

Planning Service
16 Lord Street
Wrexham LL11 1LG

Telephone: 01978 298994
E-mail: planning@wrexham.gov.uk
Web: www.wrexham.gov.uk/planning



Y Gwasanaeth Cynllunio
16 Stryt yr Arglwydd
Wrecsam LL11 1LG

Llinell Gymorth: 01978 298994
E-bost: planning@wrexham.gov.uk
Gwe: www.wrexham.gov.uk/planning

Application for Planning Permission.
Town and Country Planning Act 1990

Publication of applications on planning authority websites.

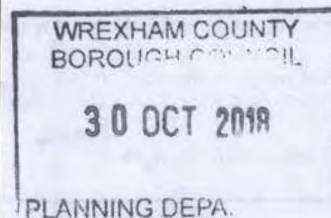
P2018/0915

Please note that the information provided on this application form and in supporting documents may be published on the Authority's website. If you require any further clarification, please contact the Authority's planning department.

1. Site Details

Number	
Suffix	
Property name	Central Buildings and adjacent land
Address line 1	Brook Street
Address line 2	
Town/city	Wrexham
Postcode	LL13 7LH
Description of site location must be completed if postcode is not known:	
Easting (x)	333394
Northing (y)	350134

Description



2. Applicant Details

Primary number	
Secondary number	
Email address	

Are you an agent acting on behalf of the applicant?

☐ Yes ☐ No

3. Agent Details

Title	Mr
First name	Matthew
Surname	Gilbert
Company name	The Planning Consultancy
Address line 1	Bridge Farm
Address line 2	Sarn
Address line 3	
Town/city	Malpas
Country	United Kingdom
Postcode	SY14 7LN
Primary number	01948770620
Secondary number	
Email	matt@mattplan.com

4. Site Area

What is the site area?	1840
Scale	sq.metres

Does your proposal involve the construction of a new building which would result in the loss or gain of public open space?

☐ Yes ☐ No

5. Description of the Proposal

Please describe the proposed development including any change of use

Proposed residential redevelopment comprising conversion of first and second floors of Central Buildings to provide 10 no. apartments (with related external alterations at ground floor level), and the construction of 28 no. apartments and associated parking etc on the adjacent vacant land.

Has the work or change of use already started?

☐ Yes ☐ No

3. Existing Use

Please describe the current use of the site

a) Vacant upper floors to building

b) Vacant land

5. Existing Use

Is the site currently vacant?

☒ Yes ☐ No

If Yes, please describe the last use of the site

Central Buildings - nightclub (2008)

Adjacent land - Retail and residential (1990)

When did this use end
(if known)?

Does the proposal involve any of the following?

Land which is known or suspected to be contaminated for all or part of the site

☒ Yes ☐ No

A proposed use that would be particularly vulnerable to the presence of contamination

☒ Yes ☐ No

Application advice

If you have said Yes to any of the above, you will need to submit an appropriate contamination assessment.

Does your proposal involve the construction of a new building?

☒ Yes ☐ No

If Yes, please complete the following information regarding the element of the site area which is in previously developed land or greenfield land

Type	Area of land (ha) proposed for new development
Previously developed land	0.18

7. Materials

Does the proposed development require any materials to be used in the build?

☒ Yes ☐ No

Please provide a description of existing and proposed materials and finishes to be used in the build (including type, colour and name for each material):

Walls	
Description of existing materials and finishes (optional):	
Description of proposed materials and finishes:	Central Buildings - Existing brick with additional blue/black slate panels New build - rendered walls with contrasting render panels and slate panels.

Windows	
Description of existing materials and finishes (optional):	
Description of proposed materials and finishes:	New build - White uPVC Central Buildings - White uPVC.

Doors	
Description of existing materials and finishes (optional):	
Description of proposed materials and finishes:	New build - White uPVC Central Buildings - Grey aluminium

Are you supplying additional information on submitted plans, drawings or a design and access statement?

☒ Yes ☐ No

If Yes, please state references for the plans, drawings and/or design and access statement

See elevation plans - 8821/L09 & 8821/LL34

3. Pedestrian and Vehicle Access, Roads and Rights of Way

Is a new or altered vehicle or pedestrian access proposed to or from the public highway?

☒ Yes ☐ No

Are there any new public roads to be provided within the site?

☐ Yes ☒ No

Are there any new public rights of way to be provided within or adjacent to the site?

☐ Yes ☒ No

Do the proposals require any diversions/extinguishments and/or creation of rights of way?

☐ Yes ☒ No

Please show details of any existing or proposed rights of way on or adjacent to the site, as well as any alterations to pedestrian and vehicle access, on your plans or drawings.

3. Vehicle Parking

Is vehicle parking relevant to this proposal?

☒ Yes ☐ No

Please provide information on the existing and proposed number of on-site parking and cycling spaces on your plans.

10. Trees and Hedges

Are there trees or hedges on the proposed development site?

☐ Yes ☒ No

And/or: Are there trees or hedges on land adjacent to the proposed development site that could influence the development or might be important as part of the local landscape character?

☐ Yes ☒ No

If Yes to either or both of the above, you will need to provide a full tree survey with accompanying plan before your application can be determined. Your local planning authority should make clear on its website what the survey should contain, in accordance with the current 'BS5837: Trees in relation to design, demolition and construction - Recommendations'

11. Assessment of Flood Risk

Is the site within an area at risk of flooding?

☒ Yes ☐ No

Refer to the Welsh Government's Development Advice Maps website.

If Yes, and you are proposing a new building or a change of use, please add details of the proposal in the following table

Type	Residential (number of units)	Non-residential (Area of land - hectares)
Floodplain C2	10	

If the proposed development is within an area at risk of flooding you will need to consider whether it is appropriate to submit a flood consequences assessment. Refer to Section 6 and 7 and Appendix 1 of Technical Advice Note 15: Development and Flood Risk.

Is your proposal within 20 metres of a watercourse (e.g. river, stream or beck)?

☒ Yes ☐ No

Will the proposal increase the flood risk elsewhere?

☐ Yes ☒ No

How will surface water be disposed of?

- ☐ Sustainable drainage system
☒ Existing water course
☐ Soakaway
☐ Main sewer
☐ Pond/lake

12. Biodiversity and Geological Conservation

To assist in answering the following questions refer to the help text. The help text provides further information on when there is a reasonable likelihood that any important biodiversity or geological conservation features may be present or nearby and whether they are likely to be affected by your proposals.

Having referred to the help text, is there a reasonable likelihood of the following being affected adversely or conserved and enhanced within the application site, or on land adjacent to or near the application site?

a) Protected and priority species

12. Biodiversity and Geological Conservation

- ☒ Yes, on the development site
☐ Yes, on land adjacent to or near the proposed development
☒ No

b) Designated sites, important habitats or other biodiversity features

- ☐ Yes, on the development site
☐ Yes, on land adjacent to or near the proposed development
☒ No

c) Features of geological conservation importance

- ☐ Yes, on the development site
☐ Yes, on land adjacent to or near the proposed development
☒ No

Supporting information requirements

Where a development proposal is likely to affect features of biodiversity or geological conservation interest, you will need to submit, with the application, sufficient information and assessments to allow the local planning authority to determine the proposal.

Failure to submit all information required will result in your application being deemed invalid. It will not be considered valid until all information required by the local planning authority has been submitted.

Your local planning authority will be able to advise on the content of any assessments that may be required.

13. Foul Sewage

Please state how foul sewage is to be disposed of:

- ☒ Mains Sewer
☐ Septic Tank
☐ Package Treatment plant
☐ Cess Pit
☐ Other
☐ Unknown

Are you proposing to connect to the existing drainage system?

☐ Yes ☐ No ☒ Unknown

14. Waste Storage and Collection

Do the plans incorporate areas to store and aid the collection of waste and have arrangements been made for the separate storage and collection of recyclable waste?

☒ Yes ☐ No

If Yes, please provide details:

Individual communal bin storage areas for both buildings - see 8821/L30.

15. Trade Effluent

Does the proposal involve the need to dispose of trade effluents or trade waste?

☐ Yes ☒ No

16. Residential/Dwelling Units

Does your proposal include the gain, loss or change of use of residential units?

☒ Yes ☐ No

If you answered "yes" to the question above, please specify the existing and proposed number of market and affordable dwellings on the attached plans

17. All Types of Development: Non-Residential Floorspace

Does your proposal involve the loss, gain or change of use of non-residential floorspace?

☒ Yes ☐ No

If you have answered Yes to the question above please add details in the following table:

17. All Types of Development: Non-Residential Floorspace

Use Class	Existing gross internal floorspace (square metres)	Gross internal floorspace to be lost by change of use or demolition (square metres)	Total gross new internal floorspace proposed (including changes of use) (square metres)	Net additional gross internal floorspace following development (square metres)
Other	444	444	0	-444
Total	444	444	0	-444

For hotels, residential institutions and hostels, please additionally indicate the loss or gain of rooms

18. Employment

Will the proposed development require the employment of any staff?

☐ Yes ☒ No

19. Hours of Opening

Are Hours of Opening relevant to this proposal?

☐ Yes ☒ No

20. Industrial or Commercial Processes and Machinery

Please describe the activities and processes which would be carried out on the site and the end products including plant, ventilation or air conditioning. Please include the type of machinery which may be installed on site:

Not applicable.

Is the proposal for a waste management development?

☐ Yes ☒ No

If this is a landfill application you will need to provide further information before your application can be determined. Your waste planning authority should make it clear what information it requires on its website

21. Renewable and Low Carbon Energy

Does your proposal involve the installation of a standalone renewable or low-carbon energy development?

☐ Yes ☒ No

22. Hazardous Substances

Is any hazardous waste involved in the proposal?

☐ Yes ☒ No

23. Neighbour and Community Consultation

Have you consulted your neighbours or the local community about the proposal?

☒ Yes ☐ No

If Yes, please provide details:

Pre-application consultation - see consultation report.

24. Site Visit

Can the site be seen from a public road, public footpath, bridleway or other public land?

☒ Yes ☐ No

If the planning authority needs to make an appointment to carry out a site visit, whom should they contact? (Please select only one)

24. Site Visit

- ☒ The agent
☐ The applicant
☐ Other person

25. Pre-application Advice

Has pre-application advice been sought from the local planning authority about this application?

☐ Yes ☒ No

26. Authority Employee/Member

With respect to the Authority, is the applicant or agent one of the following:

- a) a member of staff
b) an elected member
c) related to a member of staff
d) related to an elected member

Do any of these statements apply to you?

☐ Yes ☒ No

27. Ownership Certificates

Certificate of Ownership - Certificate B - Town and Country Planning (Development Management Procedure) (Wales) Order 2012

I certify/the applicant certifies that I have/the applicant has given the requisite notice to everyone else (as listed below) who, on the day 21 days before the date of this application, was the owner (owner is a person with a freehold interest or leasehold interest with at least seven years left to run) of any part of the land or building to which this application relates.

Owner/Agricultural Tenant

Name of Owner	Wrexham Council
Number	
Suffix	
House Name	Housing and Economy Department
Address line 1	Ruthin Road
Address line 2	
Town/city	Wrexham
Postcode	LL13 7TU
Date notice served	30/10/2018

Person role

- ☐ The applicant
☒ The agent

Title	Mr
First name	M
Surname	Gilbert
Declaration date	30/10/2018

☒ Declaration made

28. Agricultural Holding Certificate Town and Country Planning (Development Management Procedure) (Wales) Order 2012

Agricultural land declaration - you must select either A or B

- ☒ (A) None of the land to which the application relates is, or is part of an agricultural holding
- ☐ (B) I have/The applicant has given the requisite notice to every person other than myself/the applicant who, on the day 21 days before the date of this application, was a tenant of an agricultural holding on all or part of the land to which this application relates, as listed below

Person role

☐ The applicant ☒ The agent

Title	Mr
First name	M
Surname	Gilbert
Declaration Date	30/10/2018

☒ Declaration made

29. Declaration

I/we hereby apply for planning permission as described in this form and the accompanying plans/drawings and additional information. I confirm that, to the best of my knowledge, any facts stated are true and accurate and any opinions given are the genuine opinions of the persons giving them. ☒

Date (cannot be pre-application) 30/10/2018

Appendix One
Consultation notification.

10th August 2018

Dear Sir/Madam

Re: Land and buildings at Corner of Brook St and Bridge St, Wrexham.

We act on behalf of Lingar Developments Ltd who are intending to submit a planning application for residential development at the above address.

As part of the application process, we are required to consult with adjacent landowners/occupiers.

We have enclosed a notice which provides details of the application, together with a website where the application can be viewed in full.

If you would like to comment on the proposals, then please send your comments to us at the address detailed on the notice by the stated date.

Yours faithfully

M GILBERT

PUBLICITY AND CONSULTATION BEFORE APPLYING FOR PLANNING PERMISSION.

Town and Country Planning (Development Management Procedure) (Wales) Order 2012

PUBLICITY AND CONSULTATION BEFORE APPLYING FOR PLANNING PERMISSION NOTICE UNDER ARTICLES 2C AND 2D

(to be served on owners and/or occupiers of adjoining land and community consultees; and displayed by site notice on or near the location of the proposed development)

Purpose of this notice: this notice provides the opportunity to comment directly to the developer on a proposed development prior to the submission of a planning application to the local planning authority ("LPA"). Any subsequent planning application will be publicised by the relevant LPA; any comments provided in response to this notice will not prejudice your ability to make representations to the LPA on any related planning application. You should note that any comments submitted may be placed on the public file.

Proposed development at: Corner of Brook Street and Bridge Street, Wrexham.

I give notice that: Lingar Developments Ltd

Is intending to apply for planning permission for: Proposed residential redevelopment comprising conversion of the first and second floors of Central Buildings to provide ten apartments (with related external alterations at ground floor level), and the construction of thirty-two apartments and associated parking etc on the adjacent vacant land.

You may inspect copies of:

- the proposed application;
- the plans; and
- other supporting documents

online at: <http://centralbuildingsregeneration.co.uk/> and computer facilities are available to view this information online at Wrexham Library, Rhosddu Road, Wrexham LL11 1AU between the hours of 9.30 am to 6.00 pm, Monday to Friday and 9.30 pm to 4.00 pm on Saturdays.

Anyone who wishes to make representations about this proposed development must write to the applicant/agent at: matt@mattplan.com or The Planning Consultancy, Bridge Farm, Sarn, Malpas, Cheshire. SY14 7LN.

by: 12th September 2018.

Signed:



Date: 15th August 2018.

CONSULTATION BEFORE APPLYING FOR PLANNING PERMISSION.

Town and Country Planning (Development Management Procedure) (Wales) Order 2012

PUBLICITY AND CONSULTATION BEFORE APPLYING FOR PLANNING PERMISSION NOTICE UNDER ARTICLES 2D

(to be served on specialist consultees, as defined by article 2(1) of the Town and Country Planning (Development Management Procedure) (Wales) Order 2012

Purpose of this notice: this notice comprises a formal request for a pre-application consultation response under article 2D of the Town and Country Planning (Development Management Procedure) (Wales) Order 2012.

Proposed development at: Corner of Brook Street and Bridge Street, Wrexham.

I give notice that: Lingar Developments Ltd

Are intending to apply for planning permission for: Proposed residential comprising conversion of the first and second floors of Central Buildings to provide ten apartments (with related external alterations at ground floor level), and the construction of thirty-two apartments and associated parking etc on the adjacent vacant land.

A copy of the proposed application, plans; and other supporting documents can be viewed online at:
<http://centralbuildingsregeneration.co.uk/>

In accordance with the requirements of article 2E of the Town and Country Planning (Development Management Procedure) (Wales) Order 2012, a consultation response must be sent to The Planning Consultancy at: matt@mattplan.com by 12th September 2018.

Signed:



Date: 15th August 2018.

Appendix Two

Consultation responses.



Dŵr Cymru
Welsh Water

Developer Services
PO Box 3146
Cardiff
CF30 0EH

Tel: +44 (0)800 917 2652
Fax: +44 (0)2920 740472
E.mail: developer.services@dwrcymru.com

Gwasanaethau Datblygu
Blwch Post 3146
Caerdydd
CF30 0EH

Ffôn: +44 (0)800 917 2652
Ffacs: +44 (0)2920 740472
E.bost: developer.services@dwrcymru.com

Mr Matt Gilbert
The Planning Consultancy
Bridge Farm
Malpas
Cheshire
SY14 7LN

Date: 24/08/2018
Our Ref: PPA0003344

Dear Mr Gilbert

Grid Ref: 333370 350118

Site Address: Corner of Brook Street and Bridge Street, Wrexham

Development: Schedule 1C Article 2D - proposed residential comprising conversion of first & 2nd floors of Central Buildings to provide 10 apartments (with related external alterations at ground floor level) and the construction of 32 apartments and associated parking

I refer to the Schedule 1C - Article 2D notice received and your formal request for a pre-application consultation response before applying for planning permission from Dwr Cymru Welsh Water as a 'Specialist Consultee' as defined by Paragraph (y) of Schedule 4 of the Town & Country Planning (Development Management Procedure) (Wales) (Amendment) Order 2016. It is acknowledged that the consultation request relates to a major development site and thus seeks a substantive response within 28 days from the date of the notice, 15th August 2018, as per the requirements of Article 2E. This request includes our views on the capacity of our network of assets and infrastructure to accommodate your proposed development.

Having reviewed the details submitted I would offer the following advice which should be taken into account within any future planning application for the development:

ASSET PROTECTION

The proposed development is in close proximity to a 740 x 480mm combined public sewer with the approximate position being marked on the attached Statutory Public Sewer Record. Under the Water Industry Act 1991 Dwr Cymru Welsh Water has rights of access to its apparatus at all times. No part of any building will be permitted within 4 metres either side of the centreline of the 740 x 480mm combined public sewer.

Our strong recommendation is that your site layout takes into account the location of the assets crossing the site and should be referred to in any master-planning exercises or site layout plans submitted as part of any subsequent planning application. Further information regarding Asset Protection is provided in the attached Advice & Guidance note.



Welsh Water is owned by Glas Cymru – a 'not-for-profit' company.
Mae Dŵr Cymru yn eiddo i Glas Cymru – cwmni 'nid-er-elw'.

We welcome correspondence in
Welsh and English

Dŵr Cymru Cyf, a limited company registered in
Wales no 2366777. Registered office: Pentwyn Road,
Nelson, Treharris, Mid Glamorgan CF46 6LY

Rydym yn croesawu gohebiaeth yn y
Gymraeg neu yn Saesneg

Dŵr Cymru Cyf, cwmni cyfyngedig wed'i gofrestru yng
Nghymru rhif 2366777. Swyddfa gofrestredig: Heol Pentwyn
Nelson, Treharris, Morgannwg Ganol CF46 6LY.

SEWERAGE

The foul flows only from the proposed development can be accommodated within the public sewerage system. We advise that the flows should be taken to the combined sewer downstream of manhole reference SJ33504104 which is located to the north east of the site.

Should a planning application be submitted for this development we will seek to control these points of communication via appropriate planning conditions and therefore recommend that any drainage layout or strategy submitted as part of your application takes this into account.

However, should you wish for an alternative connection point to be considered please provide further information to us in the form of a drainage strategy, preferably in advance of a planning application being submitted.

SURFACE WATER

We note that it is proposed to dispose of surface water via infiltration or the main sewer. Please be advised that no surface water, highway or land drainage run-off will be permitted to discharge directly or indirectly into the public sewerage system.

ADVISORY

The applicant may need to apply to Dwr Cymru / Welsh Water for any connection to the public sewer under S106 of the Water Industry Act 1991. If the connection to the public sewer network is either via a lateral drain (i.e. a drain which extends beyond the connecting property boundary) or via a new sewer (i.e. serves more than one property), it is now a mandatory requirement to first enter into a Section 104 Adoption Agreement (Water Industry Act 1991). The design of the sewers and lateral drains must also conform to the Welsh Ministers Standards for Gravity Foul Sewers and Lateral Drains, and conform with the publication "Sewers for Adoption"- 7th Edition. Further information can be obtained via the Developer Services pages of www.dwrcymru.com

Some public sewers and lateral drains may not be recorded on our maps of public sewers because they were originally privately owned and were transferred into public ownership by nature of the Water Industry (Schemes for Adoption of Private Sewers) Regulations 2011. The presence of such assets may affect your proposal. In order to assist us in dealing with the proposal we request that you contact our Operations Contact Centre on 0800 085 3968 to establish the location and status of the sewer. Under the Water Industry Act 1991 Dwr Cymru Welsh Water has rights of access to its apparatus at all times.

SEWAGE TREATMENT

No problems are envisaged with the Waste Water Treatment Works for the treatment of domestic discharges from this site.



Welsh Water is owned by Glas Cymru – a 'not-for-profit' company.
Mae Dŵr Cymru yn elldo i Glas Cymru – cwmni 'nid-er-elw'.

We welcome correspondence in
Welsh and English

Dŵr Cymru Cyf, a limited company registered in
Wales no 2366777. Registered office: Pentwyn Road,
Nelson, Treharris, Mid Glamorgan CF46 6LY

Rydym yn croesawu gohebiaeth yn y
Gymraeg neu yn Saesneg

Dŵr Cymru Cyf, cwmni cyfyngedig wedi'i gofrestru yng
Nghymru rhif 2366777. Swyddfa gofrestredig: Heol Pentwyn
Nelson, Treharris, Morgannwg Ganol CF46 6LY.

I trust the above information is helpful and will assist you in forming water and drainage strategies that should accompany any future planning application.

Please note that our response is based on the information provided in your enquiry and should the information change we reserve the right to make a new representation. Should you have any queries or wish to discuss any aspect of our response please do not hesitate to contact our dedicated team of planning officers, either on 0800 917 2652 or via email at developer.services@dwrcymru.com

Please quote our reference number in all communications and correspondence.

Yours faithfully,



Owain George
Planning Liaison Manager
Developer Services

Encs: Sewer plan

Please Note that demands upon the water and sewerage systems change continually; consequently the information given above should be regarded as reliable for a maximum period of 12 months from the date of this letter.



**Cyfoeth
Naturiol
Cymru
Natural
Resources
Wales**

Ein cyf/Our ref: CAS-67398-N6L2

Ebost/Email: northplanning@cyfoethnaturiolcymru.gov.uk
Ffôn/Phone: 03000 65 4099

FAO Matt Gilbert, The Planning Consultancy

11/09/2018

Dear Mr Gilbert,

Town and Country Planning (Development Management Procedure) (Wales) (Amendment) Order 2016 Notice Pre-Application Consultation under Article 2D

PROPOSAL: Proposed residential redevelopment comprising conversion of first and second floors of Central Buildings to provide 10 no. apartments (with related external alterations at ground floor level), and the construction of 32 no. apartments and associated parking etc on the adjacent vacant land

LOCATION: Central Buildings and adjacent land, Brook Street and Bridge Street, Wrexham

Thank you for consulting Natural Resources Wales about the above proposed development at pre-application stage.

Please note that our comments are without prejudice to any comments we may wish to make when consulted on any subsequent planning application or permit (either at pre-application or application stage) for the proposed development. At that time, there may be new information available which we will need to take into account in making a formal response.

Based on the information submitted to us, we have significant concerns with the proposed development as submitted. On this basis, we would recommend to the local authority that they should only grant planning permission if the scheme can meet the following requirements. Otherwise, we would object to the planning application.

Requirement 1: Confirmation has been received from the local planning authority that the development should be considered, despite its location within Zone C2 and contrary to Planning Policy

Requirement 2: EPS: Additional information to assess potential effects of the proposal on protected species.

Flood Risk

The planning application proposes highly vulnerable development (residential), which is partially located in Zone C2 of the Development Advice Map (DAM) contained in Technical Advice Note 15 Development and Flood Risk (TAN15). Planning policy set out in paragraph 6.2 of TAN15 advises that "highly vulnerable development and emergency services should not be permitted". A planning decision to permit development would therefore be contrary to planning policy advice.

A Joint Improvement Programme has been established with local planning authorities in North Wales, which is overseen by Natural Resources Wales (NRW) and Planning Officers Society Wales (POSW) with support from the Welsh Government. As part of the project, the approach to proposals for highly vulnerable development and emergency services located in areas of high flood risk hazard is that, the Local Planning Authority should, in the first instance, make a planning policy decision on

the development proposal, as the decision as to whether a development should be considered, contrary to TAN15 Policy, is entirely a matter for the Local Planning Authority.

Requirement 1: Confirmation has been received from the local planning authority that the development should be considered, despite its location within Zone C2 and contrary to Planning Policy

Only when confirmation has been received from the local planning authority that the development should be considered, despite its location within Zone C2, would we provide technical advice and comments on the flood risks and consequences. In such circumstances, we would review any submitted FCA.

It should also be noted that under the Town & Country Planning (Notification) (Wales) Direction 2012, where a local planning authority is minded to grant permission, there is a requirement to refer applications for emergency service or highly vulnerable development (including residential developments of 10 or more dwellings) within Zone C2 to Welsh Government. It should not be assumed sites located partially within C2 or less than ten units are excluded.

Until we receive written confirmation from the Authority that they believe there are overriding reasons to consider granting the application despite its location within Zone C2 we do not intend to review the submitted flood consequence assessment (FCA) and we would advise that the Authority should refuse the proposed planning application on planning policy grounds.

We also draw your attention to a recent planning appeal (see attached) in Flintshire (ref: APP/A6835/V/17/3190167), where both the Welsh Minister and the Planning Inspectorate emphasised that National Planning Policy does not allow for mitigation works to be undertaken to reduce the risk of flooding for new Highly Vulnerable Development to be considered acceptable in Zone C2. Specifically, they state that "there is no provision in TAN15 where this unequivocal position can be offset by mitigation or the presence of development benefits". They also indicate that "there is no need to consider the justification tests in TAN15...as the tests in paragraph 6.2 of TAN15 do not apply to highly vulnerable development in Zone C2".

In view of the above, we consider that it would be inappropriate for us to comment on the specific mitigation measures presented in the submitted Flood Consequences Assessment.

We note that part of the site lies outside zone C2, and we would refer you to our previous pre-application advice on this.

Protected Species

We note that the bat report submitted in support of the above pre-application (Bat Survey - Preliminary Roost Assessment) has identified the potential for bats to be present at the application site.

Bats and their breeding sites and resting places are protected under the Conservation of Habitats and Species Regulations 2017. Any development that would contravene the protection afforded to bats under the Regulations would require a derogation licence from Natural Resources Wales. A licence may only be authorised if:

- There is no satisfactory alternative and
- The action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in its natural range. In addition,

- the development works to be authorised must be for the purposes of preserving public health or safety, or for other imperative reasons of overriding public interest, including those of a social or economic nature and beneficial consequences of primary importance for the environment.

Paragraph 6.3.7 of Technical Advice Note 5: Nature Conservation and Planning (TAN5) states that the Local Authority should not grant planning permission without having satisfied itself that the proposed development either would not impact adversely on any bats on the site or that, in its opinion, all three conditions for the eventual grant of a licence are likely to be satisfied.

Although a bat report has been submitted, we consider that there currently is not enough information to assess potential effects of the proposal on any species of the bat that may be present at this site. We therefore concur with the recommendations of the ecological report that further survey is required for the purposes of informing the planning decision making process.

Requirement 2: EPS: Additional information to assess potential effects of the proposal on protected species.

Therefore, planning permission should not be granted until it can be demonstrated that the proposed development will either no harm or disturb the bats or their breeding sites and resting places at this site, or all 3 conditions for the eventual grant of a licence under the Conservation of Habitats and Species Regulations 2017 are likely to be satisfied.

NRW would refer the Planning Authority to the letter from the Welsh Government to Chief Planning Officer's dated 01 March 2018 which advises Local Planning Authorities to attach an informative regarding licence requirements to all consents and notices where European Protected Species are likely to be present on site.

Flood Risk Activity Permit

The location of building could also be sited on top an existing culvert of the River Gwenfro and any flood risk activities in, under, over or adjacent to a main river may require a permit from Natural Resources Wales. Further information is available on NRW website <https://naturalresources.wales/permits-and-permissions/flood-risk-activities/flood-risk-activity-permits-information/?lang=en>

Pollution Prevention

The applicant is advised to follow the guidance within the Guidance for Pollution Prevention 5 "Works and maintenance in or near water":

http://www.netregs.org.uk/media/1418/gpp-5-works-and-maintenance-in-or-near-water.pdf?utm_source=website&utm_medium=social&utm_campaign=GPP5%2027112017

During the construction phase of the proposals, any waste material which is to be removed from the site should be done so via a registered waste carrier. The waste must be taken to a facility which holds an appropriate exemption or environmental permit to accept the specified waste.

Any work which is to take place should be done so with pollution prevention in mind. Pollution prevention advice and guidance can be found via this link:

<http://www.netregs.org.uk/environmental-topics/pollution-prevention-guidelines-ppgs-and-replacement-series/guidance-for-pollution-prevention-gpps-full-list/>

Should any pollution occur during the operational phase, Natural Resources Wales should be notified via the incident hotline – 03000 65 3000.

Please do not hesitate to contact us if we can be of any further assistance to you.

Our comments above only relate specifically to matters that are included on our checklist "Natural Resources Wales and Planning Consultations" (March 2015) which is published on our website: (<https://naturalresources.wales/planning-and-development/planning-and-development/?lang=en>). We have not considered potential effects on other matters and do not rule out the potential for the proposed development to affect other interests, including environmental interests of local importance.

The applicant should be advised that, in addition to planning permission, it is their responsibility to ensure that they secure all other permits/consents relevant to their development.

Yn gywir / yours faithfully,

Daniel Davies

Daniel Davies

Ymgynghorydd Cynllunio Datblygu / Development Planning Advisor

Cyfoeth Naturiol Cymru / Natural Resources Wales

Cyngor Bwrdeistref Sirol Wrexham/ Wrexham County Borough Council
Neuadd y Dref, Wrexham. LL11 1AY
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The Planning Consultancy

Eich Cyf/Your Ref
Ein Cyf/Our ref
Dyddiad/Date
Gofynner am/Ask for
Rhif Cyswllt/Contact No
E-bost/E-mail

EP/PP/DC/Pre/2018/048
31st August 2018
Mr P Palmer
01978 729688
phil.palmer@wrexham.gov.uk

FAO: Matt Gilbert

Dear Sir

Proposed Residential Development (42 Apartments) on Corner of Brook Street and Bridge Street, Wrexham.

Notice under Development Management Procedure Order (Wales) 2012

I refer to your email / enquiry dated 15/08/2018 in respect of the above.

General

The site is located within Wrexham Town Centre and is served by adequate footway provision and pedestrian crossing facilities.

There are a number of car parks nearby including St. Giles and Island Green. However, St. Giles is only a short stay car park and I understand that Island Green is relatively expensive for those wishing to park for long periods of time.

The proposed development site is located on the corner of Bridge Street and Brook Street which have the following characteristics:-

Bridge Street

Bridge Street is a busy classified road subject to a 30mph speed limit along which a traffic calming scheme is in place. However, I would estimate typical vehicle speeds at being around 25mph along this section given the existing traffic calming measures in place along this section and the proximity to the signalized Brook Street / Bridge Street junction.

Any proposed / existing access in this location would normally require visibility splays of 2.4 x 33m in both directions measured to the nearside edge of the adjoining highway in accordance with Manual for Streets.

Rydym yn croesawu gohebiaeth yn Gymraeg. Byddwn yn ymateb i unrhyw ohebiaeth yn Gymraeg ac ni fydd hyn yn arwain at unrhyw oedi.
We welcome correspondence in Welsh. We will respond to any correspondence in Welsh and this will not lead to any delay.



BUDDSODDWYR | INVESTOR
MEWN POBL | IN PEOPLE

There is no existing access serving the site. However, it would appear possible to construct a suitable access to serve the site which could provide the required visibility splays. I would recommend that any proposed access is located at the southern end of the site (uphill) given the proximity of the signalized junction. However, these splays have not been indicated on the submitted layout plan (Drg. No. L13).

Given the busy nature of the footway fronting the development site along Bridge Street, I would recommend that any proposed access provides pedestrian visibility splays of 2.4 x 3.3m in both directions measured from the back of the footway in which there shall be no obstruction greater than 0.6m in height. However, these splays have not been indicated on the submitted layout plan.

In order to improve access into / from such an access, I would recommend that a yellow box junction marking is installed on Bridge Street fronting the proposed access. I assume that such a feature would require a Traffic Regulation Order to permit enforcement. I would recommend that the applicant discusses this issue with our Traffic Section – contact Darren Green on Tel: 01978 729643. This will have the benefit of reducing the likelihood of any queuing issues back towards the signalized junction potentially caused by vehicles waiting to turn right into the car park of Bridge Street.

This section of Bridge Street has previously been subject to improvements utilising high quality paving materials and street lighting columns. Any proposed access in this location would need to utilise the same materials as existing to preserve the quality of this scheme.

This section of Bridge Street is subject to a Traffic Regulation Order (TRO) preventing waiting / loading.

Adequate parking and turning provision shall be provided at the proposed development site in accordance with LPGN 16.

Brook Street

Brook Street is a busy classified road subject to a 30mph speed limit. However, typical vehicle speeds could well be around 25mph along this section given the proximity to the signalized Brook Street / Bridge Street junction.

There is no vehicular access in respect of the existing Central Buildings site and no vehicular access is proposed.

Although there is an existing loading bay fronting the development site off Brook Street, this may not always be available when in use by delivery vehicles delivering to other premises in the vicinity.

A significant portion of Brook Street is subject to a Traffic Regulation Order (TRO) preventing waiting / loading. However, there are a limited number of 30 minute waiting bays further along Brook Street and along Town Hill. However, these spaces are already heavily used by existing shop owners / customers / member of public.

Parking & Turning Provision

Central Buildings (Brook Street)

I understand that it is proposed to convert the upper floors at Central Buildings to 10 no. 1 bedroom apartments without any parking provision.

There are a number of car parks nearby including St. Giles and Island Green. However, St Giles is only a short stay car park and I understand that Island Green is relatively expensive for those wishing to park for long periods of time. Although there are a limited number of 30 minute waiting bays further along Brook Street and along Town Hill, these spaces are already heavily used by existing shop owners / customers / member of public.

This area of Wrexham Town Centre already suffers from significant on-street parking problems particularly along Lea Road, Bellevue Road and Jubilee Road. It is considered that without adequate parking provision, the proposed development will exacerbate this existing problem.

A planning application (Ref: P/2010/1052) was previously submitted for the conversion to 22 apartments at Central Buildings which was refused by the Planning Department. This was later appealed but dismissed by the inspector due to the lack of parking provision.

In terms of the current proposal, LPGN 16 would normally require a maximum of 1.5 spaces per apartment equating to the maximum requirement for 15 spaces. The lack of parking provision at the site is considered unacceptable and I would not be able to support the proposed development.

Bridge Street (Land south of central Buildings) Drg. No. L13

I understand that it is proposed to construct 32 no. 1 bedroom apartments with 22 no. parking spaces off a new access at the southerly end of the site.

The submitted layout plan indicates a new 4.5m wide access located at the southern end of the site. This access appears to incorporate kerb radii and is gated approximately 7m behind the adjoining carriageway.

I would recommend that any proposed access is a minimum width of 5.5m in order to accommodate the simultaneous passage of cars / refuse vehicles. Any gates should be set back an appropriate distance to accommodate a refuse wagon clear of the highway (back of footway).

I assume the access will incorporate kerb radii. Any proposed access will need to accommodate the swept path movements of a refuse wagon without having to encroach over the centerline of the adjoining carriageway. The submitted layout plan does not indicate suitable provision for the turning of a refuse vehicle within the curtilage of the site. I would recommend that appropriate swept path details are provided indicating how a refuse vehicle will enter, turn and exit the site safely.

Consideration will need to be given to providing footways alongside the access into the rear car park for pedestrian movements.

In terms of parking and turning provision at the development site, I comment as follows:-

The provision of 22 spaces for 32 no. one bedroom flats is considered unacceptable.

Transport Advice Note

The TRICS data included in the Transport Advice Note includes data in respect of other private apartments located on "Edge of Town Centre", "Suburban Areas" and "Edge of Town" sites. However, I would not consider "Suburban Areas" and "Edge of Town" sites to be relevant to the proposed development site. I would recommend that these sites are removed from the analysis.

Managing Refuse Storage & Collection

Having discussed the issue of waste storage and collection with the Waste / Recycling Section, I comment as follows:-

I understand that the proposed 42 apartments are likely to require typically 9 no. large 1100 litre bins for general waste and around 8 no. 240 litre bins for recycling purposes. The submitted Design & Access Statement / Transport Advice Note does not provide details of where this number of bins will be stored or how they will be emptied safely without causing an issue on the adjoining highway.

If the proposed development is supported, I would recommend that a condition is imposed requiring the submission of a waste / recycling management plan. As discussed above, the applicant will need to provide details of a suitable turning facility within the site for a refuse vehicle. It may be the case that smaller private refuse vehicles will need to service the site in lieu of larger Council refuse vehicles.

I would recommend that the applicant discusses the above issue with our Waste / Recycling Section.

Construction Traffic Management Plan

If the application is supported, then I would recommend the following condition:-

No part of the development shall commence until a Construction Traffic Management Plan including provisions for contractor parking has been submitted to and approved in writing by the Local Planning Authority and the plan as is approved has been fully implemented.

I would recommend that the applicant liaises with our Traffic Section (contact Darren Green on Tel: 01978 729643) to discuss any required traffic management measures.

Scheme for Surface Water Drainage

A scheme of surface water drainage will need to be submitted for approval. I would recommend that the applicant contacts our Flood Management Officer – Neil Taunt (Tel: 01978 729734) to discuss.

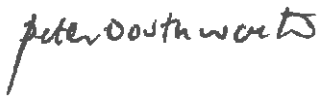
Conclusion

Given the proximity of the proposed development site to the signalized junction of Brook Street / Bridge Street / St. Giles Way / Town Hill, it is considered that the lack of parking provision and turning/ servicing provision at the site will result in indiscriminate parking / waiting in this location which would be incompatible with through traffic interests and a potential source of danger to road users and pedestrians. I would therefore not be able to support the proposed development.

If the applicant was to reduce the number of apartments and provide adequate parking (ie/ 1 parking space per apartment) and address the waste storage / recycling issues raised then further consideration could be given to the development.

You are advised that the above comments are those of an officer of the council and do not commit the Council in any way with regard to the determination of any formal planning application that may be submitted. You are also advised that the above comments take account of policies and guidance adopted by the Council at the present time and which remain open to continuous review.

Yours faithfully,



 Planning Control Manager

Report on pre-application consultation.

In relation to: proposed residential development on land
at Corner of Brook Street and Bridge Street, Wrexham.

the
Planning
C o n s u l t a n c y

1. INTRODUCTION.

- 1.1. It is now a requirement that all major applications for residential development are subject to pre-application consultation and that the application, when submitted, is supported by a report summarising the responses to the consultation exercise, together with any responses to points that may have been made.
- 1.2. This report provides the required details and responses in relation to the proposed development on land at the corner of Brook Street and Bridge Street, Wrexham.

2. CONSULTATION.

- 2.1. A copy of the complete draft planning application was loaded onto the Applicant's website at <http://centralbuildingsregeneration.co.uk>.
- 2.2. A copy of the neighbour notification and notice, and letters and the associated notice to specialist consultees and local councillors is attached at Appendix One to this report.
- 2.3. A total of 11 owners or occupiers of adjacent properties on Bridge Street, Brook Street (including the occupiers of the lower floors of Central Buildings) and Town Hill adjoining the application site received hand delivered notices informing them of the consultation exercise and where they might view the proposals. The notification of the application included not only those whose properties physically adjoin the application site, but also other properties within the vicinity; in this respect the consultation exercise exceeded the statutory requirements.
- 2.4. Notice of the application was also posted on both the Bridge Street and Brook Street road frontages, so as to enable other people in the locality to learn of the proposals and have an opportunity to comment.
- 2.5. The local Councillor was also consulted.
- 2.6. Offa Community Council were consulted.
- 2.7. Three specialist consultees were also consulted, namely Wrexham Highways Department, Dwr Cymru Welsh Water, and Natural Resources Wales.
- 2.8. The consultation period ran between 15th August 2018 and 12th September 2018, meeting the requirement for a consultation period of a minimum of 28 days.

2.9. The Applicants have, therefore, complied with the statutory requirements for pre-application consultation

3. RESIDENTS RESPONSES.

3.1. Only one response was received from a resident. The representation did not object to the development, but claimed a right of way through the site upon which the new build is proposed.

3.2. This issue has been discussed with the site owners who dispute the claim. However, the matter is in the process of being resolved, it should not impact on the consideration of the application on its merits.

4. LOCAL COUNCILLOR.

4.1. The local councillor did not provide a response.

5. COMMUNITY COUNCIL.

5.1. The Community Council did not respond.

6. SPECIALIST CONSULTEES.

6.1. Copies of the three responses from the specialist consultees are included within Appendix Two.

6.2. Dwr Cymru Welsh Water

Welsh Water provided a number of helpful comments, most notably, they indicated that there was capacity in the foul sewer and waste water treatment works for the development and advised that surface water should not be discharged into the public sewer.

6.3. Natural Resources Wales

NRW commented on two matters:

6.3.1. It was noted that part of the site lies within flood zone C2, this comment relates to the proposed conversion of Central Buildings; it is not clear whether NRW appreciated that the proposal relates to the upper floors of the building and that the established use of these floors is also for a similar 'highly vulnerable' use.

6.3.2. The matter is addressed in greater detail in an addition to the Planning Statement.

6.3.3. NRW also considered that insufficient information had been submitted to determine whether there was an issue with bats, an additional bat emergence survey has subsequently been undertaken to address this matter. There is no evidence of bats in

the building.

6.4. Wrexham Highways Department

It was noted that further information was required in relation to the available visibility splays from the site access, the ability of service vehicles to turn within the site, and the sufficiency of provision for bin storage areas within the development.

6.5. All of the above matters have now been addressed within the application. The provision of appropriate access and turning facilities within the site for a three-axle rigid vehicle has necessitated amendments to the proposals resulting in a reduction of four units within the new build apartment development.

6.6. The Highways Department also objected to the proposed level of car parking for the development. A meeting was held with the Highways Department on 16th October in order to discuss their concerns, as a result of which it was agreed that additional comment would be provided within the Planning Statement in order to justify the proposed approach.

7. CONCLUSIONS.

7.1. The extent of the pre-application consultation exercise has exceeded that required within the guidelines and, therefore, it is hoped that more people have been informed of the proposals and given an opportunity to comment than would, otherwise, have been the case.

7.2. A small number of technical issues have been identified by specialist consultees, most of these have been addressed by amendments to the application. Remaining issues in relation to flood risk and car parking are addressed within the Planning Statement.

7.3. Consequently, it is concluded that the proposals are now at the stage where it is appropriate to formally submit the application, any matters still at issue between the Applicants and consultees can be appropriately discussed during the consideration of the application.

Land at Corner of Brook Street & Bridge Street, Wrexham

Proposed Residential Redevelopment – Planning
Statement.

the
Planning
C o n s u l t a n c y

1. Introduction.

1.1. This Statement is submitted in support of a planning application relating to a proposal for the redevelopment of land and buildings on the corner of Brook Street and Bridge Street, Wrexham. The application has two main elements:

1.1.1. The conversion of the vacant first and second floors of Central Buildings to provide a total of ten single bedroomed apartments. The proposal also includes an amendment to the ground floor front elevation to Brook Street, in order to provide for a revised access to the apartments, together with a separate rear access leading to a courtyard area which would include a cycle storage area together with a separate bin storage area.

1.1.2. The redevelopment of the vacant site to the rear of Central Buildings on Bridge Street to provide a four-storey apartment block comprising twenty-eight single bedroomed apartments, together with parking and cycle storage to the rear to be used in relation to both parts of the development.

1.2. The following plans provide detail of the application proposals:

- Location plan 8821/L17
- Central Buildings - Existing and proposed elevations 8821/L09
- Central Buildings - Existing and proposed floor plans 8821/L10
- Brook Street – Site plan and ground floor layout – 8821/L30
- Brook Street – First floor layout – 8821/L31
- Brook Street – Second floor layout – 8821/L32
- Brook Street – Third floor layout – 8821/L33
- Brook Street – Proposed elevations – 8821/L34
- Brook Street – Apartment layout – 8821/L22
- Highway visibility splays – 8821/L24
- Refuse vehicle tracking plan – 8821/L23

The application is also accompanied by:

1.2.1. Transport Advice Note – This Note identifies no issues with the application to merit refusal. The issue of parking is addressed in further detail in a subsequent section of this Statement.

- 1.2.2. Flood Consequences Assessment – This advises that part of the Central Buildings site falls within the NRA Zone C2 on the Development Advice Map, although more recent modelling (carried out on behalf of the NRA) indicates that this is not in fact the case. However, having regard to the fact that this application relates to development on the upper floors of this building to and from which there is safe access, no flooding issues arise. The new build site is not identified as being at risk of flooding.
- 1.2.3. Acoustic Survey – Subject to standard mitigation within the construction, there are no noise issues with this proposal.
- 1.2.4. Bird and Bat survey report (and accompanying bat activity survey) – No evidence has been identified from surveys of either nesting birds or bat roosts within the building.
- 1.3. Whilst some of the above documents are referred to in this Planning Statement, they should all be read as part of the application in their own right.
- 1.4. This Planning Statement sets out the reasons why the application proposal should be viewed as an appropriate and sustainable proposal for the reuse of this site which should be granted planning permission.

2. Housing land availability considerations.

- 2.1. The starting point for the consideration of this application is that the Council cannot demonstrate a five year housing land supply. As the 2017 Housing Land Monitoring Statement confirms, this is primarily because the 'present' Unitary Development Plan has time expired and in such circumstances Technical Advice Note No 1 (TAN 1) makes clear at paragraph 8.2 that authorities in such a position will not be able to undertake a land availability study and will, therefore, be considered not to have a five year land supply.
- 2.2. However, as the Housing Land Monitoring Statement again confirms, the delivery of housing in Wrexham has declined steadily over the past decade to a low point of just 199 completions in 2016, there was an increase in 2017 to 328 completions, but this is still below the 385 dpa average within Policy H1 of the now time expired UDP and significantly less than the 516 dpa proposed within the Deposit version of the Wrexham Local Development Plan 2013 - 2028. It is clear, therefore, that there is a serious shortage of housing land, both in principle and in practice.
- 2.3. As paragraph 2.1 of Technical Advice Note No 1 explains, maintaining a five year supply of housing land is a "key planning policy requirement of the Welsh Government". The need to increase the supply of housing land in Wrexham is, therefore, a matter that should be afforded significant weight. Whilst it would be correct to say that this does not mean that all proposals should necessarily be granted permission it is an important starting point that should lend further weight to this application being approached in a positive fashion.

3. Planning policy considerations.

3.1. The following policies are highlighted as relevant to a consideration of the application proposal:

3.1.1. Planning Policy Wales (PPW) sets out its Sustainable Settlement Strategy at para 4.7, this includes identifying previously developed land and buildings and acknowledging the potential for higher density development in locations where accessibility on foot and by bicycle and public transport is good. Para 4.7.4 proceeds to emphasise that new development should as far as possible minimise the need to travel and increase accessibility by modes other than the private car.

3.1.2. Para 4.9 sets out the preference for the re-use of land with para 4.9.2. stating that many previously developed sites in built up areas may be considered suitable for development because their re-use will promote sustainability objectives.

3.1.3. In terms of specific housing policy para 9.1.1 of PPW indicates that the Welsh Government will seek to ensure that previously developed land is used in preference to greenfield sites.

3.1.4. Para 9.2.6 of PPW indicates that planning authorities should address the scope and potential for rehabilitation, conversion, clearance and redevelopment when considering sites for housing development as this assists regeneration and relieve pressure on greenfield sites.

3.2. It is clear that the application proposals would be consistent with all these objectives of National policy guidance, seeking to make use of the vacant upper floors of an existing building and providing for the redevelopment of an adjacent vacant or derelict site.

3.3. Although it is now time-expired, the Unitary Development Plan (UDP) adopts a similarly positive approach to the principle of development as proposed:

3.3.1. Policy PS1 indicates that new development for housing will be directed to locations within defined settlement limits, the application site is within the settlement limits of Wrexham.

- 3.3.2. Policy PS3 emphasises the preference for the re-use of previously developed sites, such as the application site.
- 3.3.3. Policy PS4 indicates that development should look to be located so as to help reduce the need to travel and to encourage the use of alternatives to the car; the application site is ideally located so as to provide for access to a full range of services and facilities without the need to use a car.
- 3.3.4. Policy H2 supports the principle of residential development on unannotated land within settlement limits.
- 3.3.5. Policy H13 identifies the Bridge Street/Cambrian Yard regeneration area of which the application site forms part, residential development is one of the uses identified as suitable for the area. The explanation of the policy indicates that given the location and type of housing proposed to be provided, reduced parking standards are likely to be appropriate.
- 3.3.6. The application site is also identified as lying within the area of the Wrexham Town Centre Masterplan, part of the Strategy is to encourage residential development within the Town Centre including residential development on Bridge Street (para 3.5.6) and the conversion of vacant upper floors of existing buildings (para 3.5.7).
- 3.3.7. Para 3.5.8. of the Masterplan again confirms that the principle of residential development on Bridge Street is supported in principle with the subsequent paragraph indicating that higher density development is also supported in this area.
- 3.4. It is clear that the thrust of both National and Local policy is to encourage the redevelopment of land and the reuse of buildings, both of which would result from the application proposals and the provision of 38 new apartments would also contribute to addressing the housing land shortfall within Wrexham. All of the proposed apartments would be single bedroomed units that, it is intended, will be made available for rent, the development would, therefore, meet the needs of persons who often find it difficult to access suitable accommodation on the open market. The principle of the proposal should, therefore, be viewed as entirely acceptable.

4. Access and parking issues.

- 4.1. The application proposal includes the provision of 19 parking spaces to be used by the proposed apartments, together with the provision of secure cycle storage.
- 4.2. A proposal to convert the upper floors of Central Buildings to student accommodation was refused on appeal in 2011 for reasons relating to the lack of car parking. It is important to emphasise that the reason for the Inspector's decision was, not that a scheme without parking was unacceptable in principle, but rather, because the submitted planning obligation did not include any control over the enforcement of the proposed obligation on residents not to have cars.
- 4.3. Notwithstanding the above, it is important to note that the current proposal is materially different to that related to the student development for two key reasons:
 - 4.3.1. First of all, whereas the student development had no parking whatsoever, this proposal includes a total of 19 parking spaces that will be available to residents of both the conversion of Central Buildings and the new-build development.
 - 4.3.2. Secondly, the access to the development has been designed so that the car park area can be accessed by service vehicles which can turn within the site, thereby avoiding the need for the accommodation to be serviced from the roadside (e.g. refuse vehicles, removal vehicles, general deliveries etc)
- 4.4. However, it is, of course, far from unusual for buildings in town centres not to have their own dedicated car parking, in many cases it is a function of their age, having been built before car ownership was an issue; in most cases, if these buildings are to continue to be used (as policy in the previous section clearly indicates is to be supported), then it is self-evident that a flexible attitude to parking issues needs to be adopted.
- 4.5. The Council's approach to parking is set out Local Planning Guidance Note No 16 (LPGN16). The preamble to the document notes that where developments are close to local services, such that people are able to walk or cycle to them or use public transport, it may be appropriate for less parking to be provided. Furthermore, it is also commented that consideration will be given to the proximity of public car parks and that, where people can easily travel by means other than the car, reducing the amount of car parking actually enables development land to be

used more efficiently.

4.6. The submitted Transport Note has looked at the availability of services, facilities and public transport in the locality of the application site in detail and has concluded that the location is ideal in order to encourage travel by non-car modes.

4.7. LPGN16 goes on to set out parking standards which it indicates are maximum standards, noting that there are no minimum standards. In relation to the change of use of existing buildings, it is commented that such proposals will be treated on their own merits with additional parking possibly being required when the proposed use generates a greater demand than the previous use.

4.7.1. In this case the previous, permitted, use of Central Buildings is as a nightclub. Nightclubs do not fall within any of the established Use Classes. Nevertheless, a comparison can be made with the parking requirements for Class A3, pubs, restaurants and cafes, for which LPGN16 requires 1 parking space per 4 m² of public floorspace. The application premises have a total floorspace of 442 m², assuming that one third of this was not public floorspace, then the parking requirement would be approximately 72 parking spaces.

4.7.2. By contrast, in accordance with the LPGN16 standards, 10 x 1 bedroomed apartments would require just 15 parking spaces.

4.8. Whilst it may be argued that a nightclub is neither a restaurant or a pub, it is, nevertheless, a similar activity with staff delivering a leisure activity involving alcohol to a large number of people, often in the evening/night-time periods – a nightclub will often be attended by larger numbers of people. Therefore, it is considered that it is reasonable to consider the extant use by reference to the A3 category, but even if that was not considered to be an entirely accurate comparison, it is clear that the parking requirements for a nightclub could be significantly less, but still markedly greater than the proposed use. On the above basis, and in accordance with LPGN16 guidance there should be no need to provide parking in relation to this element of the application proposals as its parking requirements are less than those associated with the existing use and there would not, therefore, be any material harm to highway conditions or safety as a result of the proposal proceeding.

4.9. A flexible approach to parking requirements in the Town Centre has been accepted by the Council in recent years (since the appeal decision relating to Central Buildings

referred to at paragraph 4.2 above), including the following two examples:

4.9.1. P/2014/0116, 32 – 36 Bridge Street – Demolition of nightclub and erection of restaurant/take-away and 10 flats. The Officer report calculated a theoretical requirement for 54 parking spaces, but just six were proposed. The site was identified as being within one of the most sustainable locations in the County Borough and, it was commented, the provision of parking would actually encourage car use within the Town Centre, consequently, permission was granted. In the pre-application consultation the LPA responded by noting that this particular site was within the area subject to Policy H13 where Policy recognises that reduced parking standards should be considered; the application site is, of course, in the same area and it is, therefore, logical that it should be viewed in a similar fashion.

4.9.2. P/2015/0272 – Trinity House, Trinity Street – Conversion of first and second floors to 21 apartments. In this case the previous office use was said to have four parking spaces, this proposal actually reduced this to three spaces, but permission was granted. Once again, within the pre-application consultation response it was noted that the site was considered highly sustainable having regard to its proximity to shops, amenities, a large local authority car park and public transport and was approved. As the Transport Note confirms, the application site also meets all of these criteria and should, again, be viewed in the same positive fashion.

4.10. The Transport Note reports the results of the 2011 Census in respect of car ownership rates within the Offa Ward, where 33% of households do not own a car, this is clearly a significant proportion of the population to whom the proposed development would potentially appeal. Different types of dwellings appeal to different people – people wanting a house with a garden are unlikely to look at an apartment for example – but it is clear that there are substantial numbers of people in Wrexham who not only would like a centrally located apartment, but who also do not own a car.

4.11. Reference has previously been made to the Wrexham Town Centre Masterplan. In addressing the objective of introducing additional residential population into the Town Centre, para 3.5.12 states:

The town centre is a sustainable location and arguments for reduced parking requirements can be made. With close proximity to the bus station which serves as a transport hub for the County Borough, close proximity to the railway stations which have seen significant growth in usage, and with great accessibility to a full range of essential services within walking distance there are excellent opportunities to reduce reliance on cars and promote sustainable transport modes thereby reducing the car parking requirements.

The Transport Note confirms these observations and also concludes that there is justification for permitting the proposed development without any requirement for parking. This is not, of course, what is proposed, but the provision of 19 parking spaces to be shared between the 38 apartments is clearly an appropriate reduced level of parking in relation to this highly sustainable location where the Council's various policy documents, as highlighted above, specifically acknowledge the potential for reduced parking levels.

- 4.12. Finally, notwithstanding the appeal decision relating to the application site itself, consideration has also been given to other appeal decisions where similar issues have arisen in the recent past. There are countless such decisions relating to proposals in London, emphasising that the issue is very much one for established urban areas, however, the following summary of decisions relates to appeals in other towns and cities (full copies of the decisions can be supplied if required). The decisions all relate to the extreme situation where no parking was proposed, but these only serve to further emphasise the appropriateness of a scheme involving reduced parking levels as is proposed in this case:

- 4.12.1. Letchworth Garden City (APP/X1925/W/16/3162259) – 18 apartments, no parking. The proposal was in a town centre location with good access to bus services and services, a significant number of town centre residents did not

own a car, but future residents would not be dependent upon car ownership to meet most of their daily needs. The Inspector concluded that the proposal would not have a severely harmful impact on the parking capacity of the area and granted permission.

4.12.2. Canterbury (APP/J2210/W/15/3140462) – 10 apartments, no parking. The Inspector concluded that the site was in a sustainable location in terms of access to local shops, services and facilities and with access to public transport and that these factors substantially reduced the reliance of residents on cars and would also discourage driving to the proposal, parking in the locality would in effect be self-managed. The proposal was concluded to be consistent with National policy which sought to manage patterns of activity to make the fullest use of public transport walking and cycling, facilitating the use of sustainable modes of transport.

4.12.3. Wallington (APP/P5870/W/15/3005475 – 8 apartments and a new café and restaurant, no parking. Although the appeal was dismissed for reasons unrelated to the parking issue, the Inspector noted a policy requirement for 60 parking spaces, albeit that this was a maximum figure. The Council acknowledged that the location was good in terms of public transport accessibility, but that current stress for parking in the area was moderate to high. The Inspector concluded that there was no reason to conclude that residents would park illegally or inconsiderately so as to pose a highway safety risk, rather, they would know that there was no parking and this would be likely to influence their decision regarding acquisition and choice of transport modes. The Inspector concluded that parking was not a reason for refusal.

4.12.4. Brighton (APP/Q1445/A/14/2223461) – 3 apartments and a commercial unit, no parking. Again, the Inspector dismissed the appeal for design related reasons, but noted that the site was close to public transport, the marina for

entertainment and shops, as well as other facilities in accessible locations. The Inspector concluded that the car free nature of the proposal could be given full weight for the benefits it would bring in reducing congestion.

4.12.5. Cambridge (APP/Q0505/A/13/2207016) – 15 apartments, no parking. The Inspector acknowledged that inappropriate car parking could cause inconvenience to existing residents, however, the proposal was close to public transport and there were secure cycle storage facilities so that the development would appeal mostly to non-car owners and the potential for harm from inconsiderate parking was minimal. However, the appeal was dismissed for other reasons.

4.12.6. Cambridge (APP/Q0505/A/12/2180931) – 5 apartments, no parking. The Inspector observed that the parking standards were maximum standards, the site was close to the City Centre, local shops, facilities and public transport, the small size of the flats also meant that car ownership would be lower than average. There were double yellow lines along roads in the vicinity and if properly controlled this would prevent inconvenient parking or parking that would harm highway safety, therefore, there was no harm from the lack of parking.

4.12.7. Brighton (APP/Q1445/A/12/2179615) – Replacement B1 unit and 9 apartments, no parking. The Inspector noted that surrounding roads were already heavily parked, but concluded that this was acceptable as its residents would be likely to favour walking, cycling and public transport which was consistent with the Government's approach to sustainable transport.

4.12.8. Portsmouth (APP/Z1775/A/11/2158278) – 41 apartments with 2 disabled parking spaces. The Inspector concluded that the site was close to services and facilities and was next to a street served by frequent bus services and within

800 metres of two rail stations and was, therefore, a location where future residents should find it convenient not to own a car. In addition the Inspector accepted the Appellants assessment of a need for 18 parking spaces based on the low car ownership rates in the locality and with available capacity within 200 metres of the site, together with the fact that the previous use must have generated parking that would also have been off-site, this led to the conclusion that parking was not a reason for refusal.

4.13. It is clear from all of the above appeals that the issue of parking in urban areas has arisen on numerous occasions previously, but a pragmatic approach has been taken by inspectors where sites are sustainably located with opportunities for access to facilities etc by means other than the private car – as is the case with the application site, as demonstrated by the Transport Note and acknowledged within the Wrexham Town Centre Masterplan.

4.14. Having regard to all of the above considerations, it is clear that the application site is sustainably located with good access to facilities by non-car modes, this is clearly a location where a reduced level of parking is justified. On this basis, no harm arises from the proposal in terms of parking or highway safety concerns.

5. Design considerations.

5.1. The design considerations relating to this development are considered in two separate parts as follows:

Central Buildings

5.2. As noted in the description of the development at the beginning of this Statement, there are few external changes that are necessary in order for the building to accommodate this proposal, these being limited to the relocation of the access to the apartments on Brook Street (so as to make more efficient use of the internal space).

5.3. On the Brook Street frontage it is proposed that the existing doorway to the upper floors be closed up with a former doorway, immediately to the left, being reopened in order to access a new stairway, this minor change will of itself be insignificant, but will assist in making more efficient use of the ground floor accommodation.

5.4. Otherwise, it is proposed that the presently painted render at ground floor level should be broken up through the use of a combination of slate and stone cladding on the Brook Street frontage and painted render on the Bridge Street elevation, all of which will assist in lifting the general appearance of the building whilst retaining its traditional character on a prominent corner.

5.5. The external appearance of the rear elevation of the property will not be altered, the existing access will be retained, providing for access from the apartments to the rear courtyard where cycle and bin storage will be provided.

5.6. It is clear, therefore, that, aside from the internal works to create the individual apartments, the building lends itself well to the proposed works and can be

converted without any significant changes to its appearance.

Bridge Street site

- 5.7. The site has been vacant since the demolition of the former terraced shops that occupied the site. Hoardings screen the site along the footway edge, but it is clear to see that the site is now overgrown and derelict, with the large scale blank elevations to buildings to either side and to the rear dominating views across the site. This is a site that detracts from the character of the area and it is clear that it is in need of redevelopment.
- 5.8. Although the buildings to either side of the site are of three storeys, the increased floor to ceiling heights within older properties, together with the pitched roof construction, means that the proposed four storey building on the application site would sit between the ridge and eaves height of Central Buildings, the scale of the proposal is, therefore, appropriate to the site, leading up to no 26 Bridge Street which is on slightly raised ground.
- 5.9. The building line on Bridge Street is at the back of the pavement, the new building is proposed to be set back behind metal fencing approximately 1.5 metres so as to maintain privacy for ground floor residents, but in overall terms this setback would be insignificant and, therefore, the development would re-establish the existing building line on this side of Bridge Street.
- 5.10. The detailed design incorporates a service and access ‘tower’ at the southern end of the frontage that would be rendered, whilst the main apartment building would have as its main facing material red brick to match that of adjacent development, however, this would be broken up with rendered panels and juliet balconies to give an attractive contemporary appearance.

5.11. In overall terms, it is considered that the proposals would result in an attractive redevelopment of the application site that would contribute positively to the appearance of the Town Centre.

6. Flood risk.

6.1. During the course of pre-application consultation, the NRW have raised issues in relation to the proposed residential use given that it is categorised as a 'highly vulnerable' use and is proposed, in part, within an area at risk of flooding. The NRW approach requests that the LPA first consider whether the proposed development is one that they would wish to support and at that point the NRW would then consider and comment on the flood risk associated with it.

6.2. It is important to put the flood risks in an appropriate context:

6.2.1. A Flood Consequences Assessment is submitted with this application, this identifies the 'problem' as being limited to Central Buildings, it does not affect the part of the site to the rear upon which the new build development is proposed. The Assessment refers to additional modelling undertaken on behalf of NRW subsequent to the publication of the Development Advice Map which concludes that even Central Buildings would remain dry in a 1 in 100 year, plus climate change, flood event, and, although some flooding may be expected in a 1 in 1000 year flood event, this would place the building outside zone C.

6.2.2. It is important to note that the proposal relates to the proposed use of the first and second floors of the building; the existing ground floor uses are entirely unaffected, consequently, the proposed use would be well above any theoretical flood level that might arise in the 1 in 1000 year event.

6.2.3. It is acknowledged that access and egress from the development is an important consideration and the proposed development within Central Buildings does have an access at ground floor level from Brook Street which could, potentially, be flooded. However, the submitted plans make clear the availability of a second access into the building from the rear which would

remain dry in all modelled conditions, consequently, there is no risk of the building being 'cut off'.

6.2.4. In dealing with an existing building, the risk of flooding clearly needs to be considered having regard to the risks associated with the current use of the building. The existing use of the upper floors of Central Buildings is as a nightclub which should also be viewed as being a highly vulnerable use. Consequently, the proposal does not propose an increased flood risk and, indeed, the number of people potentially exposed to a flood event within a nightclub would be likely to be significantly greater than the population of 10 single bedroomed apartments.

6.2.5. Finally, it should be noted that the 2011 appeal proposal for student accommodation, a similar 'highly vulnerable' use, was considered against identical National guidance and flooding was not identified as an issue.

6.3. Without prejudice to the above, Section 6 of TAN 15 recognises the need for flexibility in considering development proposals within areas of existing development that are at risk of flooding. In considering highly vulnerable development within Zone C paragraph 6.2 sets out a series of tests which are addressed as follows:

i. *Its location within zone C is necessary to assist or be part of a local authority regeneration initiative* – See paragraphs 3.3.5 and 3.3.6 above, the site is within a regeneration area specifically identified within Policy H13 and the Town Centre Masterplan encourages the reuse of the upper floors of buildings, together with residential use. The proposal is, therefore, entirely consistent with the LPA's regeneration initiatives for this area.

iii. *It concurs with the aims of PPW and meets the definition of previously developed*

land – Once again, see Section 3 above for analysis of compliance with PPW, the site is previously developed land.

iv. The potential consequences of a flood event have been considered and found to be acceptable – See, in particular, paragraph 6.2.2 and 6.2.3 above.

6.4. The proposal should, therefore, be viewed as consistent with the flexible approach that is set out in relation to the use of buildings within established developed areas.

6.5. For all of the above reasons, the proposed use is one that the LPA should support in the circumstances, it is clear that there is no significant risk in association with flooding and this should not, therefore, be seen as a reason why planning permission should be withheld.

7. Conclusions

7.1. The case for this application can be summarised as follows:

7.1.1. There is a need for additional housing to be granted, this factor should be given “considerable weight” in the determination of the application.

7.1.2. The upper floors of the Central Buildings have been vacant for several years, the proposal, therefore, provides a means of finding a new, sustainable, use for the vacant accommodation.

7.1.3. The remainder of the site has also been vacant and overgrown for some years and would greatly benefit from redevelopment.

7.1.4. The site is in a highly sustainable location where there is every opportunity for residents to access services and facilities without the use of the private car. In these circumstances it is clear that the proposed development with a reduced level of parking is one that should be viewed as acceptable, in line with the Council’s own policies and approach to parking.

7.1.5. No part of the development is subject to a level of flood risk that would justify the refusal of planning permission.

7.1.6. The proposals will maintain the external appearance of Central Buildings, indeed, the renovations proposed will result in its appearance being enhanced.

7.1.7. The appearance of the vacant site on Bridge Street will also be significantly enhanced through the construction of an attractive new building of appropriate scale in relation to existing properties.

7.2. For the above reasons, the application proposal should be granted planning permission.



Measurement of Environmental Noise

Report Reference Number: 8084-1

For: Wendy Churchill

Project/Site Address

Central Building, Brook Street, Wrexham, LL13 7LH

Prepared by

John Ashe

Test Date

16th June 2018

Report Date

19th June 2018

Section 1 – Contents

1.0	Table Of Contents	2
2.0	Objectives	3
3.0	Site Description	5
4.0	Microphone Position	6
5.0	Weather Conditions	7
6.0	Recommendations	8
7.0	On Site Microphone Calibration	9
8.0	Results	10
9.0	Technical Appendix	11

Measurement Survey
Undertaken By

John Ashe

Report Completed By

John Ashe



2.0 – Objectives

The purpose of the survey was to assess noise at the proposed development from local noise sources such as local public houses/clubs and traffic. The assessment has been done to BS8233 as no industrial noise i.e. noise from commercial ventilation, heat pumps and general work noise was not present.

The site is a proposed conversion works of an existing building into dwellings and a new build development on the vacant land to the rear of the building to be converted.

3.0 – Site Description

As can be seen by the below satellite image the development is close to the town centre which houses a number of local pubs and clubs and local businesses to the surrounding the building. The general area is busy during the day with medium to heavy traffic and pedestrian traffic.

The general construction of the building appears to be a cavity wall although it is not known if this has been insulated or not. The windows on the elevation facing the main road is double glazed.

During the night time measurement noise was generally from music from the night clubs. Noise from the main road could also be heard as people walked about from pub to pub.

Pictures of the development and a satellite image outlining the local area are below:



As can be seen in the above image, the building highlighted in red is the building to be developed into dwelling flats and the area highlighted in yellow shows the area to be developed to create new dwellings.

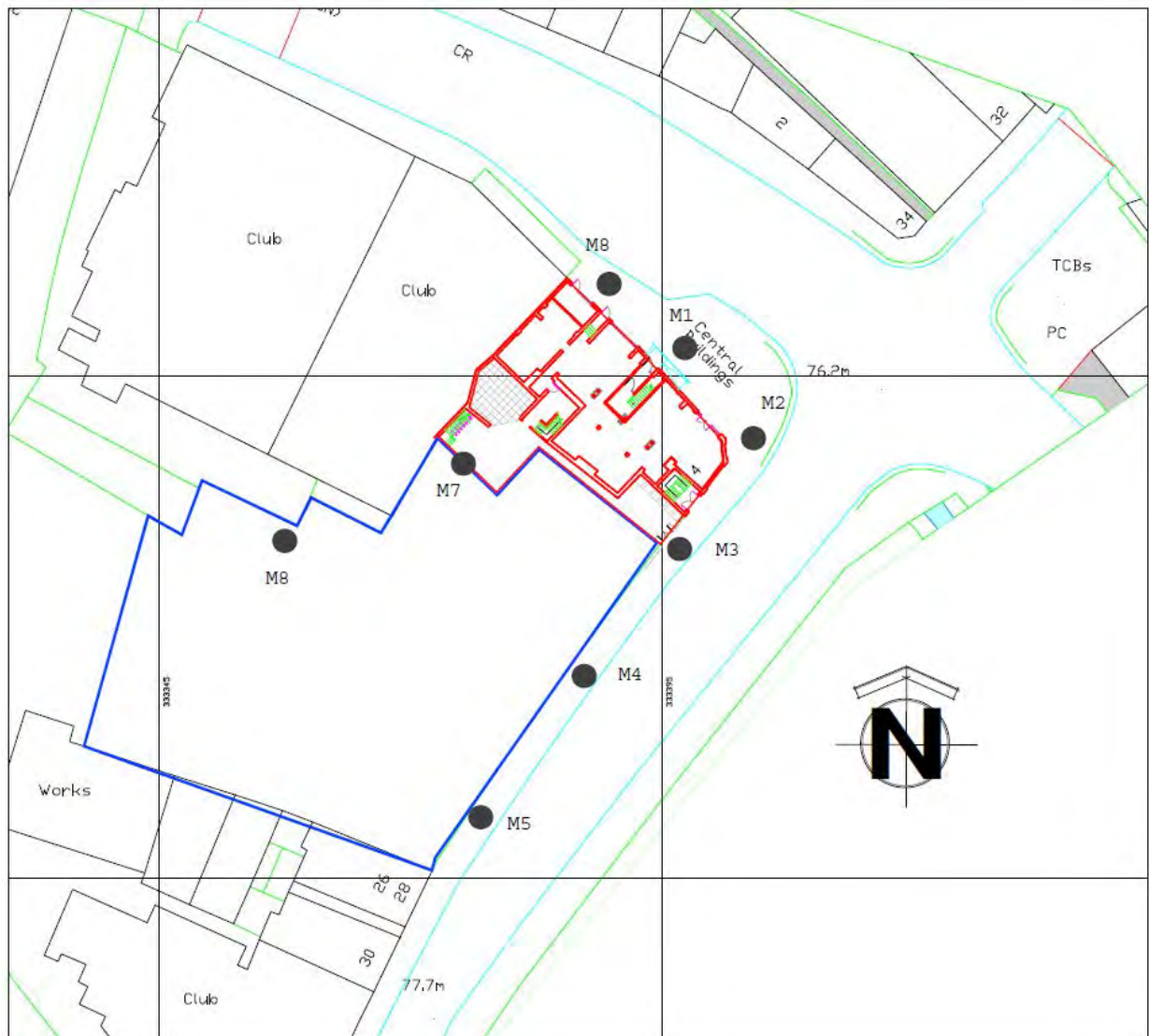
4.0 – Microphone Position

The microphone was placed around the development both internally and externally. All readings the microphone was placed at least 3m away from any surface to avoid noise reflection.

The following measurements were taken:

Measurement Time	Location Ref	Reading Reference	Duration
08/06/2018 11:30	M5 External	180608-0001l	1 Hour
08/06/2018 12:40	M6 External	180608-0002l	1 Hour
08/06/2018 13:50	M4 External	180608-0003l	1 Hour
08/06/2018 15:00	M3 External	180608-0004l	1 Hour
16/06/2018 18:30	M6 External	180616-0001j	1 Hour
16/06/2018 19:40	M1 Internal	180616-0002j	1 Hour
16/06/2018 20:45	M8 Internal	180616-0003j	1 Hour
16/06/2018 21:59	M7 External	180616-0004j	30 Min
16/06/2018 23:50	M1 Internal	180616-0006j	30 Min
17/06/2018 00:52	M2 Internal	180617-0001j	30 Min
17/06/2018 01:30	M8 Internal – Top Floor	180617-0002j	30 Min
17/06/2018 02:09	M7 External	180617-0003j	30 Min
17/06/2018 02:44	M6 External	180617-0004j	30 Min
17/06/2018 03:15	M4 External	180617-0005j	30 Min
17/06/2018 03:47	M3 External	180617-0006j	30 Min

The locations are marked below on a site plan:



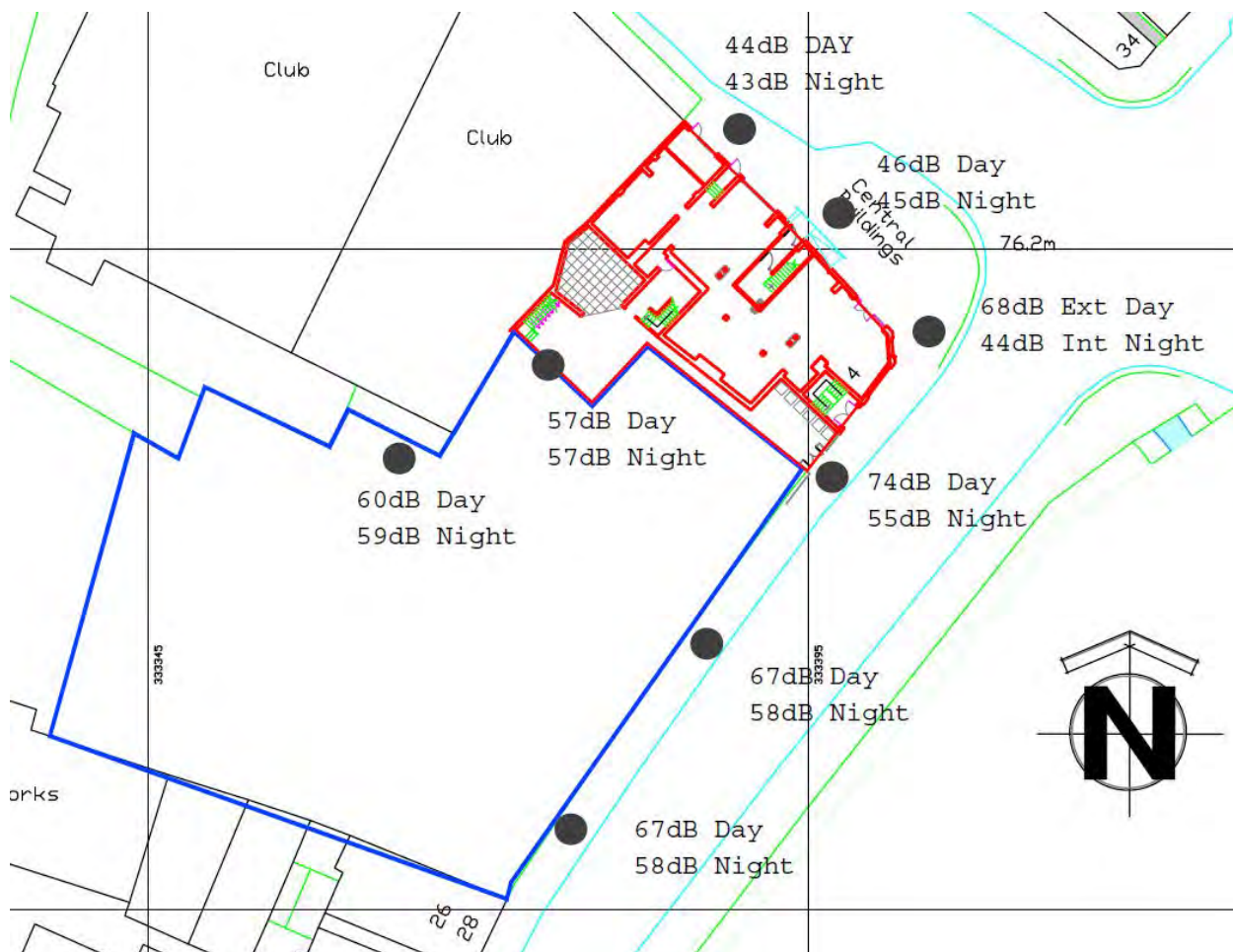
5.0 – Weather Conditions

Dry and warm with Light Winds.

	Before Measurements	After Measurements
Wind speed:	5mph	3mph
Humidity:	64%	64%
Temperature:	18°C	14°C
Barometric pressure:	100.6pa	100.6pa

6.0 – Recommendations

The noise levels are as follows:



As can be seen by the measurements, the noise levels would be far in excess of the BS8233 standards.

For the purpose of the calculations the existing façade of the existing building is assumed to achieve a 30dB Reduction.

During the night time noise levels are more prominent from the bar in the basement and the building and next door. The noise appears to be coming through the existing separating elements between the buildings.

The building is currently bare brick inside with double glazing windows which are not fully sealed reducing the noise reduction achievable.

The guidelines of BS8233:2014 which states the following:

Table 4 Indoor ambient noise levels for dwellings

Activity	Location	07:00 to 23:00	23:00 to 07:00
Resting	Living room	35 dB $L_{Aeq,16hour}$	—
Dining	Dining room/area	40 dB $L_{Aeq,16hour}$	—
Sleeping (daytime resting)	Bedroom	35 dB $L_{Aeq,16hour}$	30 dB $L_{Aeq,8hour}$

The glazing specification would need to be upgraded as I believe the windows are currently standard specification of an unknown age with standard open trickle vents. The windows on both side elevations and the front elevation will require an R_w of at least 36dB to ensure that internal noise limits are acceptable during the night time periods.

However mechanical ventilation to the flats will be required as if the windows are opened this would drastically reduce the noise reduction of the windows and cause the noise to be in excess of the BS8233 standards for night time noise levels.

Glazing specification

Windows are to achieve a minimum of 35dB R_w such as the <http://www.pilkington.com/en-gb/uk/products/product-categories/noise-control/pilkington-optiphon#brochures>. This glass is 8 – 16 – 9.1 glass which will provide the following:

Sound reduction index (dB)						
Octaveband Centre Frequency (Hz)						R_w
125	250	500	1000	2000	4000	
24	29	41	47	47	55	36

Further to the glazing, it would be recommended to install acoustic plasterboard to the external walls to help further reduce noise break-in through the walls.

The separating walls and floors in the existing building would also need to be upgraded to achieve a minimum of 60dB to ensure that noise levels from the bar in the basement and the club to the side are reduced as much as possible.

Floor Upgrade suggestion:

A complex build up and construction of the floor will be required to help mitigate the noise on the first floor from the take-away restaurant below and bar in the basement of the building.

It would be recommended to install the following on the first floor of the building separating the take-away restaurant below.

EXISTING FLOOR

18mm Cement impregnated Chipboard

JCW acoustic cradle system

70mm Battens with 100mm Rockwool RWA45 between

Collecta Screedboard 28 covering

Please note that a 5mm gap must be left between all of the above and the existing walls of the building and sealed with acoustic sealant. This will ensure that no low frequency transfer can happen between the existing structure and the new floor of the building.

The JWC cradle system will reduce low frequency sound by 40dB.

With the remaining upgrade it would be estimated that the low frequency transfer would be minimum 50-60dB reduction.

External Wall Upgrades

All external walls will need have separation from the internal finish to the external wall.

It would be recommended to install a 70mm stud wall on the inside of the building on the first and second floors.

This stud wall should be acoustically separated from the structure of the building by leaving a 15mm Clear cavity from the existing external wall structure. On the first floor of the building, this stud wall should be built onto the new floating floor system so that the wall is separated from the existing structure to avoid the low frequency sound transfer from the floor to the new internal wall.

For the new building, it would be recommended to insulate the external walls of the building with a dense mineral wool insulation to improve the sound reduction of the external walls. However, this may mean having a bigger cavity wall to be able to achieve the required U Values for Part L of the building regulations.

The noise monitoring undertaken reveals that Central Buildings currently experiences internal noise levels from the street and immediately adjacent activities that result in the internal noise level being above the standards required within BS8233. However, the building is presently largely uninsulated from the various noise sources and, therefore, this is not particularly surprising. A series of relatively standard insulation measures, as detailed in this report, incorporated into the conversion will readily achieve the required noise levels for residential accommodation set out in BS8233. Consequently, subject to a condition requiring the specified works to be incorporated into the development, there is no noise related reason why this development should not proceed.

7.0 – On Site Microphone Calibration

Microphone calibration: 114.0 dB 113.9dB = Drift of -0.1dB

(The drift value is within acceptable limits of +/-0.3dB)

8.0 – Results

Time	Reading – LAeq dB	Location Ref
08/06/2018 11:30	67.1dB ~ 67dB	M5 External
08/06/2018 12:40	67.5dB ~ 68dB	M2 External
08/06/2018 13:50	67.4dB ~ 67dB	M4 External
08/06/2018 15:00	73.9dB ~ 74dB	M3 External
16/06/2018 18:30	59.6dB ~ 60dB	M6 External
16/06/2018 19:40	45.7dB ~ 46dB	M1 Internal
16/06/2018 20:45	42.7.6dB ~ 43dB	M8 Internal
16/06/2018 21:59	57.2dB ~ 57dB	M7 External

16/06/2018 23:50	45.1dB ~ 45dB	M1 Internal
17/06/2018 00:52	44.3dB ~ 44dB	M2 Internal
17/06/2018 01:30	43.9dB ~ 44dB	M8 Internal – Top Floor
17/06/2018 02:09	56.7dB ~ 57dB	M7 External
17/06/2018 02:44	59.2dB ~ 59dB	M6 External
17/06/2018 03:15	57.5dB ~ 58dB	M4 External
17/06/2018 03:47	55.4dB ~ 55dB	M3 External

9.0 – Technical Appendix

Class 1 Microphone: Norsonic 140 SLM
Calibrator: Norsonic 1251

SITE DATA:

Please see attached sheets sent with this document.

Campbell Associates Ltd
 5b Chelmsford Road Industrial Estate
 GREAT DUNMOW, Essex, GB-CM6 1HD
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 Phone 01371 871030 Facsimile 01371879106



0789

Certificate of Calibration and Conformance

Certificate No.: U25734

Test object: Sound Level Meter, BS EN IEC 61672-1:2003 Class 1 (Precision) and associated Frequency Analyser BS EN IEC 61260, Class 1
Manufacturer: Norsonic
Type: 140
Serial no: 1405312

Customer: E2 Specialist Consultants Ltd
Address: 3B South Park Way, Wakefield Junction 41 Business Park, Wakefield. WF2 0XJ.
Contact Person: John Ashe.

Method :

Calibration has been performed as set out in CA Technical Procedures TP01 & 02 as appropriate. These are based on the procedures for periodic verification of sound level meters as set out in BS EN IEC 61672-3:2006 and for electrical testing of frequency filters as set out in BS EN IEC 61260. Results and conformance statement are overleaf and detailed results are in the attached Test Report.

	Producer:	Type:	Serial No:	Certificate number
Microphone	Norsonic	1225	168187	25733
Calibrator*	Norsonic	1251	33547	U25732
Preamplifier	Norsonic	1209	15370	Included

Additional items that also have been submitted for verification

Wind shield	Norsonic	Nor1451
Attenuator	None	
Extension cable	None	

These items have been taken into account wherever appropriate.

Environmental conditions:	Pressure:	Temperature:	Relative humidity:
Reference conditions:	101.325 kPa	23.0 °C	50.0 %RH
Measurement conditions:	99.95 ±0.01kPa	22.4 ±0.2°C	48.5 ±2%RH

Date received : 24/05/2017
 Date of calibration: 05/06/2017
 Date of issue: 05/06/2017

Engineer

Michael Tickner

Supervisor

Darren Batten TechIOA

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to recognized national standards, and to the units of measurement realized at the National Physical Laboratory or other recognized national standards laboratories. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

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info@campbell-associates.co.uk
 Phone 01371 871030 Facsimile 01371879106



CALIBRATION



0789

Certificate number: U25732

Certificate of Calibration and Conformance

Test object: Sound Calibrator
Manufacturer: Norsonic
Type: 1251
Serial no: 33547

Customer: E2 Specialist Consultants Ltd
Address: 3B South Park Way, Wakefield Junction 41 Business Park,
 Wakefield. WF2 0XJ.
Contact Person: John Ashe.

Measurement Results:	Level	Level Stability	Frequency	Frequency Stability	Distortion
1:	114.01 dB	0.01 dB	1000.42 Hz	0.00 %	<0.3 %
2:	114.00 dB	0.01 dB	1000.42 Hz	0.00 %	<0.3 %
3:	114.01 dB	0.06 dB	1000.42 Hz	0.00 %	<0.3 %
Result (Average):	114.01 dB	0.03 dB	1000.42 Hz	0.00 %	<0.3 %
Expanded Uncertainty:	0.10 dB	0.06 dB	1.00 Hz	0.01 %	0.10 %
Degree of Freedom:	>100	4	>100	>100	>100
Coverage Factor:	2.00	3.31	2.00	2.00	2.00

The stated level is relative to 20µPa. The level is traceable to National Standards.

The stated level is valid at reference conditions. The following correction factors have been applied during the measurement: Pressure: 0.0005 dB/kPa Temperature: 0.003 dB/°C Relative humidity: 0.000 dB/%RH Load volume : 0.0003 dB/mm³

The reported expanded uncertainty of measurements is based on a standard uncertainty multiplied by the coverage factor of k=2, providing a level of confidence of approximately 95%. Where the degrees of freedom are insufficient to maintain this confidence level, the coverage factor is increased to maintain this confidence level. The uncertainty has been determined in accordance with UKAS requirements.

Records: K:\C A\Calibration\Nor-1504\Nor-1018 CalCal\2017\NOR1251_33547_M1.nmf

Environmental conditions:	Pressure:	Temperature:	Relative humidity:
Reference conditions:	101.325 kPa	23.0 °C	50 %RH
Measurement conditions:	100.206 ± 0.045 kPa	22.3 ± 0.1 °C	47.8 ± 0.8 %RH

Date received for calibration: 24/05/2017
 Date of calibration: 05/06/2017
 Date of issue: 05/06/2017
 Engineer

Supervisor

Michael Tickner

Darren Batten TechIOA

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Template UKAS_PE v2.10 DocR Cert-C0001

Certificate of Competence in Environmental Noise Measurement

This is to certify that

John William Matthew Ashe

*has completed a course of instruction approved by the
Institute of Acoustics and designed to enable the candidate
to undertake environmental noise measurements in a
competent manner and has achieved a satisfactory
performance in the written and practical examinations
thereof and that this fact has been recorded in a
Register kept by the Institute for this purpose.*



Education Committee Chairman



Institute Secretary

Date 16 May 2014

Centre Leeds Metropolitan University

Reference Number EK161

*For the purposes of Credit Transfer or Professional Development this Certificate
may be considered to be equivalent to 25 points or hours*

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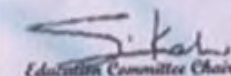
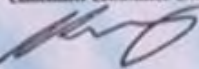


Certificate of Competence in Environmental Noise Measurement

This is to certify that

Luke Edward Murphy

*has completed a course of instruction approved by the
Institute of Acoustics and designed to enable the candidate
to undertake environmental noise measurements in a
competent manner and has achieved a satisfactory
performance in the written and practical examinations
thereof and that this fact has been recorded in a
Register kept by the Institute for this purpose.*


Education Committee Chairman
Institute Secretary

Date 10 October 2014

Centre Leeds Beckett University

Reference Number EK166

*For the purposes of Credit Transfer or Professional Development this Certificate
may be considered to be equivalent to 25 points or hours*

The Institute of Acoustics Limited, 2nd Floor, St Peter's House, 43-45 Victoria Street, St Albans, Hertfordshire AL1 1BJ
Tel: +44 (0)1277 843195 Fax: +44 (0)1277 830553 email: ioa@ioa.org.uk www.ioa.org.uk

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Potential Residential Development
Bridge Street | Wrexham

LINGAR PROPERTIES

Transport Advice Note

April 2018





REPORT CONTROL

Document: Transport Advice Note

Project: Potential Residential Development, Bridge Street, Wrexham

Client: Lingar Properties

Job Number: 2171

File Origin: Z:\projects\2171 Bridge Street, Wrexham\Docs\Reports\2171TAN.3.docx

Document Checking:

Primary Author	MR	Initialled:
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Contributor	SM/GM	Initialled:
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Review By	PJW	Initialled:
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Issue	Date	Status	Checked for Issue
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Contents

1	INTRODUCTION	1
1.1	Preamble.....	1
1.2	Structure of Report	1
2	EXISTING CONDITIONS	2
2.1	Introduction	2
2.2	Site Location	2
2.3	Existing Site Information	3
2.4	Relevant Planning History	3
2.5	Local Highway Network.....	4
2.6	Site Visit	4
2.7	Summary.....	8
3	CONSIDERATION OF PLANNING POLICY	9
3.1	Introduction	9
3.2	National Policy	9
3.3	Planning Policy Summary	11
4	ACCESSIBILITY BY NON-CAR MODES.....	12
4.1	Introduction	12
4.2	Accessibility on Foot.....	12
4.3	Access by Cycle.....	17
4.4	Access by Bus	18
4.5	Accessibility by Rail	20
4.6	Accessibility Summary.....	20
5	POTENTIAL DEVELOPMENT AND TRAFFIC IMPACT	22
5.1	Introduction	22
5.2	Potential Development	22
5.3	Car Parking.....	24
5.4	Vehicular Access.....	26
5.5	Summary.....	26
6	PROMOTING SMARTER CHOICES VIA TRAVEL PLANS	28
6.1	Introduction	28
6.2	Travel Planning Guidance	28



6.3	Summary.....	29
7	CONCLUSIONS.....	30





Contents

PLANS

Plan 1	Site Location
Plan 2	800m & 2000m Pedestrian Catchments

APPENDICES

Appendix 1	Site Photographs
Appendix 2	Car Ownership Statistics Data
Appendix 3	TRICS Output for Private Apartments



1 INTRODUCTION

1.1 Preamble

- 1.1.1 Croft have been instructed by Lingar Properties to advise on the traffic and transportation issues relating to a potential residential development on two parcels of land off Bridge Street in Wrexham.
- 1.1.2 While a planning application may be forthcoming in the future, the purpose of this report is to provide initial advice and set out the key issues that will need to be addressed prior to an application coming forward.
- 1.1.3 Due to the location of the site close to Wrexham town centre and its services and facilities, the site would be well placed to deliver much needed sustainable housing in close proximity of the town centre, which is well integrated, with good access to local facilities and jobs.

1.2 Structure of Report

- 1.2.1 Following this introduction, Section 2 of the Report will detail the existing site conditions, describe the adjacent highway and present the findings of the site visit.
- 1.2.2 Section 3 will briefly consider relevant national policy.
- 1.2.3 Section 4 will consider the accessibility of the site by non-car modes, including walking, cycling and public transport.
- 1.2.4 Section 5 will consider the trip generation and potential traffic impact of any proposals on the local highway network.
- 1.2.5 Section 6 will briefly refer to maximising sustainable travel through Travel Planning measures and Section 7 will draw together the Report's findings and conclusions.



2 EXISTING CONDITIONS

2.1 Introduction

2.1.1 This section of the report describes the existing site, details the surrounding highway network in the vicinity and reports on the site visit undertaken.

2.2 Site Location

2.2.1 The two land parcels are located on the corner of the Bridge Street/Brook Street junction on the edge of Wrexham town centre, as identified in **Figure 2.1** below, while **Plan 1** shows the sites in relation to the surrounding local area.

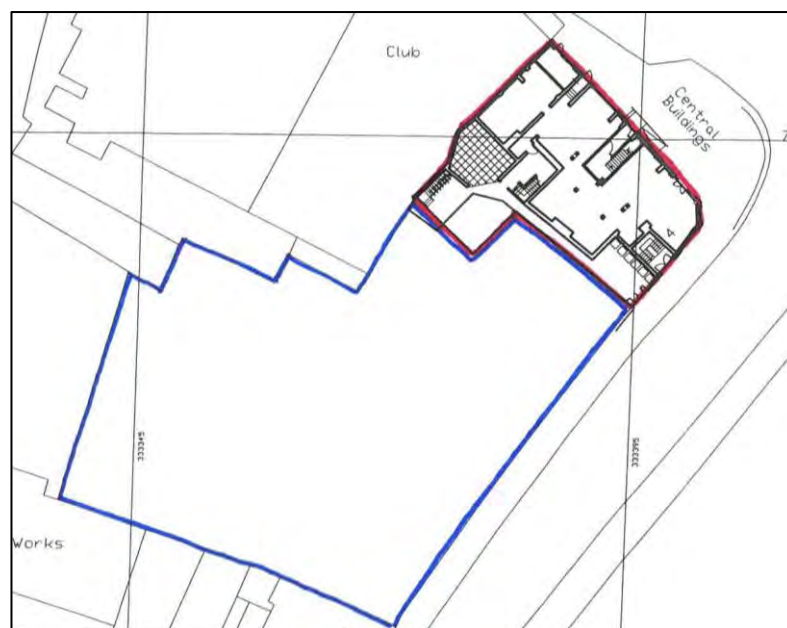


Figure 2.1 – Location of Land Parcels

2.2.2 As indicated above, the red line (Site 1) identifies an existing property referred to Central Buildings, while the blue line (Site 2) indicates additional land that may also become available for development.



2.3 Existing Site Information

Site 1

- 2.3.1 At present, the ground floor/basement of Site 1 is used for bar and restaurant takeaway uses, while the two upper floors are vacant and have potential to be developed for residential purposes. It is understood that these floors could accommodate up to 10 private apartments, likely to be promoted as 'car free'.

Site 2

- 2.3.2 The land associated with Site 2 extends to approximately 0.14 hectares (0.36 acres) and is undeveloped but is currently being promoted by the Council, who own the land. It is understood that the likely land use would be residential in the form of potentially 32 private apartments, with potential to provide a reduced parking provision, which would need to be justified.

2.4 Relevant Planning History

- 2.4.1 It is understood that the smaller site (Site 1) has been the subject of a previous planning application (App Ref No. P/2010/1052), dated December 2010 which was refused by notice in June 2011. The applicant lodged an Appeal.
- 2.4.2 The Appeal was dismissed due to the lack of a suitable planning obligation, although the Inspector's response includes reference to car parking where he states "*I consider the main issue in this case to be whether the proposals would be likely to create on-street parking problems*".



2.4.3 It should also be noted however, that the associated planning obligation referred to mitigating the shortfall in car parking provision and these monies were related to UDP policy T8 which refers to measures to assist public transport or walking and cycling as appropriate, where implementation difficulties arise in making parking provision on site or nearby.

2.4.4 It is understood that there has been no previous planning history on the larger site (Site 2).

2.5 Local Highway Network

2.5.1 The A5152 Bridge Street runs in a broadly north-east to south-west alignment and forms the site's south-eastern boundary. In the vicinity of the site, it has a varying carriageway width of between approximately 6.6 metres and 7 metres but widens out to around 9.5 metres closer to the site boundary, on the approach to the junction with Brook Street to provide two lanes for northbound traffic at the signals.

2.5.2 Brook Street benefits from good standard footways of around 3 metres on both sides and has street lighting. It is noted that it is also subject to Traffic Regulation Orders (TRO's) in the form of double yellow lines, to prevent parking at any time.

2.5.3 To the south, the A5152 links to the A483 at Junction 3 or alternatively the A525 connects the site to the A483 at Junction 4 and beyond that to the A55, meaning the site is well located in terms of its connections to the local and wider road networks. Access to the wider motorway network is also provided via the A55 to the M56 and M53.

2.6 Site Visit

2.6.1 In order to establish the existing conditions around the site, a site visit was undertaken on Monday 19th March 2018.



- 2.6.2 The site visit included a walk around the area paying attention to pedestrian facilities, bus stop infrastructure, parking restrictions and the availability of on-street parking.
- 2.6.3 A series of photographs taken on site are contained within **Appendix 1**.
- 2.6.4 There is an existing loading bay adjacent to Site 1 (Central Building) on Brook Street, as identified in **Figure 2.1** below.



Figure 2.2 – Location of Existing Loading Bay on Brook Street

- 2.6.5 The loading bay was not used during the site visit, but it is likely that it is used on an ad-hoc basis by numerous commercial premises in the area. It is also noted that the both Bridge Street and Brook Street are subject to parking restrictions, which prevent any parking or loading as shown in **Figure 2.3** below.

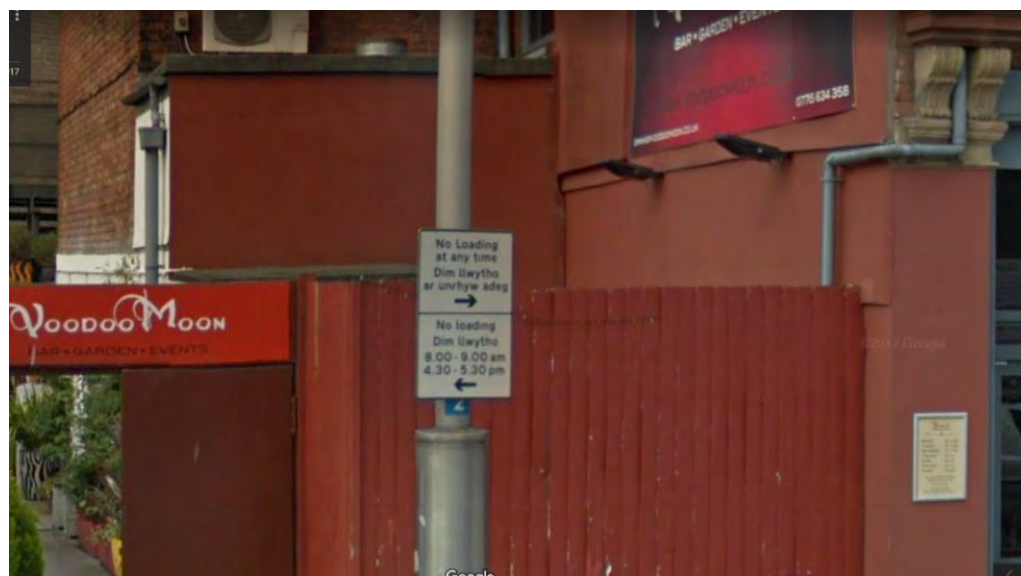


Figure 2.3 – Parking Restriction Notice on Bridge Street

- 2.6.6 As shown above, the current restrictions on Bridge Street prevent any loading between the signage and the signal junction but permits some loading in the other direction with the exception of between 8.00 am to 9.00 am or between 4.30 pm and 5.30 pm.
- 2.6.7 It is also noted that the both Bridge Street and Brook Street benefit from a number of free parking bays, as shown in **Figure 2.4** below.



Figure 2.3 – Parking Restriction Notice on Bridge Street

- 2.6.8 As can be seen above, the parking bays are subject to certain regulations and limits the maximum parking duration to 30 minutes between 8.00 am and 6.00 pm Monday to Saturday.
- 2.6.9 It should be noted that during the site visit, there were a substantial number of parking spaces available in the bays along Bridge Street and Brook Street, as demonstrated in the site photographs contained within Appendix 1.
- 2.6.10 Additional on-street parking bays are provided on Brewery Place, located approximately 120 metres to the west of the Bridge Street/Brook Street signal junction. Again, observations on-site show that parking bays were readily available.



2.7 Summary

- 2.7.1 On site observations showed that numerous spaces remained available for use, during the site visit.



3 CONSIDERATION OF PLANNING POLICY

3.1 Introduction

- 3.1.1 The national policy presented in this document focuses on the Planning Policy Wales (PPW) document (Edition 9, 2016) and sets out the Welsh Government's planning policies for achieving sustainable development.
- 3.1.2 National Planning Policy contained with Planning Policy Wales will also be reviewed along with Transport Advice Note 18 (TAN 18) - Transport.
- 3.1.3 This section will briefly outline the pertinent policies relating to the proposed development.

3.2 National Policy

Planning Policy Wales

- 3.2.1 The PPW sets out the planning policies on the delivery of sustainable development through the planning system. With regard to transport policy it aims to extend choice in transport and secure accessibility in a way which supports sustainable development and helps to tackle the causes of climate change.
- 3.2.2 Within the Transport chapter of the PPW it states that land-use planning can help achieve the Welsh Government's objectives for transport through the following;
- Reducing the need to travel, especially by private car, by locating development where there is good access by public transport, walking and cycling;
 - Locating development near other related uses to encourage multi-purpose trips to reduce the length of journeys;
 - Improving accessibility by walking, cycling and public transport;



- Ensuring that transport is accessible to all, taking into account the needs of disabled and other less mobile people;
- Promoting walking and cycling;
- Supporting the provision of high quality public transport;
- Supporting traffic management measures;
- Promoting sustainable transport options for freight and commerce;
- Supporting sustainable travel options in rural areas;
- Supporting necessary infrastructure improvements; and
- Ensuring that, as far as possible, transport infrastructure does not contribute to land take, urban sprawl or neighbourhood severance.

3.2.3 As will be demonstrated in Section 4, the site is highly accessible by non-car modes and as such, will comply with the aims of national planning policy.

Transport Advice Note 18 (TAN 18) - Transport

3.2.4 The 'TAN 18 Transport' document which was published in March 2007 provides transport guidance on how the objectives of the PPW should be achieved.

3.2.5 In terms of guidance specifically related to the proposed development, it states that;

"Some car free housing development may be appropriate in locations with good walking, cycling and public transport links and in areas where parking is controlled. On-site cycle and parking provision for those with disabilities will be required if such on-street parking cannot be provided".



- 3.2.6 It goes on to say that *"It is essential that, prior to occupation, the future residents should be made aware of the car free status of the development"*.
- 3.2.7 The proposed 10 apartment scheme will be marketed and promoted as 'car-free' so potential residents will be aware of there being no parking prior to them considering purchasing a property.

3.3 Planning Policy Summary

- 3.3.1 The proposed development accords with national policy for the following reasons:
- The site is located in close proximity to existing public transport infrastructure which will facilitate non-car travel to and from the proposed development.
 - A Travel Plan could also be provided as part of the proposed development to encourage sustainable transport and allow the use of sustainable modes to be maximised.
- 3.3.2 In conclusion, it is considered that the proposals conform to national planning policy in Wales and will assist in delivering the policies contained within.



4 ACCESSIBILITY BY NON-CAR MODES

4.1 Introduction

4.1.1 The accessibility of the potential development sites has been considered by the following modes of transport:

- Accessibility on foot.
- Accessibility by cycle.
- Accessibility by bus.
- Accessibility by rail.

4.2 Accessibility on Foot

4.2.1 Bridge Street benefits from footways of around 4 metres in width on each side. These footways provide pedestrian links throughout Wrexham and provide direct linkages to the nearby day to day amenities within the town centre. Similarly, Brook Street has good standard footways and the Bridge Street/Brook Street signalised junction has pedestrian crossing facilities on all arms, thus assisting the safe movement of pedestrians in the area.

4.2.2 The CIHT document 'Planning for Walking' from 2015 states, in paragraph 2.1, that in 2012 that 79% of all journeys made in the UK of less than a mile (1.6 kilometres) are carried out on foot. Within the Institution of Highways and Transportation (IHT) document, entitled "Guidelines for Providing for Journeys on Foot", Table 2.2 suggests distances for desirable, acceptable and preferred maximum walks to 'town centres', 'commuting/schools' and 'elsewhere'.



- 4.2.3 The 'preferred maximum' distances are shown below in **Table 3.1**.

Suggested Preferred Maximum Walk		
Town Centre	Commuting/School	Elsewhere
800m	2,000m	1,200m

Table 3.1 – IHT 'Providing for Journeys on Foot' Walk Distances

- 4.2.4 Reference to the 2,000 metre walk distance is also made in the now superseded Planning Policy Guidance (PPG) Note 13 which advised that 'walking is the most important mode of travel at the local level and offers the greatest potential to replace short car trips, particularly under 2km'.
- 4.2.5 Manual for Streets (MfS) continues the theme of the acceptability of the 2,000 metre distance in paragraph 4.4.1. This states that '*walkable neighbourhoods are typically characterised by having a range of facilities within 10 minutes' (up to about 800m) walking distance of residential areas which residents may access comfortably on foot. However, this is not an upper limit and PPS13 states that walking offers the greatest potential to replace short car trips, particularly those under 2 km'.*



4.2.6 **Table 3.2** below summarises this guidance in tabular form.

'Comfortable' Walk	'Preferred Maximum' Walk
800m	2,000m

Table 3.2 – Manual for Streets Walk Distances

4.2.7 More specific guidance on the distances that children will walk to school is found in the July 2014 document published by the Department for Education (DfE) entitled 'Home to School Travel and Transport' statutory guidance document. This suggests that the maximum walking distance to schools is 2 miles (3.2 kilometres) for children under 8 and 3 miles (4.8 kilometres) for children over the age of 8. This is summarised below in **Table 3.3**.

Children under 8 Walk Distance	Children over 8 Walk Distance
3,200m	4,800m

Table 3.3 – DfE Walk Distances to Schools

4.2.8 Further evidence that people will walk further than the suggested 'preferred maximum' distances in the IHT 'Providing for Journeys on Foot' is contained in a WYG Report entitled 'Accessibility – How Far do People Walk and Cycle'. This report refers to National Travel Survey (NTS) data for the UK as a whole, excluding London, that the 85th percentile walk distance for:

- All journey purposes – 1,930 metres.
- Commuting – 2, 400 metres.



- Shopping – 1,600 metres.
- Education – 3,200 or 4,800 metres.
- Personal business – 1,600 metres.

4.2.9 Overall, in Table 5.1, the document states that 1,950 square metres is the 85th percentile distance for walking as the main mode of travel. **Table 3.4** below summarises the various 85th percentile walk distances suggested as guidelines in the WYG Study.

85 th Percentile Walk Distances					Overall Recommen ded Preferred
All Journeys	Commuting	Shopping	Education	Personal	
1,950m	2,100m	1,600m	3,200/4,800m	1,600m	1,950m

Table 3.4 – WYG Report/NTS Data Walk Distances

- 4.2.10 In summary, it is considered that the distance of 1,950 metres, or around 2 kilometres, represents an acceptable maximum walking distance for the majority of land uses although clearly the DfE guidance for walking to school is up to 3.2 kilometres.
- 4.2.11 Section 3.1 of the CIHT guidance 'Planning for Walking' mentioned earlier in this report provides a useful reminder of the health benefits of walking. This states that:
- 'A brisk 20 minute walk each day could be enough to reduce an individual's risk of an early death'.*
- 4.2.12 A 20 minute walk equates to a walking distance of around 1,600 metres.



- 4.2.13 In light of the above review, a pedestrian catchment of 2 kilometres from the centre of the site, using all available pedestrian routes, has been prepared and is shown in **Plan 2** and provides an illustrative indication of the areas that can be reached based on a leisurely walk from the site.
- 4.2.14 In addition, to the pedestrian catchment plan, a review of the proximity of local facilities has been undertaken and the location of these is also shown in Plan 2.
- 4.2.15 The 2,000 metre pedestrian catchment illustrates that the majority of Wrexham can be accessed along various amenities such as a Bowling Green Public House, Parciau Bellevue Park, McDonald's, ASDA, Argos, Maplin, Tesco Extra, Eagles Meadow Shopping Centre and Wrexham University.
- 4.2.16 **Table 3.5** below, shows the walking distance from the centre of the site to the local amenities in the vicinity of the site. The table also confirms whether or not the particular amenity is within the 'preferred maximum' walk distances using the above guideline criteria:



Local Amenity	Distance	Guidance Criteria	Meets with Guidance?
Bowling Green Public House	270m	1,600m	YES
Parciau Bellevue Park	320m	1,600m	YES
McDonald's	330m	1,600m	YES
ASDA	390m	1,600m	YES
Argos	450m	1,600m	YES
Maplin	460m	1,600m	YES
Tesco Extra	500m	1,600m	YES
Eagles Meadow Shopping Centre	620m	1,600m	YES
Wrexham University	1,280m	3,200m	YES

Table 3.5 - Distance from Site to Local Facilities

- 4.2.17 As can be seen in the above table, the site is located within close proximity to a number of local amenities including primary services, as well as leisure facilities.
- 4.2.18 All of the day to day amenities are well within the 'preferred maximum' walk distances described earlier in this section and indeed many, including the nearest food stores and University lie well within these distance criteria.
- 4.2.19 It is therefore considered that the existing pedestrian infrastructure will facilitate safe and direct pedestrian linkages between the site and local destinations.

4.3 Access by Cycle

- 4.3.1 An alternative mode of travel to the site could be achieved by bicycle.



4.3.2 A distance of 5 kilometres is generally accepted as a distance where cycling has the potential to replace short car journeys. This distance equates to a journey of around 25 minutes based on a leisurely cycle speed of 12 kilometres per hour and would encompass New Broughton, Rhostyllen, Pentre Broughton and Gresford.

4.3.3 While there are no formal cycle routes in the vicinity, the surrounding area is relatively flat and therefore conducive to trips by cycle.

4.3.4 The site can therefore be considered as being accessible by cycle.

4.4 Access by Bus

4.4.1 The nearest bus stops to the site are located to the west of the site on Brook Street with an approximate walking distance of just 50 metres consisting of a bus shelter, bus stop pole with passing services shown and a bus service timetable. All the nearest bus stops to the site are shown on Plan 2. A summary of the services available from the nearest bus stops from the development site is provided in **Table 3.6** below.

Service No	Route	Monday – Friday Frequency per hour				Sat	Sun
		AM Peak	Midday	PM Peak	Eve		
C56	Wrexham - Chester	0	1	0	0	0.5	0

Table 3.6 - Existing Bus Services Operating Past the Site

4.4.2 While these services may be limited, it is worth noting that bus service C56 travels to Wrexham bus station in around 2 minutes, where a much wider range of services can be accessed.



- 4.4.3 Furthermore, the potential to simply walk to Wrexham bus station also exists as it is only around 470 metres from the site, which equates to a walk of just over 5 minutes.
- 4.4.4 A summary of the services available from Wrexham bus station is provided in Table 3.7 below

Service No	Route	Monday – Friday Frequency per hour				Sat	Sun
		AM Peak	Midday	PM Peak	Eve		
1	Wrexham - Chester	5	6	6	2	5	2
2c	Wrexham - Oswestry	2	2	2	0	2	0
10	Wrexham - Minera	1	1	1	0	1	0
32	Wrexham - Wrexham	2	2	4	0	2	0.5
41	Wrexham – Redwither Tower	1	1	1	0	1	0

Table 3.7 - Existing Bus Services Operating Past the Site

- 4.4.5 As can be seen above, the bus station provides a wider selection of destinations with good or high frequencies, providing residents at the development with a choice about how they travel.
- 4.4.6 In order to further demonstrate the level of accessibility some example journey times by bus are presented below **Table 3.7** below.



Destination	Duration
Minera	25 minutes
Chester	29 minutes

Table 3.8 - Example Bus Journey Times from the Site

4.4.7 The above table demonstrates that Chester is just a 25-minute bus journey from the site and a bus journey to Chester takes less than half an hour.

4.4.8 It is therefore concluded that the site is accessible by bus.

4.5 Accessibility by Rail

4.5.1 The most accessible train station to the site is Wrexham Central which is situated approximately 380 metres away from the site. This train station is managed by Arriva Trains Wales and has 1 platform, offering 1 service per hour to destinations such as Buckley, Shotton and Bidston.

4.5.2 It is also worth noting that Wrexham General train station is located approximately 920 metres from the site. This train station is also managed by Arriva Trains Wales and has 4 platforms, offering 4 services per hour to destinations such as Holyhead, Cardiff Central and Birmingham International.

4.5.3 This provides opportunities for commuting/leisure opportunities from the site via rail.

4.6 Accessibility Summary

4.6.1 The potential development site (Sites 1 and 2) have been considered in terms of accessibility by non-car modes.



4.6.2 The following conclusions can be drawn from this section of the Report:

- The sites are accessible on foot with good standard footways and pedestrian infrastructure such as the controlled crossing at the Bridge Street/Brook Street junction.
- The area is relatively flat meaning there are also good opportunities for cycling, either as a main mode of travel or as part of a multi-modal trip with rail.
- The services from Wrexham bus station, travelling to Minera, Chester and Oswestry shows that the site development can be accessed by bus.
- The site is accessible via rail with Wrexham General and Wrexham Central both located within walking distance.

4.6.3 It is considered the site is highly accessible by non-car modes which will assist in the justification for no or reduced car parking on site.



5 POTENTIAL DEVELOPMENT AND TRAFFIC IMPACT

5.1 Introduction

5.1.1 This section of the note will consider the potential developments on the two sites including trip generation, car parking and access.

5.1.2 It is understood that there is potential to develop the two sites as follows;

- Site 1 – private apartments - 10 units - no parking; and
- Site 2 - private apartments with reduced parking provision.

5.2 Potential Development

5.2.1 As previously stated, there is potential to develop both land parcels for residential purposes.

5.2.2 This section of the report will consider the potential development of Site 1 for 10 private apartments and up to 32 private apartments on Site 2.

5.2.3 In order to establish the number of trips which the potential developments are forecast to generate the TRICS database has been used for the 'Residential – Private Apartments' range of sites. The assessment was based on the following parameters:

- Range between 0 and 215 dwellings;
- Monday to Friday surveys; and
- Greater London and Eire sites excluded.

5.2.4 The full TRICS output are contained within **Appendix 2**.



Site 1

- 5.2.5 The peak hour trip rates and forecast trip generation based on the provision of 10 private apartments are summarised within **Table 4.1**.

Peak Period	Trip Rate (per unit)		Number of Trips	
	Arr	Dep	Arr	Dep
AM Peak Hour	0.06	0.20	1	2
PM Peak Hour	0.20	0.10	2	1

Table 4.1 - Forecast Trip Generation of Private Apartments Development

- 5.2.6 As demonstrated above, based on the information contained within the TRICS database, the impact of the provision of 10 private apartments would be minimal in the AM and PM peak hours.

Site 2

- 5.2.7 The peak hour trip rates and forecast trip generation based on the provision of up to 32 private apartments are summarised within **Table 4.2**.



Peak Period	Trip Rate (per unit)		Number of Trips	
	Arr	Dep	Arr	Dep
AM Peak Hour	0.06	0.20	2	6
PM Peak Hour	0.20	0.10	6	3

Table 4.2 - Forecast Trip Generation of Private Apartments Development

5.2.8 As demonstrated above, based on the information contained within the TRICS database, the provision of up to 32 private apartments would result in approximately 8 two-way trips in the AM peak and around 9 two-way trips in the peak hour.

5.2.9 In light of the above, it is considered that both of the above schemes could be accommodated onto the local highway network and would not have a material impact.

5.3 Car Parking

5.3.1 As the potential apartments on Site 1 would not provide any car parking the Transport Statement would need to justify why a 'car-free' development should be deemed acceptable.

5.3.2 While the larger site, Site 2 will provide some parking, this is likely to be at a reduced rate of potentially 22 spaces and so will also need to be justified.

5.3.3 The justification would take two forms one relating to the sites sustainable accessibility credentials and the other by referring to the national statistics for the area in relation to car ownership.



- 5.3.4 In order to consider the parking situation, a review of the car ownership statistics has been undertaken using the 2011 Census data for Offa, the ward the site is located in.
- 5.3.5 A summary of the car availability levels for the Offa ward are summarised in **Table 4.2** below, while the data is contained within **Appendix 3**:

2011 Census Data	Offa Ward
No cars/vans in household	33%
1 car/van in household	43%
2 cars/vans in household	19%
3 cars/vans in household	4%
>4 cars/vans in household	1%
Total	100%

Table 4.2 - Car Ownership Data (2011 Census)

- 5.3.6 As can be seen above, the current car ownership statistics show that at present, approximately 33% of households do not own a car, while 43% of households only have one vehicle.
- 5.3.7 Households with 2 cars account for 19% of car ownership and 4% of households have 3 cars. Households with 4 or more vehicles equates to just 1%.
- 5.3.8 As such, if occupation of the apartments at the proposed development site were to follow the trends already established in the Offa ward, then it is not considered that potential occupiers of the dwellings would be multi-vehicle owners, and are much more likely to have one or no vehicles.



- 5.3.9 On this basis, it is considered that the provision of zero or reduced parking is considered to be sufficient, particularly, given the site's excellent accessibility credentials and close proximity to local services and facilities, as well as being close to existing public car parks and on-street parking bays.
- 5.3.10 The above Census statistics clearly shows that there is a significant market for accommodation in Wrexham occupied by people without cars and with regard to Site 2, which would have a reduced provision, there would be just as much demand for properties, as combined (no car or one car) equates to around 76%.
- 5.3.11 To further address the car parking shortfall, Croft would recommend the provision of 100% cycle parking, to encourage and facilitate sustainable travel and a Travel Plan so that the use of sustainable modes can be maximised.
- 5.3.12 There is also potential to introduce a Residents Parking Scheme on some of the surrounding roads, but this would need to be discussed fully with the local authority.

5.4 Vehicular Access

- 5.4.1 The length of Bridge Street running adjacent to the site benefits from good visibility in both directions.
- 5.4.2 It is considered that while there will be no vehicular access into Site 1, Site 2 has potential to be accessed directly from Bridge Street, via a simple priority junction.
- 5.4.3 Croft recommend that this be investigated further and discussed with highways officers at the Council, should the development of Site 2 be progressed.

5.5 Summary

- 5.5.1 This section of the Report has considered the impact of the potential developments in transport terms.



- 5.5.2 The TRICS assessment has demonstrated that the both potential sites would not have a material traffic impact and could be accommodated onto the local highway network, without giving rise to any highway issues.
- 5.5.3 The evidence shows that there would be a high demand for accommodation without car parking (based on 33% of residents not owning a car) and furthermore, given that when combined, the number of people not owning a car or only owning one vehicle (43%) is 76%, it is clear that development of a 'car-free' or reduced parking nature would be attractive to a large number of prospective buyers.
- 5.5.4 It can be concluded that the two sites could potentially be developed for residential purposes.



6 PROMOTING SMARTER CHOICES VIA TRAVEL PLANS

6.1 Introduction

- 6.1.1 The impact of any development can be mitigated by the implementation of Travel Plan measures to reduce reliance on the private car and assist in delivering highly sustainable development. The preparation and adoption of a Travel Plan is an important element of managing the demand for travel to all modern developments.

6.2 Travel Planning Guidance

- 6.2.1 The Department for Transport (DfT) have produced guidance on the preparation of Travel Plans. The document, entitled '*Good Practice Guidelines: Delivering Travel Plans through the Planning Process*' was published in August 2009.
- 6.2.2 The document sets out an overview of the process and delivery of Travel Plans and states that "*A Travel Plan is a long-term management strategy for an occupier or site that seeks to deliver sustainable transport objectives through positive action and is articulated in a document that is regularly reviewed.*"
- 6.2.3 Further guidance relating specifically to residential Travel Plans is presented in the DfT document entitled "*Making Residential Travel Plans Work*" published in June 2007.
- 6.2.4 The document states that:
- "Travel Planning is one of a range of measures known as smarter choices which have been found to be effective on reducing traffic and improving accessibility in residential areas".*
- 6.2.5 A Residential Travel Plan is a package of measures designed to reduce car use originating from new housing by supporting alternative forms of transport and reducing the need to travel in the first place.



- 6.2.6 They are an important tool to help deliver accessible, sustainable communities and offer clear benefits to all the parties involved – public, private and the community. They involve meeting the access needs of residents in a new way and require partnerships between developers, local authorities, local communities and new residents.
- 6.2.7 The objective of a Residential Travel Plan is the delivery of the objectives of the NPPF, i.e. to encourage residents to travel to work by bus, on foot and by bicycle.
- 6.2.8 However, the principle measure will consist of a Residents Travel Pack containing relevant material to promote non-car modes of travel and the provision of certain physical measures. The Travel Pack will contain information to inform residents of the existing long-term strategy for reducing the dependence of residents and visitors on travel by private car.
- 6.2.9 Section 4 has demonstrated that the site already benefits from excellent non-car accessibility and it should, therefore, be expected that the adoption of a Travel Plan would be particularly effective.

6.3 Summary

- 6.3.1 Croft would recommend that any planning application be accompanied by a Framework Residential Travel Plan which outlines physical and management measures that will be implemented to achieve this objective and allow the use of sustainable modes to be maximised.



7 CONCLUSIONS

7.1.1 Croft have prepared this note to provide initial advice on the highways implications of developing either one or two sites for residential use.

7.1.2 The following conclusions can be drawn:

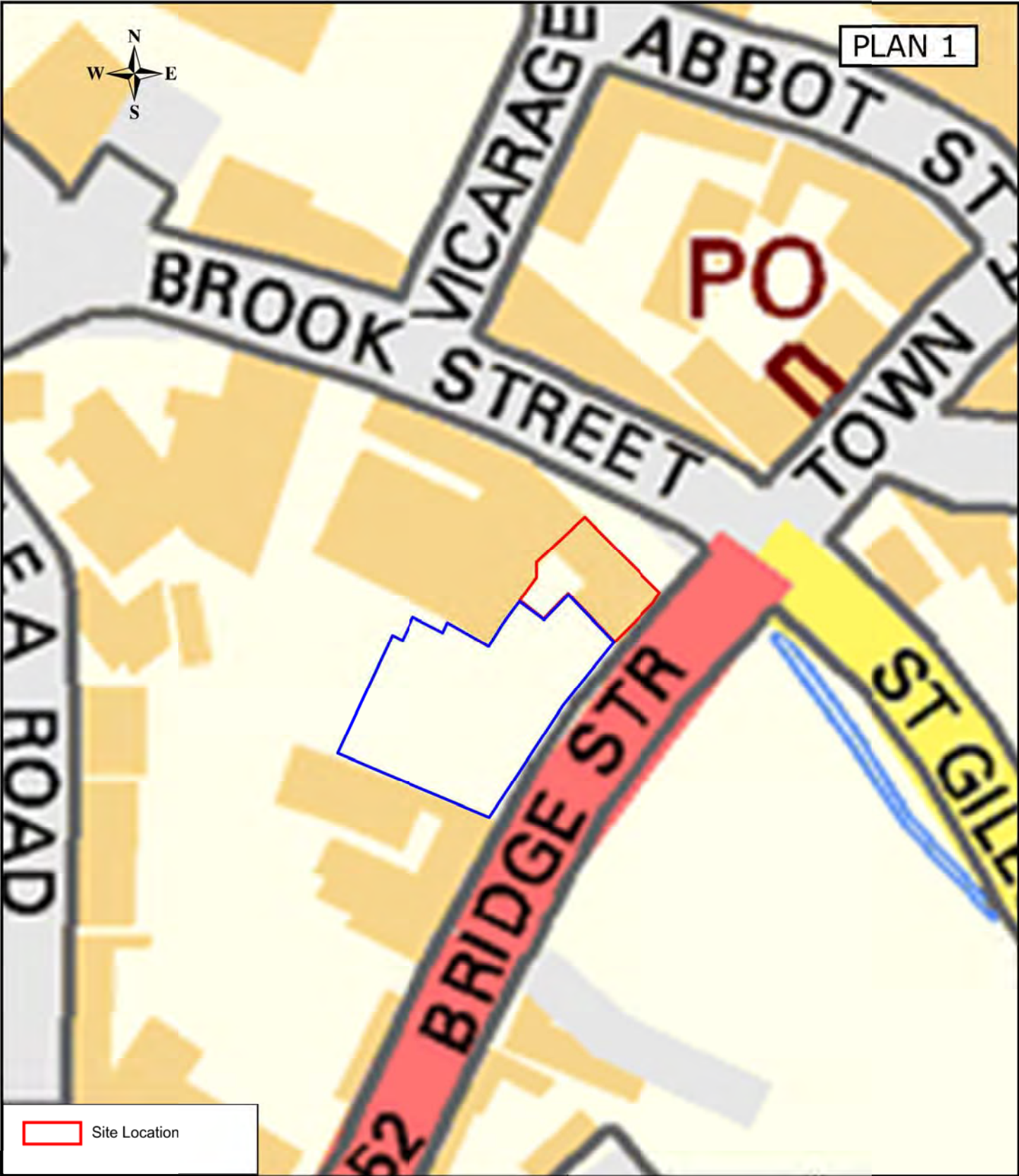
- The town centre location of the site mean it is highly accessible by non-car travel modes, such as walking and cycling.
- The site is also accessible by bus with bus stops within easy walking distance of the site on Brook Street, with an even greater number services available at Wrexham bus station which is only a 5 minute walk away.
- Wrexham central train station is also within a reasonable walking distance thus providing an even wider choice of sustainable modes.
- The traffic impact of Site 1, which could be developed for 10 private apartments has been assessed using the TRICS database and the assessment showed that the associated traffic impact would be minimal.
- The traffic impact of Site 2, which could be developed for 32 private apartments has been assessed using the TRICS database and the assessment showed that the proposals will not have a material impact or give rise to any highways related issues.
- While there would be no vehicular access to Site 1, Site 2 has potential to be accessed directly from Bridge Street, via a simple priority junction.



- There is also potential for some disabled parking to provide within Site 2, to cater for the needs of those residing at Site 1.
- The provision of a Travel Plan for the site will assist in creating a wider choice of travel to residents, whilst allowing the use of sustainable modes to be maximised.

7.1.3 In conclusion, it is considered that both sites have potential to be developed for residential use.

PLANS



LINGAR PROPERTIES					Croft Transport Planning & Design Hill Quays 9 Jordan Street Manchester M15 4PY Email: info@crofts.co.uk Tel: 0161 667 3746 Web: www.crofts.co.uk 	
BRIDGE STREET, WREXHAM SITE LOCATION PLAN						
DRAWN:	DATE:	CHECKED:	DATE:	SCALE:	DRAWING NUMBER:	REVISION:
GM	29.03.18	MR	29.03.18	N.T.S	2171-01	.



