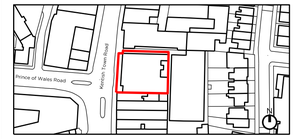
Site Plan @ 1: 2000



Proposed Key:

- Proposed structure.
- Proposed pavement lights.
- Proposed paving slabs.
- Proposed sedum/green roof
- Proposed bricks.
- Proposed attenuated louvers.

Proposed Notes:

01	Portland stone cladding, Please refer to P_14 & _15 Proposed Front Material Elevations
02	Brickwork, Please refer to P_14 & _15 Proposed Front Material Elevations
03	Double-glazed, anodised aluminium framed doors to glass curtain walling
04	Double-glazed, anodised aluminium, restricted tilt, framed windows to elevation,
05	Louvered and vented screen & doors as shown in powdered coated aluminium, Acoustically attenuated as required
06	Rebated brickwork
07	Double-glazed, anodised aluminium framed doors, Juliet balcony and associated metal balustrade as shown in elevation,
08	Basement structure, Please refer to structural design and BIA (PormerBrook)
09	Residential core not accessible at this level
10	Dashed lines denote indicative 01/B1 office layouts & mix
11	LIft overrun
12	Fixed trough planter
13	Metal balustrade, P_14 & _15 Proposed Front Material Elevations
14	Access gate
15	Sedum roof
16	Proposed Bat Boxes
17	Double-glazed, anodised aluminium framed doors to elevation
18	Double-glazed, anodised aluminium, restricted tilt, framed window
19	Flat Roof
20	Timber privacy screen
21	Double-glazed, anodised aluminium sliding doors
22	Proposed canvas awnings
23	Acoustically attenuated plant enclosure
24	Vent
25	Refer to Sustainability Statement by Cundall for size & quantity of PV's

Rev A — 04.03.16 — Issued for Planning

PLANNING

Project No. 15052

Client: AHIG Ltd

Date: March 2016

Scale: 1:100 @ A1/1:200 @ A3

Project: 152-156 Kentish Town Road

Drawing Title: Proposed Second Floor Plan

Drawing No. P_04 | Rev. A

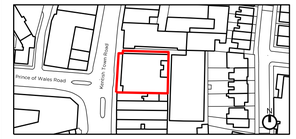
Drawn: AT | Approved: MW | Signed: -

Marek Wojciechowski Architects Ltd.

66-68 Margaret Street W1W 8SR T. 020 7580 9336 www.mw-a.co.uk

0 0.5m 2m 4m 6m 8m 10m

Site Plan @ 1: 2000



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06	Rebated brickwork
07	Doubleglazed, anodised aluminium framed doors, Juliet balcony and associated metal balustrade as shown in elevation,
08	Basement structure, Please refer to structural design and BIA (FormerBrook)
09	Residential core not accessible at this level
10	Dashed lines denote Indicative D1/B1 office layouts & mix
11	Lift overrun
12	Fixed trough planter
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24	Vent
25	Refer to Sustainability Statement by Cundall for size & quantity of PV's

Rev		
A	04.03.16	Issued for Planning

PLANNING

Project No.	15052
Client	AHIG Ltd
Date	March 2016
Scale	1:100 @ A1/1:200 @ A3
Project	152-156 Kentish Town Road
Drawing Title	Proposed First Floor Plan
Drawing No.	P_03
Rev.	A
Drawn	AT
Approved	MW
Signed	-

Marek Wojciechowski Architects Ltd.

