Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
237	**Points of Interest - Recreational and Environmental** Name: Playground Location: Outer Circle, NW1 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A12NE (W)	440	8	528194 183435
237	**Points of Interest - Recreational and Environmental** Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A12NE (W)	500	8	528133 183425
238	**Points of Interest - Recreational and Environmental** Name: Playground Location: Mary Terrace, NW1 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A14NW (NE)	450	8	529044 183571
238	**Points of Interest - Recreational and Environmental** Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A14NW (NE)	451	8	529046 183568
239	**Points of Interest - Recreational and Environmental** Name: Playground Location: NW1 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A9NW (SE)	510	8	529008 183017
239	**Points of Interest - Recreational and Environmental** Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A9NW (SE)	515	8	529016 183018
239	**Points of Interest - Recreational and Environmental** Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A9NW (SE)	560	8	529063 183003
239	**Points of Interest - Recreational and Environmental** Name: Playground Location: NW1 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A9NW (SE)	569	8	529069 182997
239	**Points of Interest - Recreational and Environmental** Name: Playground Location: Stanhope Street, NW1 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A9NW (SE)	570	8	529069 182995
240	**Points of Interest - Recreational and Environmental** Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A8NE (SE)	569	8	528935 182883
240	**Points of Interest - Recreational and Environmental** Name: Playground Location: Cumberland Market, NW1 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A8NE (SE)	569	8	528935 182883
241	**Points of Interest - Recreational and Environmental** Name: Playground Location: Harrington Square, NW1 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A14SW (E)	600	8	529231 183270

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
241	**Points of Interest - Recreational and Environmental** Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A14SW (E)	601	8	529232 183268
242	**Points of Interest - Recreational and Environmental** Name: Play Area Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A14NW (NE)	623	8	529172 183698
242	**Points of Interest - Recreational and Environmental** Name: Play Area Location: Bayham Street, NW1 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A14NW (NE)	625	8	529174 183699
242	**Points of Interest - Recreational and Environmental** Name: Play Area Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A14NW (NE)	629	8	529207 183644
242	**Points of Interest - Recreational and Environmental** Name: Play Area Location: Bayham Street, NW1 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A14NW (NE)	630	8	529208 183644
243	**Points of Interest - Recreational and Environmental** Name: Playground Location: Cumberland Market, NW1 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A8NE (SE)	649	8	528923 182786
244	**Points of Interest - Recreational and Environmental** Name: Play Area Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A18SW (N)	673	8	528468 184030
244	**Points of Interest - Recreational and Environmental** Name: Play Area Location: Gilbeys Yard, NW1 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A18SW (N)	675	8	528469 184032
245	**Points of Interest - Recreational and Environmental** