APPENDIX 12.5
FLOOD DEFENCE WALL SUMMARY NOTE*

*Please note, this report refers to the “river wall” throughout, however, to maintain consistency with the rest of the ES it should be referred to as the “flood defence wall”.

Waterman Infrastructure & Environment Limited
Pickfords Wharf, Clink Street, London, SE1 9DG
www.watermangroup.com

River Wall Summary Note

Stag Brewery

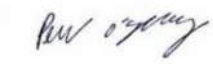
Date: 02nd February 2022

Client Name: Reselton Properties Limited

Document Reference: WIE1871-104-BN-3-1-2-RiverWall

This document has been prepared and checked in accordance with
Waterman Group's IMS (BS EN ISO 9001: 2015, BS EN ISO 14001: 2015 and BS OHSAS 18001:2007)

Issue	Prepared by	Checked & Approved by
First	Donal O'Donovan	Peter O'Flaherty



1. Introduction

1.1. This River Wall Summary Note has been prepared by Waterman Infrastructure & Environment ('Waterman IE') on behalf of Reselton Properties Limited ("the Applicant") in support of two linked planning applications ("the Applications") for the comprehensive redevelopment of the former Stag Brewery Site in Mortlake ("the Site") within the London Borough of Richmond upon Thames (LBRuT).

1.2. This note has been prepared in relation to the 3rd iteration of the Development which seeks to respond directly to the Mayor's reasons for previous refusal and in doing so also addresses a number of the concerns raised by the LBRuT.

1.3. Prior to and following submission of the original planning applications in February 2018 (the 2018 Applications, LBRuT references 18/0547/FUL,18/0548/FUL and 18/0549/FUL) there have been extensive discussions with the Environment Agency (EA) in relation to the River Thames flood defences. As a result of these discussions the Development was amended to ensure the river wall proposals were in line with the EA's requirements and ultimately the EA confirmed they had no objections.

1.4. The agreed principles in relation to the river wall remained unchanged in the 2nd iteration of the proposals (the 2020 Applications, GLA references 4172 and 4172a). The GLA Stage 3 Hearing Report states in paragraph 127, *"Environment Agency: No objection to proposals, subject to conditions which secure implementation of measures detailed in the Flood Risk Assessment and accompanying technical documents."*.

1.5. This 3rd iteration of the Development again remains consistent with the agreed river wall principles of the 2018 and 2020 Applications. This Note has been prepared to summarise the key points previously raised by the EA and how they have been addressed and includes the relevant drawings / evidence to demonstrate that the proposals remain in-line with what was previously agreed.

2. River Wall

Defence Height

2.1. In line with previous agreements and in order to mitigate the effects of climate change and ensure the Development is protected for its lifetime, the River Thames flood defences adjacent to the Site and within the client's ownership would be raised to 6.70m AOD in line with the requirements of the Thames Estuary 2100 Plan (TE2100).

2.2. The defence raising would generally be achieved through the construction of a new river wall along the main riverfront. The conceptual design for the raising of defences is included within **Appendix A**. Please refer to specific sections in relation to, Ship Lane, the Maltings Building, the Boat House and Bulls Alley.

Offsets to Defences

2.3. The building locations and balcony heights adjacent to the River Thames flood defences remain unchanged since the previous agreements. Providing a clear accessible vehicle route adjacent to the new flood defences of at least 4m in width and with a clearance height to balconies of 3.85m. This access route as well as tracking drawings are included in **Appendix B**.

Ship Lane

2.4. Ship Lane rises away from the River Thames to reach the required flood defence height in the present day. However, to meet the future TE2100 defence level of 6.70m AOD a new flood defence would need to be constructed. During the previous discussions, the EA requested that the future defence raising must be passive and that it must be shown how a future raising of Ship Lane could be undertaken. In line with the previous proposals, the public highway could be ramped in the future at a maximum gradient of 1 in 12 and would not be inhibited by the proposed Development (i.e. access would remain achievable with the Development in place), refer to drawings provided in **Appendix C**.

Maltings Building

2.5. The Maltings Building exterior walls adjacent to the River Thames currently form part of the formal River Thames flood defences and would remain so as part of the proposals. In line with the EA's previous request and to ensure the TE2100 flood defence level is achieved, the north-facing windows in the Maltings Building and the level of the window sills would be increased to 6.7m Above Ordnance Datum (AOD), see drawings in **Appendix D**.

2.6. A structural wall assessment was also previously undertaken which confirmed that the building wall would have sufficient capacity to resist the potential future water level, this is included in **Appendix E**.

Boat House

2.7. The proposed Boat House would form part of the River Thames flood defences and also requires direct access to the River Thames. The design for this building was developed with the EA and remains unchanged. The design provides a permanent passive level of protection, which would be achieved by raising the Finished Floor Level of the Boat House to 6.70m AOD adjacent to the River Thames, see drawings in **Appendix F**.

2.8. An external terrace is also proposed adjacent to the River Thames (set at 6.70m AOD) with a void beneath it to be used for storage. The storage facility was introduced at the request of the Port of London Authority as a means of providing easy and safe access to the water from the boat store, as opposed to carrying the boats down the steps from the terrace. The possibility of entirely opening both sides of the boat storage area was assessed, however it is not considered to be structurally feasible to support the terrace. A hatch would be provided in the terrace surface as a means of escape during a flood event. A ladder and/or handrails would be provided to further facilitate escape, with details to be agreed post planning. In addition, the access doors would be widened and provided on both perpendicular sides to facilitate access / egress.

3. Bulls Alley

3.1. The Bulls Alley flood defence does not fall under the client's ownership and would therefore not be raised as part of the proposals. However, in line with previous EA agreements the design of the adjacent Boat House would not prejudice the future raising of the Bulls Alley defence.

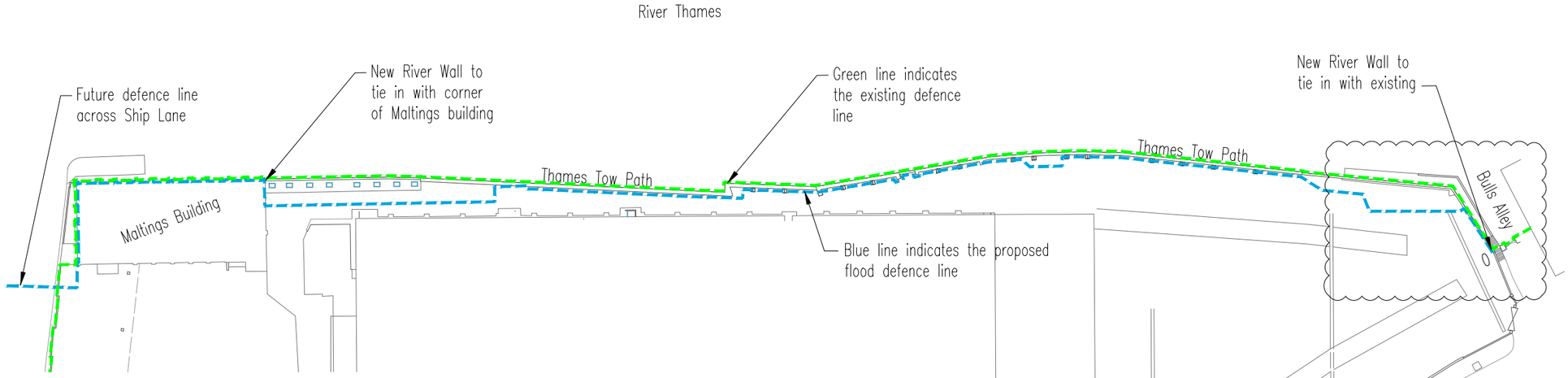
3.2. The adjacent Boat House would tie into the existing Bulls Alley defence providing a continuous line of defence, as indicated in **Appendix F**.

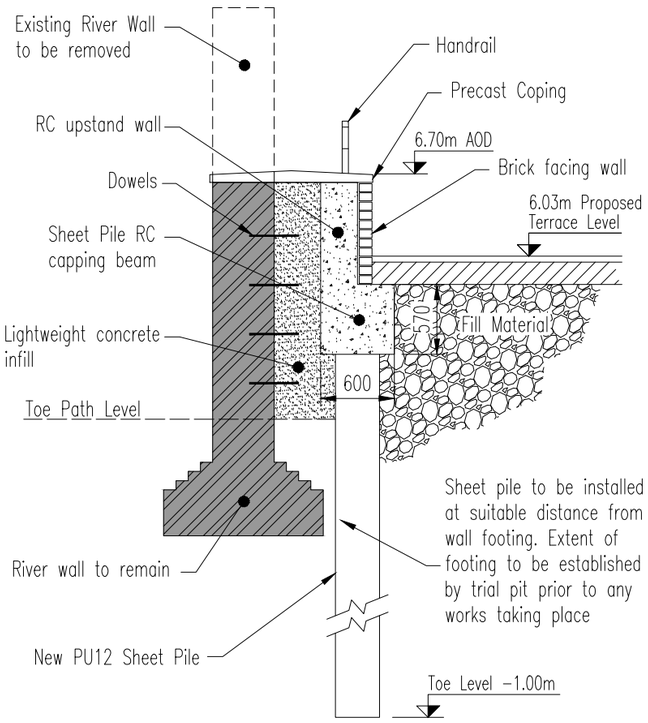
4. Conclusion

4.1. As set out within this Note, the Development proposals in relation to the River Thames flood remain in line with all previous agreements with the EA and therefore it considered the proposals remain acceptable.