66-68 Margaret Street W1W 8SR T. 020 7580 9336 www.mw-a.co.uk

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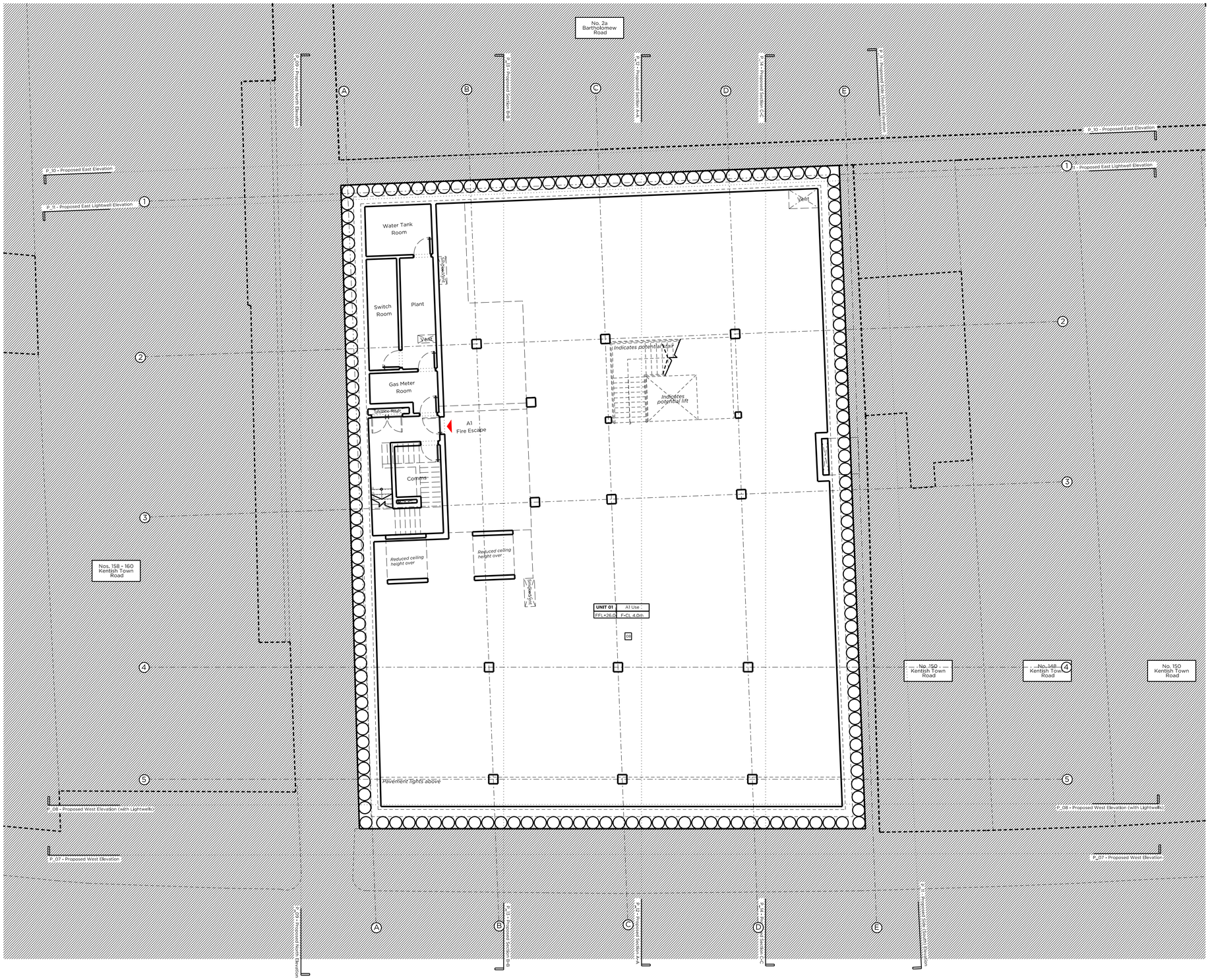
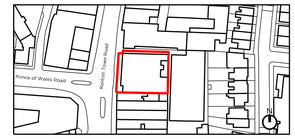


Site Plan @ 1: 2000



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06	Rebated brickwork
07	Doubleglazed, anodised aluminium framed doors, Juliet balcony and associated metal balustrade as shown in elevation.
08	Basement structure, Please refer to structural design and BIA (PalmerBrooke)
09	Residential core not accessible at this level
10	Dashed lines denote Indicative 01/B1 office layouts & mix
11	Lift overrun
12	Fixed trough planter
13	Metal balustrade, P_14 & _15 Proposed Front Material Elevations
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15	Sedum roof
16	Proposed Bat Boxes
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21	Double-glazed, anodised aluminium sliding doors
22	Proposed canvas awnings
23	Acoustically attenuated plant enclosure
24	Vent
25	Refer to Sustainability Statement by Cundall for size & quantity of PV's

Rev		
A	04.03.16	Issued for Planning

PLANNING

Project No.	15052
Client	AHIG Ltd
Date	March 2016
Scale	1:100 @ A1/1:200 @ A3
Project	152-156 Kentish Town Road
Drawing Title:	Proposed Lower Ground Floor Plan
Drawing No.	P_02
Rev.	A
Drawn	AT
Approved	MW
Signed	-

Marek Wojciechowski Architects Ltd.

