

Template for Reduced Level (Category 0 and <0) Submissions for Technical Approval

Name of project: Payne's Shipyard

Name of bridge or structure: New Block D

Structure reference no.: General Residential RC structure within 6m of the public highway.

Summary:

The Proposed Block D is a new 4 storey residential apartment building that will lie within 6 m of the existing public highway. There is no level change and no retaining structure affecting the highway. The new block will be founded on CFA piled foundations with conventional pilecaps and RC frame above. There is no retaining of any highway, nor is there any retaining or other structure overhanging the highway.

1 Location plan for proposed structure

Please find enclosed drawing no 17445-SCT-SW-XX-TP-A-50001 RevP18 Proposed Site Plan showing the site location plan, identifying the general location of the site and of Block D that lies within 6m of the public highway. For site location information the site address (including postcode) is Paynes Shipyard, Coronation Rd, Bristol BS3 1RP.

2 Detailed general arrangement drawing (including cross section of the structure)

Please find enclosed drawing no 2393-PHG-XX-ZZ-DP-S-0001_AIP_Plan_Section showing the location of Block D on the site, how it relates to the proximity of the public highway and the site section through the highway at the point of closest proximity.

3 Design codes used

Block D is designed to the following design codes:

1. BS EN 1991-1-1:2002 Eurocode 1. Actions on structures – General actions – Densities, self-weight, imposed loads for buildings (plus corresponding UK National Annex).
2. BS EN 1992-1-1:2023 Eurocode 2. Design of concrete structures – General rules and rules for buildings, bridges and civil engineering structures (plus corresponding UK National Annex).

4 Loading criteria

For the design of Block D, all of the design loadings are as per BS EN 1991-1-1 for a residential building. This generally translates to a typical imposed loading of 1.5kPa to individual apartments and 3kPa to communal corridors per floor. Dead loads are typically 8kPa per floor.

It should be noted that all floors (including ground floor) are designed as suspended and all span back to the column locations. All of the columns are supported by pile cap and CFA piled foundations as shown in the section in drawing 2393-PHG-XX-ZZ-DP-S-0001_AIP_Plan_Section.

The piles are anticipated to be in the region of 10 to 15m. This will be verified by the specialist pile designer in due course. The piling methodology is continuous flight auger system in order to minimise vibrations and ensure the stability of the surrounding ground as all times.

The pilecaps themselves are to be excavated and cast in place using traditional reinforced concrete methods. These will be cast by a 600mm deep vertical face excavation combined with a 700mm deep 45 degree batter to achieve the 1300mm deep pilecap excavation.

The 1300mm deep pilecap excavation lies at 3.195m of the public highway and as such will not have any detrimental effect on the highway and no temporary works support structures are anticipated.

In summary, the highway is not anticipated to surcharge any load onto any of the development works and the development works are not anticipated to surcharge any loads onto the highway, maintaining the existing status quo.

5 Calculations

Since the highway will not be anticipated to surcharge any load onto any of the development works and the development works will not surcharge any loads onto the highway, the existing status quo is maintained. As such there are no temporary works and therefore no calculations.

6 Temporary Works

No temporary works are required.

7 Design and Check Certificate

Attached on following page(s)

Enclosures on following pages:

- Appendix A – Design and Check Certificate
- Appendix B – Location Plan (Drawing no. 17445-SCT-SW-XX-TP-A-50001 Rev P18)
- Appendix C – Drawings (Drawing no. 2393-PHG-XX-ZZ-DP-S-0001)
- Appendix D – Not required.

APPENDIX A – DESIGN AND CHECK CERTIFICATE

DESIGN AND CHECK CERTIFICATE
(Highway Structures/Road or Service Tunnels)

Project Details Approval In Principle submission in relation to a 4 storey RC frame proposed to be constructed within 6m of the public highway.

Name of project: Payne's Shipyard

Name of structure: New Block D


Structure reference no.: General Residential RC Structure within 6m of the public highway.

Commented [TC1]: Refer to the footnotes in CG 300 Appendix I for further guidance on filling out this certificate, including potential modifications to the text. Delete the comments from the Word document before PDFing and signing the certificate.


Section 1

We certify that reasonable professional skill and care has been used in the preparation of the design and check of New Block D with a view to securing that:


- 1) It has been designed and checked in accordance with the following standards:
BS EN 1991-1-1:2002 Eurocode 1. Actions on structures – General actions – Densities, self-weight, imposed loads for buildings (plus corresponding UK National Annex).
BS EN 1992-1-1:2023 Eurocode 2. Design of concrete structures – General rules and rules for buildings, bridges and civil engineering structures (plus corresponding UK National Annex).
- 2) It has been checked for compliance with the relevant standards in 1).
- 3) It has been accurately translated into construction drawings and bar bending schedules (all of which have been checked). The unique numbers of these drawings and schedules are:
2393-PHG-XX-ZZ-DP-S-0001_AIP_Plan_Section

Signed: 
Name: Wing Wong
Design Team Leader
Engineering Qualifications: MEng(Hons) CEng MIStructE

Commented [TC2]: To be signed by the Design Team Leader.

Signed: 
Name: Wing Wong
Check Team Leader
Engineering Qualifications: MEng(Hons) CEng MIStructE

Commented [TC3]: To be signed by the Check Team Leader. This section can be deleted if the Design and Check Team Leader is the same person (acceptable for Category 0 and 1 structures).

Signed: 
Name: Pierre Grigorian BEng(Hons) CEng FStructE FICE
Position held: Director
Name of Organisation: PHG Consulting Engineers Ltd

Commented [TC4]: To be signed by a 'principal' of the organisation responsible for the design, usually someone at Director level or above.

DESIGN AND CHECK CERTIFICATE
(Highway Structures/Road or Service Tunnels)

Date: 27 November 2023

Section 2

This certificate and the accompanying design submission covered in Section 1 have been subject to technical review and are considered acceptable subject to the following comments and conditions.

Comments: [None](#)

Signed:  Digitally signed by
Craig.Twyman@wsp.com
Date: 2023.12.14
15:23:03

Name: [Craig Twyman](#)

Engineering Qualifications: [BSc, MSc, CEng MICE](#)

Name of Organisation: [WSP](#)


(on behalf of Bristol City Council)

Date: [14/12/2023](#)

Commented [TC5]: To be signed by Bristol City Council's Technical Approval consultant.

Section 3

The criteria given in Section 1 are agreed. The certificate is accepted by the Technical Approval Authority (TAA) subject to the comments in Section 2.

Signed: 

Name: [James Hurley](#)

Position held: [Structures Technical Support & Licencing Officer](#)

Engineering Qualifications: [HNC/D Civils pp Chris Dooley](#)