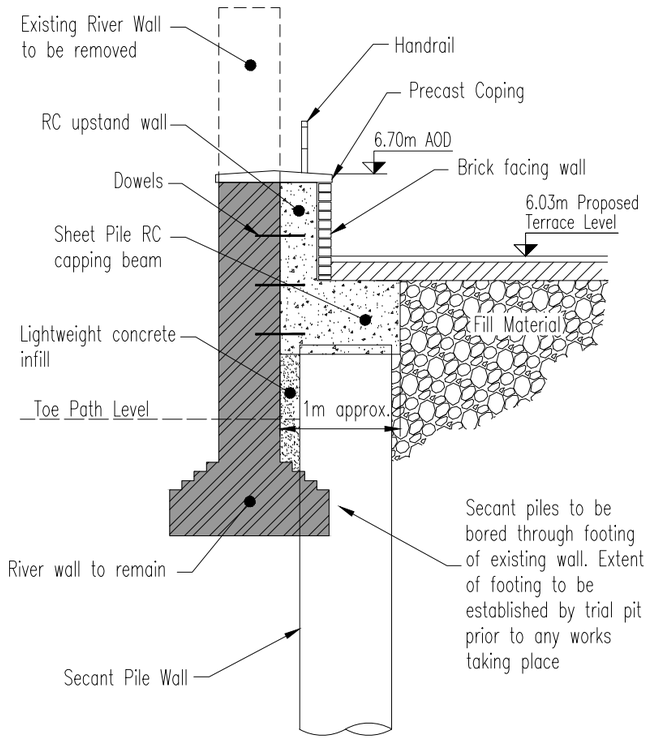
APPENDICES

A. River Wall Alignment and Concept Design





Section A-A
Typical New Wall Section
Option A
(Scale 1:50)



Section A-A
Typical New Wall Section
Option B
(Scale 1:50)

1:50 0 1m 2m
1:1 0 10 20 30 40 50

1:1000 0 10m 20m 30m 40m 50m
1:1 0 10 20 30 40 50

1. CONSTRUCTION JOINTS IN CAPPING BEAM AT 13m CENTRES.

GENERAL NOTES

Rev	Date	Description	By
A07	31.01.22	WALL ALIGNMENT REVISED	MJS
A06	11.09.19	WALL ALIGNMENT REVISED	SPO
A05	22.06.18	WALL ALIGNMENT REVISED	SPO
A04	14.06.18	WALL ALIGNMENT REVISED	SPO
A03	07.06.18	WALL ALIGNMENT REVISED. NOTES ADDED	SPO
A02	19.10.17	WALL ALIGNMENT REVISED, SECTIONS ADDED/REVISED	SPO
A01	13.07.17	ISSUED FOR INFORMATION	TLR

Amendments

Waterman
Pickfords Wharf Clink Street London SE19DG
t 020 7928 7888
mail@watermangroup.com www.watermangroup.com

Project
STAG BREWERY, MORTLAKE

Title
THAMES RIVER WALL
CONCEPT DESIGN

Client
DARTMOUTH CAPITAL ADVISORS LTD

Drawing Status
PRELIMINARY

Designed by	VB	Checked by	TLR
Drawn by	MC	Date	JULY 2017

Project No: WIE10667

Scales @ A3 work to figured dimensions only: 1:50 1:1000

Computer File No: WIE-10667-SA-04-1006_WIE_Updated.dwg

Publisher	Zone	Category	Number	Revision
WIE	SA	04	1006	A07

File Path N:\Projects\WIE10667\1027_CAD\04\

River Thames

Future defence line across Ship Lane

New River Wall to tie in with corner of Maltings building

Green line indicates the existing defence line

New River Wall to tie in with existing

Thames Tow Path

Thames Tow Path

Maltings Building

Blue line indicates the proposed flood defence line

Ship Lane

Bulls Alley

GENERAL NOTES

Rev	Date	Description	By
A01	24.01.20	ISSUED FOR INFORMATION	DO

Amendments

Waterman

Pickfords Wharf Clink Street London SE19DG

t 020 7928 7888

mail@watermangroup.com www.watermangroup.com

Project

STAG BREWERY, MORTLAKE

Title

THAMES RIVER WALL
EXISTING AND PROPOSED ALIGNMENT

Client

DARTMOUTH CAPITAL ADVISORS LTD

Drawing Status

PRELIMINARY

Designed by DO	Checked by SM	Project No WIE10667	
Drawn by DO	Date JANUARY 2020		
Scales @ A3 work to figured dimensions only NOT TO SCALE		Computer File No WIE-10667-SA-04-1007.dwg	

Publisher	Zone	Category	Number	Revision
WIE	SA	04	1007	A01

B. Maintenance Access and Tracking Drawings

Only minor / cosmetic maintenance work anticipated. Crane would be able to lift materials from lorry to required location.

Route for maintenance vehicle

Clearance height of ground floor to balcony is 4060mm minimum

Clearance height of ground floor to balcony is 3850mm

Clearance height of ground floor to balcony is 3850mm

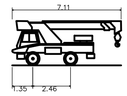
Clearance height of ground floor to balcony is 3850mm

Clearance height of ground floor to balcony is 3850mm

Proposed flood defence line

Route for maintenance vehicle

Small Mobile Crane



Small Mobile Crane	
Overall Length	7.110m
Overall Width	2.500m
Overall Body Height	2.895m
Min Body Ground Clearance	0.427m
Track Width	2.500m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	5.800m

Mark	Revision	Date	Drawn	Chkd	Appd
B	Masterplan & flood defence line updated	08.06.22	REM	PW	PW
A	Masterplan updated	04.03.22	REM	PW	PW

SCALING NOTE: Do not scale this drawing - any errors or omissions shall be reported to Stantec without delay.

UTILITIES NOTE: The position of any existing public or private sewers, utility services, plant or apparatus shown on this drawing is believed to be correct, but no warranty to this is expressed or implied. Other such plant or apparatus may also be present but not shown. The Contractor is therefore advised to undertake their own investigation where the presence of any existing sewers, services, plant or apparatus may affect their operations.

Drawing Issue Status

FOR INFORMATION

STAG BREWERY, MORTLAKE
DELIVERY & SERVICING STRATEGY - PHASE 1
VEHICLE SWEPT PATH ANALYSIS FOR A SMALL MOBILE CRANE

Client

RESELTON PROPERTIES

Date of 1st Issue	Designed	Drawn
18.01.2022	REM	REM
A1 Scale	Checked	Approved
1:500	PW	PW

Drawing Number: 38262/5520/09

Revision: B

0 10 20 30 40 50m

SCALE 1:500

Stantec

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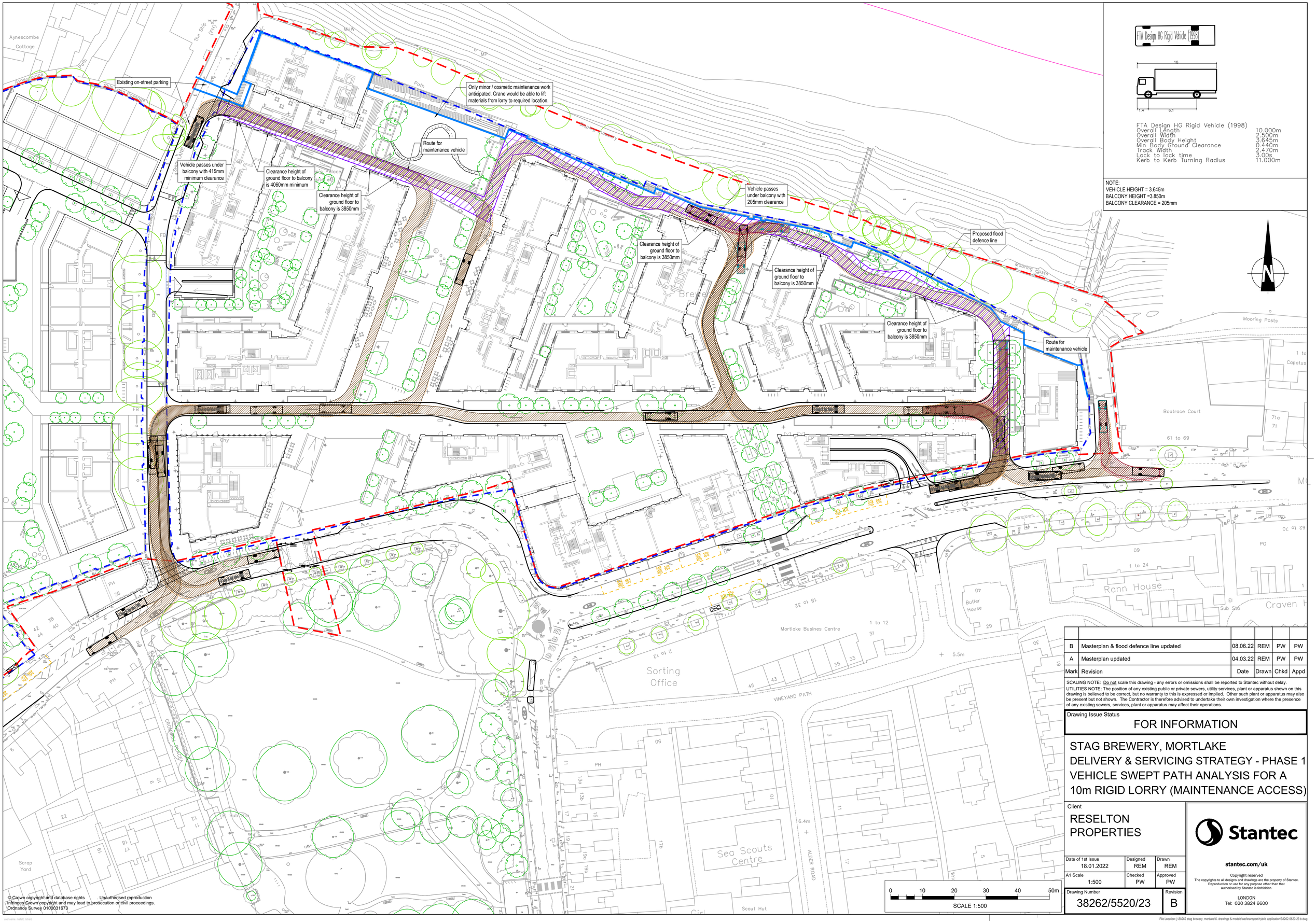
LONDON
Tel: 020 3824 6600



FTA Design HG Rigid Vehicle (1998)

Overall Length	10.000m
Overall Width	2.500m
Overall Body Height	3.645m
Min Body Ground Clearance	0.440m
Track Width	2.470m
Lock to lock time	3.00s
Kerb to Kerb Turning Radius	11.000m

NOTE:
VEHICLE HEIGHT = 3.645m
BALCONY HEIGHT =3.850m
BALCONY CLEARANCE = 205mm

Mark	Revision	Date	Drawn	Chkd	Appd
B	Masterplan & flood defence line updated	08.06.22	REM	PW	PW
A	Masterplan updated	04.03.22	REM	PW	PW

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Drawing Issue Status
FOR INFORMATION

STAG BREWERY, MORTLAKE
DELIVERY & SERVICING STRATEGY - PHASE 1
VEHICLE SWEPT PATH ANALYSIS FOR A 10m RIGID LORRY (MAINTENANCE ACCESS)

Client
RESELTON PROPERTIES

Date of 1st Issue: 18.01.2022	Designed: REM	Drawn: REM
A1 Scale: 1:500	Checked: PW	Approved: PW
Drawing Number: 38262/5520/23		Revision: B

Stantec
stantec.com/uk

LONDON
Tel: 020 3824 6600

Ship Lane scheme not prejudicing raising of road levels

Flood defense line. 6.7m AOD

Flood defense line. 6.7m AOD

Flood defense line. 6.7m AOD

Block 9 flood defense measures.