66-68 Margaret Street W1W 8SR T. 020 7580 9336 www.mw-a.co.uk

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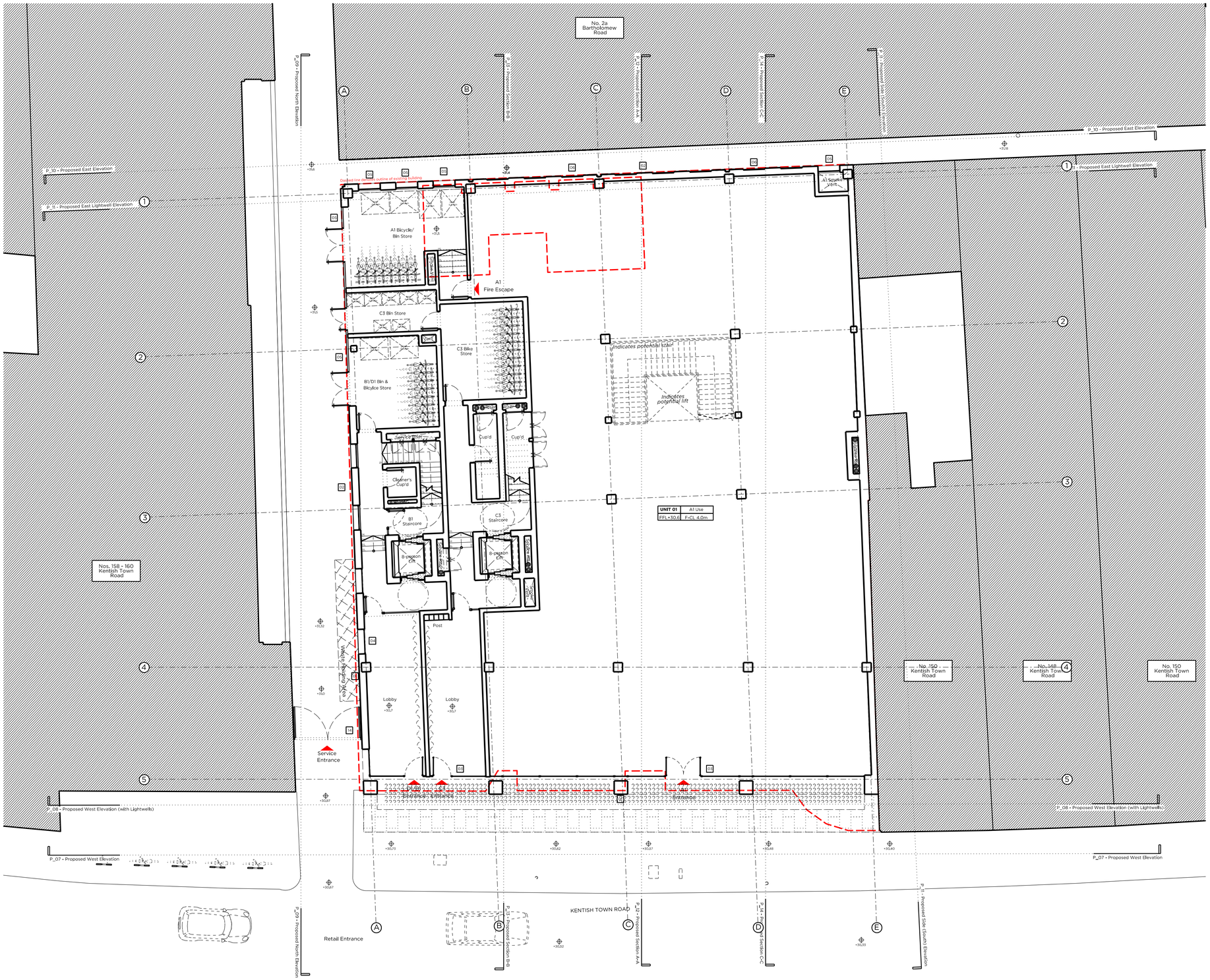
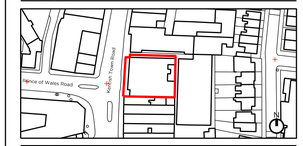


Site Plan @ 1: 2000



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07	Doubleglazed, anodised aluminium framed doors, Juliet balcony and associated metal balustrade as shown in elevation,
08	Basement structure, Please refer to structural design and BIA (PormerBrooke)
09	Residential core not accessible at this level
10	Dashed lines denote indicative D1/B1 office layouts & mix
11	LRI overrun
12	Fixed trough planter
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21	Double-glazed, anodised aluminium sliding doors
22	Proposed canvas awnings
23	Acoustically attenuated plant enclosure
24	Vent
25	Refer to Sustainability Statement by Cundall for size & quantity of PV's

Rev A — 04.03.16 — Issued for Planning

PLANNING

Project No.	15052
Client	AHIG Ltd
Date	March 2016
Scale	1:100 @ A1/1:200 @ A3
Project	152-156 Kentish Town Road
Drawing Title:	Proposed Ground Floor Plan
Drawing No.	P_01
Rev.	A
Drawn	AT
Approved	MW
Signed	-

Marek Wojciechowski Architects Ltd.

66-68 Margaret Street W1W 8SR T. 020 7580 9336 www.mw-a.co.uk

0 0.5m 2m 4m 6m 8m 10m

APPENDIX C

DRAINAGE STRATEGY

Key:

- PROPOSED SURFACE WATER DRAIN
- EXISTING COMBINED SEWER
- EXISTING THAMES WATER STORM RELIEF SEWER.
- PROPOSED RODDING EYE
- PROPOSED ACO DRAINAGE CHANNEL
- PROPOSED SURFACE WATER PPIC
- FG PROPOSED INTERNAL GULLY
- G PROPOSED SURFACE WATER GULLY

FOUL WATER STRATEGY

1. DISCHARGE POINT OF INTERNAL GULLIES WITHIN BIN STORES TBC.

SURFACE WATER STRATEGY

1. RWP'S TO BE CONFIRMED BY ARCHITECT AND PUBLIC HEALTH ENGINEER.
2. SURFACE WATER TO DRAIN AT HIGH LEVEL WHERE EVER POSSIBLE AND SHOULD MAKE USE OF EXISTING CONNECTIONS POINTS.
3. NO INCREASE IN IMPERMEABLE AREA.
4. PROPOSED GREENROOF WILL PROVIDE A REDUCTION IN RUN-OFF AND A LEVEL OF ATTENUATION.

parmarbrook

2nd Floor, 345 Old Street, Shoreditch, London EC1V 9LL

www.parmarbrook.com
Tel: +44 (0) 2078393999
e-mail: general@parmarbrook.com

GENERAL NOTES:

1. LOCATION OF ALL NEW FWP POINTS ARE INDICATIVE AND SHOULD BE CONFIRMED BY OTHERS.
2. CONNECTION TO PUBLIC SEWERS SUBJECT TO SECTION 106 APPLICATION.
3. ALL CONNECTIONS NOT CONNECTING INTO CHAMBER TO HAVE ABOVE GROUND ACCESS POINTS.
4. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER ENGINEERING DRAWINGS AND CALCULATIONS ASSOCIATED WITH THIS PROJECT.
5. ALL ADOPTABLE DRAINAGE WORKS ARE TO BE CARRIED OUT TO THE REQUIREMENTS AND FULL SATISFACTION OF THAMES WATER SERVICES LTD.
6. ALL BUILDING DRAINAGE TO BE INSTALLED AND TESTED IN COMPLIANCE WITH THE 'BUILDING REGULATIONS 2000 DRAINAGE AND WASTE DISPOSAL APPROVED DOCUMENT H 2002 EDITION'.
7. INSPECTION CHAMBERS AND MANHOLES IN BUILDINGS TO HAVE MECHANICALLY FIXED AIRTIGHT COVERS UNLESS THE DRAIN ITSELF HAS WATERTIGHT ACCESS COVERS.
8. ALL ABOVE GROUND DRAINAGE TO INCORPORATE RODDING ACCESS FACILITIES.
9. ALL EXPOSED DRAINAGE WITHIN THE BUILDING FOOTPRINT TO BE INSTALLED IN ACCORDANCE WITH THE M&E SPECIFICATIONS AND RECOMMENDATIONS.
10. ALL PIPEWORK TO BE 100MMØ CLAY UNLESS STATED OTHERWISE.