TAA: Bristol City Council

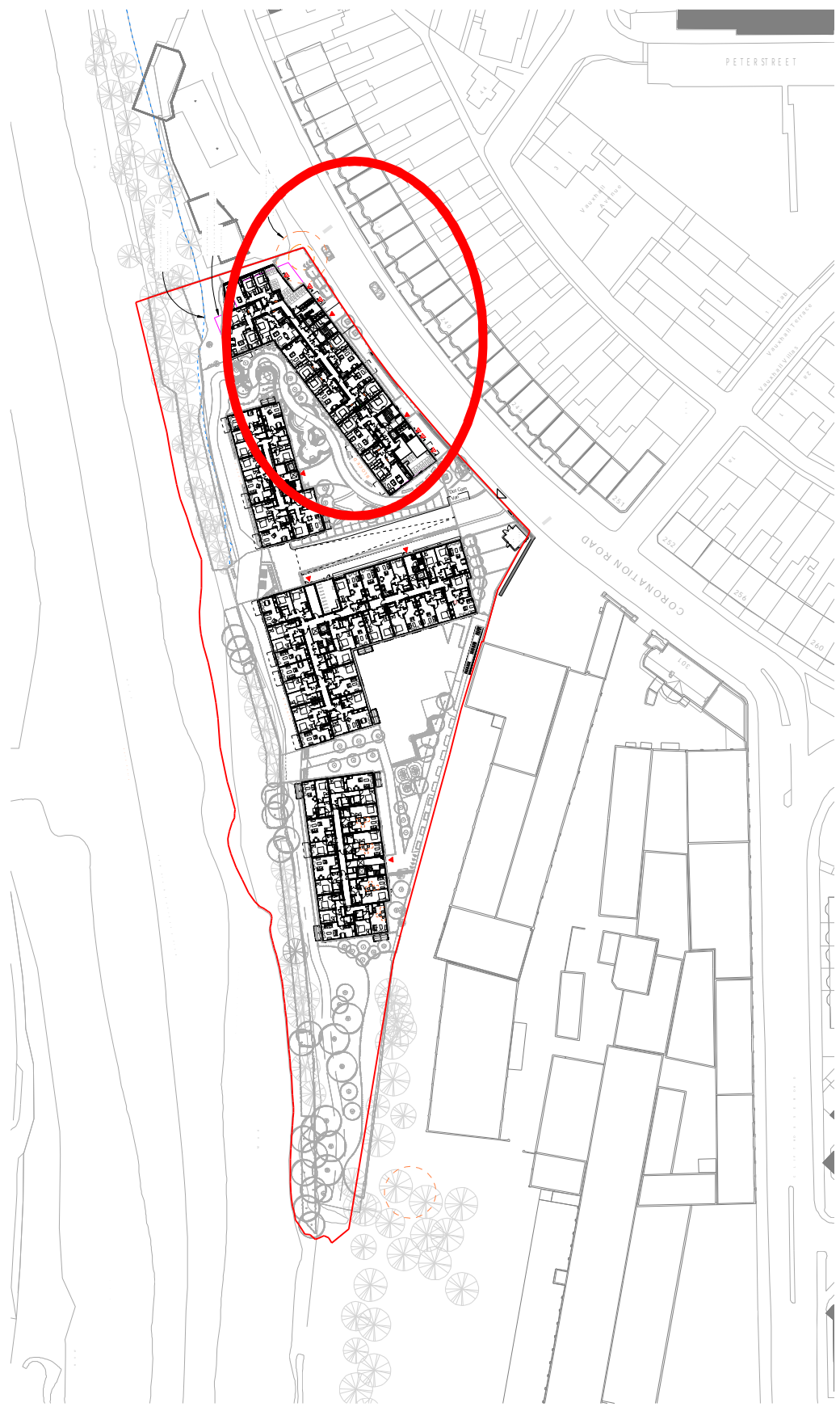
Date: [20/12/2023](#)

Commented [TC6]: To be signed by Bristol City Council's Structures Manager.

APPENDIX B – LOCATION PLAN



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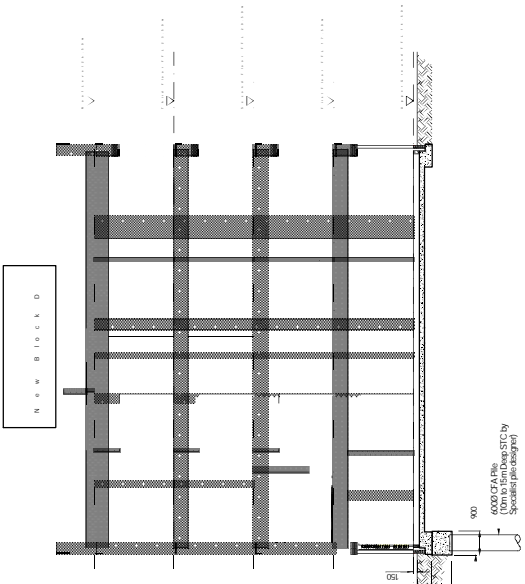


SCOTT
BROWN RIGG

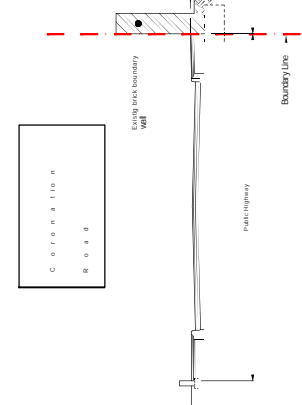
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APPENDIX C – DRAWINGS



6000 GFA Max.
(20 to 15m deep STC by
Specialist (see design))



CONORRILLION
ROAD

EX-HOUSING



NO.	REV.	DATE	BY	CHK.
1	1	10/10/2023



PROJECT		CONORRILLION ROAD	
CLIENT		...	
DATE		...	
DRAWN BY		...	
CHECKED BY		...	
SCALE		...	
SHEET NO.		...	
TOTAL SHEETS		...	

APPENDIX D – CALCULATIONS