NOTES

- 800m Pedestrian Catchment
- 2km Pedestrian Catchment
- Site Location
- Car Park
- Bus Stops within 400m
- Train Station
- Eagles Meadow Shopping Centre
- Leisure/Sport
- Education
- Healthcare/Medical
- Cafe/Takeaway/Public House
- Retail
- Business/Employment/Industrial
- Post Office
- Wrexham Bus Station

PLAN 2

REV.	DETAILS	DRAWN	CHECKED	DATE

CLIENT: LINGAR PROPERTIES

PROJECT: BRIDGE STREET, WREXHAM

DRAWING TITLE: 800M & 2KM PEDESTRIAN CATCHMENT WITH AMENITIES

SCALE: 15000 @ A3

DRAWN: GM	CHECKED: MR	DATE: 29.03.18
-----------	-------------	----------------

Croft Transport Planning & Design
Hill Quays
9 Jordan Street
Manchester
M5 4PY

Email: info@crofts.co.uk
Tel: 0161 667 3746
Web: www.crofts.co.uk

CROFT

DRAWING NUMBER: 2171-01	REVISION:
-------------------------	-----------

APPENDICES

APPENDIX 1

Site Photographs



Existing loading bay adjacent to site on Brook Street



On street parking bays on Brook Street



On street parking bays on Bridge Street



On street parking bays on Brook Street



On street parking bays on Brook Street

APPENDIX 2

TRICS Output for Private Apartments

Calculation Reference: AUDIT-851401-171115-1150

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : C - FLATS PRIVATELY OWNED
VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	EX ESSEX	2 days
	HC HAMPSHIRE	1 days
	OX OXFORDSHIRE	1 days
03	SOUTH WEST	
	BR BRISTOL CITY	1 days
	DC DORSET	1 days
04	EAST ANGLIA	
	CA CAMBRIDGESHIRE	1 days
	NF NORFOLK	1 days
	SF SUFFOLK	2 days
05	EAST MIDLANDS	
	DS DERBYSHIRE	1 days
	NT NOTTINGHAMSHIRE	2 days
06	WEST MIDLANDS	
	WM WEST MIDLANDS	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	RI EAST RIDING OF YORKSHIRE	1 days
09	NORTH	
	CB CUMBRIA	2 days
	TV TEES VALLEY	1 days
10	WALES	
	FS FLINTSHIRE	1 days
11	SCOTLAND	
	EB CITY OF EDINBURGH	1 days
	SA SOUTH AYRSHIRE	1 days
	SR STIRLING	2 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Secondary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Number of dwellings
Actual Range: 6 to 135 (units:)
Range Selected by User: 6 to 215 (units:)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/09 to 11/11/16

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	3 days
Tuesday	7 days
Wednesday	7 days
Thursday	4 days
Friday	2 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	23 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaken using machines.

Selected Locations:

Edge of Town Centre	9
Suburban Area (PPS6 Out of Centre)	12
Edge of Town	2

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

C3 23 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 1 mile:

1,001 to 5,000	4 days
10,001 to 15,000	8 days
15,001 to 20,000	3 days
20,001 to 25,000	2 days
25,001 to 50,000	6 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

5,001 to 25,000	1 days
25,001 to 50,000	1 days
50,001 to 75,000	7 days
75,001 to 100,000	2 days
100,001 to 125,000	1 days
125,001 to 250,000	5 days
250,001 to 500,000	6 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	5 days
1.1 to 1.5	18 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

No 23 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present 23 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1	BR-03-C-01 CLARENCE ROAD BRISTOL Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 102 Survey date: MONDAY 09/11/09	FLATS & TERRACED	BRISTOL CITY	Survey Type: MANUAL
2	CA-03-C-02 WESTFIELD ROAD NETHERTON PETERBOROUGH Suburban Area (PPS6 Out of Centre) No Sub Category Total Number of dwellings: 44 Survey date: TUESDAY 18/10/11	BLOCK OF FLATS	CAMBRIDGESHIRE	Survey Type: MANUAL
3	CB-03-C-02 BRIDGE LANE PENRITH Edge of Town No Sub Category Total Number of dwellings: 35 Survey date: WEDNESDAY 11/06/14	BLOCK OF FLATS	CUMBRIA	Survey Type: MANUAL
4	CB-03-C-03 LOUND STREET KENDAL Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 33 Survey date: MONDAY 09/06/14	FLATS & BUNGALOWS	CUMBRIA	Survey Type: MANUAL
5	DC-03-C-02 PALM COURT SPA ROAD WEYMOUTH Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 14 Survey date: FRIDAY 28/03/14	FLATS IN BLOCKS	DORSET	Survey Type: MANUAL
6	DS-03-C-01 DRAGE STREET LITTLE CHESTER DERBY Suburban Area (PPS6 Out of Centre) No Sub Category Total Number of dwellings: 8 Survey date: THURSDAY 25/06/09	BLOCK OF FLATS	DERBYSHIRE	Survey Type: MANUAL
7	EB-03-C-01 MYRESIDE ROAD CRAIGLOCKHART EDINBURGH Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 32 Survey date: TUESDAY 26/05/15	BLOCKS OF FLATS	CITY OF EDINBURGH	Survey Type: MANUAL
8	EX-03-C-01 WESTCLIFF PARADE WESTCLIFF SOUTHEND-ON-SEA Edge of Town Centre Residential Zone Total Number of dwellings: 6 Survey date: TUESDAY 22/10/13	FLATS	ESSEX	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

9	EX-03-C-02	BLOCK OF FLATS	ESSEX	
	WESTCLIFF PARADE			
	WESTCLIFF			
	SOUTHEND-ON-SEA			
	Edge of Town Centre			
	Residential Zone			
	Total Number of dwellings:	94		
	Survey date: TUESDAY	22/10/13	Survey Type: MANUAL	
10	FS-03-C-01	BLOCK OF FLATS	FLINTSHIRE	
	WREXHAM STREET			
	MOLD			
	Edge of Town Centre			
	Built-Up Zone			
	Total Number of dwellings:	30		
	Survey date: MONDAY	06/07/09	Survey Type: MANUAL	
11	HC-03-C-02	FLATS	HAMPSHIRE	
	WORTING ROAD			
	BASINGSTOKE			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Number of dwellings:	16		
	Survey date: THURSDAY	21/10/10	Survey Type: MANUAL	
12	NF-03-C-01	BLOCKS OF FLATS	NORFOLK	
	PAGE STAIR LANE			
	KING'S LYNN			
	Edge of Town Centre			
	Built-Up Zone			
	Total Number of dwellings:	51		
	Survey date: THURSDAY	11/12/14	Survey Type: MANUAL	
13	NT-03-C-01	HOUSES (SPLIT INTO FLATS)	NOTTINGHAMSHIRE	
	LAWRENCE WAY			
	NOTTINGHAM			
	Suburban Area (PPS6 Out of Centre)			
	No Sub Category			
	Total Number of dwellings:	56		
	Survey date: TUESDAY	08/11/16	Survey Type: MANUAL	
14	NT-03-C-02	HOUSES (SPLIT INTO FLATS)	NOTTINGHAMSHIRE	
	CASTLE MARINA ROAD			
	NOTTINGHAM			
	Suburban Area (PPS6 Out of Centre)			
	No Sub Category			
	Total Number of dwellings:	135		
	Survey date: WEDNESDAY	09/11/16	Survey Type: MANUAL	
15	OX-03-C-01	BLOCK OF FLATS	OXFORDSHIRE	
	OXFORD ROAD			
	COWLEY			
	OXFORD			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Number of dwellings:	14		
	Survey date: WEDNESDAY	20/10/10	Survey Type: MANUAL	
16	RI-03-C-01	FLATS	EAST RIDING OF YORKSHIRE	
	465 PRIORY ROAD			
	HULL			
	Edge of Town			
	Residential Zone			
	Total Number of dwellings:	20		
	Survey date: TUESDAY	13/05/14	Survey Type: MANUAL	

LIST OF SITES relevant to selection parameters (Cont.)

17	SA-03-C-01	BLOCK OF FLATS		SOUTH AYRSHIRE
	RACECOURSE ROAD			
	AYR			
	Edge of Town Centre			
	Residential Zone			
	Total Number of dwellings:	51		
	Survey date: TUESDAY	16/09/14	Survey Type: MANUAL	
18	SF-03-C-01	BLOCKS OF FLATS		SUFFOLK
	STATION HILL			
	BURY ST EDMUNDS			
	Edge of Town Centre			
	Built-Up Zone			
	Total Number of dwellings:	85		
	Survey date: THURSDAY	18/12/14	Survey Type: MANUAL	
19	SF-03-C-03	BLOCKS OF FLATS		SUFFOLK
	TOLLGATE LANE			
	BURY ST EDMUNDS			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Number of dwellings:	30		
	Survey date: WEDNESDAY	03/12/14	Survey Type: MANUAL	
20	SR-03-C-01	FLATS		STIRLING
	FORTH SIDE WAY			
	STIRLING			
	Edge of Town Centre			
	No Sub Category			
	Total Number of dwellings:	80		
	Survey date: WEDNESDAY	18/06/14	Survey Type: MANUAL	
21	SR-03-C-02	FLATS		STIRLING
	ROSEBERRY TERRACE			
	STIRLING			
	Edge of Town Centre			
	Residential Zone			
	Total Number of dwellings:	48		
	Survey date: WEDNESDAY	18/06/14	Survey Type: MANUAL	
22	TV-03-C-02	FLATS		TEES VALLEY
	ACKLAM ROAD			
	LINTHORPE			
	MIDDLESBROUGH			
	Suburban Area (PPS6 Out of Centre)			
	Residential Zone			
	Total Number of dwellings:	85		
	Survey date: WEDNESDAY	29/06/11	Survey Type: MANUAL	
23	WM-03-C-04	BLOCKS OF FLATS		WEST MIDLANDS
	GILLQUART WAY			
	PARKSIDE			
	COVENTRY			
	Edge of Town Centre			
	Residential Zone			
	Total Number of dwellings:	55		
	Survey date: FRIDAY	11/11/16	Survey Type: MANUAL	

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	23	49	0.055	23	49	0.126	23	49	0.181
08:00 - 09:00	23	49	0.061	23	49	0.195	23	49	0.256
09:00 - 10:00	23	49	0.078	23	49	0.108	23	49	0.186
10:00 - 11:00	23	49	0.082	23	49	0.097	23	49	0.179
11:00 - 12:00	23	49	0.089	23	49	0.095	23	49	0.184
12:00 - 13:00	23	49	0.103	23	49	0.078	23	49	0.181
13:00 - 14:00	23	49	0.092	23	49	0.103	23	49	0.195
14:00 - 15:00	23	49	0.101	23	49	0.111	23	49	0.212
15:00 - 16:00	23	49	0.093	23	49	0.074	23	49	0.167
16:00 - 17:00	23	49	0.122	23	49	0.085	23	49	0.207
17:00 - 18:00	23	49	0.199	23	49	0.101	23	49	0.300
18:00 - 19:00	23	49	0.141	23	49	0.098	23	49	0.239
19:00 - 20:00	2	15	0.333	2	15	0.200	2	15	0.533
20:00 - 21:00	2	15	0.100	2	15	0.033	2	15	0.133
21:00 - 22:00	2	15	0.133	2	15	0.100	2	15	0.233
22:00 - 23:00									
23:00 - 24:00									
Total Rates:	1.782			1.604			3.386		

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.

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Parameter summary

Trip rate parameter range selected:	6 - 135 (units:)
Survey date range:	01/01/09 - 11/11/16
Number of weekdays (Monday-Friday):	23
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

TAXIS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	23	49	0.005	23	49	0.005	23	49	0.010
08:00 - 09:00	23	49	0.000	23	49	0.000	23	49	0.000
09:00 - 10:00	23	49	0.001	23	49	0.001	23	49	0.002
10:00 - 11:00	23	49	0.003	23	49	0.003	23	49	0.006
11:00 - 12:00	23	49	0.004	23	49	0.004	23	49	0.008
12:00 - 13:00	23	49	0.001	23	49	0.001	23	49	0.002
13:00 - 14:00	23	49	0.003	23	49	0.003	23	49	0.006
14:00 - 15:00	23	49	0.004	23	49	0.004	23	49	0.008
15:00 - 16:00	23	49	0.002	23	49	0.002	23	49	0.004
16:00 - 17:00	23	49	0.005	23	49	0.005	23	49	0.010
17:00 - 18:00	23	49	0.004	23	49	0.003	23	49	0.007
18:00 - 19:00	23	49	0.004	23	49	0.004	23	49	0.008
19:00 - 20:00	2	15	0.000	2	15	0.000	2	15	0.000
20:00 - 21:00	2	15	0.000	2	15	0.000	2	15	0.000
21:00 - 22:00	2	15	0.000	2	15	0.000	2	15	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.036			0.035			0.071

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.

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Parameter summary

Trip rate parameter range selected:	6 - 135 (units:)
Survey date range:	01/01/09 - 11/11/16
Number of weekdays (Monday-Friday):	23
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

OGVS

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	23	49	0.001	23	49	0.002	23	49	0.003
08:00 - 09:00	23	49	0.002	23	49	0.001	23	49	0.003
09:00 - 10:00	23	49	0.003	23	49	0.004	23	49	0.007
10:00 - 11:00	23	49	0.000	23	49	0.000	23	49	0.000
11:00 - 12:00	23	49	0.002	23	49	0.002	23	49	0.004
12:00 - 13:00	23	49	0.003	23	49	0.003	23	49	0.006
13:00 - 14:00	23	49	0.001	23	49	0.001	23	49	0.002
14:00 - 15:00	23	49	0.003	23	49	0.002	23	49	0.005
15:00 - 16:00	23	49	0.001	23	49	0.001	23	49	0.002
16:00 - 17:00	23	49	0.001	23	49	0.001	23	49	0.002
17:00 - 18:00	23	49	0.000	23	49	0.000	23	49	0.000
18:00 - 19:00	23	49	0.000	23	49	0.000	23	49	0.000
19:00 - 20:00	2	15	0.000	2	15	0.000	2	15	0.000
20:00 - 21:00	2	15	0.000	2	15	0.000	2	15	0.000
21:00 - 22:00	2	15	0.000	2	15	0.000	2	15	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.017			0.017			0.034

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

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Parameter summary

Trip rate parameter range selected:	6 - 135 (units:)
Survey date range:	01/01/09 - 11/11/16
Number of weekdays (Monday-Friday):	23
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	0
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
 PSVS
 Calculation factor: 1 DWELLS
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	23	49	0.000	23	49	0.000	23	49	0.000
08:00 - 09:00	23	49	0.000	23	49	0.000	23	49	0.000
09:00 - 10:00	23	49	0.000	23	49	0.000	23	49	0.000
10:00 - 11:00	23	49	0.001	23	49	0.001	23	49	0.002
11:00 - 12:00	23	49	0.001	23	49	0.001	23	49	0.002
12:00 - 13:00	23	49	0.000	23	49	0.000	23	49	0.000
13:00 - 14:00	23	49	0.000	23	49	0.000	23	49	0.000
14:00 - 15:00	23	49	0.001	23	49	0.001	23	49	0.002
15:00 - 16:00	23	49	0.001	23	49	0.000	23	49	0.001
16:00 - 17:00	23	49	0.001	23	49	0.002	23	49	0.003
17:00 - 18:00	23	49	0.001	23	49	0.001	23	49	0.002
18:00 - 19:00	23	49	0.000	23	49	0.000	23	49	0.000
19:00 - 20:00	2	15	0.000	2	15	0.000	2	15	0.000
20:00 - 21:00	2	15	0.000	2	15	0.000	2	15	0.000
21:00 - 22:00	2	15	0.000	2	15	0.000	2	15	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.006			0.006			0.012

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Number of Saturdays:	0
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TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED
 CYCLISTS
 Calculation factor: 1 DWELLS
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	23	49	0.005	23	49	0.009	23	49	0.014
08:00 - 09:00	23	49	0.003	23	49	0.010	23	49	0.013
09:00 - 10:00	23	49	0.004	23	49	0.004	23	49	0.008
10:00 - 11:00	23	49	0.002	23	49	0.005	23	49	0.007
11:00 - 12:00	23	49	0.004	23	49	0.004	23	49	0.008
12:00 - 13:00	23	49	0.004	23	49	0.004	23	49	0.008
13:00 - 14:00	23	49	0.001	23	49	0.003	23	49	0.004
14:00 - 15:00	23	49	0.002	23	49	0.002	23	49	0.004
15:00 - 16:00	23	49	0.005	23	49	0.004	23	49	0.009
16:00 - 17:00	23	49	0.004	23	49	0.001	23	49	0.005
17:00 - 18:00	23	49	0.006	23	49	0.000	23	49	0.006
18:00 - 19:00	23	49	0.008	23	49	0.001	23	49	0.009
19:00 - 20:00	2	15	0.000	2	15	0.000	2	15	0.000
20:00 - 21:00	2	15	0.000	2	15	0.000	2	15	0.000
21:00 - 22:00	2	15	0.000	2	15	0.000	2	15	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.048			0.047			0.095

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

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APPENDIX 3

Car Ownership Statistics Data

KS404EW - Car or van availability

ONS Crown Copyright Reserved [from Nomis on 29 March 2018]

population	All households; All cars or vans
units	Households
area type	2011 wards
area name	W05000269 : Offa
rural urban	Total

Cars

2011

	number	%
All categories: Car or van availa	1,137	100
No cars or vans in household	375	33
1 car or van in household	492	43
2 cars or vans in household	217	19
3 cars or vans in household	43	4
4 or more cars or vans in house	10	1

In order to protect against disclosure of personal information, records have been swapped between different geographic areas. Some counts will be affected, particularly small counts at the lowest geographies.



CROFT

Croft Transport Planning & Design

Hill Quays, 9 Jordan Street,
Manchester M15 4PY

0161 667 3746

info@croftts.co.uk

www.croftts.co.uk

The logo consists of the letters 'SA' in a bold, white, sans-serif font, centered within a dark blue square. This square is positioned on the left side of a horizontal header bar that features a light blue-to-white gradient.

SA

BAT ACTIVITY REPORT

4 BROOK STREET, WREXHAM

LINGAR HOMES

12 AUGUST 2019

Sambrook Associates Ltd

5 Barnhill Grange | Old Coach Road | Barnhill | Broxton | Cheshire CH3 9JJ
sambrookassociates.co.uk

Report prepared by	Rebecca Sambrook
Date	12/08/2019
Report Reference	BRK_R002
Version	V1
Status	Final

This report has been prepared by Sambrook Associates Ltd on behalf of Lingar Homes in connection with a proposed development at 4 Brook Street, Wrexham, and takes into account their particular instructions and requirements. It is not intended for, and should not be relied on, by any third party and no responsibility is undertaken to any third party.

Contents

1 INTRODUCTION 3

1.1 Background Information 3

1.2 Site Description 3

2 LEGISLATION AND PLANNING POLICY 4

3 METHODOLOGY 5

3.1 Introduction..... 5

3.2 Limitations 5

4 RESULTS..... 6

4.1 Introduction..... 6

4.2 Appraisal of Potential Effects 6

5 CONCLUSION AND RECOMMENDATIONS 7

6 REFERENCES 8

1 INTRODUCTION

1.1 Background Information

- 1.1.1 Sambrook Associates Ltd was instructed in September 2018, by Lingar Homes to undertake bat activity surveys, in relation to the proposed conversion the upper floors of a building into flats at 4 Brook Street, Wrexham.
- 1.1.2 This survey and report follows a preliminary roost inspection undertaken by Arbtech earlier in 2018. Arbtech did not find any evidence that the building is being used by bats but they did find a few features that may provide potential roosting features for individuals or small numbers of bats. Features included broken/raised slates on the roof. Their report recommended that a single activity survey should be conducted.
- 1.1.3 This report provides the results of two bat activity surveys, the first was undertaken late in the season and so a second was undertaken in June 2019; an appraisal of the results is also provided.

1.2 Site Description

- 1.2.1 The Site is located within the centre of Wrexham town centre, in a heavily built up area. Street lighting and vehicular traffic are present throughout the night. A full description of the building, including photographs can be found in the Arbtech report.
- 1.2.2 The proposed development is hereby referred to as the Site and comprises the land within the red-line boundary.

2 LEGISLATION AND PLANNING POLICY

- 2.1.1 Many sites, animals and plants are protected by European and/or UK legislation either because of their decline across Europe and the UK or due to the persecution they have placed upon them by negligent or illegal acts such as baiting or trade. Legislation is also in place to prevent the spread of introduced or non-native invasive species and harmful weeds. When undertaking an appraisal of a proposed development, such legislation is taken into account as follows.
- **European:** Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (the 'Habitats Directive'); and Directive 2009/147/EC of the European Parliament and of the Council on the conservation of wild birds (codified version of Directive 79/409/EEC as amended) (the 'Birds Directive').
 - **UK (England & Wales):** • The Conservation of Habitats and Species Regulations 2010, as amended (the 'Habitat Regulations') which transposes the Habitats Directive in UK law; The Wildlife and Countryside Act 1981 (as amended); the Countryside and Rights of Way Act (CRoW) 2000; the Protection of Badgers Act 1992; the Natural Environment and Rural Communities Act (NERC) (2006) and the Environmental Protection Act (EPA) 1990.
- 2.1.2 Species such as bats, great crested newts, otter, water vole, birds, reptiles and badgers are all protected to varying degrees under this legislation.
- 2.1.3 In addition to legislation, there are also national and local planning policies pertaining to the protection of biodiversity. The National Planning Policy Framework (Department for Communities and Local Government, 2012) states that local planning authorities should “promote the preservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species populations, linked to national and local targets, and identify suitable indicators for monitoring biodiversity in the plan.”
- 2.1.4 Under the NERC Act, local authorities (and other public bodies) have a duty to conserve biodiversity the local authority must take the protection of the priority habitat into consideration when it is making a planning decision.

3 METHODOLOGY

3.1 Introduction

- 3.1.1 A bat activity survey was conducted in September 2018 and a follow up survey conducted in June 2019. The surveys followed the methodology set out in the Bat Conservation Trust Handbook *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (Collins, 2016).
- 3.1.2 The first survey was undertaken at dawn on the 25 September 2018 and commenced 1.5 hours before sunrise until 15 minutes after. The second survey was undertaken at dusk on the 05 June 2019 and commenced 15 minutes before sunset until 2 hours after.
- 3.1.3 All of the surveyors are experienced in bat activity surveys; Rebecca Sambrook BSc (Hons) MCIEEM (lead surveyor), Jack Halpin BSc (Hons), Mark Benson and Tim Green. Three surveyors were positioned strategically so that good coverage of the building was achieved; one to the front on Brook Street (JH), one to the side on Bridge Street (TG) and one to the rear within the Site compound (RS/MB). The lead surveyor, Rebecca is a Full Member of the Chartered Institute of Ecology and Environmental Management (CIEEM) and adheres to that organisation's Code of Professional Conduct. Rebecca has been designing and conducting bat surveys, assessing impacts and designing appropriate mitigation for over 16 years, involving hundreds of projects.
- 3.1.4 The surveyors each used a Wildlife Acoustics' EM Touch detector.
- 3.1.5 The following table provides details of the surveys.

Table 3.1: Survey Data

Date	Sunrise/Sunset	Time started	Time completed	Temperature during survey	Weather conditions
25/09/2018	07:02	05:30	07:17	6-9°	Dry, cool, still. Previous dusk temperature - 12°
05/06/2019	21:34	21:19	23:34	10-12°	Warm, clear, still

3.2 Limitations

- 3.2.1 The temperatures during the 2018 survey were slightly lower than anticipated.

4 RESULTS

4.1 Introduction

- 4.1.1 This section provides a commentary on the data collected during the activity surveys undertaken in 2018/19.
- 4.1.2 No bats were recorded during either of the surveys and none were seen to enter into or emerge from the building.

4.2 Appraisal of Potential Effects

- 4.2.1 Overall, the Site offers limited potential for bats. Although the building offers some potential roosting features, the location of the building is suboptimal, being in the centre of a large, busy town and although urban locations do not preclude the potential for bats, their suitability is generally somewhat reduced. The building is brightly lit by street lighting throughout the night which is not generally conducive to roosting bats. Part of the back of the building is in shadows but the area adjacent to this part is also brightly lit which would preclude many light-avoiding bat species.
- 4.2.2 Given the location of the building and the fact it is lit, it is considered that the results obtained are a true reflection of the status of bats at this site.
- 4.2.3 Effects on bats during the course of construction are not anticipated. However, as a highly precautionary approach, it is recommended that initial tile removal is undertaken by hand and if in the unlikely event a bat is found, work must stop immediately, and an appropriately experienced ecologist contacted for advice.
- 4.2.4 The addition of low-level lighting (where required for health and safety reasons during occupancy) will not give rise to a significant increase in potential for effects on bats, due to the existing street lighting.

5 CONCLUSION AND RECOMMENDATIONS

- 5.1.1 The Site has been the subject of surveys and assessment in 2018/19 which have revealed that the Site is generally of low value to bats, with no bats recorded around the building during the activity surveys.
- 5.1.2 It is considered that the proposed building work is highly unlikely to affect bats and so can be undertaken without the need for further survey or detailed mitigation.
- 5.1.3 Developers, site contractors, their agents, directors and other personnel are reminded that bats and their habitats are protected by law, and to kill, injure or harm such species and their habitats is a criminal offence. Custodial sentences and/or large financial penalties are expected if you break the law.
- 5.1.1 Therefore, as a highly precautionary approach, the following is recommended:
- **Recommendation:** The removal of the existing roof (if required) is to commence outside of the two most vulnerable periods; breeding (late April to September) and hibernation (November to February), initial slates are to be stripped by hand. If a bat is discovered, work must stop immediately and an appropriately qualified ecologist contacted for advice.
 - **Reason:** to avoid the potential for impacts on roosting bats, although it is highly unlikely they are present.

6 REFERENCES

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Natural England (2010). *European Protected Species and the Planning Process.*

BRIDGE STREET, WREXHAM

FLOOD CONSEQUENCES ASSESSMENT

Final Report v1.2

August 2018

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Report Title: **Bridge Street, Wrexham**
Flood Consequences Assessment
Final Report v1.2

Client: Lingar Group

Date of Issue: 22 August 2018

Prepared by: Adam Edgerley BSc (Hons)
Technical Director

Checked and approved by: Rebecca Murphy BSc (Hons)
Associate Director

This document has been prepared solely as a Flood Consequences Assessment for Lingar Group. This report is confidential to Lingar Group and Weetwood Services Ltd accepts no responsibility or liability for any use that is made of this document other than by Lingar Group for the purposes for which it was originally commissioned and prepared.

Contents

	Page
Signature Sheet	i
Contents	ii
List of Tables, Figures & Appendices	iii
1 INTRODUCTION	1
1.1 Purpose of Report	1
1.2 Structure of the Report.....	1
2 PLANNING POLICY AND GUIDANCE	2
2.1 NATIONAL Planning Policy and Guidance.....	2
2.2 Local Planning Policy and Guidance	3
2.3 Consents	3
2.4 Relevant Documents	3
3 SITE DETAILS AND PROPOSED DEVELOPMENT	5
3.1 Site Location	5
3.2 Existing and Proposed Development.....	5
3.3 Waterbodies in the Vicinity of the Site	6
3.4 Ground Conditions	6
3.5 Site Levels	6
3.6 Access and Egress	6
4 REVIEW OF FLOOD RISK.....	8
4.1 Flood Zone Designation	8
4.2 Justification Test.....	9
4.3 Historical Records of Flooding	9
4.4 Fluvial Flood Risk – River Gwenfro	9
4.5 Flood Risk from Reservoirs, Canals and Other Artificial Sources	12
4.6 Flood Risk from Groundwater	12
4.7 Flood Risk from Surface Water	12
5 FLOOD RISK MITIGATION MEASURES.....	14
5.1 Flood Mitigation	14
5.2 Proposed Scenario Flood Risk Modelling	14
5.3 Flood Risk Elsewhere.....	15
5.4 Access and Egress	16
6 SUMMARY	17
7 RECOMMENDATIONS.....	19

List of Tables

Table 1:	Flood Information – Baseline	10
Table 2:	Maximum Flood Information – Culvert Blockage (Island Green)	11

List of Figures

Figure 1:	Site Location	5
Figure 2:	Development Advice Map	8
Figure 3:	Natural Resources Wales Flood Risk Map	9
Figure 4:	Groundwater Flooding Hazard Map	12
Figure 5:	Natural Resources Wales Risk of Flooding from Surface Water	13

List of Appendices

Appendix A:	Development Proposals
Appendix B:	Topographic Survey
Appendix C:	Model Output Plots – Baseline Scenario
Appendix D:	Model Output Plots – Baseline Blockage Scenario
Appendix E:	Model Output Plots – Proposed
Appendix F:	Model Output Plots – Comparison

1 INTRODUCTION

1.1 PURPOSE OF REPORT

Weetwood Services Ltd ('Weetwood') has been instructed by Lingar Group to undertake a Flood Consequences Assessment (FCA) in association with the proposed redevelopment of land located off Bridge Street, Wrexham.

A FCA report was produced for the site on 13 August 2018¹; however, this omitted information relating to the proposed scenario flood risk modelling, which was still in progress at that time. The FCA has subsequently been updated to include this, as detailed in **Section 5.2** and **Section 5.3** of this report, and in turn supersedes the previous version (v1.1).

This FCA has been prepared in accordance with the requirements of Technical Advice Note 15 (TAN15): Development and Flood Risk.

1.2 STRUCTURE OF THE REPORT

The report is structured as follows:

- Section 1** Introduction and report structure
- Section 2** Presents national and local flood risk and drainage planning policy
- Section 3** Provides background information relating to the development site, the development proposals, ground conditions and existing site access arrangements
- Section 4** Assesses the potential sources of flooding to the development site
- Section 5** Presents flood risk mitigation measures based on the findings of the assessment
- Section 6** Presents a summary of key findings
- Section 7** Presents the recommendations

¹ Ref: 4183/FCA/Final/v1.1/2018-08-13

2 PLANNING POLICY AND GUIDANCE

2.1 NATIONAL PLANNING POLICY AND GUIDANCE

2.1.1 Technical Advice Note 15; Development and Flood Risk

The general approach of TAN15 is to set out a precautionary framework to guide planning decisions in areas at high risk of flooding. The overarching aim of the framework is, in order of preference, to:

- Direct new development away from those areas which are at a high risk of flooding.
- Where development has to be considered in high risk areas (i.e. Zone C) only those development which can be justified should be located in such areas.

2.1.1.1 Justification Test

In accordance with Paragraph 6 of TAN15 for the Justification Test to be passed it must be demonstrated that:

- i Its location in Zone C is necessary to assist, or be part of, a local authority regeneration initiative or a local authority strategy required to sustain an existing settlement; **or**,
- ii Its location in Zone C is necessary to contribute to key employment objectives supported by the local authority, and other key partners, to sustain an existing settlement or region;

and,

- iii It concurs with the aims of Planning Policy Wales (PPW) and meets the definition of previously developed land (PPW Fig 2.1); and,
- iv The potential consequences of a flooding event for the particular type of development have been considered, and in terms of the criteria contained in sections 5 and 7 and appendix 1 found to be acceptable.

2.1.2 Welsh Government

2.1.2.1 Climate Change Allowances for Planning, August 2016

A consultation letter² and supporting guidance note³ issued by Welsh Government in August 2016 sets out allowances for climate change for use in FCAs submitted in support of planning applications.

When considering new development proposals, TAN15 states that it is necessary to take account of the potential impact of climate change over the lifetime of development. The Welsh Government guidance note states that 'residential development is assumed to have a lifetime of 100 years while a lifetime of 75 years is assumed for non-residential developments. To ensure future development can provide a safe and secure living and /or working environment throughout its lifetime, national planning policy requires proposals in areas of high flood risk to be accompanied by an assessment of flooding consequences to and from the development, taking into account the impacts of climate change'.

² Welsh Government consultation letter 23 August, 2016 (Ref: CL-03-16)

³ <https://gov.wales/docs/desh/publications/160831guidance-for-flood-consequence-assessments-climate-change-allowances-en.pdf>

The climate change allowances detailed within the Welsh Government guidance note are informed by latest available information on climate change projections and allowances are provided for different epochs (periods) of time over the next century.

The guidance note should be applied to planning applications (full, outline and reserved matters) submitted from 1 December 2016.

2.2 LOCAL PLANNING POLICY AND GUIDANCE

The Wrexham County Borough Council (WCBC) Unitary Development Plan (UDP) 1996 to 2011 expired at the end of 2015; however, this remains the adopted development plan for the county.

The following policy is relevant in respects of flood risk:

Policy EC12 - Development and Flood Risk

Development (including the raising of land) within the defined flood plains will only be permitted if it:-

- a) Would not be subject to an unacceptable risk of flooding on-site; and/or
- b) Does not result in unacceptable risk of flooding on or off-site; and/or
- c) Does not adversely affect flood management or maintenance schemes

WCBC is currently preparing a Local Development Plan (LDP) which will replace the current adopted UDP in spring 2019.

2.3 CONSENTS

An Environmental Permit for Flood Risk Activities may be required from Natural Resources Wales (NRW) for work:

- in, under, over or near a main river (including where the river is in a culvert)
- on or near a flood defence on a main river
- in the flood plain of a main river
- on or near a sea defence

Further information can be found by visiting the NRW website⁴.

If the location of an activity is on any watercourse that lies within an Internal Drainage District (IDD) an application will need to be made to NRW for a Flood Risk Activity Permit.

Ordinary Watercourse Consent may be required from the lead local flood authority for work to an ordinary watercourse.

Undertaking activities controlled by local Byelaws (made under the Water Resources Act 1991) also requires the relevant consent.

2.4 RELEVANT DOCUMENTS

The FCA has been informed by the following documents:

⁴ <https://naturalresources.wales/apply-for-a-permit/flood-risk-activities/flood-risk-activity-permits-information/?lang=en>

- Flood Risk Management Plan (FRMP), WCBC, July 2016
- Local Flood Risk Management Strategy (LFRMS), WCBC, April 2013
- Preliminary Flood Risk Assessment (PFRA), WCBC, November 2017

3 SITE DETAILS AND PROPOSED DEVELOPMENT

3.1 SITE LOCATION

The site is located off Bridge Street, Wrexham, at Ordnance Survey National Grid Reference SJ 333 501 as shown in **Figure 1**. The site is approximately 0.18 hectares (ha) in area.

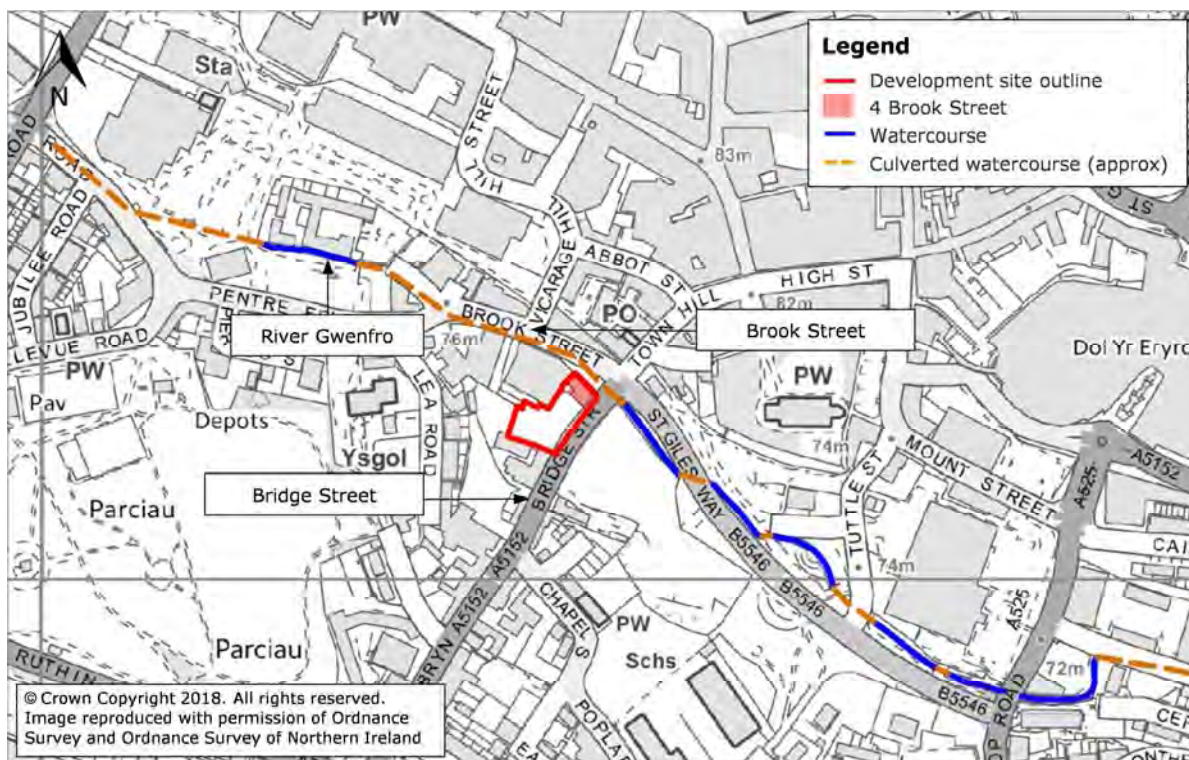


Figure 1: Site Location

3.2 EXISTING AND PROPOSED DEVELOPMENT

The existing site currently comprises an existing building in the north (4 Brook Street), which was previously used as a night club, whilst the southern portion comprises derelict land that was previously subject to a Compulsory Purchase Order by WCBC as this forms part of its regeneration scheme.

Proposals are for the change of use and conversion of the first and second floor of 4 Brook Street into 10 residential apartments, with the existing commercial/retail use retained on the ground floor (it should be noted that the latter does not subsequently form part of the planning application). In addition, it is proposed to construct a new residential block in the southern portion of the site comprising 32 apartments with associated hardstanding and landscaping.

A proposed site layout is provided in **Appendix A**.

TAN15 classifies commercial/retail development as 'less vulnerable' land use and residential development as 'highly vulnerable'⁵.

The previous use of the existing building in the north of the site (4 Brook Street) as a night club may be classified as 'highly vulnerable' development, which includes public buildings. As such the conversion of this building to residential use at and above the first floor should not increase the vulnerability classification.

3.3 WATERBODIES IN THE VICINITY OF THE SITE

The River Gwenfro flows in culvert within Brook Street to the north of the site in a predominately south-easterly direction. Throughout the existing built up area of Wrexham the watercourse flows in both open channel and culvert.

The River Gwenfro is classified as a 'main river'.

3.4 GROUND CONDITIONS

According to the Soilscales maps produced by the National Soils Research Institute⁶, soil conditions at the site and within the surrounding area are described as 'freely draining loamy soils'.

British Geological Survey (BGS) borehole records⁷ located approximately 20.0 m south and 60.0 m south-east of the site show ground conditions to consist of sandy soils, with groundwater encountered at 0.91 m below ground level (bgl).

BGS Surface Geology mapping⁸ indicates the underlying bedrock formation comprises 'Salop Formation – Mudstone, Sandstone and Conglomerate'. This is overlain by 'Glaciofluvial Sheet Deposits, Devensian – Sand and Gravel', with 'Alluvium – Clay, Silt, Sand and Gravel' in the vicinity of the River Gwenfro.

3.5 SITE LEVELS

A topographic survey of the southern portion of the site was undertaken by WCBC in August 2015, with a topographic survey of 4 Brook Street in the north undertaken by Cheshire Surveys Ltd in September 2010. Both surveys are provided in **Appendix B**.

These indicate that site levels in the south of the site are in the region of 76.07 – 77.55 metres Above Ordnance Datum (m AOD) with levels in the north in the region of 75.23 – 75.99 m AOD. The ground floor finished floor level of the existing 4 Brook Street building is shown to be 76.02 m AOD.

3.6 ACCESS AND EGRESS

Vehicular/pedestrian access and egress to the site will be provided via Brook Street to the north and Bridge Street to the east (**Appendix A**).

⁵ TAN15, Figure 2

⁶ Soilscales www.landis.org.uk/soilscales/

⁷ www.bgs.ac.uk/data/boreholescans/home.html, Ref: SJ35SW26, SJ35SW25

⁸ <http://mapapps.bgs.ac.uk/geologyofbritain/home.html>

Levels on Brook Street are shown to be in the region of 74.80 – 75.76 m AOD adjacent to the site, whilst levels on Bridge Street are in the region of 76.30 – 75.90 m AOD, rising to the south.

4 REVIEW OF FLOOD RISK

4.1 FLOOD ZONE DESIGNATION

Flood Zones refer to the probability of river and sea flooding, ignoring the presence of defences. TAN15 defines flood zones as follows⁹:

- **Zone A.** Considered to be at little or no risk of fluvial or tidal/coastal flooding.
- **Zone B.** Areas known to have been flooded in the past evidenced by sedimentary deposits.
- **Zone C.** Based on the Natural Resources Wales extreme flood outline, equal to or greater than 0.1% (river, tidal or coastal). Zone C is subdivided into the following two zones:
 - **Zone C1.** Areas of the floodplain which are developed and served by significant infrastructure, including flood defences.
 - **Zone C2.** Areas of the floodplain without significant flood defence infrastructure.

The Flood Zones are currently shown on the NRW Flood Risk Map and do not take account of the possible impacts of climate change and consequent changes in the future probability of flooding.

4.1.1 Development Advice Map

The Development Advice Map (**Figure 2**) indicates that the northern portion of the site (i.e. 4 Brook Street) is located in Zone C2 whilst the southern portion is located in Zone B and Zone A.

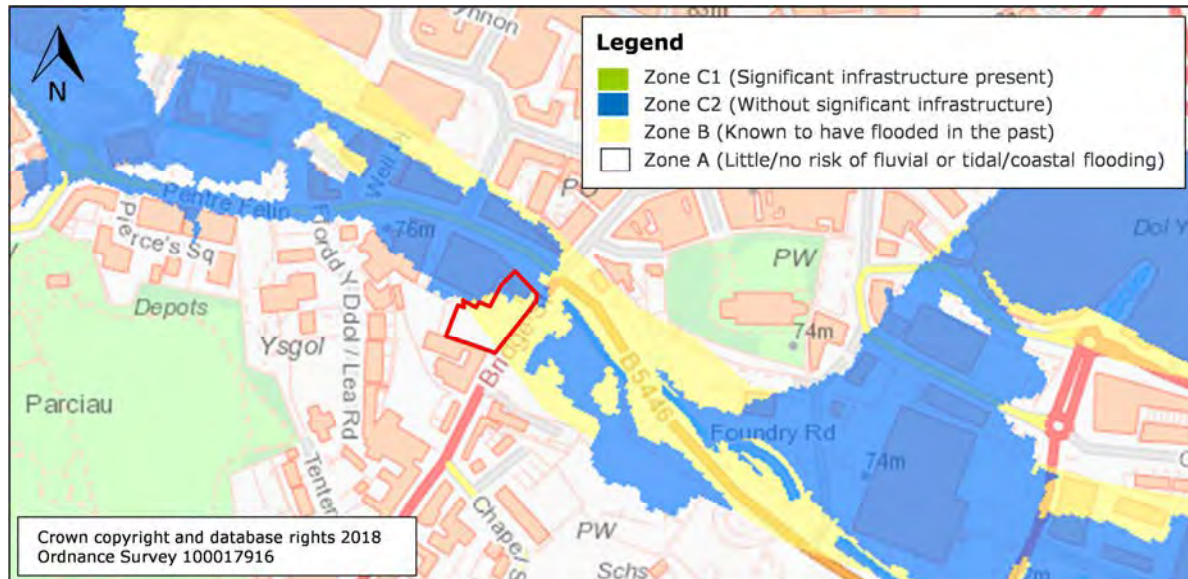


Figure 2: Development Advice Map
(Source: NRW website)

4.1.2 Natural Resources Wales Flood Risk Map

The NRW Flood Risk Map indicates that the northern portion of the site is located in the 1 in 1,000 annual probability flood outline, whilst the southern portion is located outside this flood outline.

⁹ TAN15, Figure 1

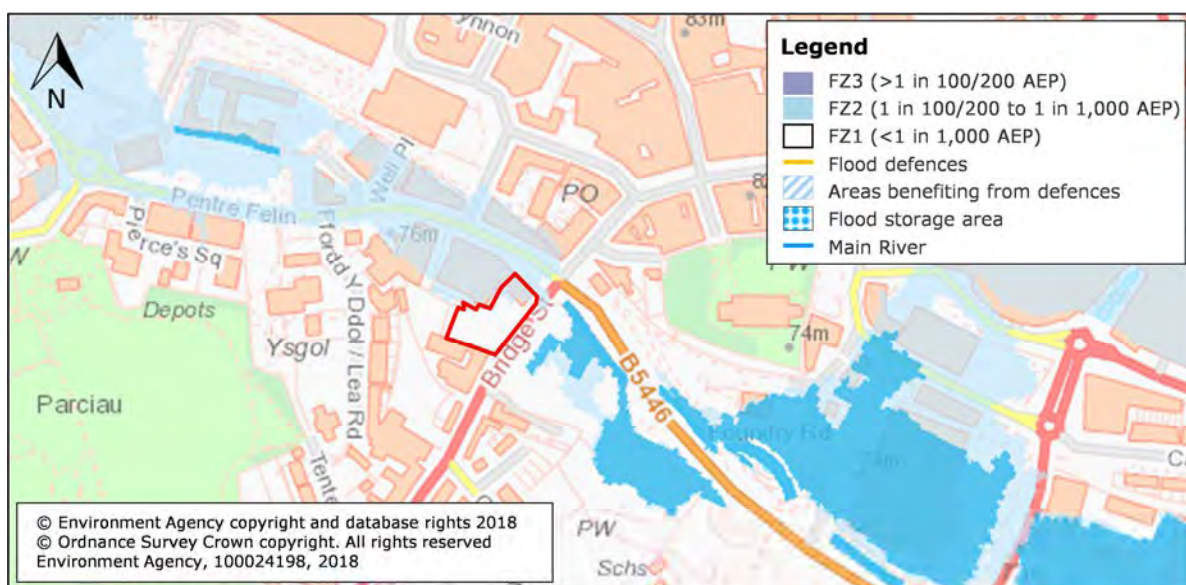


Figure 3: Natural Resources Wales Flood Risk Map
(Source: NRW website)

4.2 JUSTIFICATION TEST

The vast majority of the site (including the area for the proposed new residential apartment block) lies outside Zone C and as such there is no requirement for the Justification Test to be applied.

The land in the north, which is located in Zone C is currently developed. As detailed in **Section 3.2** the proposed conversion of the existing building (4 Brook Street) within this area would not be expected to increase the vulnerability classification. Furthermore, the development of the site is considered to contribute to part of the local authority's regeneration scheme and meets the definition of 'previously developed land'. Part i and iii of the Justification Test are therefore considered to have been addressed.

This report addresses part iv of the Justification Test.

4.3 HISTORICAL RECORDS OF FLOODING

According to NRW historic flood outlines¹⁰, there are no records of the site previously being affected by flooding.

4.4 FLUVIAL FLOOD RISK – RIVER GWENFRO

As outlined in **Section 3.3** the River Gwenfro is located to the north of the site.

The River Gwenfro Model Update was completed by JBA Consulting on behalf of WCBC in December 2016¹¹. This included refinements to the previous flood risk mapping study undertaken by JBA Consulting on behalf of Environment Agency Wales (now NRW) in 2008, which included the development of a 1D-2D ISIS-TUFLOW hydraulic model of the River Gwenfro.

¹⁰ <http://lle.gov.wales/catalogue/item/HistoricFI/?lang=en>

¹¹ River Gwenfro Model Update, Final Report, JBA Consulting/WCBC, December 2016

The primary purpose of the study was to obtain an up-to-date assessment of the flood risk (extents, depths, velocity and hazard), which could be used to inform future development in Wrexham Town Centre.

The 2016 River Gwenfro Model Update report and accompanying hydraulic model have been obtained from WCBC for the purposes of this assessment.

4.4.1 Flood Defences

The River Gwenfro Model Update indicates that there are no formal flood defences along the watercourse within the vicinity of the site; however, several areas in the vicinity of the site are shown to benefit from 'informal' defences, comprising raised walls, which are included within the hydraulic model. Figure 1-5 of the River Gwenfro Model Update report shows the locations of the informal defences.

4.4.2 Modelled Flood Levels and Extents - Baseline

The site topographic survey has been incorporated within the WCBC River Gwenfro 1D-2D ISIS-TUFLOW hydraulic model in order to more accurately represent ground levels; however, no further amendments or refinements have been made to this.

The following events have subsequently been modelled in order to establish the baseline scenario:

- 1 in 100 annual probability
- 1 in 100 climate change (+CC) (20%) annual probability
- 1 in 100 +CC (45%) annual probability
- 1 in 1,000 annual probability

Model output plots are provided in **Appendix C**.

These indicate that no flooding of the site would be expected in up to a 1 in 100 +CC (45%) annual probability event. Whilst some flooding of the site may be expected during a 1 in 1,000 annual probability event this is confined to the northern portion of the site.

Table 1 summarises the flood level, depth and velocity expected on site during the aforementioned events.

Table 1: Flood Information – Baseline

Annual Probability Event	Max Level (m AOD)	Depth (m)		Velocity (m/s)	
		Max	Mean	Max	Mean
1 in 100	-	-	-	-	-
1 in 100 +CC (20%)	-	-	-	-	-
1 in 100 +CC (45%)	-	-	-	-	-
1 in 1,000	75.95	0.69	0.27	0.03	0.00

Based upon the maximum flood level provided within **Table 1**, and with an existing surveyed finished floor level of 76.02 m AOD it may be reasonable to assume that no flooding of the existing building in the north of the site (4 Brook Street) would be expected in a 1 in 1,000 annual probability event. As such, the existing building is not considered to be located in Zone C, contrary to the Development Advice Map.

4.4.3 Structure Blockage

A 30%, 67% and 100% blockage of both the Island Green and St Giles Way culverts have also been modelled as a sensitivity assessment for the 1 in 100 +CC (20%), 1 in 100 +CC (45%) and 1 in 1,000 annual probability events.

The model outputs indicate that the site is more sensitive to a blockage of the Island Green culvert which has therefore been considered further below.

Model output plots for the Island Green culvert blockage scenario are provided in **Appendix D. Table 2** summarises the maximum flood level, depth and velocity expected on site during the respective blockage scenarios for the Island Green culvert.

The results indicate that the southern portion of the site would be expected to remain dry in up to a 1 in 1,000 annual probability 100% culvert blockage scenario. This accounts for approximately 60% of the site area.

Within the northern portion of the site, flood levels are shown to range between 76.23 and 76.49 m AOD depending on the event, equating to maximum flood depths typically between 0.44 and 0.53 m; however, in some lower parts of the site flood depths could reach 1.21 m in the 1 in 1,000 annual probability 100% culvert blockage scenario. The extents of flooding within the site are not shown to significantly vary for all modelled blockage events.

Given the ground floor finished floor level of 76.02 m AOD within the existing building (4 Brook Street), maximum internal flood depths may be between 0.21 and 0.47 m depending on the event in **Table 2**.

Table 2: Maximum Flood Information – Culvert Blockage (Island Green)

Annual Probability Event	Max Level (m AOD)	Depth (m)		Velocity (m/s)	
		Highest	Mean	Highest	Mean
1 in 100 +CC (20%)					
30% blockage	76.23	0.97	0.44	0.20	0.04
67% blockage	76.38	1.11	0.47	0.44	0.11
100% blockage	76.43	1.16	0.51	0.51	0.13
1 in 100 +CC (45%)					
30% blockage	76.30	1.04	0.44	0.36	0.07
67% blockage	76.43	1.16	0.51	0.51	0.13
100% blockage	76.47	1.20	0.52	0.57	0.15
1 in 1,000					
30% blockage	76.34	1.07	0.46	0.37	0.08
67% blockage	76.45	1.18	0.52	0.55	0.14
100% blockage	76.49	1.21	0.53	0.59	0.16

The flood risk to the site from this source will be mitigated though the implementation of the measures proposed in **Section 5** of this report.

4.5 FLOOD RISK FROM RESERVOIRS, CANALS AND OTHER ARTIFICIAL SOURCES

There are no canals located within the immediate vicinity of the site. The NRW Risk of Flooding from Reservoirs map indicates that the site is not at risk of flooding from such sources. The site is therefore not considered to be at risk of flooding from reservoirs, canals or other artificial sources.

4.6 FLOOD RISK FROM GROUNDWATER

As detailed in **Section 3.4** ground conditions at the site and within the surrounding area are described as freely draining soils. There may therefore be the propensity for some groundwater flooding. However, ground levels are shown to fall to the north towards Brook Street and in turn the River Gwenfro. As such any groundwater emerging at the site would be expected to runoff the site before building to any significant depth.

According to the BGS Groundwater Flooding Hazard map (**Figure 4**) the susceptibility to groundwater flooding is moderate to significant.

The risk of flooding from this source will be mitigated through the implementation of the measures proposed in **Section 5** of this report.

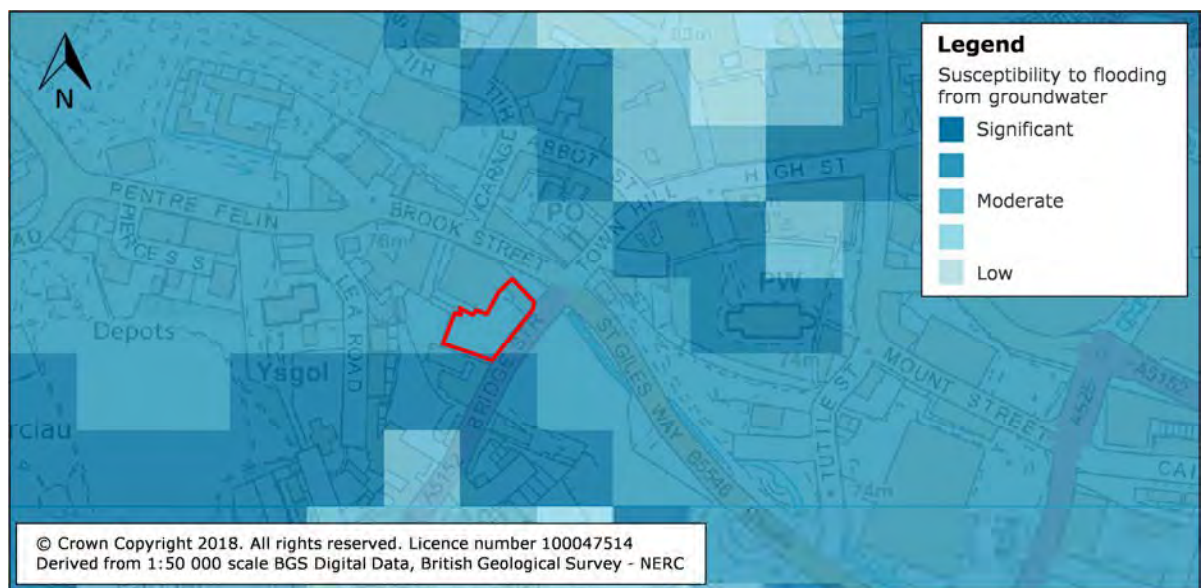


Figure 4: Groundwater Flooding Hazard Map
(Source: Findmaps)

4.7 FLOOD RISK FROM SURFACE WATER

As detailed in **Section 3.4** ground conditions at the site and within the surrounding area are described as freely draining soils. The propensity for surface water flooding may therefore be considered low. Furthermore, ground levels are shown to fall to the north towards Brook Street and in turn the River Gwenfro. As such surface water would not be expected to accumulate to any significant depth at the site itself.

The NRW Risk of Flooding from Surface Water map (**Figure 5**) indicates the majority of the site is at 'very low' risk, with a small area in the north at 'low' risk¹²; however, NRW

¹² Very Low Risk - Chance of flooding of less than 1 in 1000 in each year

data indicates that the flood depths and velocities for the low risk event would be less than 0.15 m and 0.25 m/s respectively.

Any residual flood risk from this source will be addressed through the mitigation measures as detailed in **Section 5**.

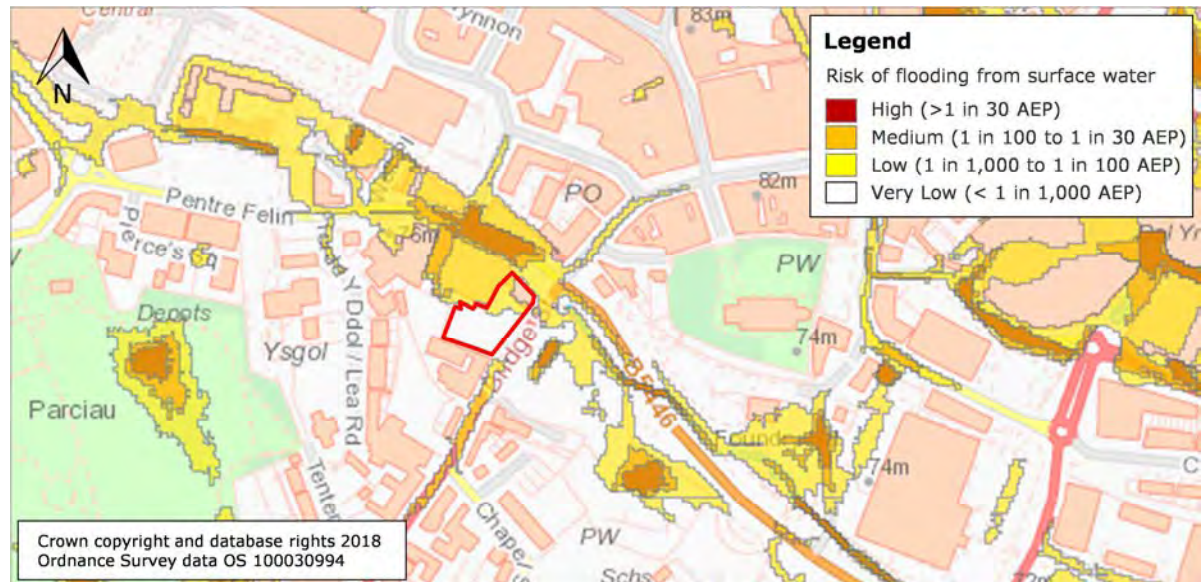


Figure 5: Natural Resources Wales Risk of Flooding from Surface Water
(Source: NRW website)

Low Risk - Chance of flooding of between 1 in 1000 and 1 in 100 in each year
Medium Risk - Chance of flooding of between 1 in 100 and 1 in 30 in each year
High Risk - Chance of flooding is greater than 1 in 30 in each year

5 FLOOD RISK MITIGATION MEASURES

The flood risk to the site from the River Gwenfro and any residual risk of flooding from groundwater and surface will be mitigated through the implementation of the measures proposed within the following section of this report.

5.1 FLOOD MITIGATION

5.1.1 Finished Floor Levels

As detailed in **Section 3.2** the proposals comprise the change of use and conversion of the first and second floor of 4 Brook Street into 10 residential apartments. This will ensure that all 'highly vulnerable' development is located well above the anticipated flood levels expected on site from the River Gwenfro (as indicated in **Table 1** and **Table 2**).

The finished floor level of any new building should be set at a minimum of 76.73 m AOD. This provides a freeboard of 300 mm above the flood level expected at the site during the 1 in 100 +CC (20%) annual probability 100% blockage (Island Green culvert) scenario.

The freeboard allowance is considered appropriate given that this will afford a finished floor level that is also above the 1 in 100 +CC (45%) and 1 in 1,000 annual probability 100% blockage events.

Finished floor levels for new buildings should also be set at a minimum of 0.15 m above adjacent ground levels following reprofiling of the site. This will enable any potential overland flows to be conveyed safely across the site without affecting property in accordance with the approach promoted by government policy¹³.

5.1.2 Car Parking

The proposed new car parking area is shown to be located outside of the 1 in 1,000 annual probability flood outline and would therefore be expected to remain dry during 'free-flowing' flood events.

During a 100% Island Green Culvert blockage scenario the proposed new car parking area is also expected to remain dry based on the baseline model outputs; however, car park levels will be profiled in order to provide a consistent gradient across the area, tying in with the access off Bridge Street. This may afford some shallow flooding of the northern extent of the car park with maximum flood depths expected to be less than 300 mm during a 1 in 1,000 annual probability 100% blockage (Island Green culvert) scenario (refer to **Section 5.2**). It has been assumed that the minimum ground levels within the car parking area will be set to at least 76.20 m AOD.

5.2 PROPOSED SCENARIO FLOOD RISK MODELLING

The proposed flood risk mitigation strategy as outlined in **Section 5.1** has been incorporated within the refined Weetwood hydraulic model of the River Gwenfro. The hydraulic model has subsequently been run for the 1 in 100 +CC (20%), 1 in 100 +CC

¹³ Making Space for Water, Taking forward a new Government strategy for flood and coastal erosion risk management in England, March 2005, Dept for Environment, Food and Rural Affairs

(45%) and 1 in 1,000 annual probability 100% blockage (Island Green culvert) scenarios. It is not considered to be necessary to include 'free-flowing' proposed scenario model outputs given that all new built development will be located outside of the associated flood extents in up to a 1 in 1,000 annual probability event.

Model output plots for the proposed scenario are provided in **Appendix E**.

These indicate that a peak flood level of 76.48 m AOD would be expected within the existing building (4 Brook Street) in the north of the site in a 1 in 1,000 annual probability 100% blockage (Island Green culvert) event. With a ground floor finished floor level of 76.02 m AOD, a maximum internal flood depth of 0.46 m may subsequently be expected; however, all proposed 'highly vulnerable' development will be located at or above the first floor and as such will be significantly raised above the anticipated flood level.

The new proposed building and the majority of the car parking area in the south of the site are shown to remain dry in up to the 1 in 1,000 annual probability 100% blockage (Island Green culvert) event. However, some shallow flooding may be expected in a small area at the northern extent of the car park with maximum flood depths of 0.28 m (but would typically be less).

5.3 FLOOD RISK ELSEWHERE

Any proposal to modify ground levels should demonstrate that there is no increase in flood risk to the development itself, or to any existing buildings which are known to, or are likely to flood.

In accordance with A1.2 of TAN15 the consequences of the development on flood risk elsewhere should be assessed for up to the 1 in 1,000 annual probability event. It is understood that NRW also seek to ensure that blockage scenarios are considered in quantifying flood risk elsewhere.

No inundation of the area of the site to comprise new development is expected in up to the 1 in 1,000 annual probability 'free flowing' event. As such the proposed development would not be expected to increase flood risk elsewhere during this scenario.

Model output plots comparing the baseline and proposed outputs for the 1 in 100 +CC (20%) and 1 in 1,000 annual probability 100% blockage (Island Green culvert) scenarios are provided in **Appendix F**.

This indicates that no significant impact on flood risk elsewhere would be expected as a result of the proposals. Whilst some localised increases in flood risk may be expected to the north-west these are typically in the region of 6 mm during the aforementioned events. This is only slightly greater than the modelling tolerance of +/- 5 mm, which is considered acceptable to NRW.

Furthermore, flood depths within the areas that are shown to be impacted are in the region of 1.09 and 1.14 during the baseline 1 in 100 +CC (20%) and 1 in 1,000 annual probability 100% blockage (Island Green culvert) scenarios respectively. As such an increase of 6 mm is considered to be negligible.

5.4 ACCESS AND EGRESS

The baseline modelled outputs (**Appendix C**) indicate that dry access and egress to the site can be provided via both Brook Street and Bridge Street in up to a 1 in 100 +CC (45%) annual probability event.

In a 1 in 1,000 annual probability event dry access and egress continues to be provided to the site via Bridge Street. Furthermore, the existing external staircase (fire escape) from the first and second floor of 4 Brook Street is to be retained as part of the proposals. This should allow safe access and egress from the building to the southern portion of the site which is shown to be flood free during a 1 in 1,000 annual probability event.

In the event of a blockage of the Island Green culvert dry access and egress to the site is also provided via Bridge Street leading to the south (**Appendix E**). There may be some shallow flooding within a small section of the car parking area in the north with maximum flood depths of 0.27 m (but would typically be less); however, this is shown to remain dry in the south.

6 SUMMARY

This FCA has been prepared on behalf of Lingar Group and relates to the proposed redevelopment of land located off Bridge Street, Wrexham.

According to the NRW Flood Risk Map the northern area of the site is located within the 1 in 1,000 annual probability flood outline. The northern area of the site is subsequently shown to be located within Zone C2, whilst the southern area is classified as Zone B and Zone A.

There is no requirement for the Justification Test to be applied for the area of the site that lies outside Zone C (including the area for the proposed new residential apartment block). The land in the north, which is located in Zone C is currently developed. The proposed conversion of the first and second floor of the existing building (4 Brook Street) within this area would not be expected to increase the vulnerability classification. Furthermore, the development of the site is considered to contribute to part of the local authority's regeneration scheme and meets the definition of 'previously developed land'. Part i and iii of the Justification Test are therefore considered to have been addressed.

The WCBC River Gwenfro 1D-2D ISIS-TUFLOW hydraulic model has been obtained and run for the purposes of this assessment, incorporating the site topographic survey. The model outputs indicate that no flooding of the site would be expected in up to a 1 in 100 +CC (45%) annual probability event. Whilst some flooding of the site may be expected during a 1 in 1,000 annual probability event this is confined to the northern portion of the site.

A 30%, 67% and 100% blockage of the Island Green and St Giles Way culvert has also been modelled as a sensitivity assessment for the 1 in 100 +CC (20%), 1 in 100 +CC (45%) and 1 in 1,000 annual probability events. The model outputs indicate that the site is more sensitive to a blockage of the Island Green culvert. Approximately 60% of the site (within the southern portion of the site) is shown to remain dry in up to a 1 in 1,000 annual probability 100% (Island Green culvert) blockage scenario. Within the northern portion of the site, flood levels are shown to range between 76.23 and 76.49 m AOD depending on the event, equating to maximum flood depths typically between 0.44 and 0.53 m; however, in some lower parts of the site flood depths could reach 1.21 m.

The site is not at risk of flooding from reservoirs, canals or other artificial sources. There may be some susceptibility to groundwater and surface water flooding at the site.

The proposed flood risk mitigation strategy for the site is detailed in **Section 5.1**.

The proposals have been incorporated within the refined Weetwood hydraulic model of the River Gwenfro, which in turn has been run for the 1 in 100 +CC (20%), 1 in 100 +CC (45%) and 1 in 1,000 annual probability 100% blockage (Island Green culvert) scenarios. The model outputs indicate that all proposed 'highly vulnerable' development would remain dry during the modelled events.

The proposals are expected to have a negligible impact on flood risk elsewhere.

Dry access and egress to the site can be provided via both Brook Street and Bridge Street in up to a 1 in 100 +CC (45%) annual probability event, and via Bridge Street in a 1 in 1,000 annual probability event and Island Green culvert blockage scenario.

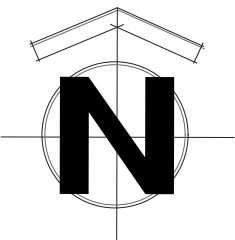
7 RECOMMENDATIONS

This FCA has demonstrated that the proposed development may be completed without conflicting with the requirements of TAN15 subject to the following:

- All 'highly vulnerable' development within the existing building (4 Brook Street) to be provided at or above the first floor
- Finished floor level of the new apartment block to be set at a minimum of 76.73 m AOD
- Finished floor levels to be set 0.15 m above adjacent ground levels
- Minimum ground levels within the car parking area will be set to at least 76.2 m AOD

APPENDIX A:

Development Proposals

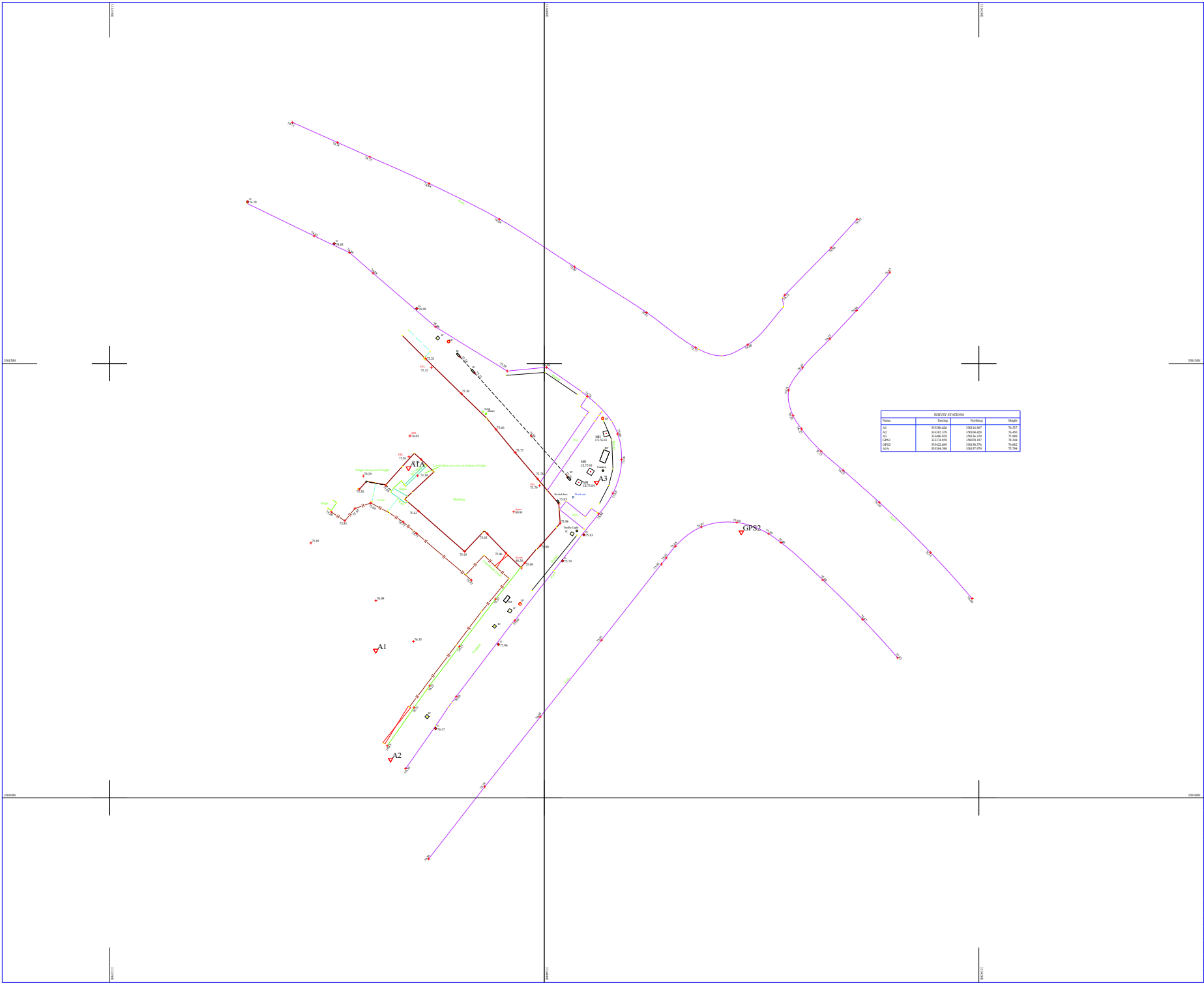
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Checked by:

Project Central Buildings, 4 Brook Street, Wrexham.		Client Lingar Properties	
Dwg Title Existing/Proposed Elevations	Drawn PL	Dwg No. 8821	Rev. L09
	Date April 2018	Scale 1:1	C+A
CASSIDY + ASHTON Architects Building Services Planners Designers www.cassidyashton.co.uk		1. Project Managers 2. Designers 3. Quantity Surveyors 4. Structural Engineers 5. Mechanical Engineers 6. Electrical Engineers 7. Civil Engineers 8. Environmental Engineers 9. Health and Safety Engineers 10. Fire Engineers 11. Acoustic Engineers 12. Lighting Engineers 13. Transport Engineers 14. Water Engineers 15. Wind Engineers 16. Snow Engineers 17. Vibration Engineers 18. Noise Engineers 19. Air Quality Engineers 20. Water Quality Engineers 21. Soil Quality Engineers 22. Geotechnical Engineers 23. Foundation Engineers 24. Structural Engineers 25. Mechanical Engineers 26. Electrical Engineers 27. Civil Engineers 28. Environmental Engineers 29. Health and Safety Engineers 30. Fire Engineers 31. Acoustic Engineers 32. Lighting Engineers 33. Transport Engineers 34. Water Engineers 35. Wind Engineers 36. Snow Engineers 37. Vibration Engineers 38. Noise Engineers 39. Air Quality Engineers 40. 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Soil Quality Engineers 162. Geotechnical Engineers 163. Foundation Engineers 164. Structural Engineers 165. Mechanical Engineers 166. Electrical Engineers 167. Civil Engineers 168. Environmental Engineers 169. Health and Safety Engineers 170. Fire Engineers 171. Acoustic Engineers 172. Lighting Engineers 173. Transport Engineers 174. Water Engineers 175. Wind Engineers 176. Snow Engineers 177. Vibration Engineers 178. Noise Engineers 179. Air Quality Engineers 180. Water Quality Engineers 181. Soil Quality Engineers 182. Geotechnical Engineers 183. Foundation Engineers 184. Structural Engineers 185. Mechanical Engineers 186. Electrical Engineers 187. Civil Engineers 188. Environmental Engineers 189. Health and Safety Engineers 190. Fire Engineers 191. Acoustic Engineers 192. Lighting Engineers 193. Transport Engineers 194. Water Engineers 195. Wind Engineers 196. Snow Engineers 197. Vibration Engineers 198. Noise Engineers 199. Air Quality Engineers 200. Water Quality Engineers 201. Soil Quality Engineers 202. Geotechnical Engineers 203. Foundation Engineers 204. Structural Engineers 205. Mechanical Engineers 206. Electrical Engineers 207. Civil Engineers 208. Environmental Engineers 209. Health and Safety Engineers 210. Fire Engineers 211. Acoustic Engineers 212. Lighting Engineers 213. Transport Engineers 214. Water Engineers 215. Wind Engineers 216. Snow Engineers 217. Vibration Engineers 218. Noise Engineers 219. Air Quality Engineers 220. Water Quality Engineers 221. Soil Quality Engineers 222. Geotechnical Engineers 223. Foundation Engineers 224. Structural Engineers 225. Mechanical Engineers 226. Electrical Engineers 227. Civil Engineers 228. Environmental Engineers 229. Health and Safety Engineers 230. Fire Engineers 231. Acoustic Engineers 232. Lighting Engineers 233. Transport Engineers 234. Water Engineers 235. Wind Engineers 236. Snow Engineers 237. Vibration Engineers 238. Noise Engineers 239. Air Quality Engineers 240. Water Quality Engineers 241. Soil Quality Engineers 242. Geotechnical Engineers 243. Foundation Engineers 244. Structural Engineers 245. Mechanical Engineers 246. Electrical Engineers 247. Civil Engineers 248. Environmental Engineers 249. Health and Safety Engineers 250. Fire Engineers 251. Acoustic Engineers 252. Lighting Engineers 253. Transport Engineers 254. Water Engineers 255. Wind Engineers 256. Snow Engineers 257. Vibration Engineers 258. Noise Engineers 259. Air Quality Engineers 260. Water Quality Engineers 261. Soil Quality Engineers 262. Geotechnical Engineers 263. Foundation Engineers 264. Structural Engineers 265. Mechanical Engineers 266. Electrical Engineers 267. Civil Engineers 268. Environmental Engineers 269. Health and Safety Engineers 270. Fire Engineers 271. Acoustic Engineers 272. Lighting Engineers 273. Transport Engineers 274. Water Engineers 275. Wind Engineers 276. Snow Engineers 277. Vibration Engineers 278. Noise Engineers 279. Air Quality Engineers 280. Water Quality Engineers 281. Soil Quality Engineers 282. Geotechnical Engineers 283. Foundation Engineers 284. Structural Engineers 285. Mechanical Engineers 286. Electrical Engineers 287. Civil Engineers 288. Environmental Engineers 289. Health and Safety Engineers 290. Fire Engineers 291. Acoustic Engineers 292. Lighting Engineers 293. Transport Engineers 294. Water Engineers 295. Wind Engineers 296. Snow Engineers 297. Vibration Engineers 298. Noise Engineers 299. Air Quality Engineers 300. Water Quality Engineers 301. Soil Quality Engineers 302. Geotechnical Engineers 303. Foundation Engineers 304. Structural Engineers 305. Mechanical Engineers 306. Electrical Engineers 307. Civil Engineers 308. Environmental Engineers 309. Health and Safety Engineers 310. Fire Engineers 311. Acoustic Engineers 312. Lighting Engineers 313. Transport Engineers 314. Water Engineers 315. Wind Engineers 316. Snow Engineers 317. Vibration Engineers 318. Noise Engineers 319. Air Quality Engineers 320. Water Quality Engineers 321. Soil Quality Engineers 322. Geotechnical Engineers 323. Foundation Engineers 324. Structural Engineers 325. Mechanical Engineers 326. Electrical Engineers 327. Civil Engineers 328. Environmental Engineers 329. Health and Safety Engineers 330. Fire Engineers 331. Acoustic Engineers 332. Lighting Engineers 333. Transport Engineers 334. Water Engineers 335. Wind Engineers 336. Snow Engineers 337. Vibration Engineers 338. Noise Engineers 339. Air Quality Engineers 340. Water Quality Engineers 341. Soil Quality Engineers 342. Geotechnical Engineers 343. Foundation Engineers 344. Structural Engineers 3	

APPENDIX B:

Topographic Survey



SURVEY STATIONS			
Point	Easting	Northing	Height
A1	111180.626	100165.967	76.037
A2	111181.276	100166.628	76.460
A3	111180.493	100166.129	76.469
A4	111179.542	100165.197	76.588
A5	111182.489	100165.576	76.482
A6	111180.306	100167.653	76.788

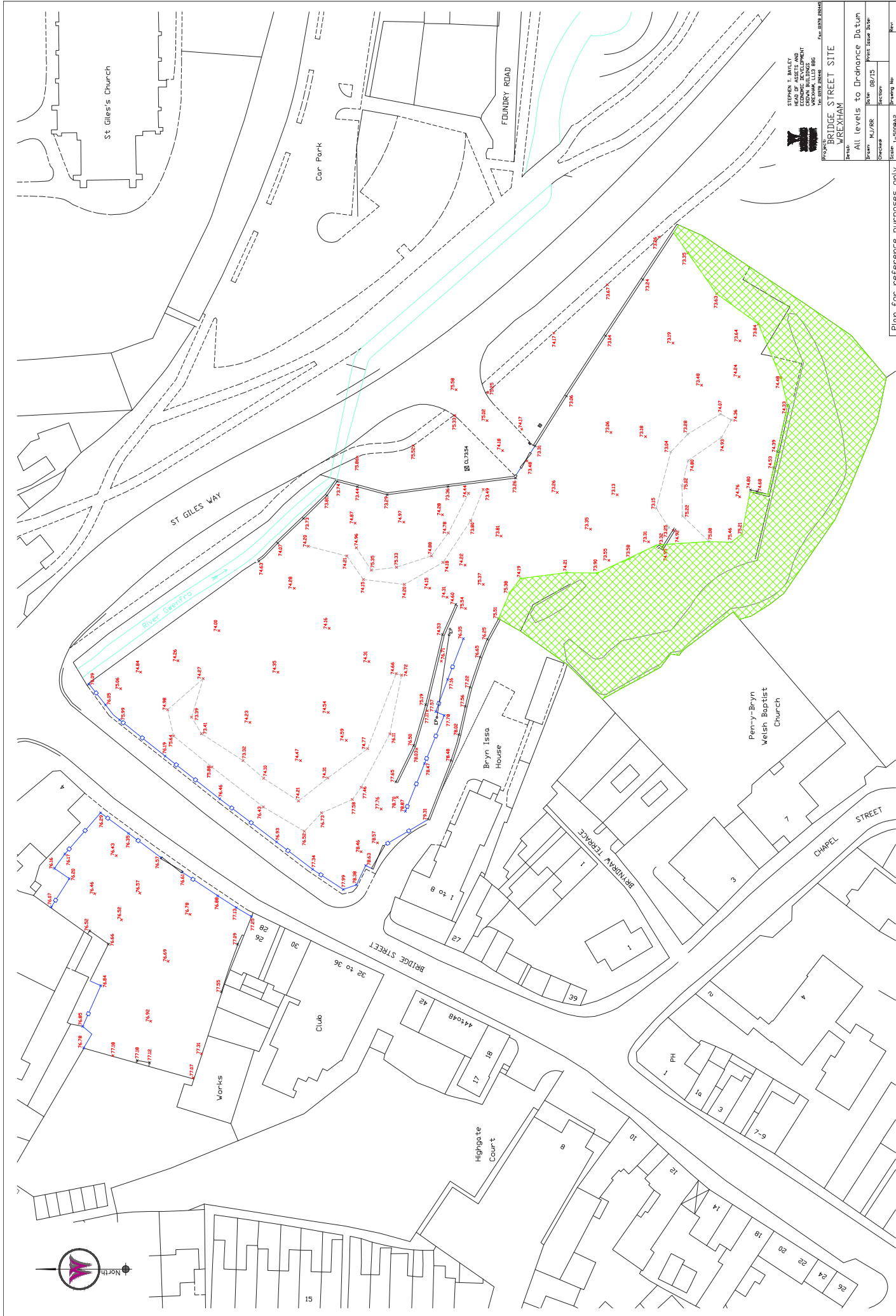
Disclaimer:
All efforts have been made to survey all utility services within the boundary of the survey.
We can not guarantee that we have been able to locate everything and further investigation
will be required to establish full extent of services

Notes:
Horizontal and vertical control using Geomatics GPS Network and OSGB36/OSD coordinate system.
This survey has been corrected to a local grid estimated to OS grid. Position is only true at one point to OS coordinates



Unit 18, Bannockburn Enterprise Estate, Gt Bannock, Cheshire CH3 7JN
Email: info@cheshiresurveys.com Tel/Fax 01829 741859 Mob: 077 9964 1118

Client	Weetwood	
Location	4 Brook St, Wrexham	
Description	Level Survey	
Drg. No.:	2140/1	Surveyed By: GF
Scale: 1:	200/A1	Drawn By: GF
Date:	20/09/10	Amend: *



STEPHEN T. BAILEY
LANDSCAPE ARCHITECT
ECONOMIC DEVELOPMENT
COUNCIL BUILDINGS
100, BRIDGE STREET
WREXHAM, CHESHIRE
WA9 3BQ
TEL: 01978 294444

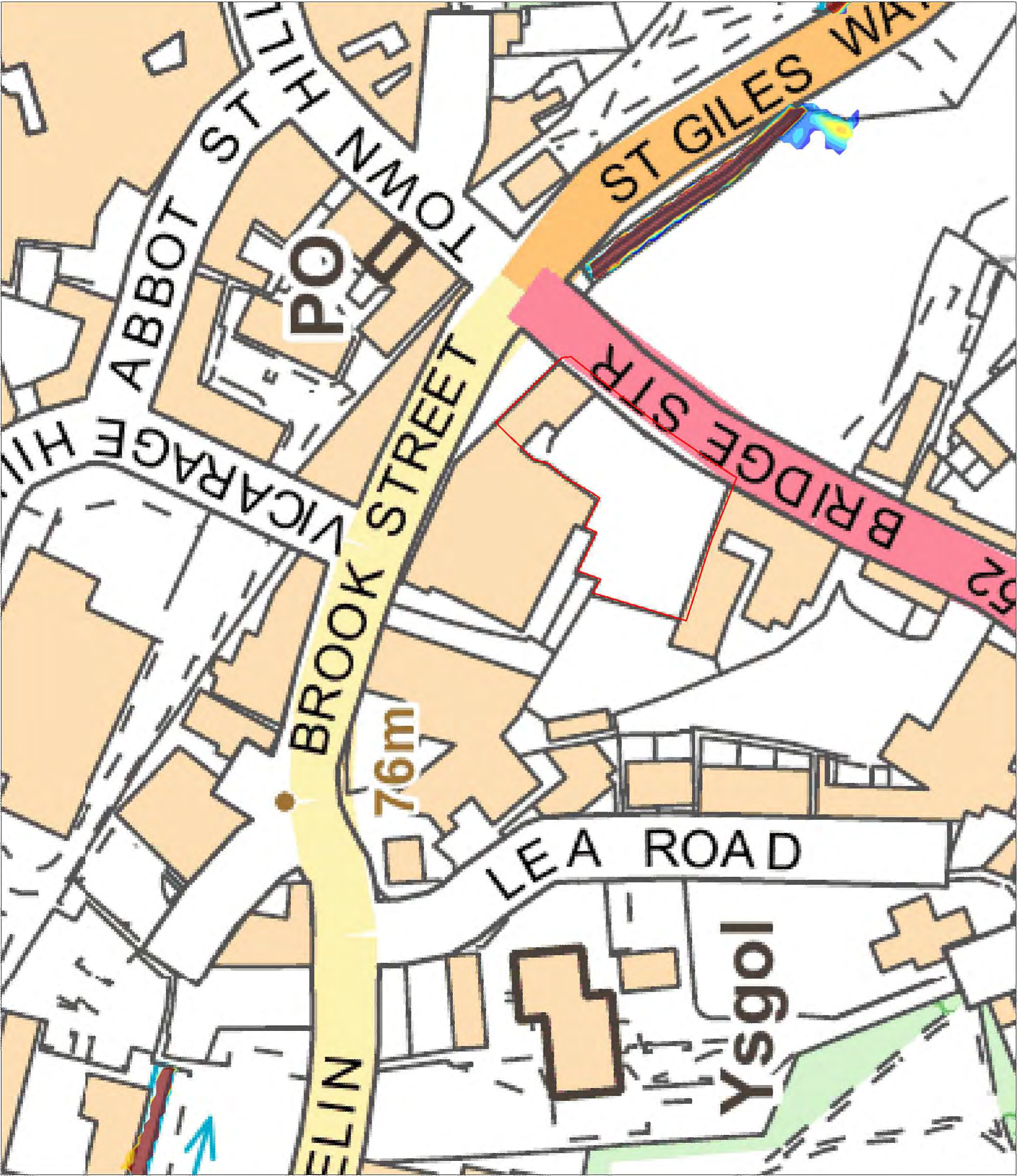
Project: BRIDGE STREET SITE
WREXHAM

Drawn:	08/15	Project Issue:	01/15
Checked:	01/15	Section:	01/15
Scale:	1:500	Scale:	1:500