REV	DATE	DESCRIPTION	BY
A	16.04.16	ISSUED FOR DRAINAGE STRATEGY	MG

AMENDMENTS

Project:
152-156
KENTISH TOWN ROAD

Title:
PROPOSED BELOW GROUND DRAINAGE STRATEGY
GROUND FLOOR

Client:
MHA LONDON

Architect:
MAREK WOJCIECHOWSKI ARCHITECTS

FOR INFORMATION

Designed:	JD	Drawn:	JD
Checked:	MG	Date:	03.02.2016
Project No:	1599	Scale @ A1:	1:100
Drawing No:	SK002	Revision:	A

Key:

- PROPOSED FOUL WATER DRAIN
- PROPOSED RISING MAIN
- EXISTING COMBINED SEWER
- EXISTING THAMES WATER STORM RELIEF SEWER.
- FWP — INDICATIVE FOUL WATER PIPE LOCATIONS. TBC BY OTHERS.
- PC 1 — PROPOSED FOUL WATER PUMP
- F1 — PROPOSED IN-SITU RECTANGULAR MANHOLE CHAMBER

FOUL WATER STRATEGY

1. FWP'S TO BE CONFIRMED BY ARCHITECT AND PUBLIC HEALTH ENGINEER.
2. ABOVE GROUND DRAINAGE TO BE ROUTED AT HIGH LEVEL TO EXISTING CONNECTION WHERE POSSIBLE.
3. PUMP TO DISCHARGE AT HIGH LEVEL VIA RISING MAIN TO EXISTING DISCHARGE POINT.
4. DISCHARGE POINT TO BE CONFIRMED ONCE CCTV SURVEY HAS BEEN COMPLETED.
5. CAVITY DRAINAGE TO BE SPECIFIED BY OTHERS.

SURFACE WATER STRATEGY

1. RWP'S TO BE CONFIRMED BY ARCHITECT AND PUBLIC HEALTH ENGINEER.
2. SURFACE WATER TO DRAIN AT HIGH LEVEL WHERE EVER POSSIBLE AND SHOULD MAKE USE OF EXISTING CONNECTIONS POINTS.
3. NO INCREASE IN IMPERMEABLE AREA.
4. PROPOSED GREENROOF WILL PROVIDE A REDUCTION IN RUN-OFF AND A LEVEL OF ATTENUATION.

parmarbrook

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e-mail: general@parmarbrook.com

GENERAL NOTES:

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3. ALL CONNECTIONS NOT CONNECTING INTO CHAMBER TO HAVE ABOVE GROUND ACCESS POINTS.
4. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER ENGINEERING DRAWINGS AND CALCULATIONS ASSOCIATED WITH THIS PROJECT.
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7. INSPECTION CHAMBERS AND MANHOLES IN BUILDINGS TO HAVE MECHANICALLY FIXED AIRTIGHT COVERS UNLESS THE DRAIN ITSELF HAS WATERTIGHT ACCESS COVERS.
8. ALL ABOVE GROUND DRAINAGE TO INCORPORATE RODDING ACCESS FACILITIES.
9. ALL EXPOSED DRAINAGE WITHIN THE BUILDING FOOTPRINT TO BE INSTALLED IN ACCORDANCE WITH THE M&E SPECIFICATIONS AND RECOMMENDATIONS.
10. ALL PIPEWORK TO BE 100MMØ CAST IRON UNLESS STATED OTHERWISE.