LEGEND

GENERAL

- Site Ownership Boundary
- Site Planning Application Boundary
- Flood Defence Line
- Minimum 4m Wide Clear Route for Maintenance Vehicle
- Existing Surface Level
- Proposed Surface Level
- Top of Wall Level
- Finished Floor Level (Internal)
- Stairs Up

rev	details	by	date
P00	Issue for Planning Submission	TH	24.01.2022

Notes

1.0 Do not scale from drawing, use figured dimensions only
1.1 All dimensions to be checked onsite
1.2 This drawing to be read in conjunction with all other Gillespies drawings and specifications

Site plan

0 5 10 25m

N

Project title
Stag Brewery Planning

Drawing title
Development Area 1 Flood Defence Plan

Drawing number
P10736-00-004-GIL-0116

Drawing Status: PLANNING
Revision: P00

Date	Scale	Drawn	Checked
24.01.2022	1:250 @ A0	TH	JG

Client
DARTMOUTH CAPITAL
Alameda House, 90-100 Sydney Street, London SW3 6NJ
P: 0207 629 0239

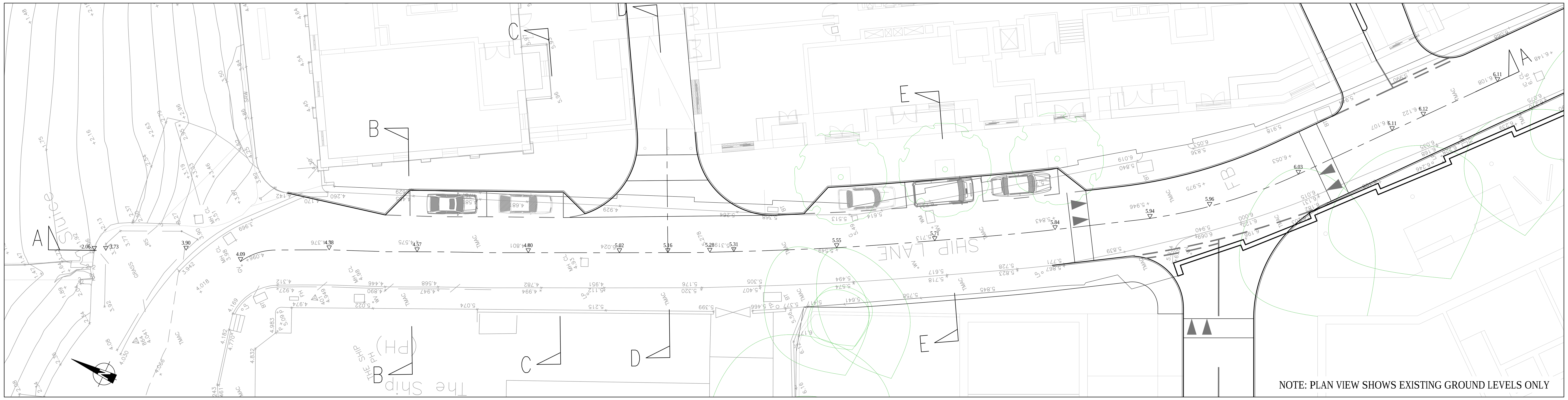
GILLESPIES
1 St John's Square, London EC1M 4DH
P 0207 2532929 F 0207 2533900 E design.london@gillespies.co.uk

\\lon-srv-01\Project Data\P10736-00-004 Stag Brewery Planning Application 2022\Drawings\01 Design\CAD\100 Series\P10736-00-004-GIL-0116 [Flood Defences].dwg

C. Ship Lane Future Raising Option

SECTION A A - FUTURE GROUND PROFILE (1:12 SLOPE)

SECTION A A - EXISTING GROUND PROFILE (CURRENT PLANNING APPLICATION)



SECTIONS A A TO E E - PLAN VIEW

Mark	Revision	Date	Drawn	Chkd	Appd
A	Labelling revised	07.01.19	REM	MB	MB

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Drawing Issue Status

FOR INFORMATION

STAG BREWERY, MORTLAKE
SHIP LANE
POSSIBLE GROUND PROFILES FOR FLOOD DEFENCE MEASURES (SHEET 1 OF 2)

Client

RESELTON PROPERTIES

Date of 1st Issue	Designed	Drawn
20.12.2018	REM	REM
A0 Scale	**Checked**	**Approved**
1:125	RAP	RAP

Drawing Number	Revision
38262/5501/097	A

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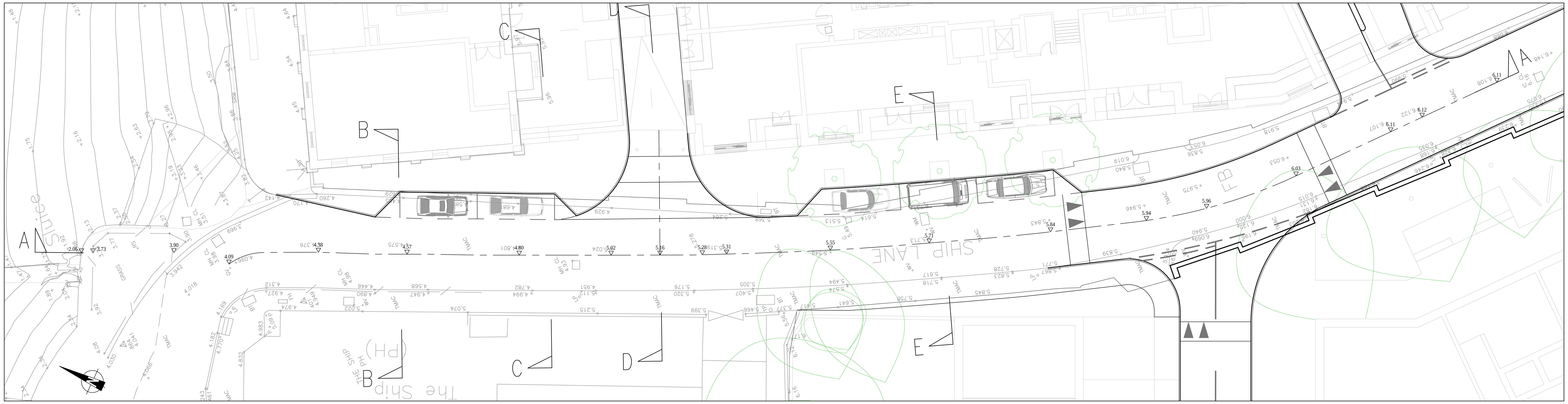