Plan for reference purposes only

APPENDIX C:

Model Output Plots – Baseline Scenario



Notes:

1. Do not scale from this drawing.
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KEY:

— Site Location

Depth (metres)

0.0 to 0.1
0.1 to 0.2
0.2 to 0.3
0.3 to 0.4
0.4 to 0.5
0.5 to 0.6
0.6 to 0.7
0.7 to 0.8
0.8 to 0.9
0.9 to 1.0
> 1.0

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Client: **Lingar Group**

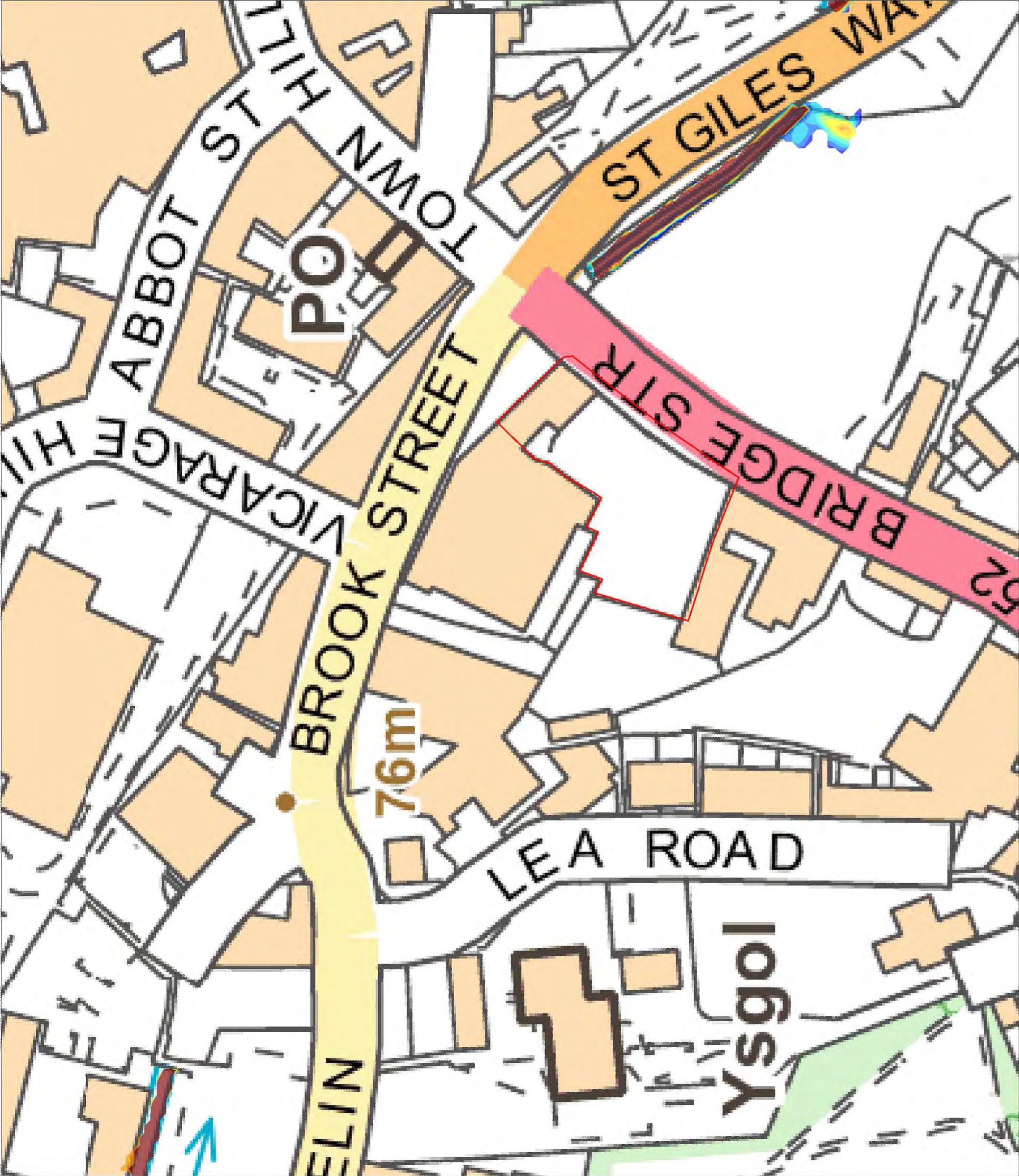
Project Title: **Bridge Street, Wrexham**

Drawing Title: **Max Flood Depths: 1 in 100 Annual Probability Event - Baseline Scenario**

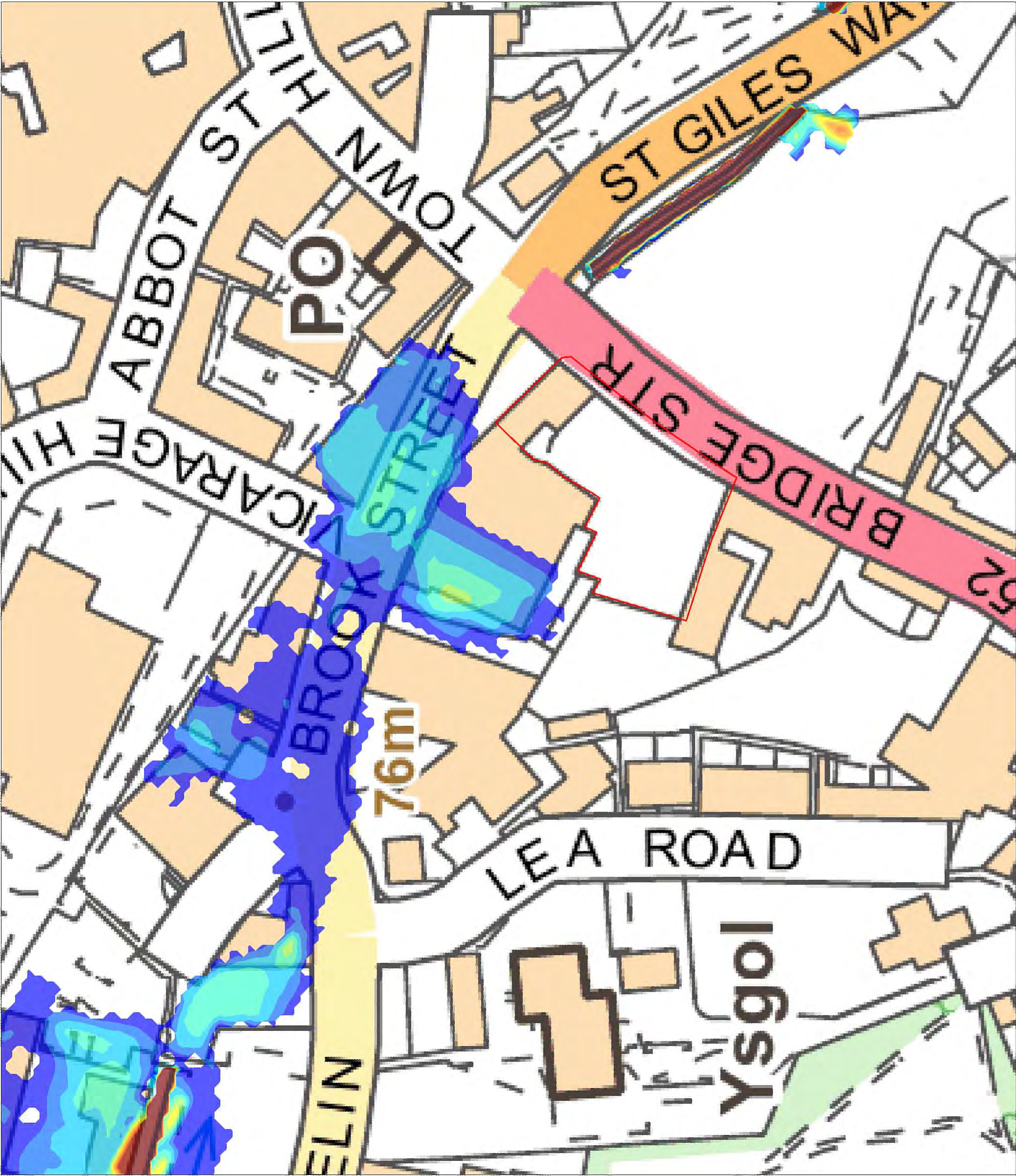
Map Orientation:  Scale:

Drawn: **AE** Checked: **RMu** Date: **10 August 2018**

Drawing No: **Gwen_Design_VS_4183_005_AE_3M_Q100.d** Rev: **A**



Notes: 1. Do not scale from this drawing. 2. Map backdrop reproduced from Ordnance Survey digital map data. Crown Copyright under licence.	
KEY: Site Location Depth (metres) 0.0 to 0.1 0.1 to 0.2 0.2 to 0.3 0.3 to 0.4 0.4 to 0.5 0.5 to 0.6 0.6 to 0.7 0.7 to 0.8 0.8 to 0.9 0.9 to 1.0 > 1.0	
Weetwood Development • Planning • Environment Park House Broncoed Business Park Ffordd Bymwr Gwair Mold CH7 1FQ T: 01352 700045 E: info@weetwood.net W: www.weetwood.net	
Client: Lingar Group	
Project Title: Bridge Street, Wrexham	
Drawing Title: Max Flood Depths: 1 in 100 +CC (20%) Annual Probability Event - Baseline Scenario	
Map Orientation: N W E S Scale:	
Drawn: AE Checked: RMu Date: 10 August 2018	
Drawing No: Gwen_Design_VS_4183_005_AE_3M_Q100CC20_d Rev: A	



Notes:

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KEY:

— Site Location

Depth (metres)

0.0 to 0.1
0.1 to 0.2
0.2 to 0.3
0.3 to 0.4
0.4 to 0.5
0.5 to 0.6
0.6 to 0.7
0.7 to 0.8
0.8 to 0.9
0.9 to 1.0
> 1.0

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Client: **Lingar Group**

Project Title: **Bridge Street, Wrexham**

Drawing Title:
**Max Flood Depths: 1 in 100 +CC (45%)
Annual Probability Event - Baseline Scenario**

Map Orientation: Scale:

Drawn: AE Checked: RMu Date: 10 August 2018

Drawing No: Gwen_Design_VS_4183_005_AE_3M_Q100CC45_d Rev: A



Notes:

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KEY:

— Site Location

Depth (metres)

0.0 to 0.1
0.1 to 0.2
0.2 to 0.3
0.3 to 0.4
0.4 to 0.5
0.5 to 0.6
0.6 to 0.7
0.7 to 0.8
0.8 to 0.9
0.9 to 1.0
> 1.0

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Client: **Lingar Group**

Project Title: **Bridge Street, Wrexham**

Drawing Title: **Max Flood Depths: 1 in 1,000 Annual Probability Event - Baseline Scenario**

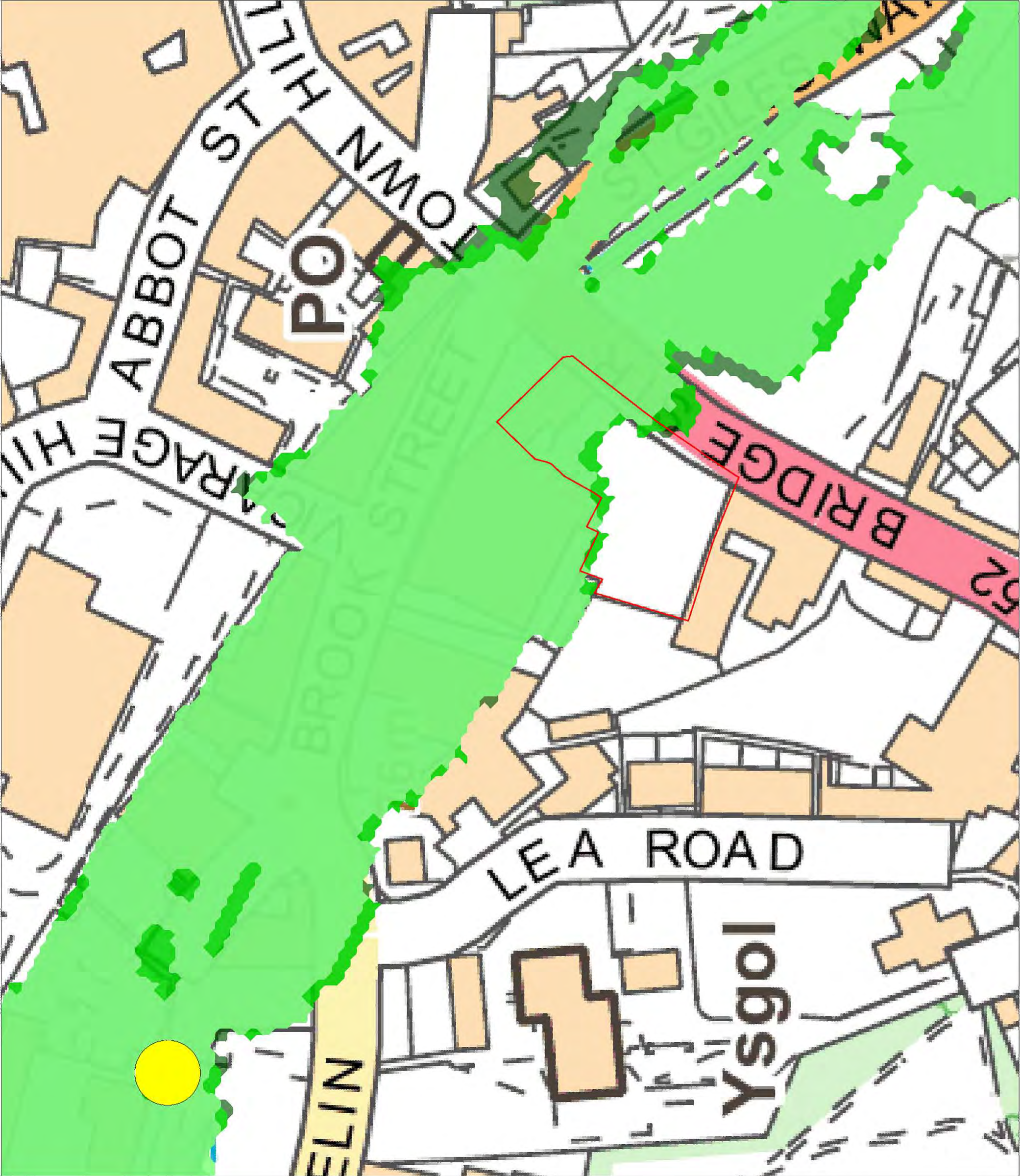
Map Orientation:  Scale:

Drawn: **AE** Checked: **RMu** Date: **10 August 2018**

Drawing No: **Gwen_Design_VS_4183_005_AE_3M_Q1000_d** Rev: **A**

APPENDIX D:

Model Outputs Plots – Baseline Blockage Scenario



Notes:

1. Do not scale from this drawing.
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KEY:

- Site Location
- Blockage Location
- Blockage Percentage
- 30%
- 67%
- 100%

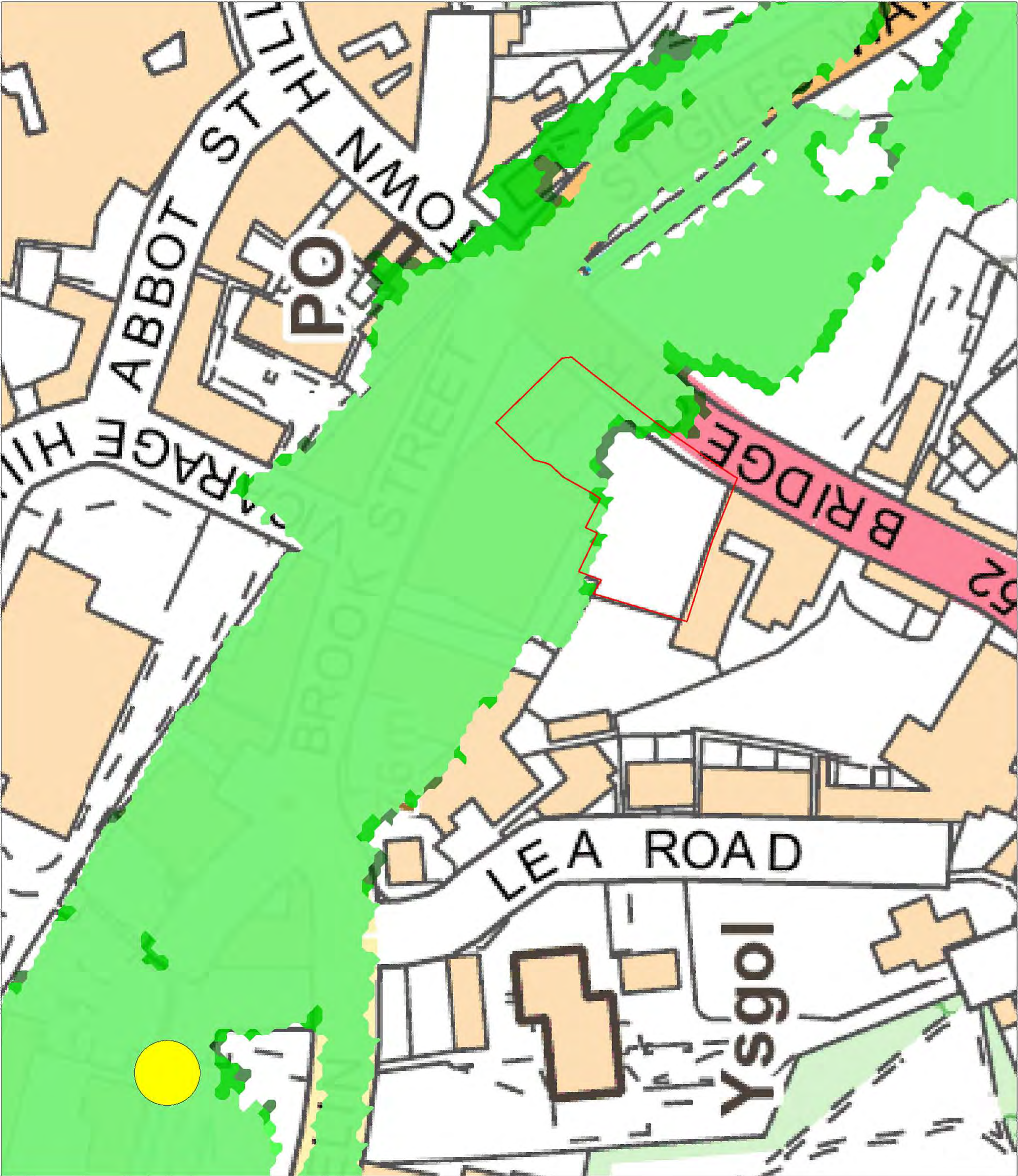
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Client:	Lingar Group	
Project Title:	Bridge Street, Wrexham	
Drawing Title:	Structure Blockage: 1 in 100 +CC (20%) Annual Probability Event - Baseline Scenario	
Map Orientation:		Scale:
Drawn:	AE	Checked:
		RMu
		Date:
		10 August 2018
Drawing No:	GwenBLK_WS_4183_006_BLK5_Q100CC20	
Rev:	A	



Notes:

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KEY:

- Site Location
- Blockage Location
- Blockage Percentage
 - 30%
 - 67%
 - 100%

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Client:	Lingar Group		
Project Title:	Bridge Street, Wrexham		
Drawing Title:	Structure Blockage: 1 in 100 +CC (45%) Annual Probability Event - Baseline Scenario		
Map Orientation:		Scale:	
Drawn:	AE	Checked:	RMu
		Date:	10 August 2018
Drawing No:	GwenBLK_WS_4183_006_BLK5_Q100CC45		Rev: A

Notes:

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KEY:

Site Location

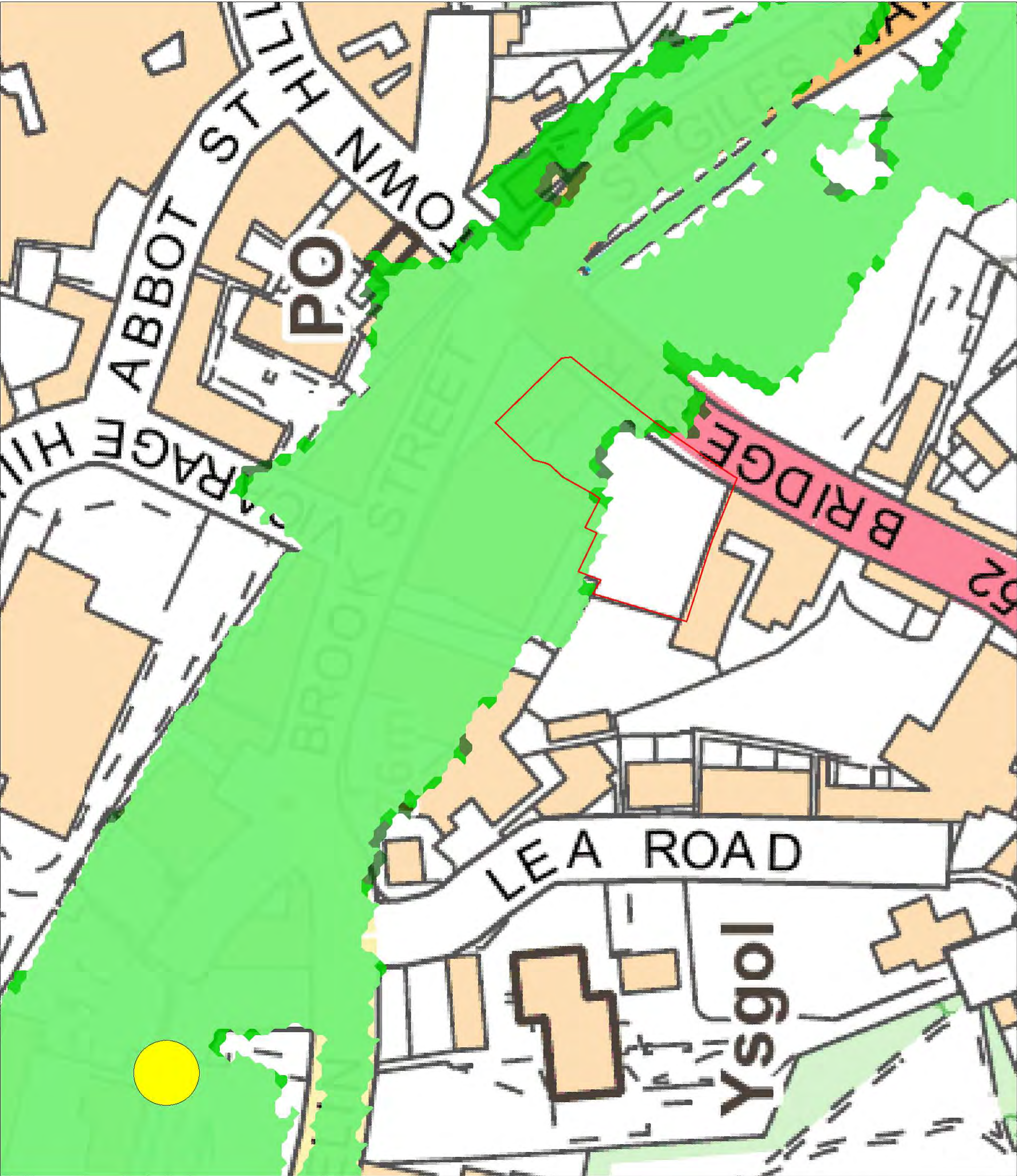
Blockage Location

Blockage Percentage

30%

67%

100%



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Client:

Lingar Group

Project Title:

Bridge Street, Wrexham

Drawing Title:

Structure Blockage: 1 in 1,000
Annual Probability Event - Baseline Scenario

Map Orientation:



Scale:

Drawn:

AE

Checked:

RMu

Date:

10 August 2018

Drawing No:

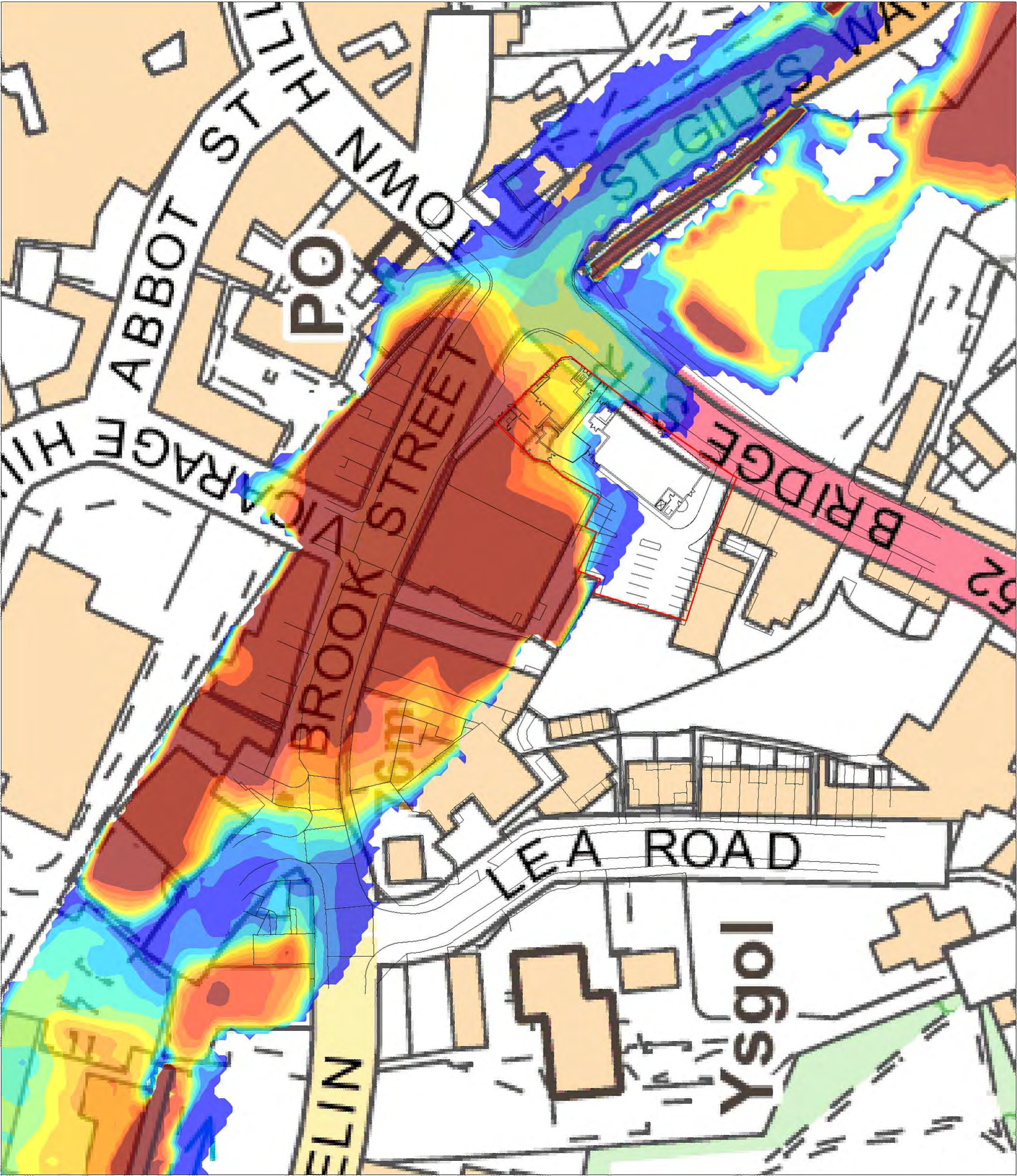
GwenBLK_WS_4183_006_BLK5_Q1000

Rev:

A

APPENDIX E:

Model Outputs Plots – Proposed Scenario



Notes:

1. Do not scale from this drawing.
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KEY:

Site Location

Depth (metres)

0.0 to 0.1

0.1 to 0.2

0.2 to 0.3

0.3 to 0.4

0.4 to 0.5

0.5 to 0.6

0.6 to 0.7

0.7 to 0.8

0.8 to 0.9

0.9 to 1.0

> 1.0

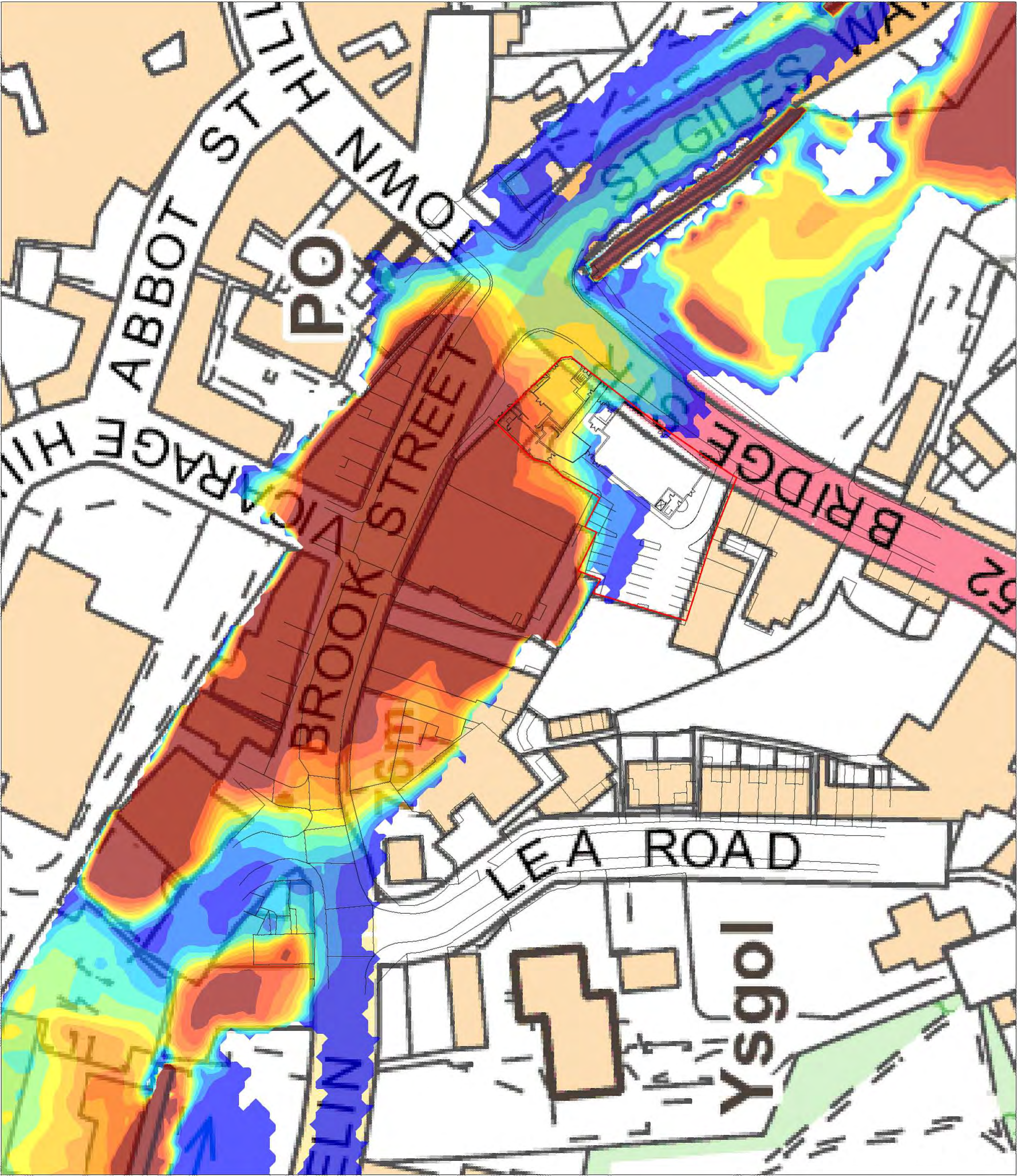
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Client:	Lingar Group		
Project Title:	Bridge Street, Wrexham		
Drawing Title:	Max Flood Depths (Island Green culvert 100% blockage): 1 in 100 + CC (20%) Annual Probability Event - Proposed Scenario		
Map Orientation:	Scale:		
Drawn:	AE	Checked:	RMu
Date:	22 August 2018		
Drawing No:	GwenBLK_WS_4183_009_BLK5_100%_Q100CC20_d		Rev: A



Notes:

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KEY:

— Site Location

Depth (metres)

0.0 to 0.1
0.1 to 0.2
0.2 to 0.3
0.3 to 0.4
0.4 to 0.5
0.5 to 0.6
0.6 to 0.7
0.7 to 0.8
0.8 to 0.9
0.9 to 1.0
> 1.0

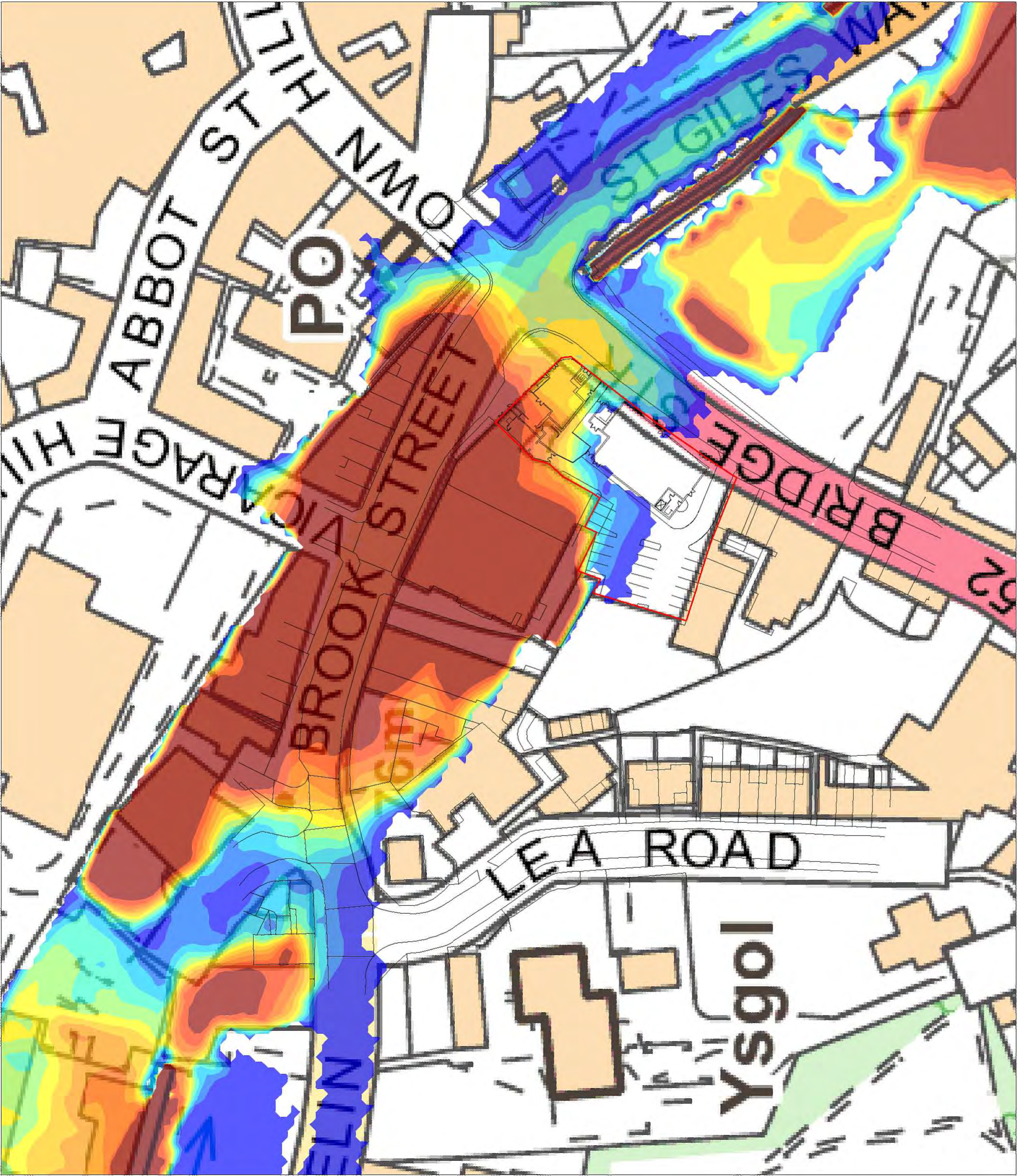
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Client:	Lingar Group		
Project Title:	Bridge Street, Wrexham		
Drawing Title:	Max Flood Depths (Island Green culvert 100% blockage): 1 in 100 + CC (45%) Annual Probability Event - Proposed Scenario		
Map Orientation:	 Scale:		
Drawn:	AE	Checked:	RMu
Date:	22 August 2018		
Drawing No:	GwenBLK_WS_4183_009 BLK5_100%_Q100CC45_d		Rev: A



Notes:

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KEY:

— Site Location

Depth (metres)

0.0 to 0.1
0.1 to 0.2
0.2 to 0.3
0.3 to 0.4
0.4 to 0.5
0.5 to 0.6
0.6 to 0.7
0.7 to 0.8
0.8 to 0.9
0.9 to 1.0
> 1.0

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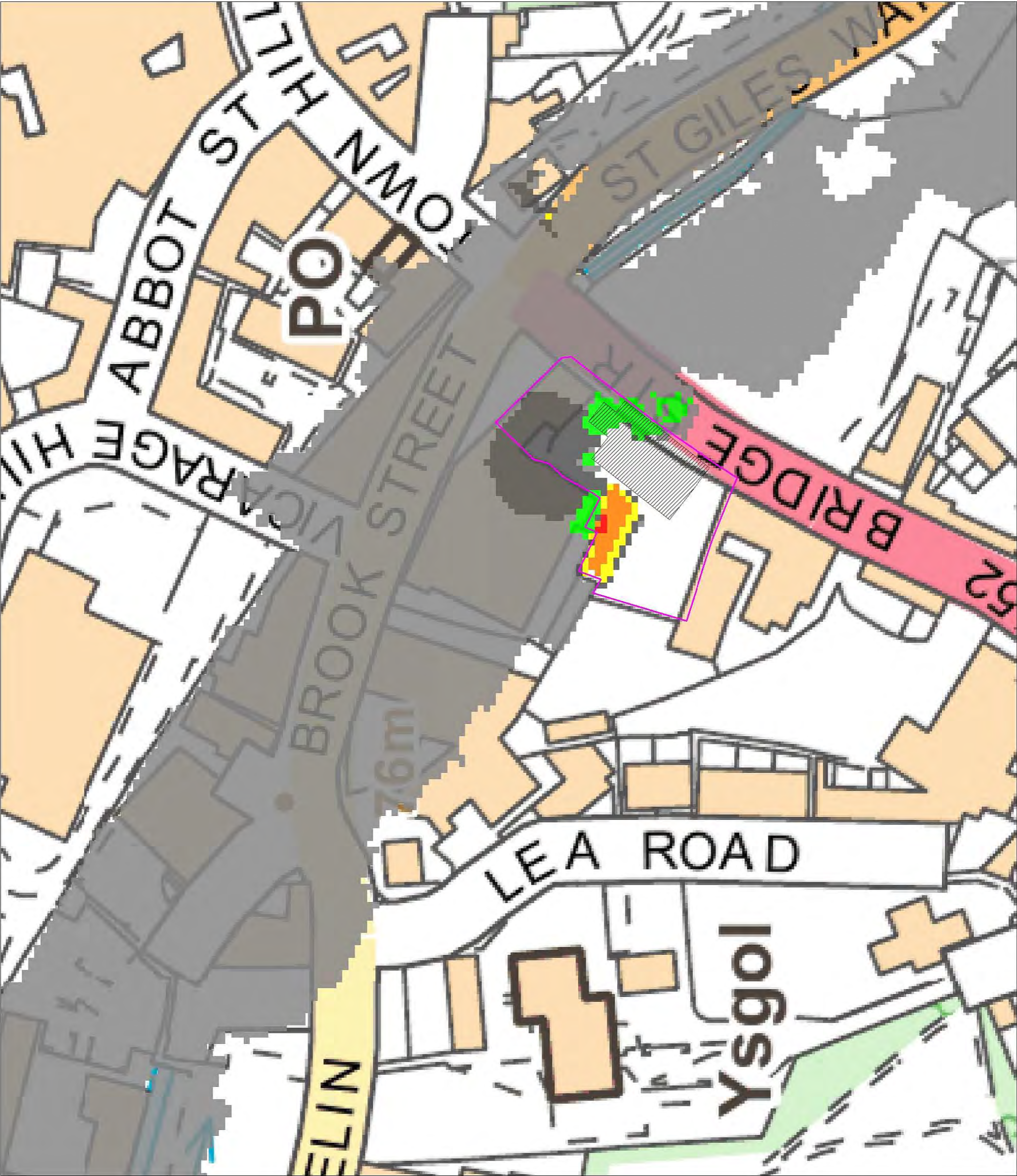
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E: info@weetwood.net
W: www.weetwood.net

Client:	Lingar Group		
Project Title:	Bridge Street, Wrexham		
Drawing Title:	Max Flood Depths (Island Green culvert 100% blockage): 1 in 1,000 Annual Probability Event - Proposed Scenario		
Map Orientation:			Scale:
Drawn:	AE	Checked:	RMu
Date:	22 August 2018		
Drawing No:	GwenBLK_WS_4183_009 BLK5_100%_Q1000_d		Rev: A

APPENDIX F:

Model Outputs Plots – Comparison



Notes:

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KEY:

- Site Location
- Proposed Building
- Change in flood depths
 - Decrease
 - Decrease (5 - 30 mm)
 - No change (+/- 5 mm)
 - Increase (5 to 30 mm)
 - Increase (30 to 75 mm)
 - Increase (75 to 150 mm)
 - Increase (150 to 300 mm)
 - Increase (> 300 mm)

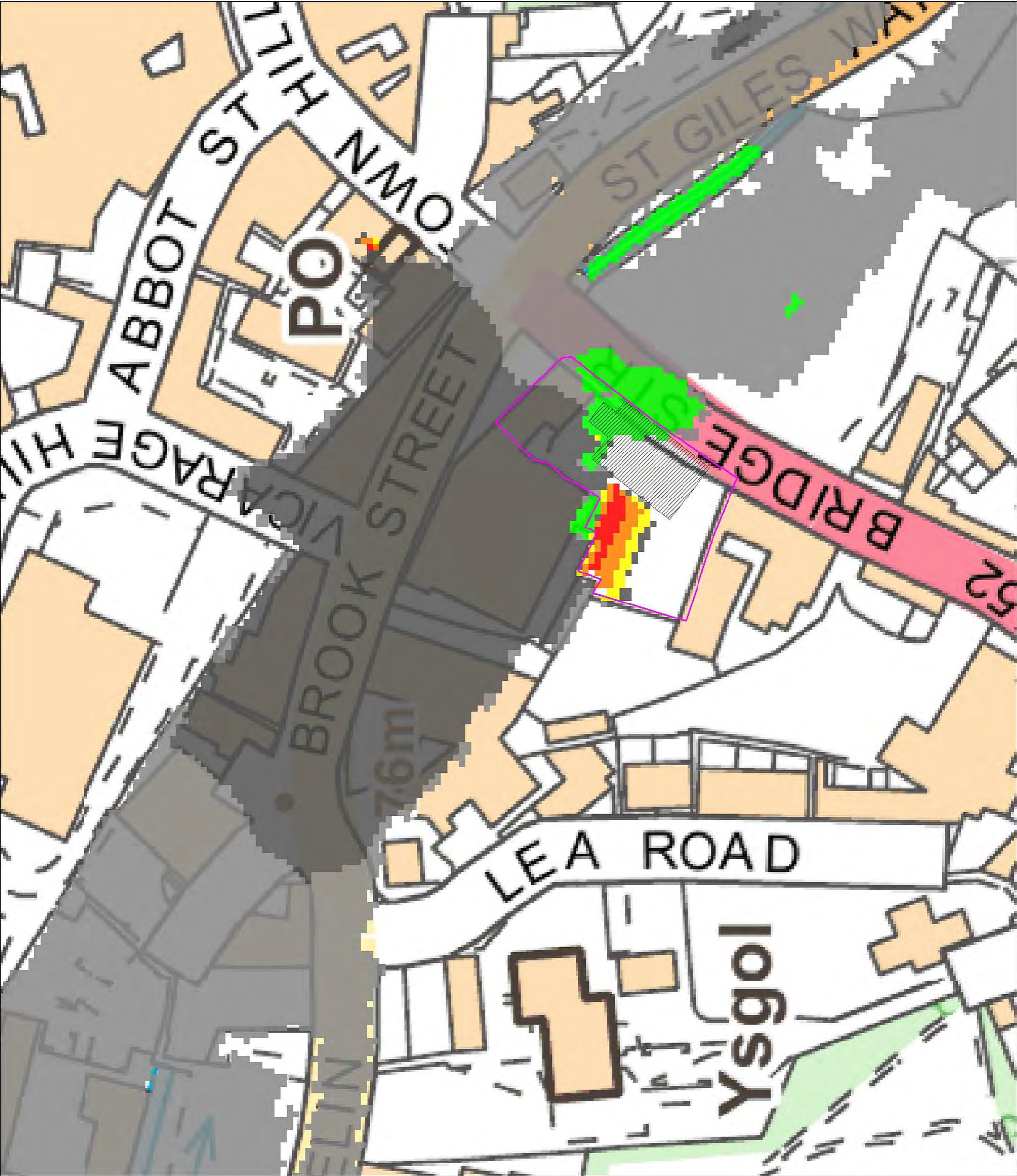
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E: info@weetwood.net
W: www.weetwood.net

Client:		Lingar Group	
Project Title:		Bridge Street, Wrexham	
Drawing Title:		Comparison Plot: 1 in 100 +CC (20%) Annual Probability Event - 100% Blockage Scenario	
Map Orientation:		Scale:	
Drawn:	AE	Checked:	RMu
Date:		20 August 2018	
Drawing No:	4183_009-006_BLK5_100_Q100CC20		Rev: A



Notes:

1. Do not scale from this drawing.

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KEY:

- Site Location
- Proposed Building
- Change in flood depths
 - Decrease
 - Decrease (5 - 30 mm)
 - No change (+/- 5 mm)
 - Increase (5 to 30 mm)
 - Increase (30 to 75 mm)
 - Increase (75 to 150 mm)
 - Increase (150 to 300 mm)
 - Increase (> 300 mm)

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E: info@weetwood.net
W: www.weetwood.net

Client:	Lingar Group		
Project Title:	Bridge Street, Wrexham		
Drawing Title:	Comparison Plot: 1 in 1,000 Annual Probability Event - 100% Blockage Scenario		
Map Orientation:		Scale: 	
Drawn:	AE	Checked:	RMu
		Date:	20 August 2018
Drawing No:	4183_009-006_BLK5_100_Q1000		Rev: A

Delivering client focussed services

Flood Risk Assessments
Flood Consequences Assessments
Surface Water Drainage
Foul Water Drainage
Environmental Impact Assessments
River Realignment and Restoration
Water Framework Directive Assessments
Flood Defence Consent Applications
Sequential, Justification and Exception Tests
Utility Assessments
Expert Witness and Planning Appeals
Discharge of Planning Conditions

Bridge Street, Wrexham

Proposed residential development

Flood Consequences Assessment Addendum

Project ref:	4183 Bridge Street, Wrexham
Prepared by:	Adam Edgerley BSc (Hons) <i>Technical Director, Weetwood Services Ltd.</i>
Approved by:	Andrew Grime BEng MBA CEng C.WEM MICE FCIWEM <i>Director, Weetwood Services Ltd.</i>
Date:	19 August 2019
Version:	Final v1.0

This document has been prepared solely as a Flood Consequences Assessment Addendum for Lingar Group. This report is confidential to Lingar Group and Weetwood Services Ltd accepts no responsibility or liability for any use that is made of this document other than by Lingar Group for the purposes for which it was originally commissioned and prepared.

Background

- 1 This document has been prepared by Weetwood Services Ltd ("Weetwood") on behalf of Lingar Group.
- 2 Weetwood prepared a Flood Consequences Assessment (FCA) v1.2 report dated 22 August 2018 which was submitted to Wrexham County Borough Council (WCBC) in support of a planning application (ref: P/2018/0915).
- 3 A consultation response letter from Natural Resources Wales (NRW) dated 15 July 2019 (**Annex 1**) has raised four concerns. NRW advised that 'if no further information is submitted' then they would object to the application.
- 4 This FCA Addendum provides this information and addresses the concerns raised by NRW. It must be read in conjunction with the FCA v1.2 report.

NRW Concerns

- 5 *Compliance with A1.14 of TAN15 has not been demonstrated as sections of the site (e.g. car parking area) are shown to flood during the 1% annual probability (climate change and blockage event). The residential car parking should be treated as Highly Vulnerable development and should be designed to remain flood free.*
- 6 *There is some uncertainty as to whether blockage of the Island Green culvert would pose greatest flood risks to the site.*
- 7 *Offsite flood risks have been identified within the FCA and these could further increase should additional land raising be required on the site.*
- 8 *There is a lack of information within the FCA as to the flood hazards (flood depths and flood velocities) that future users of the development could be exposed to, so the decision maker does not have the necessary information to make an informed decision.*

Compliance with A1.14 of TAN15 (Refer to Paragraph 5)

- 9 For proposed highly vulnerable development, NRW require the entire development including all residential buildings, garden areas and driveways/parking to be shown to be flood-free during a 1:100 plus climate change (+CC) annual probability event in accordance with their interpretation with A1.14 of TAN15.
- 10 As presented in Appendix C of the FCA v1.2 report, the site is expected to remain entirely dry during the above event. However, whilst not specified in policy A1.14 of TAN15 NRW insists that a culvert blockage should be accounted for.
- 11 When accounting for a 100% blockage of the upstream culvert structure located at Island Green, the car parking area may partially flood to a shallow depth. An extract taken from Appendix E of the FCA v1.2 report is presented in **Figure 1** which also outlines the area of concern that NRW refers to.



Figure 1. Weetwood Modelled 1:100 +CC (20%) AEP Blockage Event; Max Flood Depths

- 12 In terms of the car parking area, in order to prevent this from flooding ground levels would need to be increased within that area of the car park. However, by doing this, increasing flood risk elsewhere is likely to become a more significant issue, which is also a concern raised by NRW (refer to paragraph 7 above). Also, it is not feasible to raise ground levels adjacent to the existing building in the north of the site.
- 13 As shown in **Figure 1**, it is only a small section of the proposed car park that is shown to flood during this scenario, with most of the car park remaining entirely dry. Furthermore, flood depths are relatively shallow being less than 300 mm but generally less than 100 mm which is not expected to pose a significant risk (refer to Hazard Ratings in **Figure 2**). Such flood depths in these circumstances (i.e. a 100% culvert blockage scenario) within a small portion of the car park should, we feel, be considered as acceptable.

Blockage Clarification (Refer to Paragraph 6)

- 14 NRW states that the FCA v1.2 report has focussed on blockage risks solely from the Island Green culvert, and that the FCA should also assess the risks from blockages of the Town Centre culvert and the St. Giles Way culvert.
- 15 However, in Section 4.4.3 of the FCA it is clear that our assessment has considered both the Island Green culvert and the St Giles Way culvert, with the former proving to be a worst-case scenario.
- 16 In terms of the Town Centre culvert, this was not considered within the FCA given its location being way upstream of the site.
- 17 Please note that the hydraulic modelling data provided to Weetwood by Wrexham County Borough Council that was utilised as part of the Weetwood FCA v1.2 report has assessed 8 blockage locations along the River Gwenfro including the 3 aforementioned culverts. In order to select the most appropriate blockage scenario to utilise for the FCA v1.2 report Weetwood assessed the modelled outputs from all 8 blockage locations.
- 18 For the avoidance of doubt the modelled flood levels at the site during the 1:1,000 annual probability event including 100% blockages to culverts at Island Green, St Giles Way and the Town Centre are 76.49, 76.26 and 76.09 m AOD respectively.
- 19 Therefore, the FCA v1.2 report has correctly assessed the impact of a blockage of the Island Green culvert, which is considered to be the worst-case scenario for the site.

Offsite Flood Risks (Refer to Paragraph 7)

- 20 NRW points out within its consultation response letter that there is a small area near the post office located off Town Hill that shows potentially more significant increased flood risk elsewhere; however, a review of the modelled outputs confirms that this is considered to be attributed to modelling anomalies and does not present actual increases expected within that area.
- 21 NRW state that offsite impacts may increase should the car park be raised to satisfy its concern outlined in Paragraph 5 above; however, as explained in Paragraphs 9 to 13 Weetwood do not consider it to be appropriate to raise ground levels.
- 22 Currently, the impact on flood risk elsewhere is considered to be negligible and flood risk in the proposed car park is considered reasonable.

Flood Hazards (Refer to Paragraph 8)

- 23 The Hazard Rating has been calculated using the formula **HR= d x (v + 0.5) + DF** (where d = depth, v = velocity and DF = debris factor), which has been sourced from the DEFRA FD2320/TR2 Technical Report.
- 24 The Hazard Rating for the site has been output directly from the hydraulic model using the 'conservative' land use function; this assumes a debris factor of 0.5 for flood depths between 0 and 0.25 m and 1.0 for flood depths above 0.25 m.
- 25 The results are presented in **Figure 2** below for the 100% culvert blockage scenario (i.e. the worst-case scenario). These show that the proposed car parking area would generally be expected to have a 'very low' Hazard Rating. This is considered an acceptable level of risk given the likelihood of causation i.e. the 1:100 +CC (20%) annual probability event coinciding with a 100% blockage of the Island Green culvert.

- 26 The proposed new residential building is accessed from the south of the site, which is expected to remain flood free. Therefore emergency access and egress should be available in all flood events.
- 27 The Flood Hazard to existing building in the north and its associated access and egress route will remain the same as per the existing situation. However, it should be noted that access to the existing building from the southern portion of the site may improve post development.

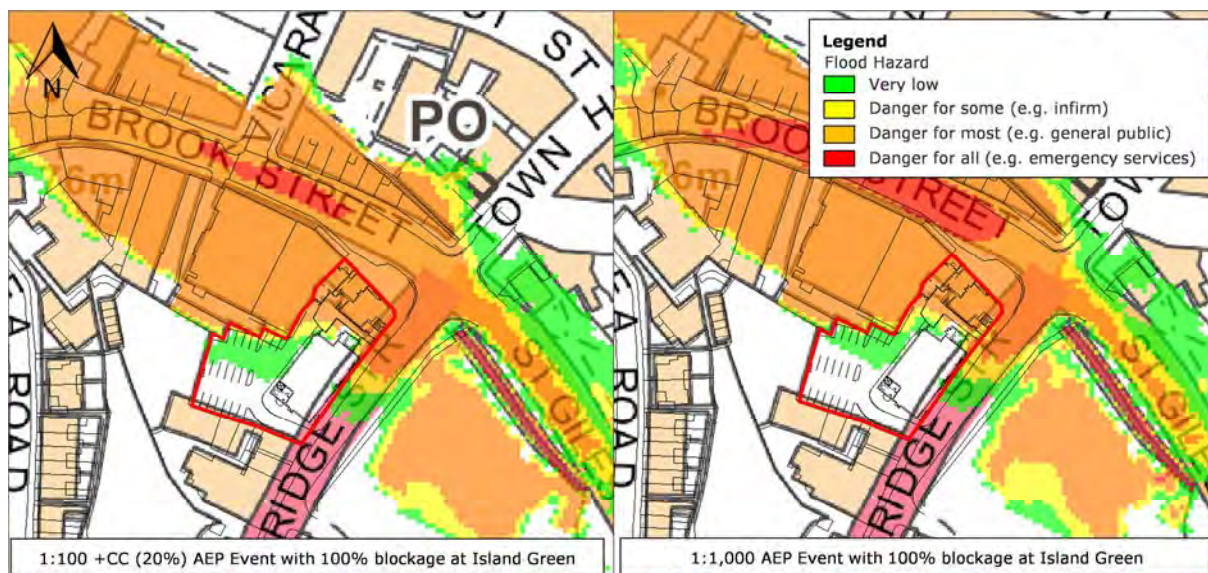


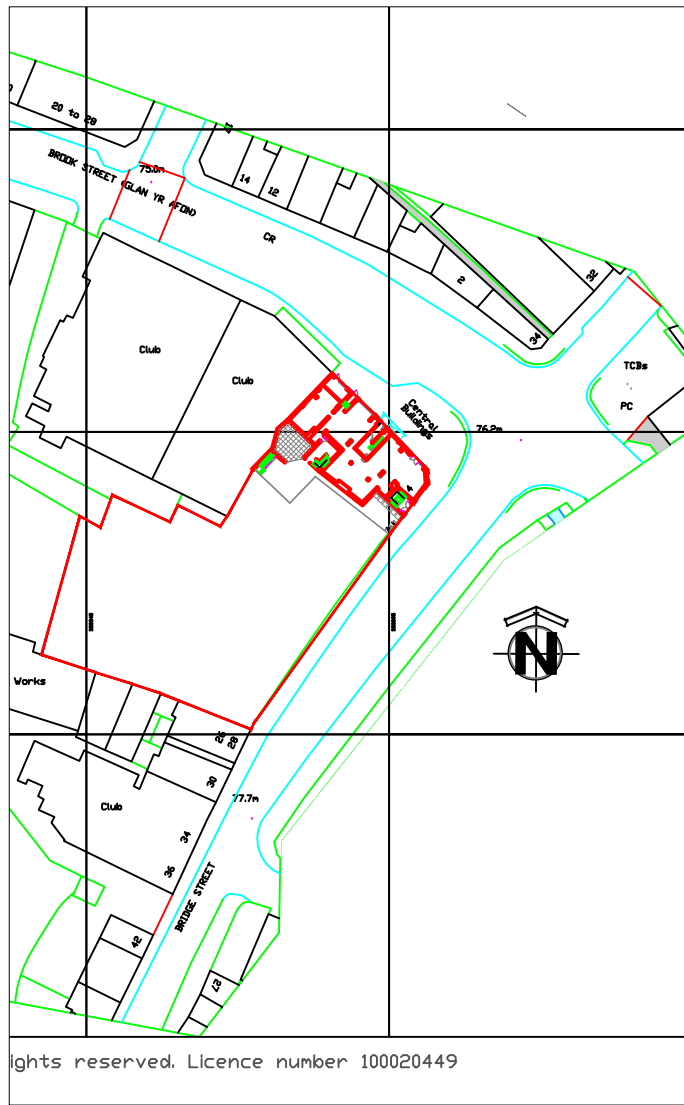
Figure 2. Hazard Ratings; Proposed Scenario

Summary and Conclusions

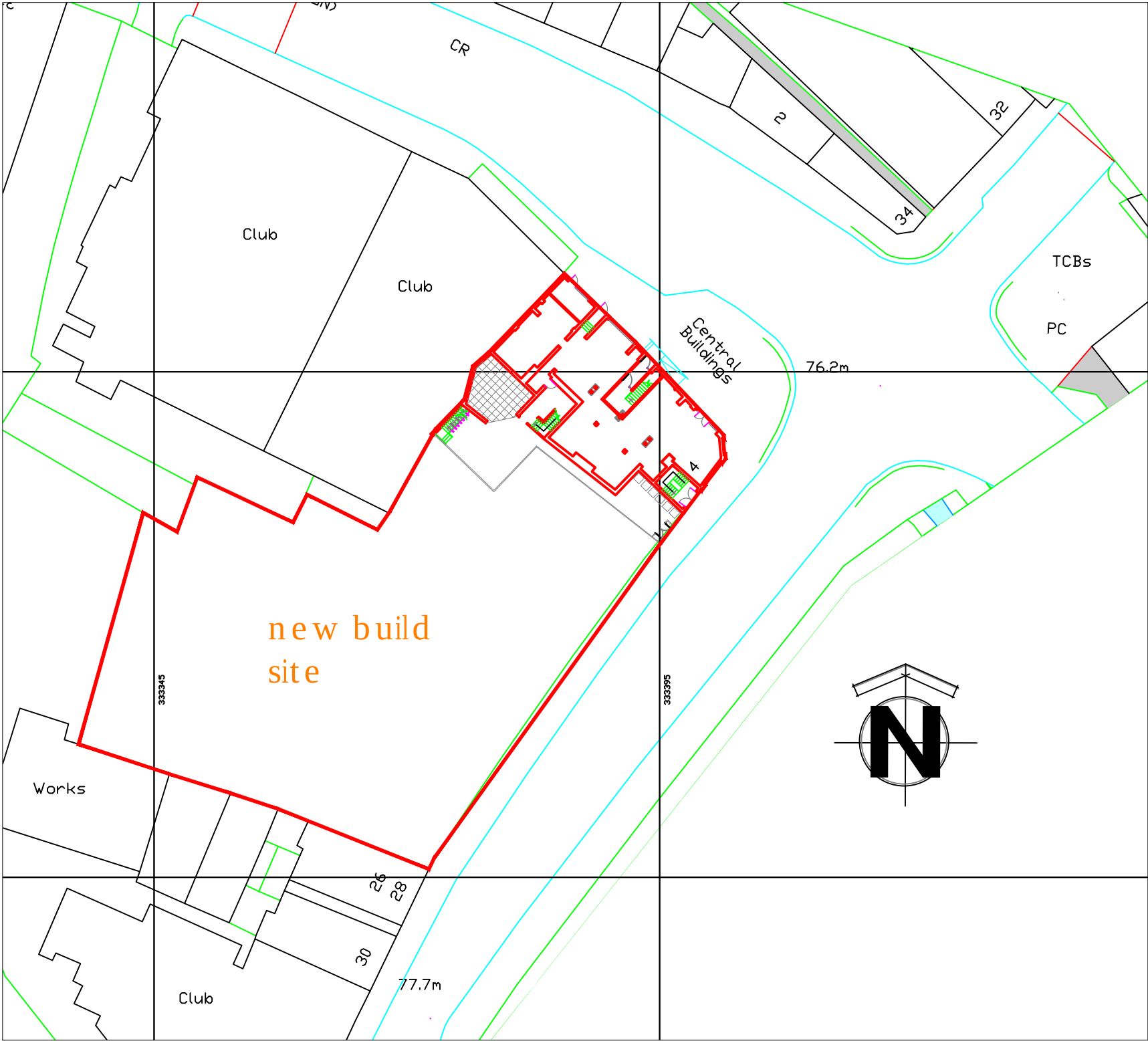
- 28 It is not considered feasible (see Paragraph 12) to raise the proposed car parking area for it to remain entirely flood free during the 1:100 +CC (20%) annual probability event including a 100% blockage of the Island Green culvert. Whilst this is sought by NRW in accordance with their interpretation of A1.14 of TAN15, the Hazard Rating (see Paragraph 25) for this unlikely combination of events is considered acceptable for a car parking area. Furthermore, most of the car park and access point is shown to remain dry.
- 29 Further information has been provided with respect to calculated Hazard Ratings using a conservative debris factor. Within the car parking area a 'very low' Hazard Rating is expected.
- 30 The off-site impacts on flood risk shown in the FCA v1.2 report are either shown to be negligible or owing to modelling anomalies.

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Environmental Permit Applications
Sequential, Justification and Exception Tests
Utility Assessments
Expert Witness and Planning Appeals
Discharge of Planning Conditions



LOCATION PLAN 1:1250



SITE PLAN 1:500

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Rev.			Initials	Date	Dwg Title Location Plan (New Build)			Drawn PL	Dwg No. 8821	Rev.
								Date Apr 2018	L17	
								Scale@A3 as shown		
					CASSIDY + ASHTON Architects Building Surveyors Planners Designers www.cassidyashton.co.uk caabs@cassidyashton.co.uk			7 East Cliff Preston Lancashire PR1 3JE Tel: 01772 258356 Fax: 01772 825000	1 Regency Chambers Jubilee way Bury Greater Manchester BL9 0JW Tel: 0161 762 5800 Fax: 0161 762 5801	Cheshire House Gorsey Lane Widnes WA8 0RP Tel: 0151 4236914 Fax: 0151 4236915
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Client
Lingar Properties.
Portside House,Ellesmere Port.

Project
Proposed Apartments
Land behind 4 Brook St Wrexham

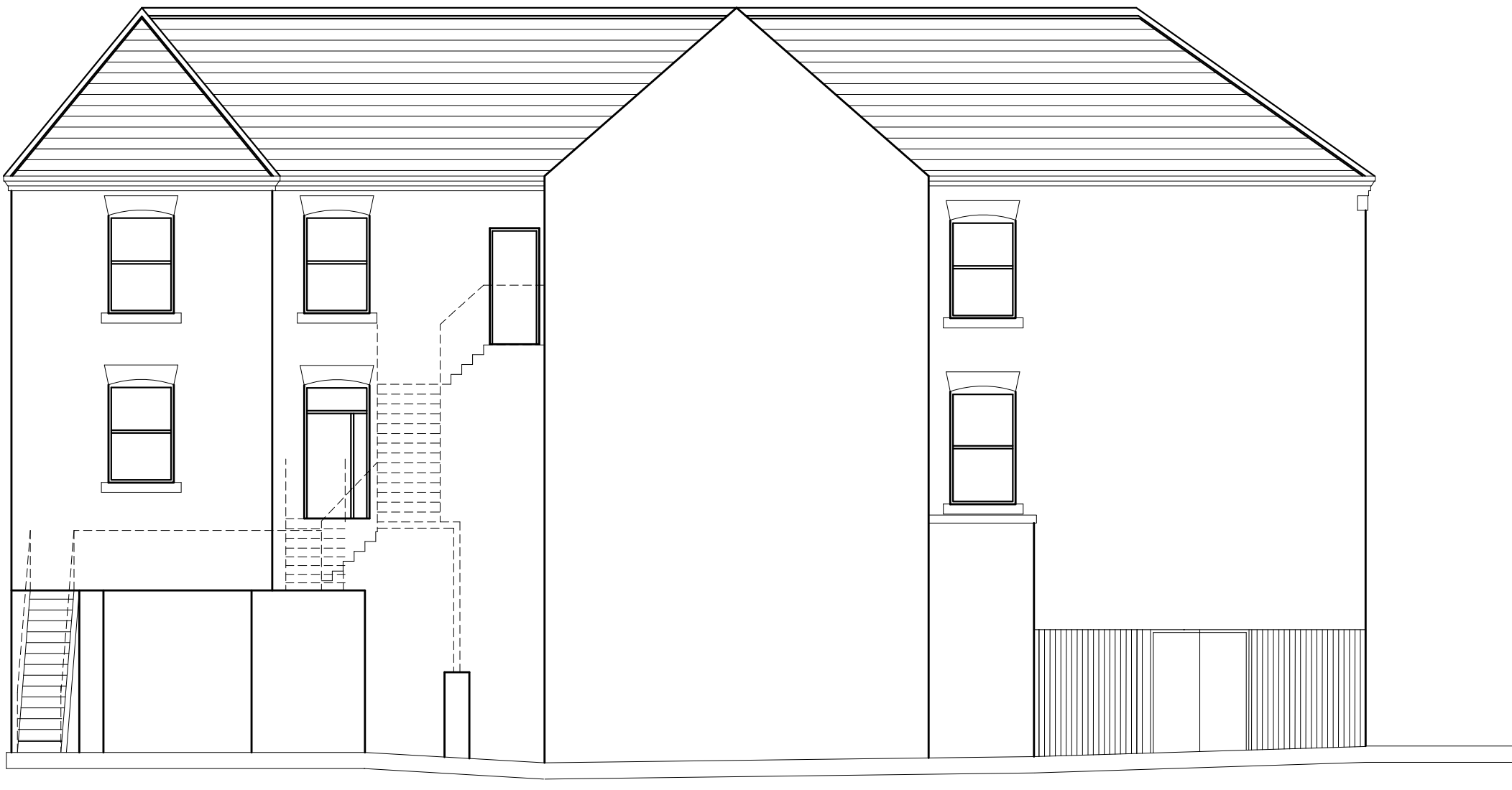
Drawing Title Proposed Block Plan			
Drawn by	I.W.	Checked by	Date Jan 20
Status	Scale @ A3		1:200
Job no. 8821	Dwg.no. L43		Rev.



PROPOSED BROOK STREET ELEVATION



PROPOSED BRIDGE STREET ELEVATION



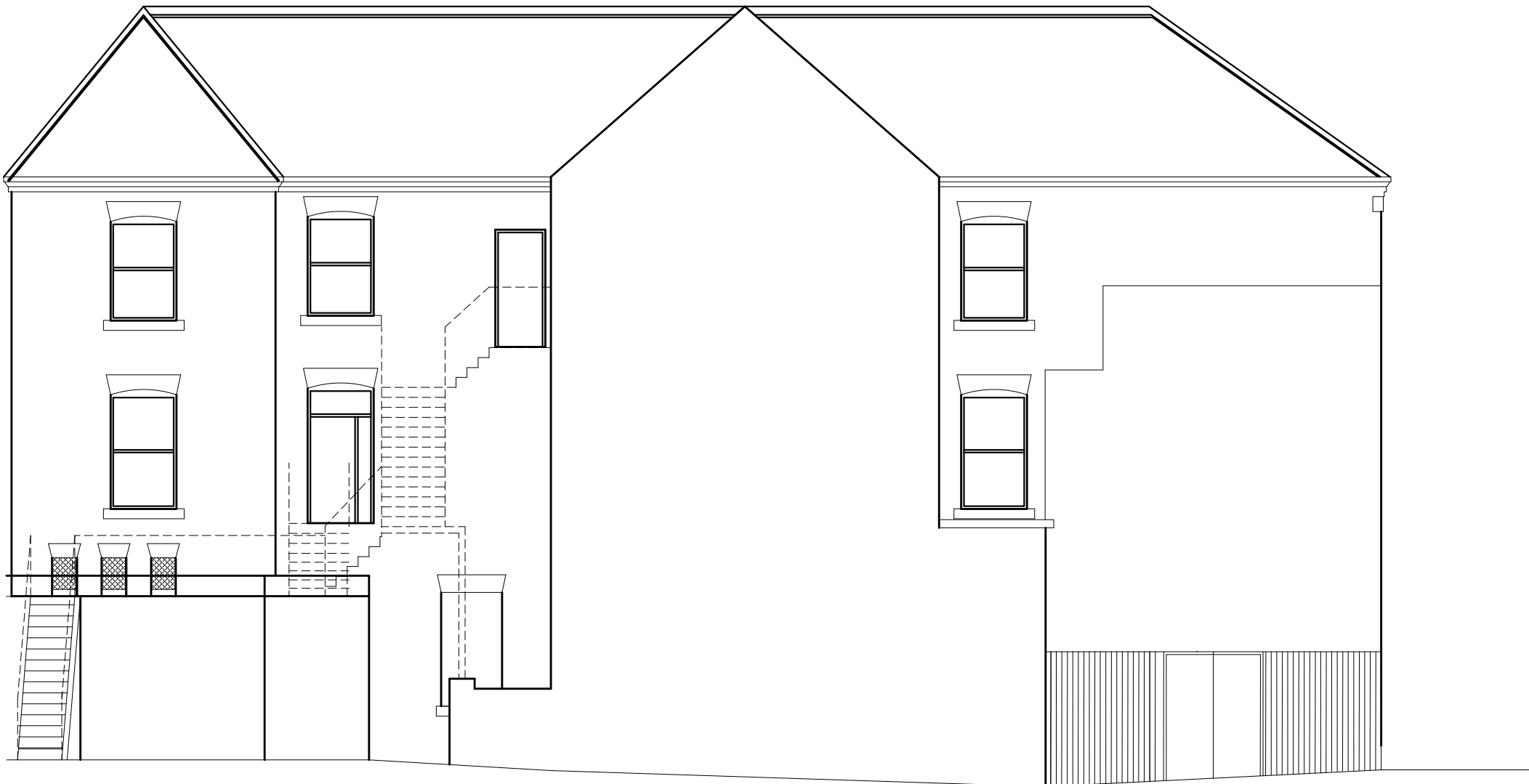
PROPOSED REAR ELEVATION



EXISTING BROOK STREET ELEVATION

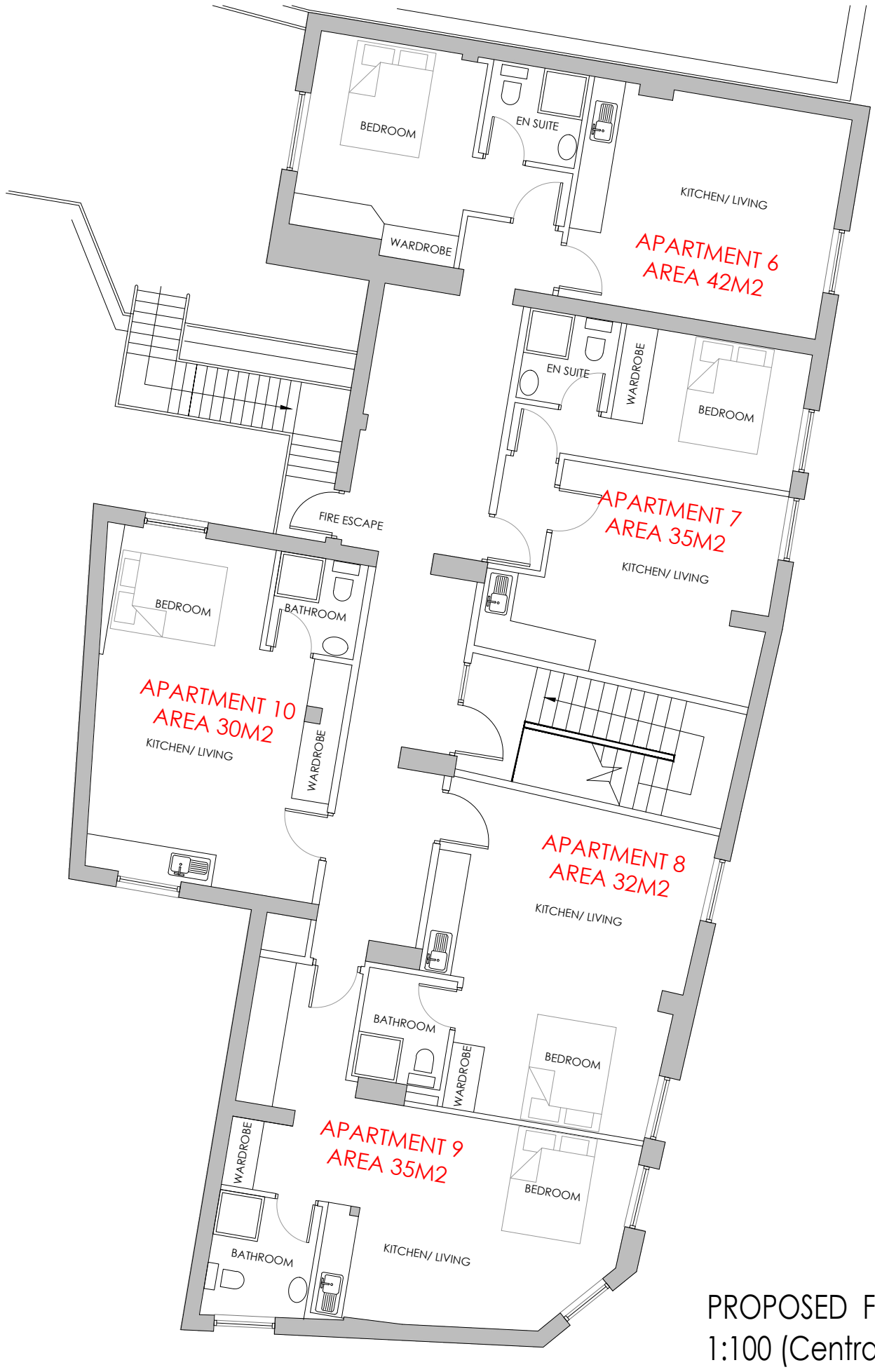
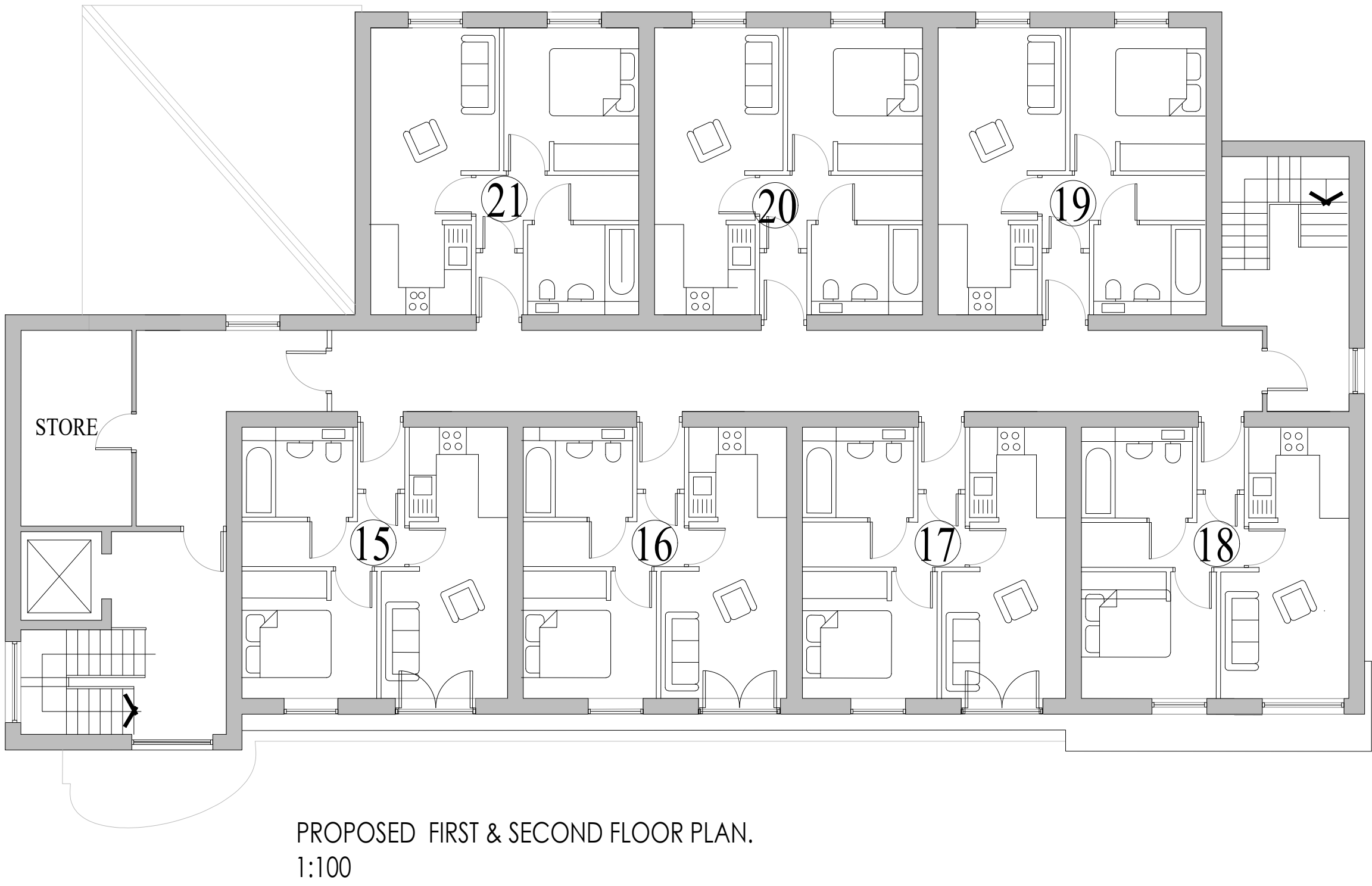
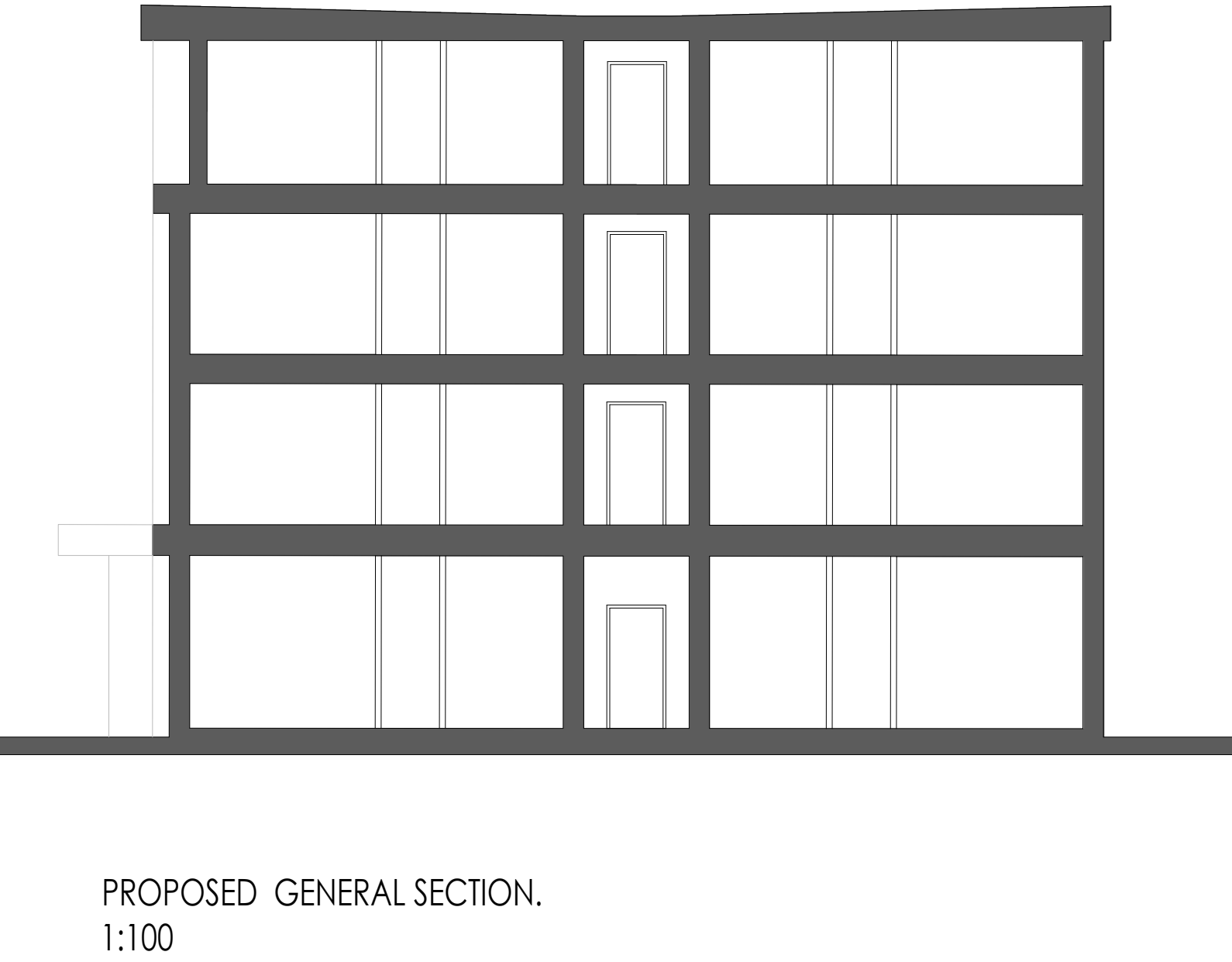
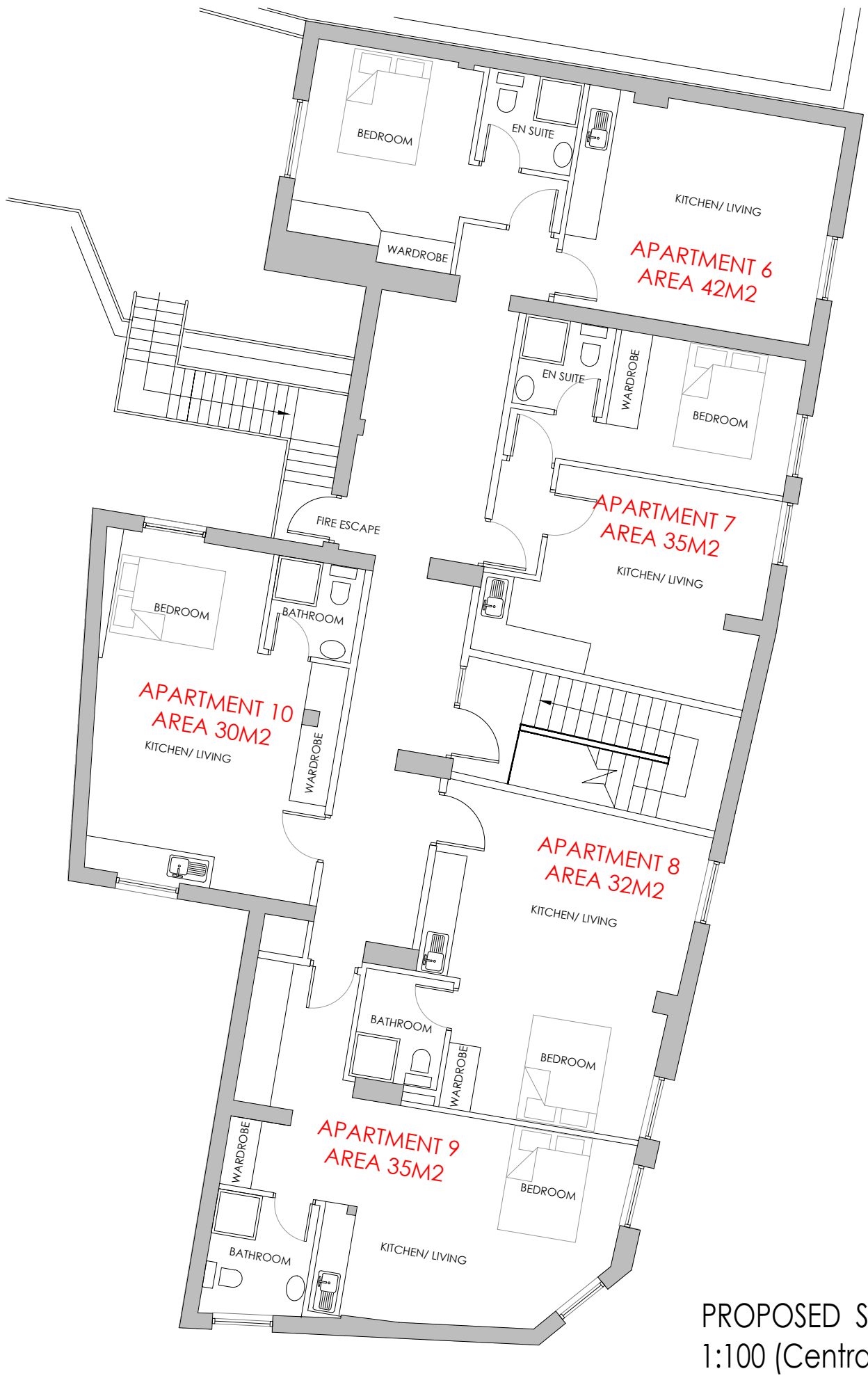
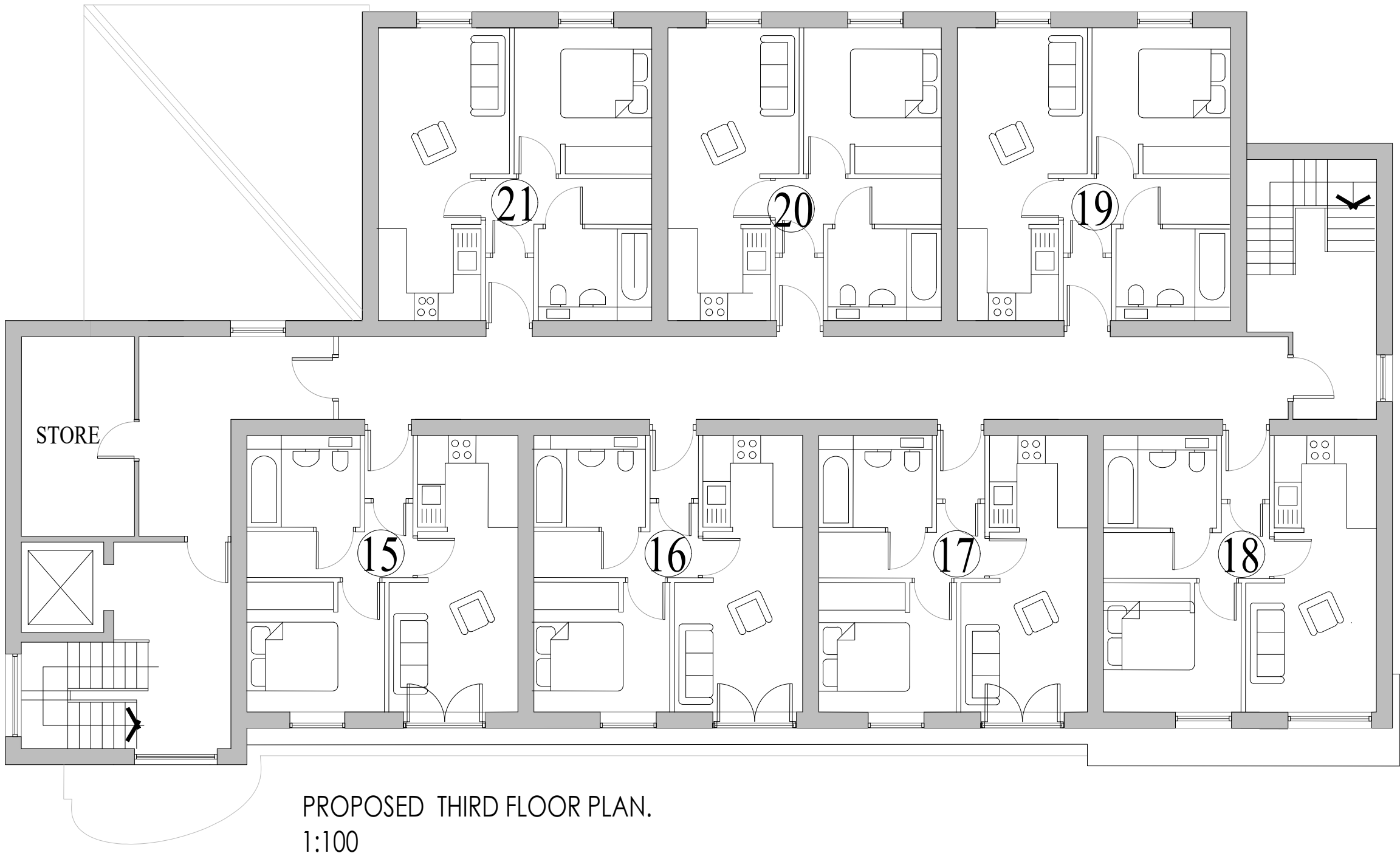