REV	DATE	DESCRIPTION	BY
A	18.04.16	ISSUED FOR DRAINAGE STRATEGY	MG

AMENDMENTS

Project:
152-156
KENTISH TOWN ROAD

Title:
PROPOSED BELOW GROUND DRAINAGE STRATEGY
LOWER GROUND FLOOR

Client:
AHIG LTD

Architect:
MAREK WOJCIECHOWSKI ARCHITECTS

FOR INFORMATION

Designed:	JD	Drawn:	JD
Checked:	MG	Date:	02.02.2016
Project No:	1599	Scale @ A1:	1:100
Drawing No:	SK001	Revision:	A

APPENDIX D

MICRODRAINAGE SURFACE WATER MODELLING CALCULATIONS

Existing Network Details for Storm

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	k (mm)	HYD SECT	DIA (mm)
1.000	15.000	0.375	40.0	0.045	5.00	0.600	o	100
1.001	15.000	0.375	40.0	0.045	0.00	0.600	o	150

PN	US/MH Name	US/CL (m)	US/IL (m)	US C.Depth (m)	DS/CL (m)	DS/IL (m)	DS C.Depth (m)	Ctrl	US/MH (mm)
1.000	1	30.804	29.604	1.100	30.804	29.229	1.475		1200
1.001	2	30.804	29.179	1.475	30.500	28.804	1.546		1200

Free Flowing Outfall Details for Storm

Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D,L (mm)	W (mm)
1.001		30.500	28.804	0.000	0	0

Simulation Criteria for Storm

Volumetric Runoff Coeff	0.750	Additional Flow - % of Total Flow	0.000
Areal Reduction Factor	1.000	MADD Factor * 10m³/ha Storage	2.000
Hot Start (mins)	0	Inlet Coeffiecient	0.800
Hot Start Level (mm)	0	Flow per Person per Day (l/per/day)	0.000
Manhole Headloss Coeff (Global)	0.500	Run Time (mins)	60
Foul Sewage per hectare (l/s)	0.000	Output Interval (mins)	1

Number of Input Hydrographs	0	Number of Storage Structures	0
Number of Online Controls	0	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model	FSR	Profile Type	Summer
Return Period (years)	1	Cv (Summer)	0.750
Region	England and Wales	Cv (Winter)	0.840
M5-60 (mm)	20.600	Storm Duration (mins)	30
Ratio R	0.437		

1 year Return Period Summary of Critical Results by Maximum Outflow (Rank 1) for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	0
Number of Online Controls	0	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model		FSR	Ratio R 0.437
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	20.600	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0	DVD Status	OFF
Analysis Timestep	Fine	Inertia Status	OFF
DTS Status	ON		

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 0

PN	Storm	Return Period	Climate Change	First X Surcharge	First Y Flood	First Z Overflow	O/F Act.	Lvl Exc.
1.000	15 Winter	1	0%	30/15 Summer				
1.001	15 Winter	1	0%	30/15 Summer				

PN	US/MH Name	Water Level (m)	Surch'ed Depth (m)	Flooded Volume (m³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)	Status
1.000	1	29.668	-0.036	0.000	0.72	0.0	6.6	OK
1.001	2	29.252	-0.077	0.000	0.47	0.0	12.2	OK

30 year Return Period Summary of Critical Results by Maximum Outflow (Rank 1) for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	0
Number of Online Controls	0	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model	FSR	Ratio R	0.437
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	20.600	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0	DVD Status	OFF
Analysis Timestep	Fine	Inertia Status	OFF
DTS Status	ON		

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 0

PN	Storm	Return Period	Climate Change	First X Surcharge	First Y Flood	First Z Overflow	O/F Act.	Lvl Exc.
1.000	15 Winter	30	0%	30/15 Summer				
1.001	15 Winter	30	0%	30/15 Summer				

PN	US/MH Name	Water Level (m)	Surch'ed Depth (m)	Flooded Volume (m³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)	Status
1.000	1	30.154	0.450	0.000	1.46	0.0	13.3	SURCHARGED
1.001	2	29.394	0.065	0.000	1.08	0.0	28.1	SURCHARGED

100 year Return Period Summary of Critical Results by Maximum Outflow (Rank 1) for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	0
Number of Online Controls	0	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model	FSR	Ratio R	0.437
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	20.600	Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0	DVD Status	OFF
Analysis Timestep	Fine	Inertia Status	OFF
DTS Status	ON		