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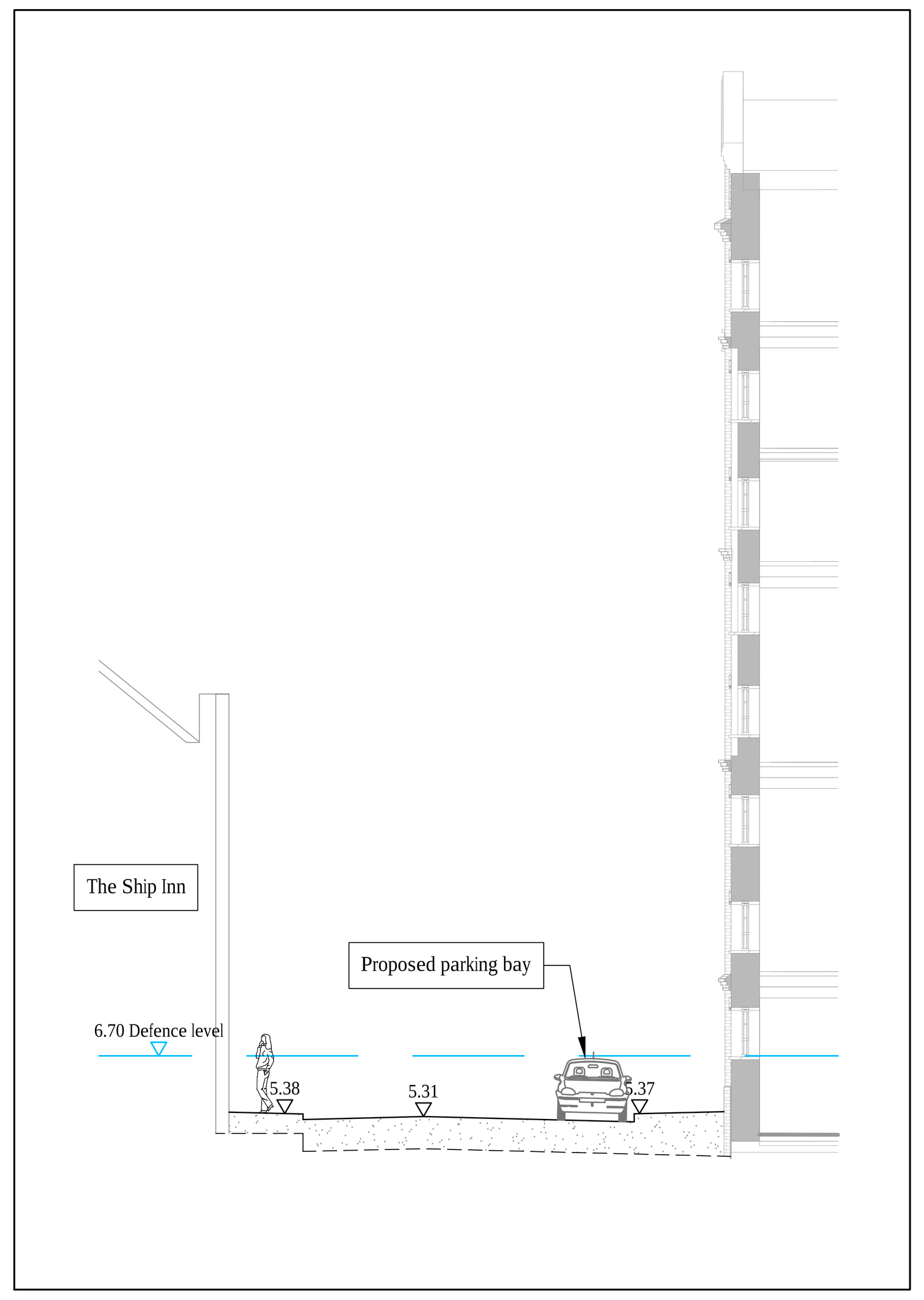
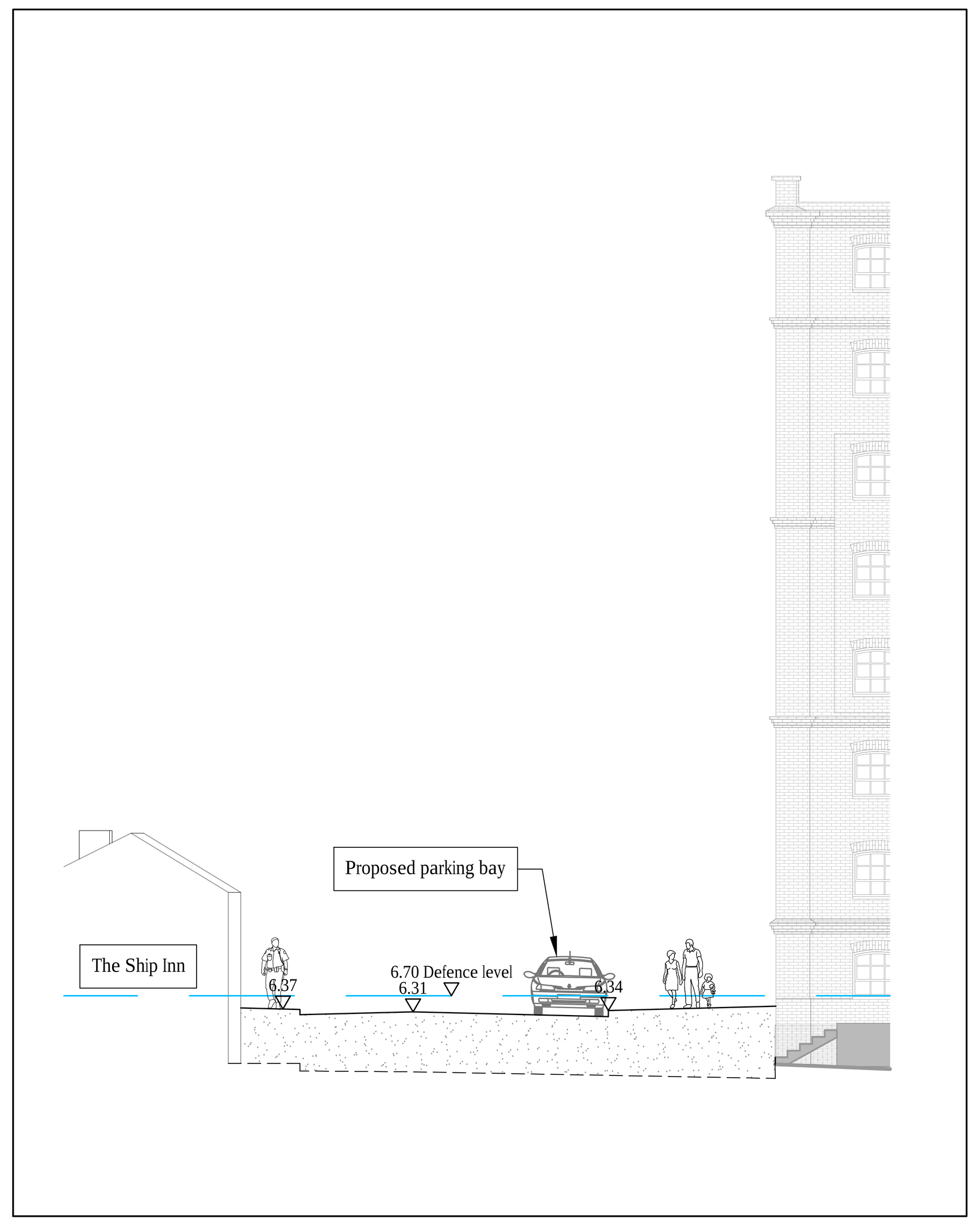
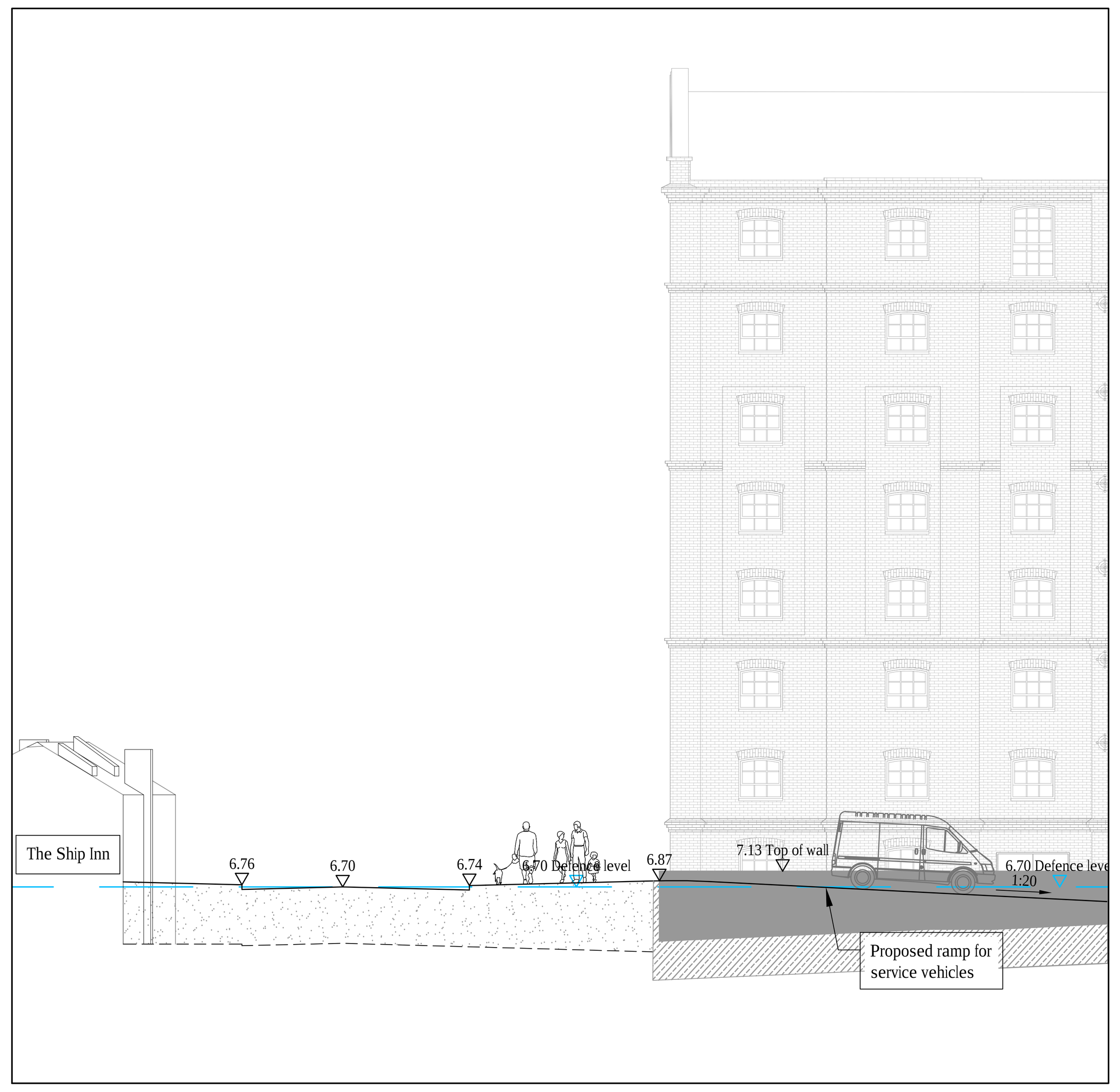