EXISTING BRIDGE STREET ELEVATION



EXISTING REAR ELEVATION

Rev.		Initials	Date	Rev.		Initials	Date	Notes:	Project	Client
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								2. Do not scale this drawing – Check all dimensions on site.	Existing/Proposed Elevations	Drawn PL 8821
								Checked by:		Date April 2018
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parking

parking

bike rack

refuse

refuse

flat 7

flat 6

flat 5

elec

lift

up

flat 1

flat 2

flat 3

flat 4

e' exit

entrance

new 1100mm high painted
fencing to frontage

BROOK STREET

REV A Car Parking Amended.

Nov 18

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Client

Lingar Properties.
Portside House. Ellesmere Port.

Project

Proposed Apartments.
Land behind 4 Brook St. Wrexham.

Drawing Title

Proposed Ground Floor Plan(Amended)

Drawn by

PL

Checked by

Date 22/9/2017

Status

Scale @ A3

1:200

Job no.

8821

Dwg.no.

L30

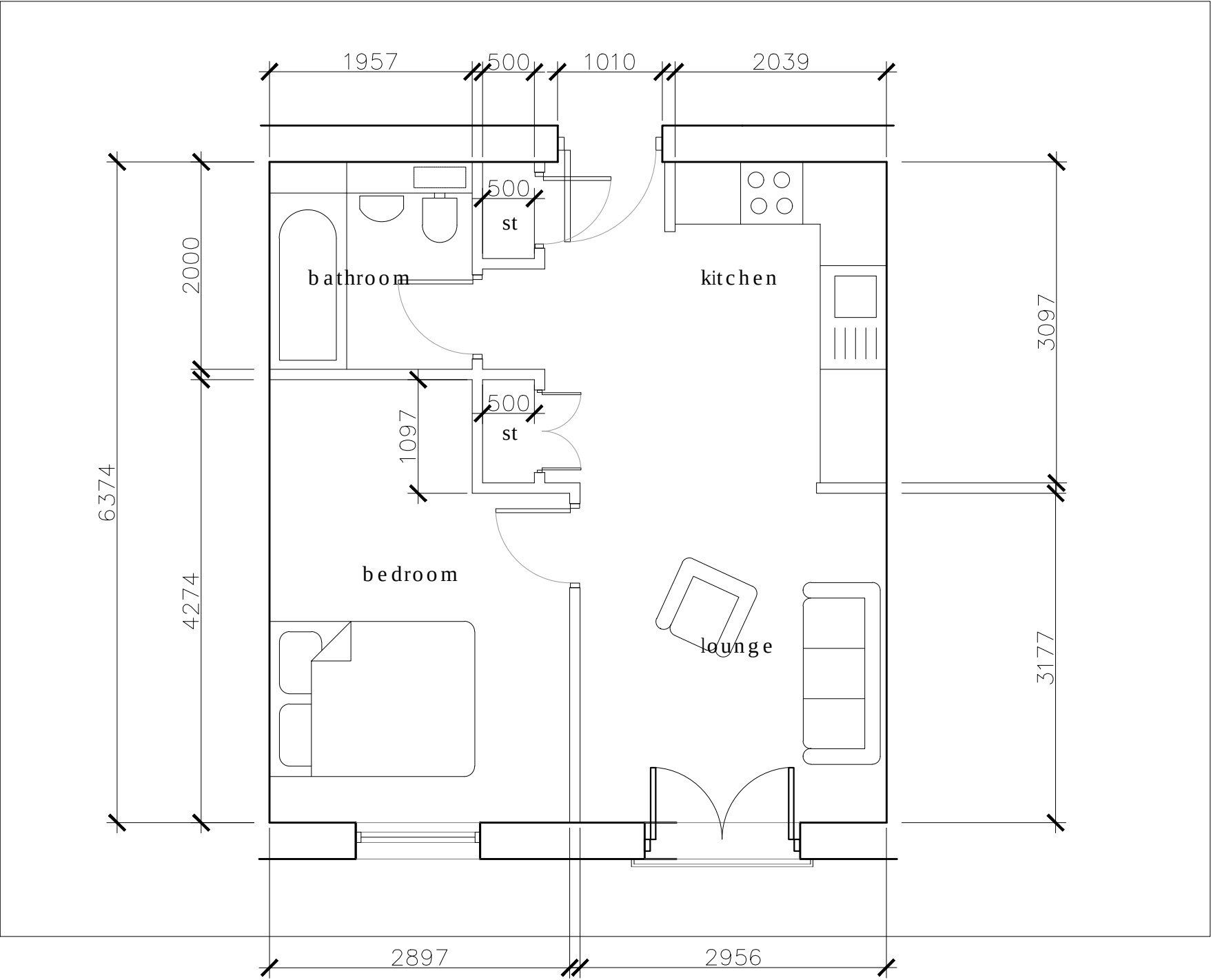
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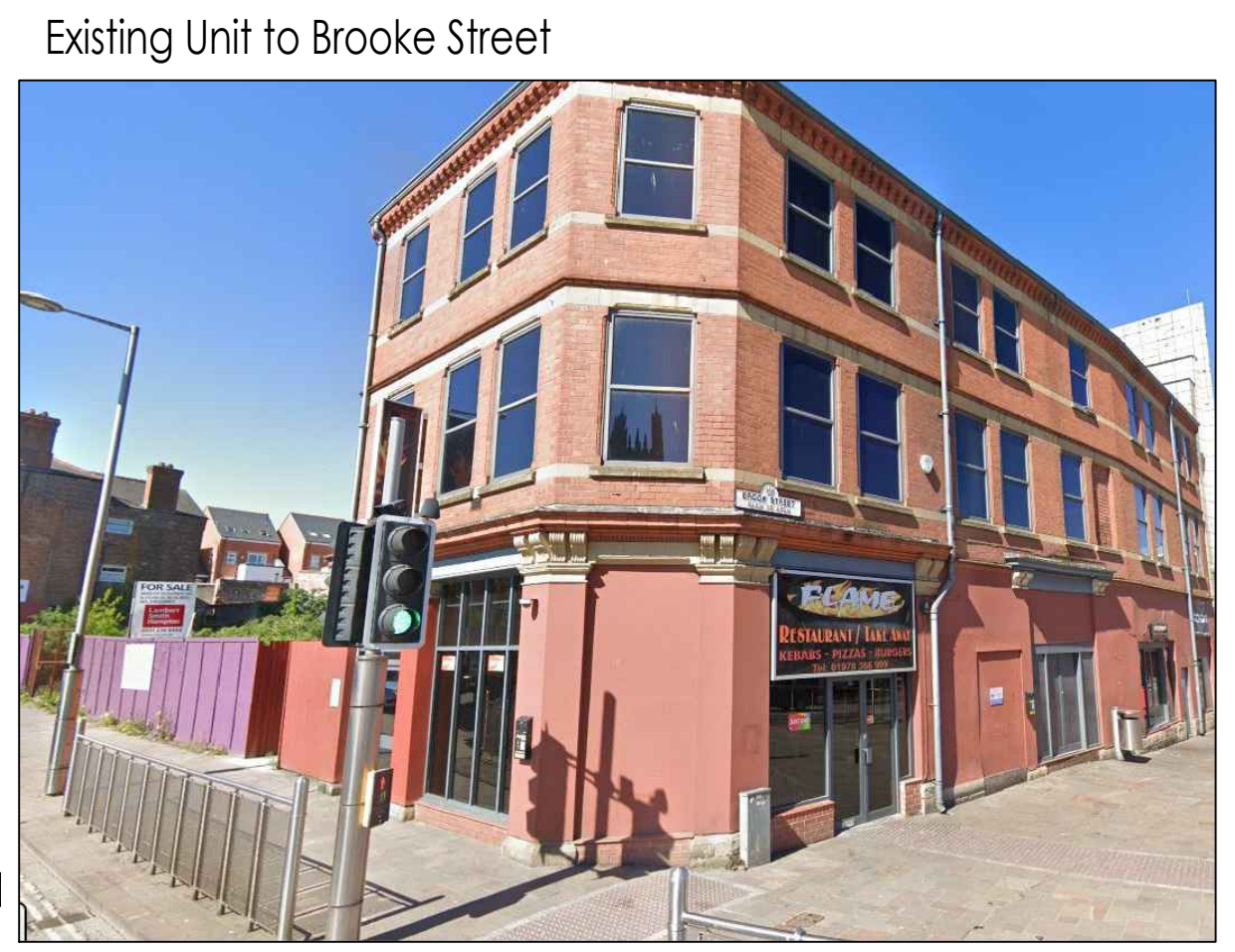
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Client	Lingar Properties Portside House Ellesmere Port.
Project	Proposed Apartments.

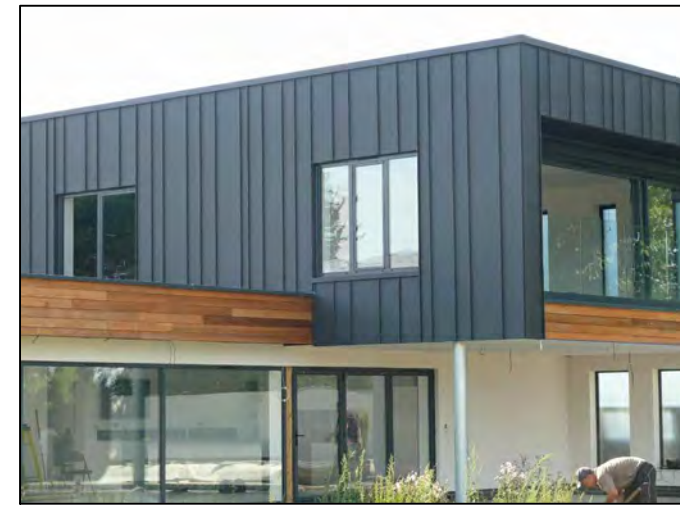
Drawing Title

Flat Layout

Drawn by	PL	Checked by	Date	2/7/2018
Status	PRELIMINARY	Scale @ A3	1:50	
Job no.	Dwg.no.		Rev.	
8821	L22			



PROPOSED FRONT ELEVATION TO BRIDGE STREET.
1:100



Proposed Standing Seam Cladding
in greys
by Metal Solutions or other
approved.



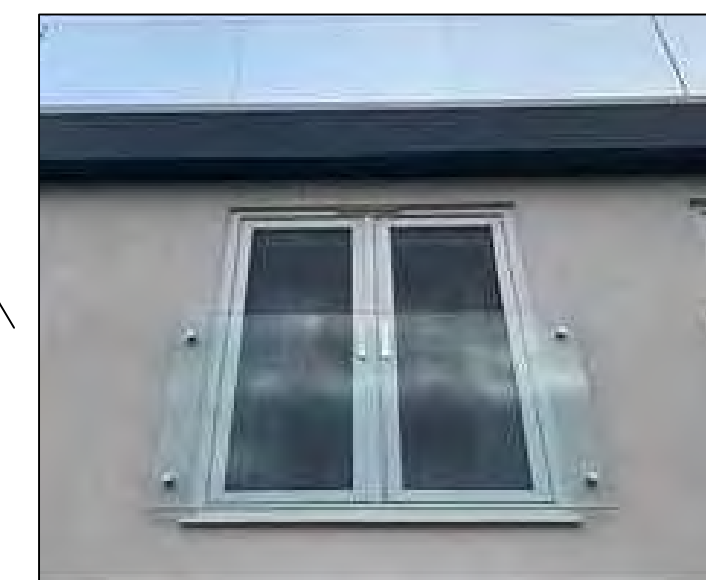
Stone Coloured Render Colour



Typical Aluminum Capping Colour



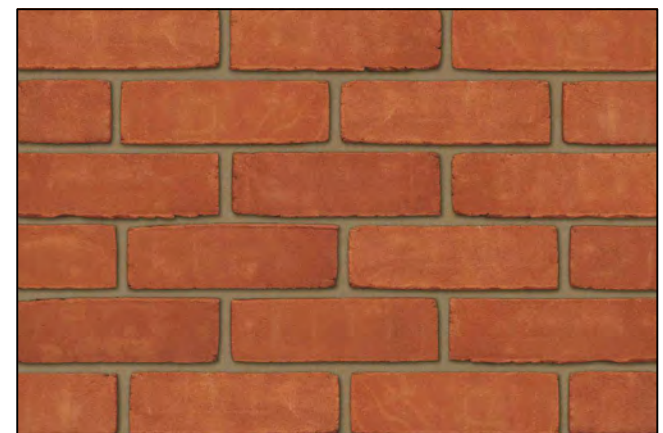
Aluminum Grey Colour Windows



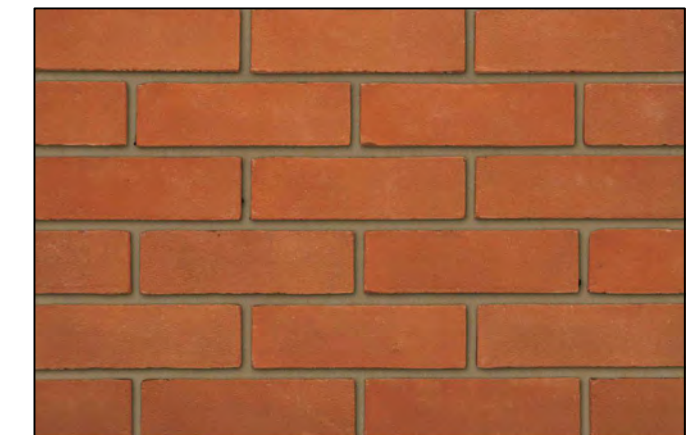
Glass Juliet Balcony



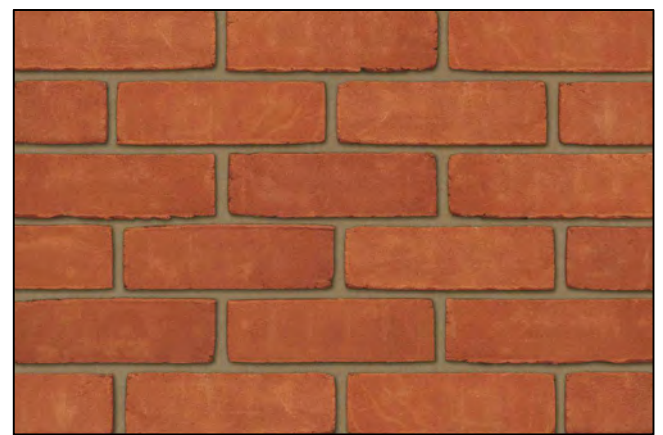
Kingstone Handmade Heather Red



Kingstone Handmade Light Red



Leicester Orange Stock



Leybrook Red Stock

Red Brick Options. (Ibstock)

Grey Block Options. (Fortcrete)



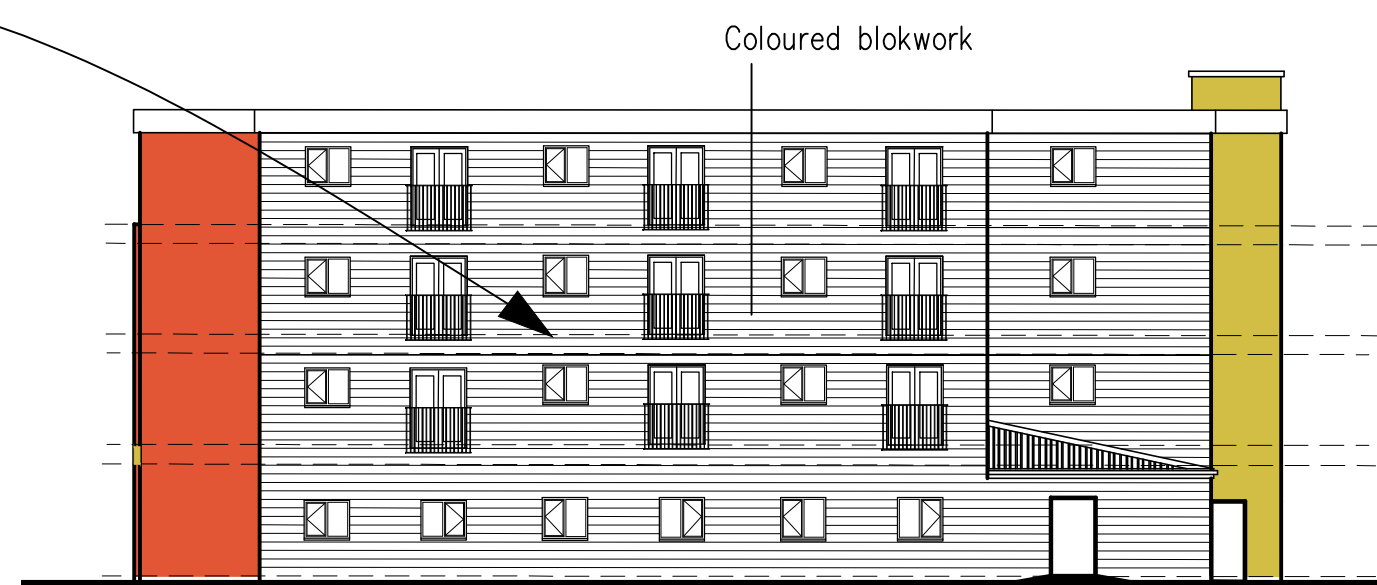
Pewter



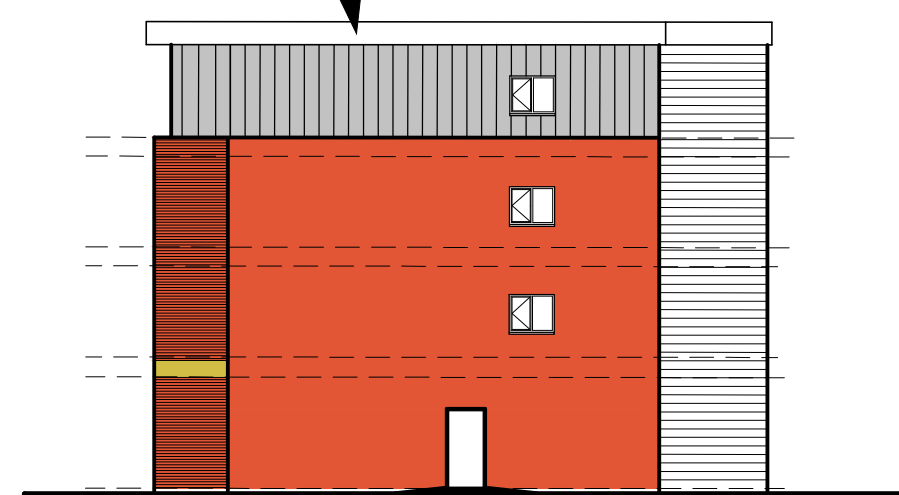
Steel Grey



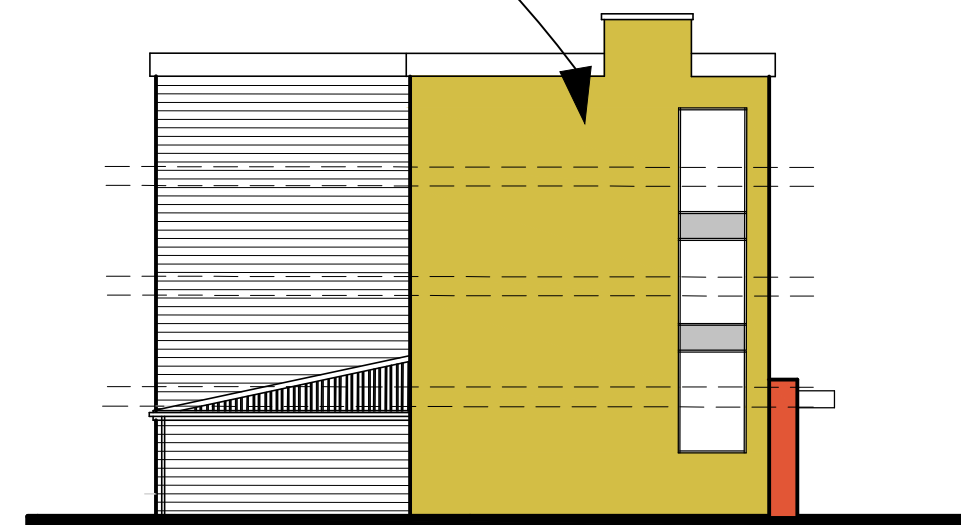
Face Finish



PROPOSED REAR ELEVATION.
1:200



PROPOSED SIDE ELEVATION.
1:200



PROPOSED SIDE ELEVATION.
1:200

A	Window material and plans updated.	13-01-20
Rev.	Description	Date
Client		
Lingar Properties		
Portside House Ellesmere Port.		
Project		
Central Buildings/ Vacant land.		
Proposed Apartments		
Drawing Title		
Proposed External Finishes		
Bridge Street		
Drawn by	PL	Checked by
Status		Date
Job no.	8821	Rev.
Dwg no.	L39	A
Scale @ A1 1:100 1:200		
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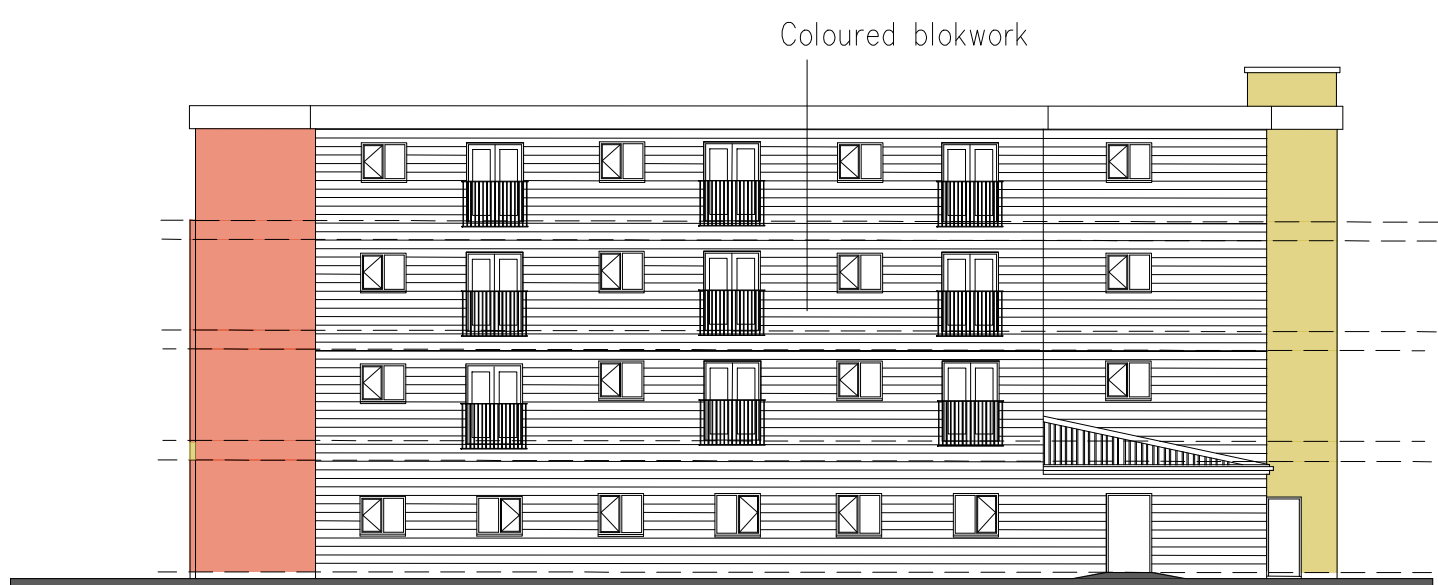


PROPOSED FRONT ELEVATION TO BRIDGE STREET.
1:100

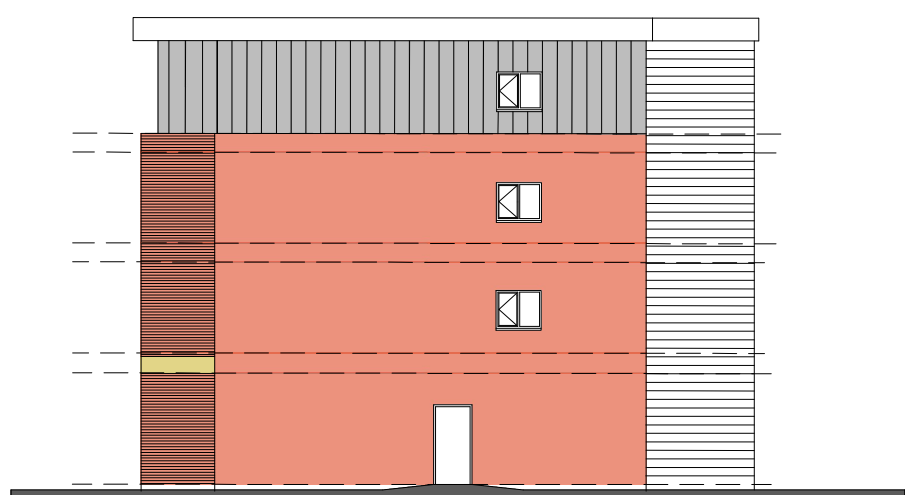


GROUND FLOOR PLAN.
(CENTRAL BUILDING)

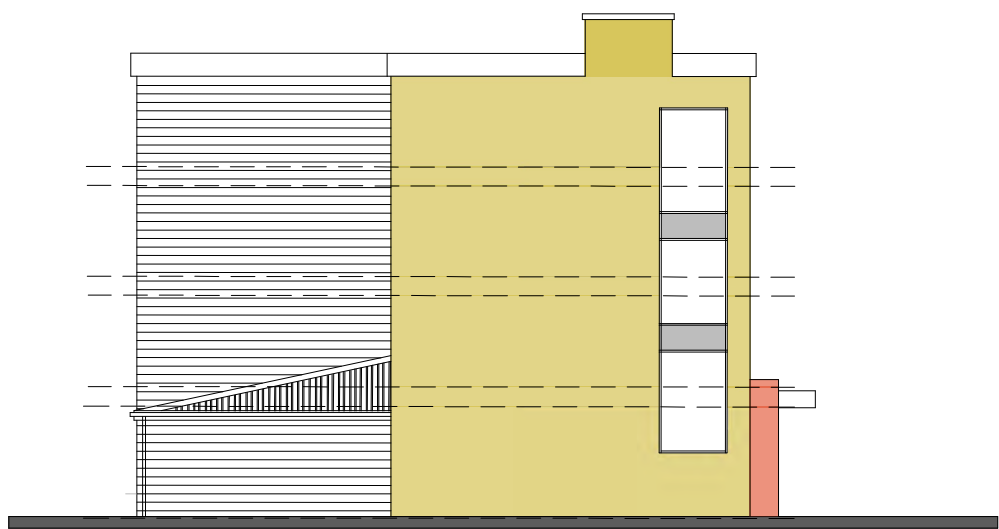
PROPOSED GROUND FLOOR PLAN.
1:100



PROPOSED REAR ELEVATION.
1:200



PROPOSED SIDE ELEVATION.
1:200



PROPOSED SIDE ELEVATION.
1:200

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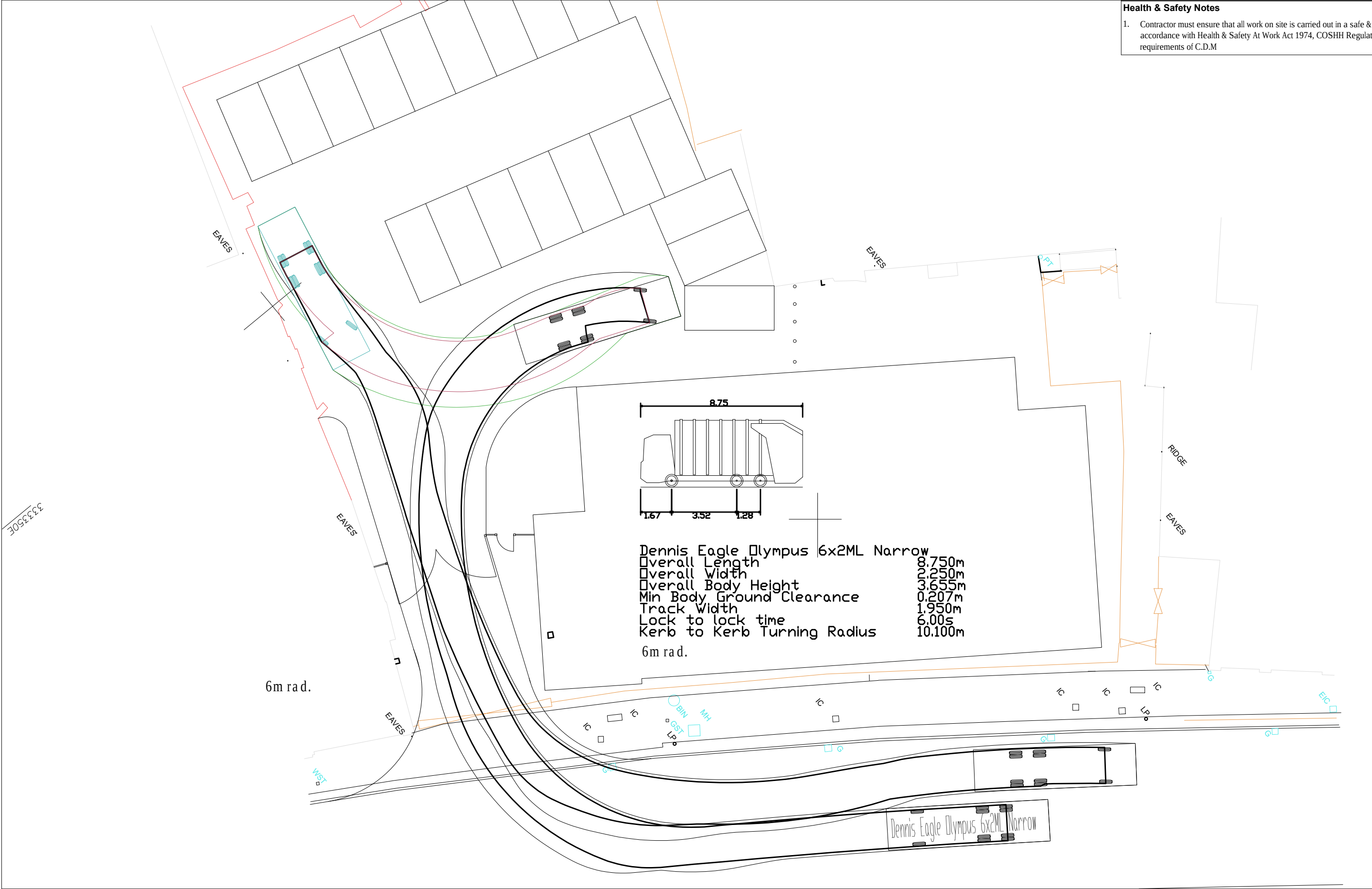
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B	Finishes revised following discussions with Local Authority.	11-11-19
A	Finishes Updated	10-08-18
Rev.	Description	Date
Client		
Lingar Properties		
Portside House Ellesmere Port.		
Project		
Central Buildings/ Vacant land.		
Proposed Apartments		
Drawing Title		
Proposed Street Scene Alternative		
Bridge Street		
Drawn by	PL	Checked by
Status	Scale @ A1	
Job no.	Dwg no.	Rev.
8821	L38	B
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05-09-19		
1:100 1:200		
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Client
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Portside House. Ellesmere Port.**

Project
**Proposed Apartments.
Land behind 4 Brook St. Wrexham.**

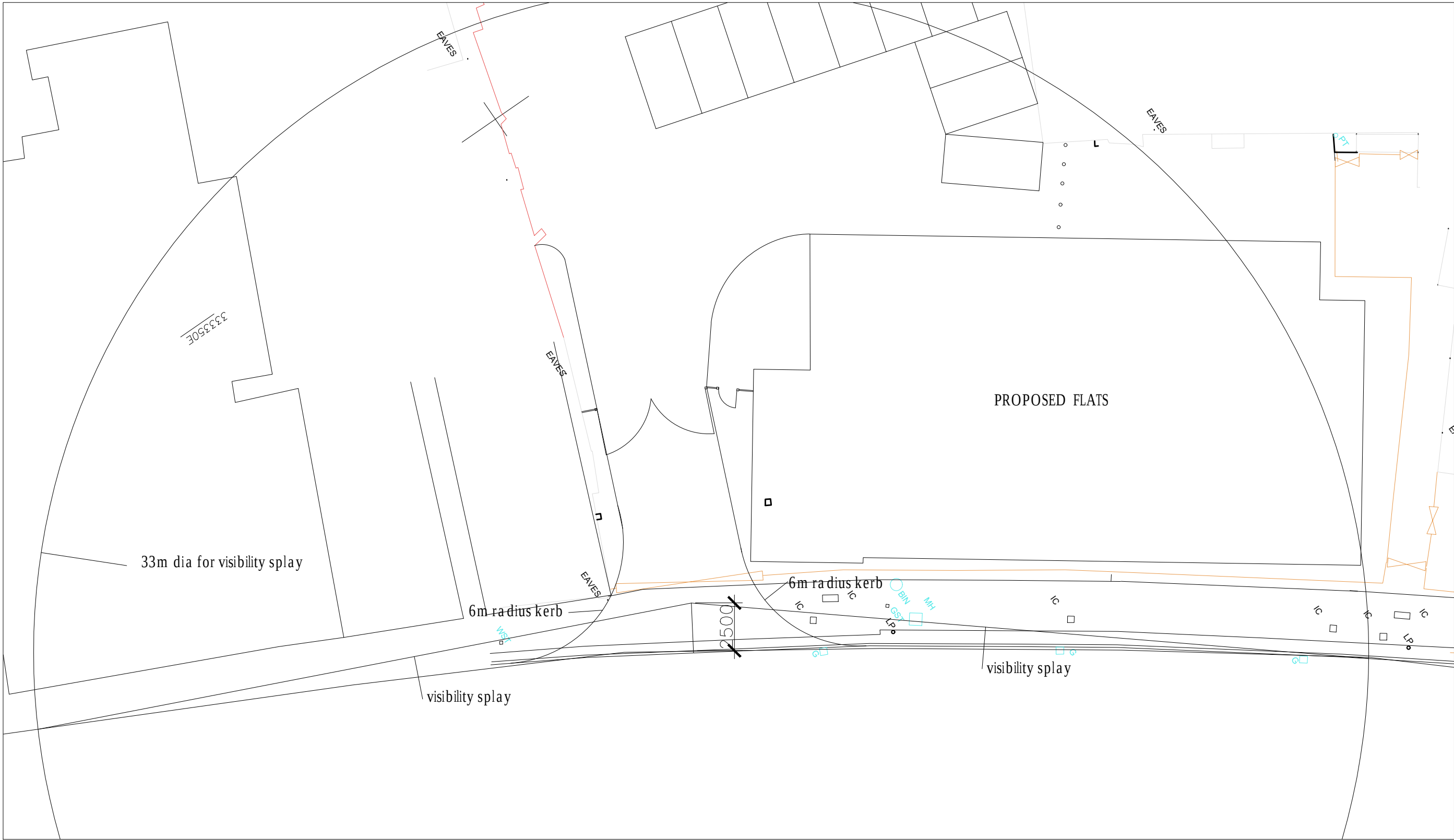
Drawing Title
Proposed Refuse Tracking Layout

Drawn by	PL	Checked by	Date	22/9/2017
Status			Scale @ A3	1:200
Job no. 8821	Dwg.no. L23		Rev.	

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Drawing Title Highway Visibility Splays			
Drawn by	PL	Checked by	Date 22/9/2017
Status		Scale @ A3	1:200
Job no. 8821	Dwg.no. L24	Rev.	