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 0

PN	Storm	Return Period	Climate Change	First X Surcharge	First Y Flood	First Z Overflow	O/F Act.	Lvl Exc.
1.000	15 Winter	100	0%	30/15 Summer				
1.001	15 Winter	100	0%	30/15 Summer				

PN	US/MH Name	Water Level (m)	Surch'ed Depth (m)	Flooded Volume (m³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)	Status
1.000	1	30.651	0.947	0.000	1.76	0.0	16.1	FLOOD RISK
1.001	2	29.588	0.259	0.000	1.30	0.0	33.8	SURCHARGED

Summary of Results for 100 year Return Period (+30%)

Half Drain Time : 53 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
15 min Summer	29.577	0.677	0.0	4.9	4.9	19.5	O K
30 min Summer	29.712	0.812	0.0	4.9	4.9	23.4	O K
60 min Summer	29.745	0.845	0.0	4.9	4.9	24.3	O K
120 min Summer	29.685	0.785	0.0	4.9	4.9	22.6	O K
180 min Summer	29.600	0.700	0.0	4.9	4.9	20.2	O K
240 min Summer	29.500	0.600	0.0	4.9	4.9	17.3	O K
360 min Summer	29.329	0.429	0.0	4.9	4.9	12.4	O K
480 min Summer	29.207	0.307	0.0	4.9	4.9	8.8	O K
600 min Summer	29.125	0.225	0.0	4.9	4.9	6.5	O K
720 min Summer	29.073	0.173	0.0	4.7	4.7	5.0	O K
960 min Summer	29.021	0.121	0.0	4.3	4.3	3.5	O K
1440 min Summer	28.991	0.091	0.0	3.2	3.2	2.6	O K
2160 min Summer	28.972	0.072	0.0	2.3	2.3	2.1	O K
2880 min Summer	28.962	0.062	0.0	1.8	1.8	1.8	O K
4320 min Summer	28.951	0.051	0.0	1.3	1.3	1.5	O K
5760 min Summer	28.945	0.045	0.0	1.0	1.0	1.3	O K
7200 min Summer	28.940	0.040	0.0	0.8	0.8	1.2	O K
8640 min Summer	28.937	0.037	0.0	0.7	0.7	1.1	O K
10080 min Summer	28.935	0.035	0.0	0.6	0.6	1.0	O K
15 min Winter	29.670	0.770	0.0	4.9	4.9	22.2	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
15 min Summer	138.946	0.0	23.4	20
30 min Summer	89.724	0.0	30.3	32
60 min Summer	55.084	0.0	37.2	52
120 min Summer	32.658	0.0	44.1	86
180 min Summer	23.742	0.0	48.1	122
240 min Summer	18.831	0.0	50.8	154
360 min Summer	13.573	0.0	55.0	214
480 min Summer	10.754	0.0	58.1	272
600 min Summer	8.971	0.0	60.5	328
720 min Summer	7.733	0.0	62.6	382
960 min Summer	6.113	0.0	66.0	494
1440 min Summer	4.384	0.0	71.0	736
2160 min Summer	3.139	0.0	76.3	1100
2880 min Summer	2.475	0.0	80.2	1460
4320 min Summer	1.768	0.0	85.9	2160
5760 min Summer	1.392	0.0	90.2	2872
7200 min Summer	1.155	0.0	93.6	3672
8640 min Summer	0.992	0.0	96.4	4344
10080 min Summer	0.872	0.0	98.9	5120
15 min Winter	138.946	0.0	26.2	20

Summary of Results for 100 year Return Period (+30%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
30 min Winter	29.828	0.928	0.0	4.9	4.9	26.7	O K
60 min Winter	29.874	0.974	0.0	4.9	4.9	28.0	O K
120 min Winter	29.789	0.889	0.0	4.9	4.9	25.6	O K
180 min Winter	29.667	0.767	0.0	4.9	4.9	22.1	O K
240 min Winter	29.522	0.622	0.0	4.9	4.9	17.9	O K
360 min Winter	29.262	0.362	0.0	4.9	4.9	10.4	O K
480 min Winter	29.113	0.213	0.0	4.9	4.9	6.1	O K
600 min Winter	29.039	0.139	0.0	4.5	4.5	4.0	O K
720 min Winter	29.014	0.114	0.0	4.0	4.0	3.3	O K
960 min Winter	28.992	0.092	0.0	3.2	3.2	2.6	O K
1440 min Winter	28.973	0.073	0.0	2.3	2.3	2.1	O K
2160 min Winter	28.959	0.059	0.0	1.7	1.7	1.7	O K
2880 min Winter	28.952	0.052	0.0	1.3	1.3	1.5	O K
4320 min Winter	28.943	0.043	0.0	0.9	0.9	1.2	O K
5760 min Winter	28.938	0.038	0.0	0.8	0.8	1.1	O K
7200 min Winter	28.934	0.034	0.0	0.6	0.6	1.0	O K
8640 min Winter	28.931	0.031	0.0	0.5	0.5	0.9	O K
10080 min Winter	28.929	0.029	0.0	0.5	0.5	0.8	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)
30 min Winter	89.724	0.0	33.9	32
60 min Winter	55.084	0.0	41.6	58
120 min Winter	32.658	0.0	49.4	92
180 min Winter	23.742	0.0	53.8	132
240 min Winter	18.831	0.0	56.9	168
360 min Winter	13.573	0.0	61.6	224
480 min Winter	10.754	0.0	65.0	276
600 min Winter	8.971	0.0	67.8	324
720 min Winter	7.733	0.0	70.1	376
960 min Winter	6.113	0.0	73.9	492
1440 min Winter	4.384	0.0	79.5	734
2160 min Winter	3.139	0.0	85.4	1100
2880 min Winter	2.475	0.0	89.8	1468
4320 min Winter	1.768	0.0	96.2	2140
5760 min Winter	1.392	0.0	101.0	2872
7200 min Winter	1.155	0.0	104.8	3672
8640 min Winter	0.992	0.0	108.0	4264
10080 min Winter	0.872	0.0	110.7	4984

Model Details

Storage is Online Cover Level (m) 31.000

Cellular Storage Structure

Invert Level (m) 28.900 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.96
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	30.0	0.0	1.300	0.0	0.0
0.100	30.0	0.0	1.400	0.0	0.0
0.200	30.0	0.0	1.500	0.0	0.0
0.300	30.0	0.0	1.600	0.0	0.0
0.400	30.0	0.0	1.700	0.0	0.0
0.500	30.0	0.0	1.800	0.0	0.0
0.600	30.0	0.0	1.900	0.0	0.0
0.700	30.0	0.0	2.000	0.0	0.0
0.800	30.0	0.0	2.100	0.0	0.0
0.900	30.0	0.0	2.200	0.0	0.0
1.000	30.0	0.0	2.300	0.0	0.0
1.100	0.0	0.0	2.400	0.0	0.0
1.200	0.0	0.0	2.500	0.0	0.0

Hydro-Brake Optimum® Outflow Control

Unit Reference	MD-SHE-0105-5000-1000-5000
Design Head (m)	1.000
Design Flow (l/s)	5.0
Flush-Flo™	Calculated
Objective	Minimise upstream storage
Diameter (mm)	105
Invert Level (m)	28.900
Minimum Outlet Pipe Diameter (mm)	150
Suggested Manhole Diameter (mm)	1200

Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	1.000	5.0
Flush-Flo™	0.295	4.9
Kick-Flo®	0.636	4.0
Mean Flow over Head Range	-	4.3

The hydrological calculations have been based on the Head/Discharge relationship for the Hydro-Brake Optimum® as specified. Should another type of control device other than a Hydro-Brake Optimum® be utilised then these storage routing calculations will be invalidated

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.100	3.6	0.300	4.9	0.500	4.7	0.800	4.5
0.200	4.8	0.400	4.9	0.600	4.3	1.000	5.0

Hydro-Brake Optimum® Outflow Control

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
1.200	5.4	2.400	7.5	5.000	10.6	8.000	13.2
1.400	5.8	2.600	7.8	5.500	11.1	8.500	13.6
1.600	6.2	3.000	8.3	6.000	11.5	9.000	14.0
1.800	6.5	3.500	8.9	6.500	12.0	9.500	14.4
2.000	6.9	4.000	9.5	7.000	12.4		
2.200	7.2	4.500	10.1	7.500	12.8		