SECTION B B - FUTURE



SECTION C C - FUTURE



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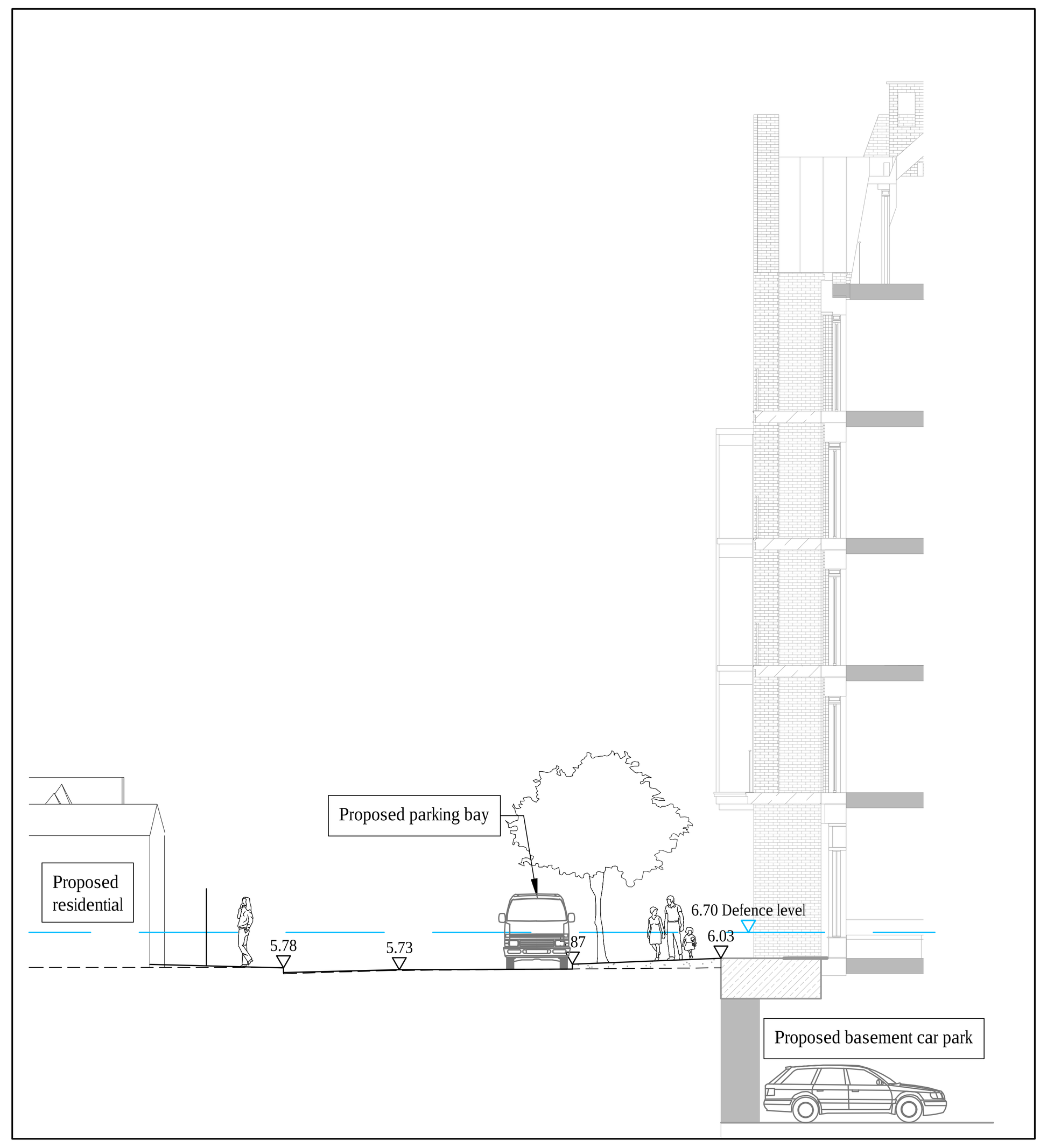
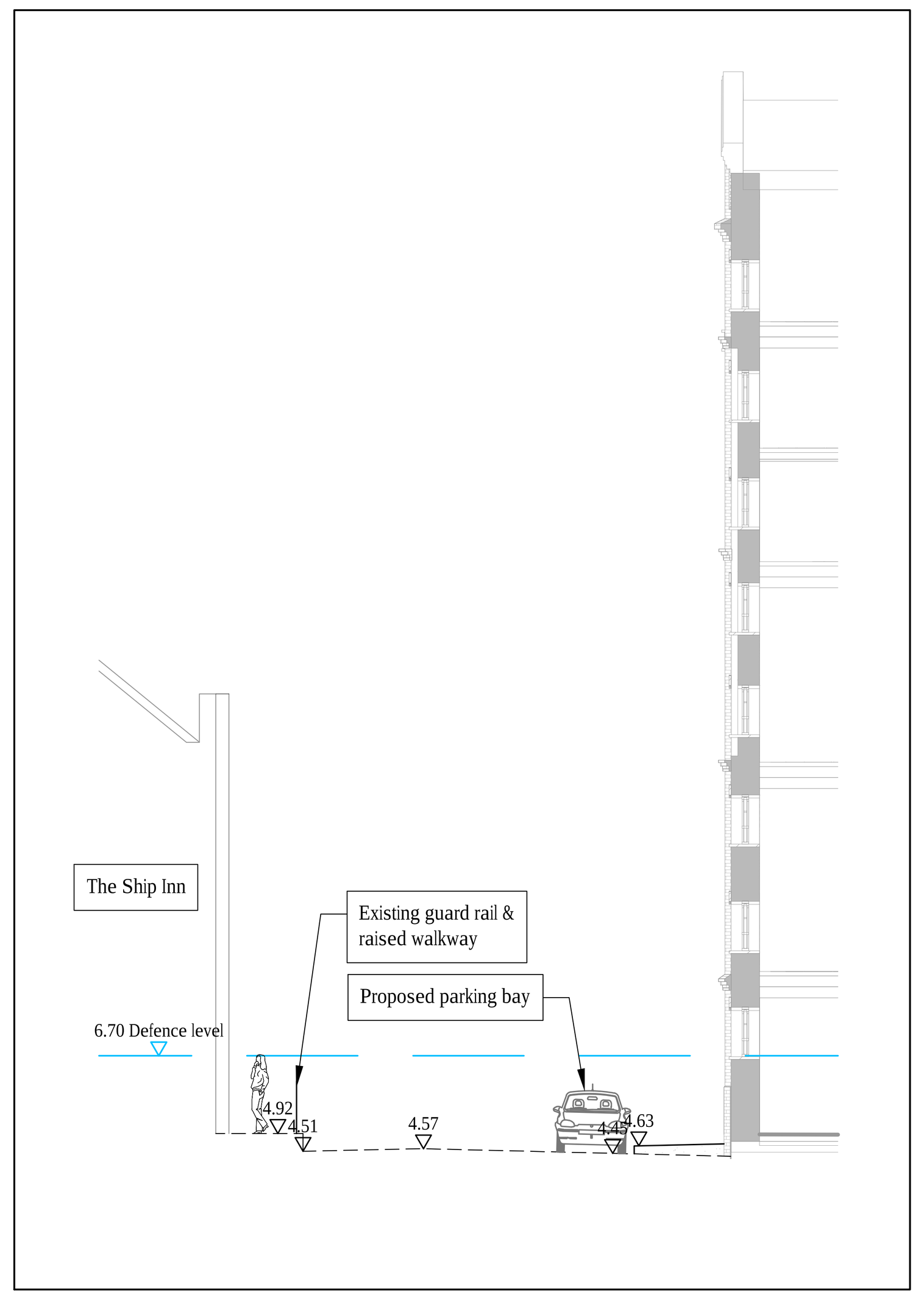
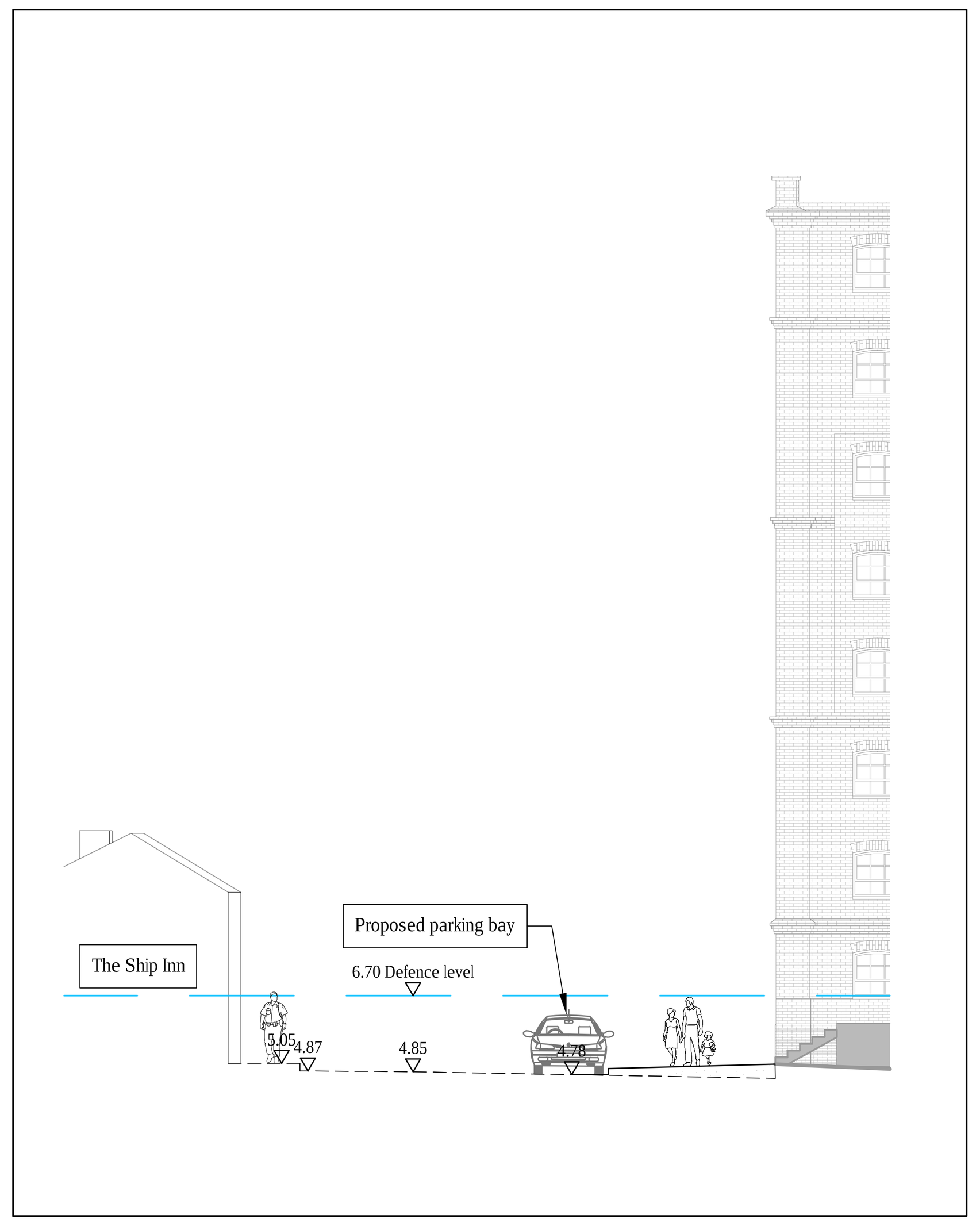


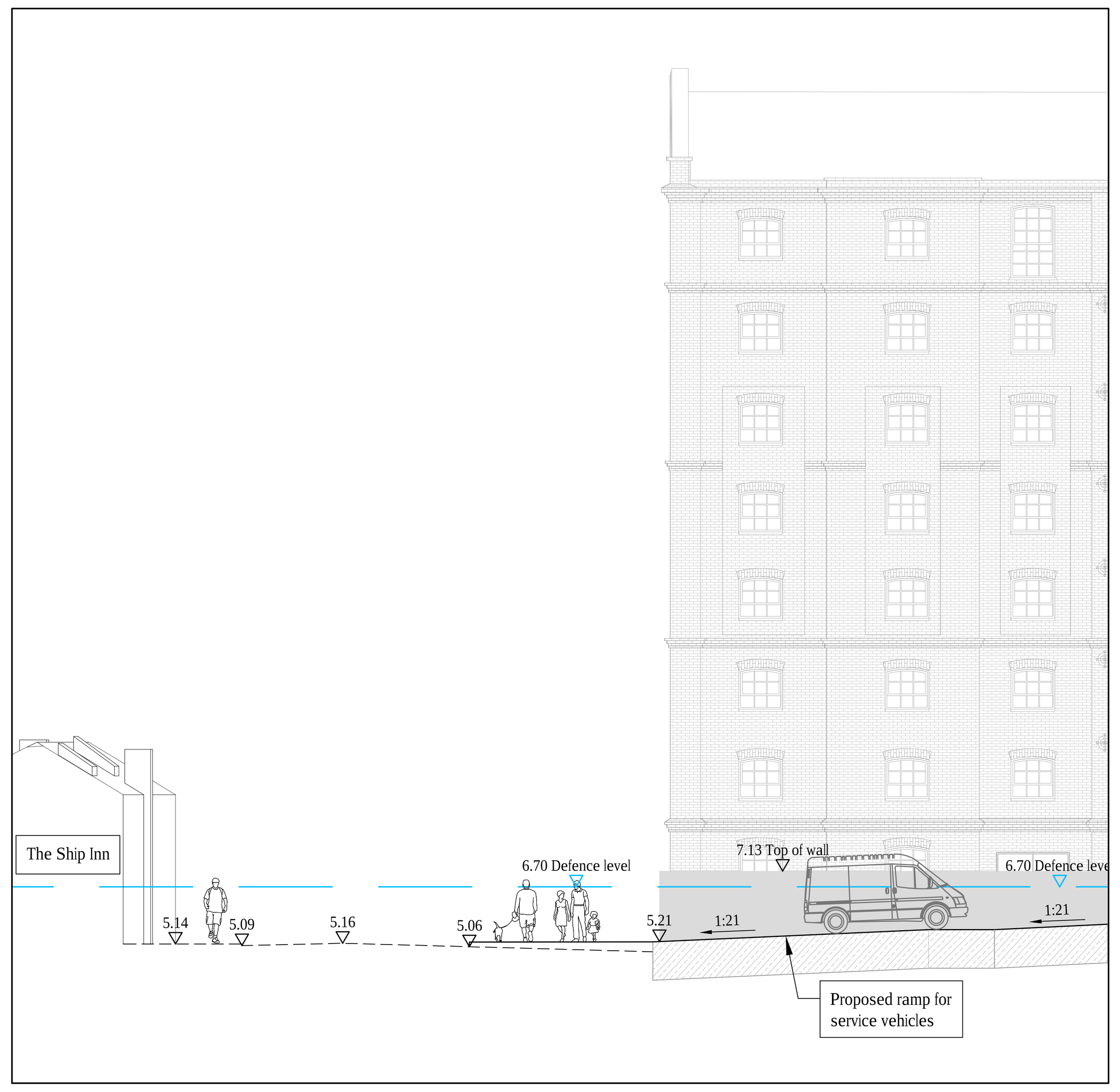
SECTION E E - FUTURE



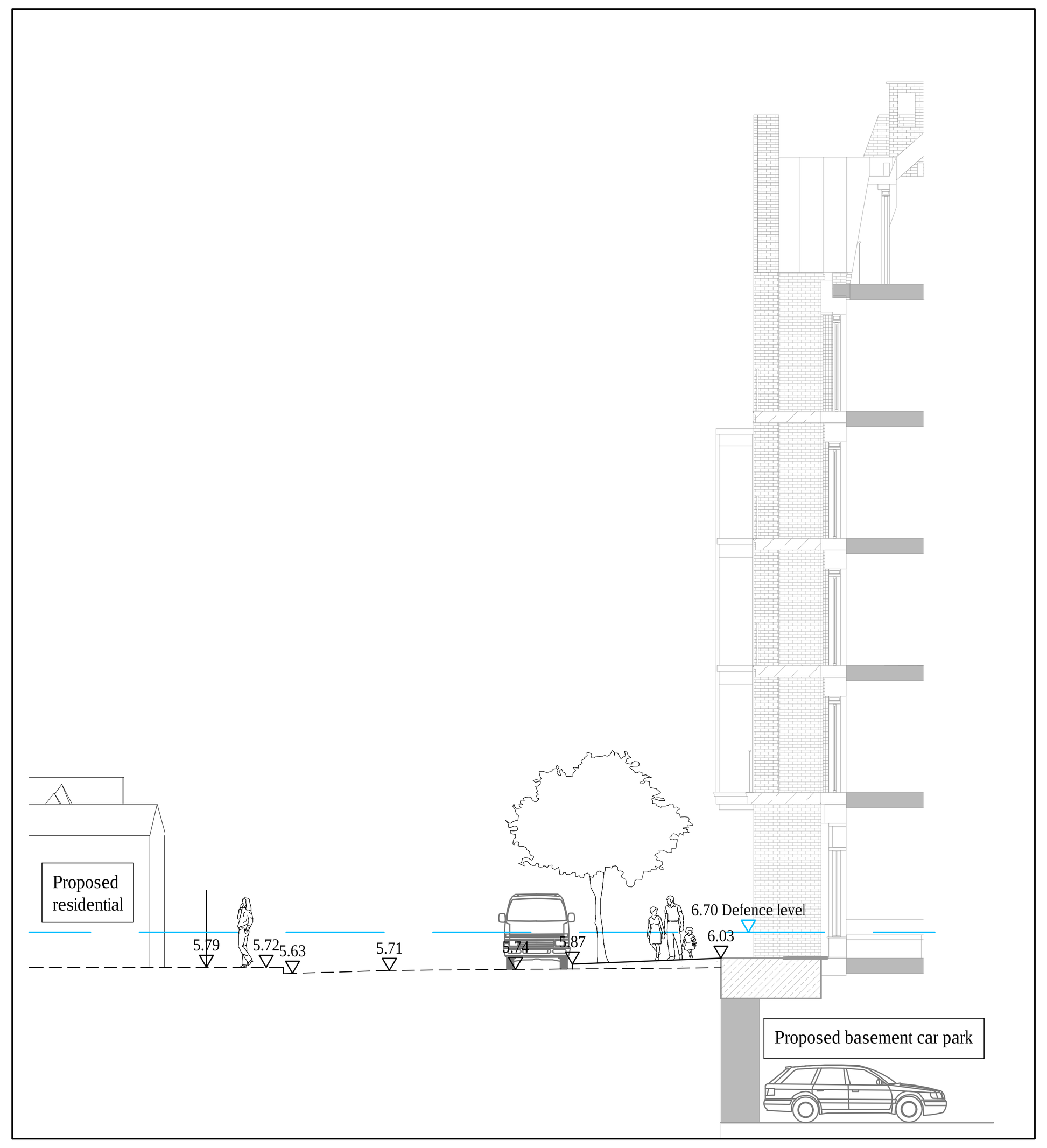
SECTION B B - EXISTING GROUND



SECTION C C - EXISTING GROUND



SECTION D D - EXISTING GROUND



SECTION E E - EXISTING GROUND

Mark	Revision	Date	Drawn	Chkd	Appd
A	Labelling revised	07.01.19	REM	MB	MB

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Drawing Issue Status

FOR INFORMATION

STAG BREWERY, MORTLAKE
SHIP LANE
POSSIBLE GROUND PROFILES FOR FLOOD DEFENCE MEASURES (SHEET 2 OF 2)

Client

RESELTON PROPERTIES

Date of 1st Issue	Designed	Drawn
20.12.2018	REM	REM
A0 Scale	**Checked**	**Approved**
1:125	RAP	RAP

Drawing Number: 38262/5501/098

Revision: A

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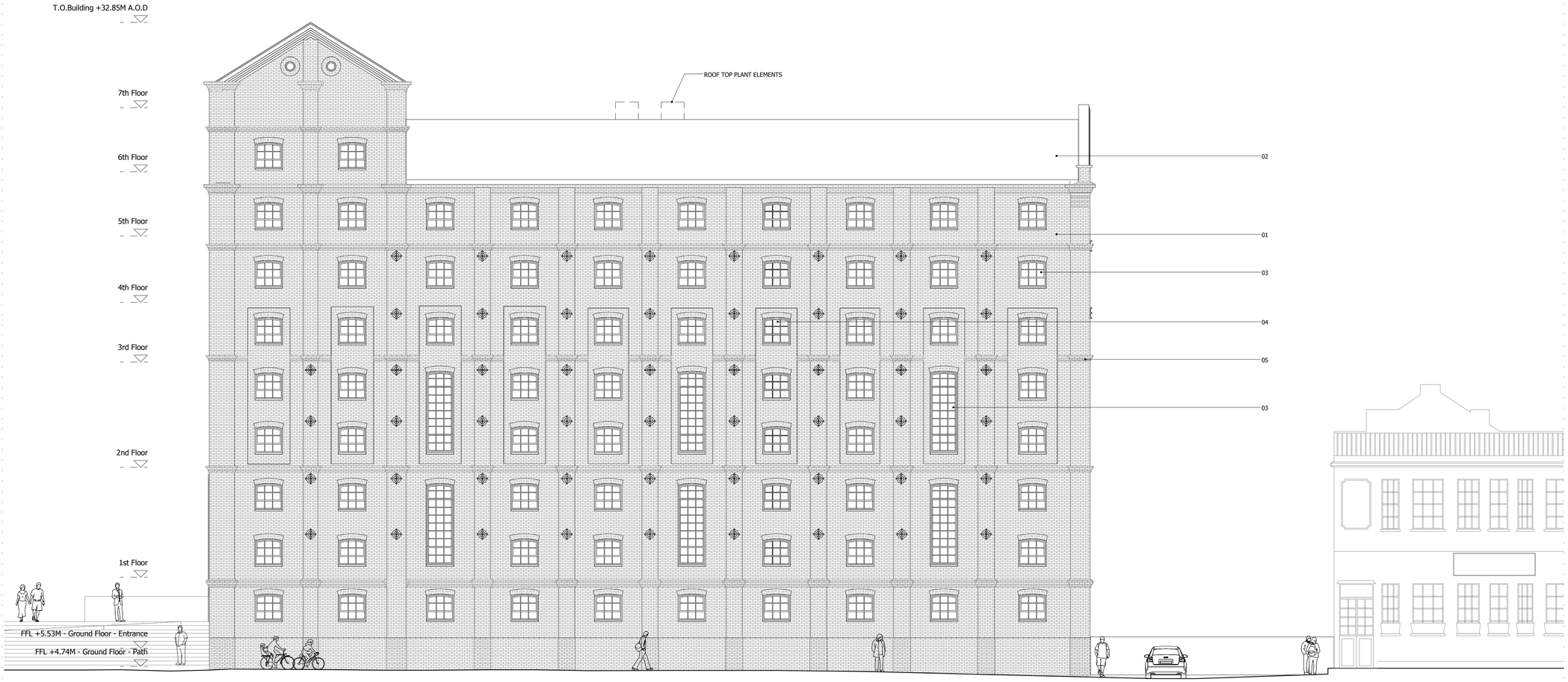
File Location: j:\38262 stag brewery, mortlake\5. drawings & models\cad\transport\38262-5501-97a to 98a.dwg

D. Maltings Window Sill Raising



NOTES:

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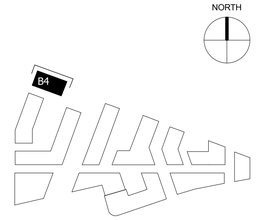


KEY

01. BRICK WALLS
02. SLATE CLAD ROOF
03. CRITTAL TYPE CLEAR GLAZING WITH GREY PPC FINISH
04. OBSCURE GLAZING
05. DECORATIVE FRIEZE
06. CURTAIN WALL
07. DOORS WITH CLEAR GLAZING (FRAME WITH GREY PPC FINISH)

Revision description	Date	Check	Rev
GLA SUBMISSION	27/04/20	BJ	C
DRAFT GLA SUBMISSION	24/01/20	KH	B
FINAL DRAFT PLANNING APPLICATION	21/10/19	KH	A
LEGAL REVIEW	13/09/19	KH	-

SQUIRE & PARTNERS

The Department Store
248 Ferndale Road London SW9 8FR
T: 020 7278 5555 F: 020 7239 0495

info@squireandpartners.com
www.squireandpartners.com

Project

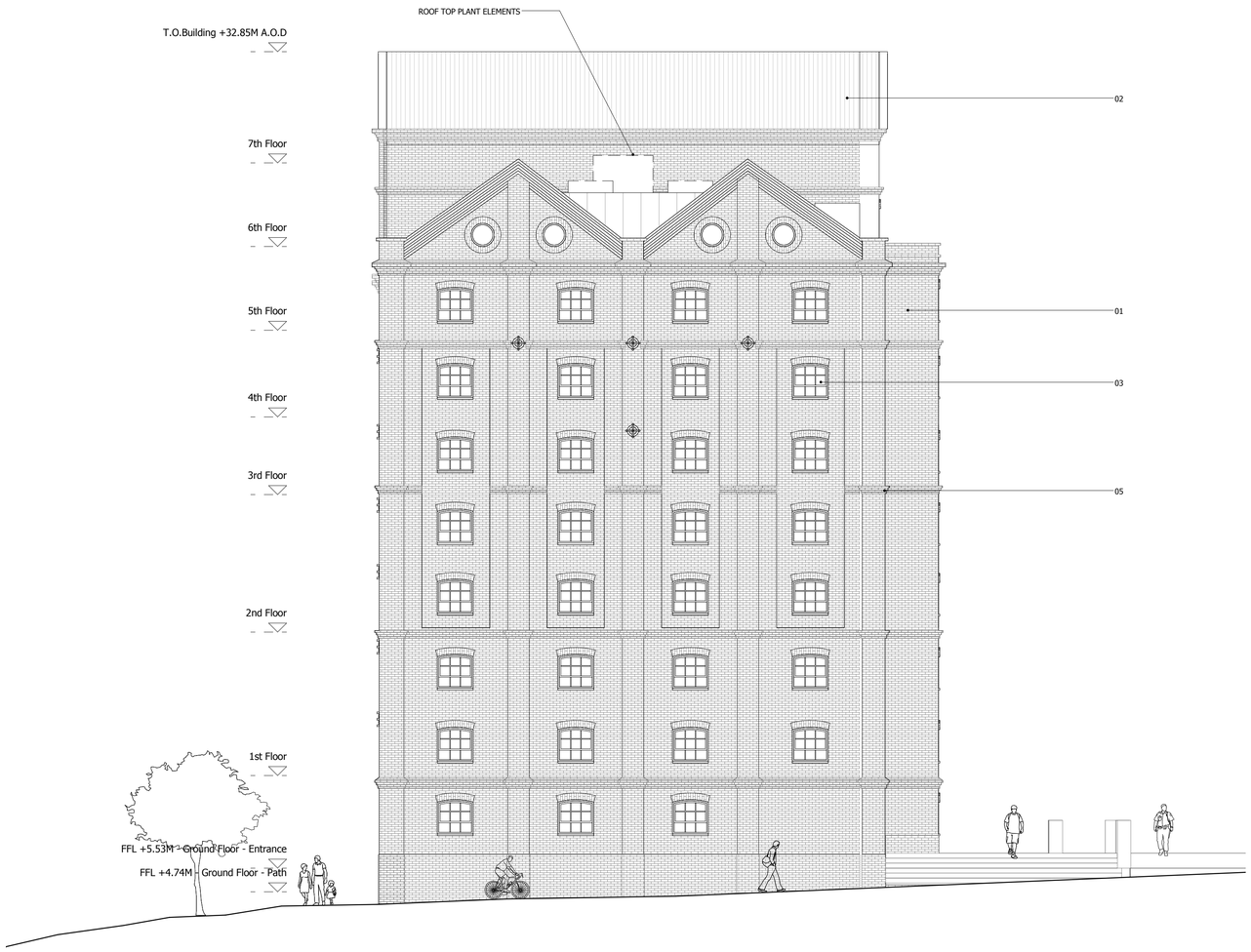
Stag Brewery
Richmond

Drawing

BUILDING 04 - PROPOSED NORTH ELEVATION

Drawn	Date	Scale
RKL	09/06/19	1 : 100 @ A1 1 : 200 @ A3

Job Number	Drawing number	Revision
18125	C645_B04_E_N_001	C



0 1 2 5 10 m

NOTES:

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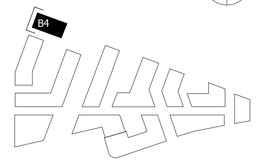
NORTH



KEY

01. BRICK WALLS
02. SLATE CLAD ROOF
03. CRITTAL TYPE CLEAR GLAZING WITH GREY PPC FINISH
04. OBSCURE GLAZING
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Revision description	Date	Check	Rev
GLA SUBMISSION	27/04/20	BJ	C
DRAFT GLA SUBMISSION	24/01/20	KH	B
FINAL DRAFT PLANNING APPLICATION	21/10/19	KH	A
LEGAL REVIEW	13/09/19	KH	-

SQUIRE & PARTNERS

The Department Store
248 Ferndale Road London SW9 8FR
T: 020 7278 5555 F: 020 7239 0495

info@squireandpartners.com
www.squireandpartners.com

Project

Stag Brewery
Richmond

Drawing

BUILDING 04 - PROPOSED WEST ELEVATION

Drawn	Date	Scale
RKL	09/06/19	1 : 100 @ A1 1 : 200 @ A3

Job Number	Drawing number	Revision
18125	C645_B04_E_W_002	C

E. Maltings Building Wall Assessment

Maltings Building- Wall Assessment

Stag Brewery

August 2017

Waterman Infrastructure & Environment Limited
Pickfords Wharf, Clink Street, London, SE1 9DG
www.watermangroup.com

Client Name:	Dartmouth Capital Advisors Ltd
Document Reference:	WIE10667-102-R-2-1-3
Project Number:	WIE10667

Quality Assurance – Approval Status

This document has been prepared and checked in accordance with
Waterman Group's IMS (BS EN ISO 9001: 2008, BS EN ISO 14001: 2004 and BS OHSAS 18001:2007)

Issue	Date	Prepared by	Checked by	Approved by
00	14/08/17	Vinnothan Balakumarasingham	Lazaros Fotiadis	Ali Karbassi

Comments

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Executive Summary

The purpose of this report is to present the assessment of the external walls of the Maltings building on the corner of a proposed development, adjacent to the River Thames, in Mortlake South West London. The walls were assessed against the actions applied by the River Thames water levels rising to the flood defence level currently predicted to occur in 2100.

Figure 1: Wall to be assessed and architectural proposal

The wall was assessed in accordance with Eurocode 6, BD21/01 and the latest architectural drawings which show the windows extending to ground level. A typical section was assessed against the actions of water levels rising and in each instance the element was considered to be one way spanning.

