1	T2	T3
P4	April 2015			
Revision	Date	Description	By	Check

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Project:
North Street Arcade
North Street
Havant

Drawing No:
Proposed Sections

Drawn By	Check By	Date	Revised By	Date	Scale
TH	JBN	17			1:100 @ A1
Sheet No.	16 - 2199 - 136	Project	P4	1:100 @ A1	

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Proposed Section A - A'

Proposed Section B - B'

Proposed Section C - C'

Proposed Section D - D'