Standard	Bending	Shear
Eurocode 6	2.7	2.0
BD 21/01	2.2	1.9

Table 1: Assessment Results- Factors of Safety

The assessment showed the wall to have sufficient capacity to resist the increase in water level that occurs when the river rises to the 2100 flood defence levels (Table 1).

It should be noted that the assessment presented within this report is based on the assumptions stated in Section 2. Should these assumptions change then the report may have to be revised and reissued.

This report does not cover the capacity of the windows and the measures that would need to be put in place to support them once they have been extended to ground floor level.

1. Introduction

1.1 Project Background

A residential development is proposed on the site of the former Stag Brewery near Mortlake in South West London (Figure 2). A new river wall, constructed behind the existing river wall, is to be provided and this is to tie in with the corner of the listed Maltings building. Preliminary architectural drawings for the scheme can be found in Appendix A.

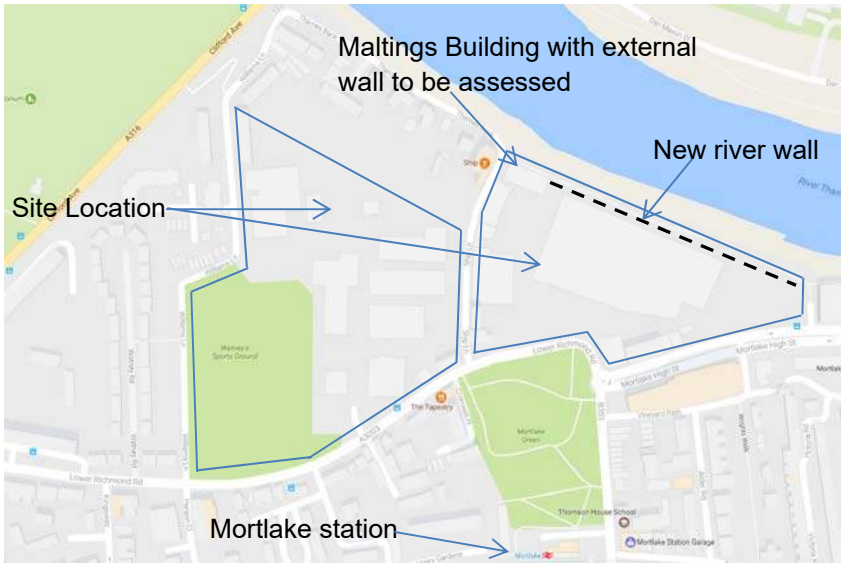


Figure 2: Site location

1.2 Report Purpose

The purpose of this report is to present the assessment of the external walls of the Maltings building on the corner of the development. The walls were assessed against the actions applied by the River Thames water levels rising to the flood defence level currently predicted to occur in 2100.

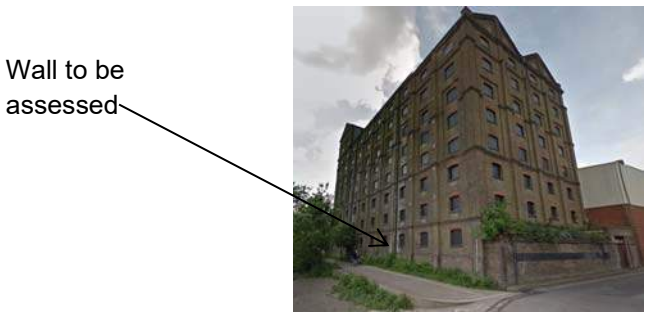


Figure 3: Wall to be assessed

The wall is to be assessed in accordance with Eurocode 6 and BD 21/01. The analysis method is described in Section 4 and a full set of the assessment calculations can be found in Appendix B.

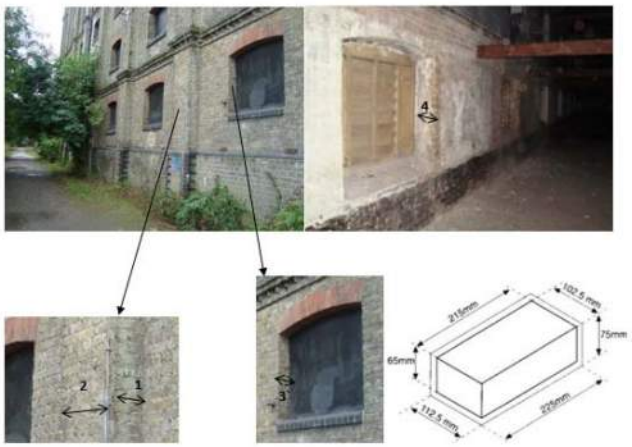
2. Assumptions

2.1 Geometric

Based on the available dimensions the wall measures 30m long and 25m high. Standard brick dimensions of 225mm x 105mm x 75mm shall be adopted.

Figure 4: Dimensions of wall to be assessed

2.1.1 Dimensions for Assessment



Based on standard brick dimensions:

1) 225mm
2) 788mm
3) 225mm
4) 225mm

Wall thickness = 3+4 = 225mm+225mm = 450mm (Therefore consider a 1000mm x 450mm section)

Column cross section = b x h = 2 x (1+3+4) = 788 x (225+225+225) = 788mm x 675mm

Figure 5: Assessment Dimensions

2.2 Material

The wall is constructed out of clay bricks and the photos taken on site suggest that the wall is four bricks thick. In the absence of site specific core holes the following material properties were adopted.

Material Property	Value
Masonry Group [1]	Group 1
Mortar Type [2]	M4 – General purpose mortar
Class of execution control [3]	2
Unit Weight	22.5 kN/m^3
Characteristic shear strength of masonry[4], f_{vk}	0.2 N/mm^2
Characteristic flexural strength of masonry having a plane of failure parallel to the bed joints[5], f_{xk1}	0.5 N/mm^2
Characteristic flexural strength of masonry having a plane of failure perpendicular to the bed joints[5], f_{xk2}	1.5 N/mm^2
Compressive strength of mortar [6]	4 N/mm^2
γ_m [7] Bending	2.7
γ_m [7] Shear	2.5

Table 2: Material properties adopted in the assessment

Notes

1) In accordance with Table 3.1, EN 1996-1-1:2005

2) In accordance with clause 3.2.3.1, EN 1996-1-1:2005

3) Adopt this class in absence of construction information.

4) Table NA.5, NA to BS EN 1996-1-1:2005

5) Table NA.6, NA to BS EN 1996-1-1:2005

6) Table NA.2, NA to BS EN 1996-1-1:2005

7) Material factors adopted Table NA.1 of NA to BS EN 1996-1-1:2005

2.3 Loading

The primary purpose of this report is to assess the wall for the effects that result from the increase in river level. As such this action was considered to act on the bottom 2m of the wall. This is derived from the flood defence level rising to 6.70m AOD in the year 2100 and the minimum existing ground level being taken at 4.70m based on available survey information. The building is currently subject to wind loads so this has been applied to the section of the column that is not subject to water pressures.

The loading calculations can be found in Appendix B.

3. References

3.1 Standards and Technical Documents

Reference	Title
BS EN 1996-1-1:2005	Eurocode 6 — Design of masonry structures — Part 1-1: General rules for reinforced and unreinforced masonry structures
WIE10667-100-R-2-1-4-DO	Stag Brewery, Mortlake Flood Risk and Drainage Briefing Note
BS EN 1991-1-4:2005	Eurocode 1: Actions on structures — Part 1-4: General actions — Wind Actions
BS 5628-1: 2005	Code of practice for the use of masonry — Part 1: Structural use of unreinforced masonry
-	Manual for the design of plain masonry in building structures to Eurocode 6, The Institution of Structural Engineers
-	How to design masonry structures to Eurocode 6, Roberts and Brooker.
BD 21/01	The Assessment of Highway Bridges and Structures
BS 5628-1: 2005	Code of practice for the use of masonry — Part 1: Structural use of unreinforced masonry

Table 3: Standards and Technical Documents Referenced

3.2 Drawings

Drawing Number	Drawing Title
WIE-SA-04-1000	Thames River Wall Condition Survey Defect Plan
WIE-SA-04-1004	Thames River Wall Condition Survey Defect Elevation Sketch

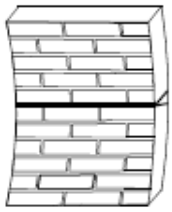
Table 4: Drawings Referenced

4. Assessment

4.1 Methodology

Figure 6: Dimensions of wall and architectural intent for the scheme.

The current architectural intent for the scheme is to extend the ground floor windows down to ground level. As such in the event of the 2100 storm event the water will apply a pressure to the wall panels and columns either side of the windows. The assessment was carried out by considering a 'T-shaped' column section comprising the column and the wall panels either side. The section was assumed to have a fixed support at foundation level and a pinned prop at first floor level.



a) plane of failure parallel to bed joints, f_{xk1}

Figure 7: Planes of failure considered (Figure 3.1 EN 1996-1-1:2005)

The section is to be considered as one way spanning with the critical plane of failure being parallel to the bed joints (Figure 7). The assessment was carried out in accordance with Eurocode 6 and BD21/01. In both instances the wall was treated as being subject to a permanent water pressure load arising from the water rising to the flood defence level.

The assessment calculations can be found in Appendix B. However, the assessment does not consider any of the support arrangements that may be required for the windows to resist the applied water pressure.

4.2 Results

Standard	Bending	Shear
Eurocode 6	2.7	2.0
BD 21/01	2.2	1.9

Table 5: Assessment Results – Factors of safety

5. Conclusion

The purpose of this report was to assess the river facing wall of the maltings building on the corner of the proposed development site at Mortlake. The assessment shows the wall to have sufficient capacity to resist the increase in water level that arises when the river rises to the 2100 flood defence levels.

It should be noted that the assessment presented within this report is based on the assumptions stated in Section 2. Should these assumptions change then the report may have to be revised and reissued.

This report does not cover the capacity of the windows and the measures that would need to be put in place to support them once they have been extended to ground floor level.

APPENDICES

A. Reference Drawings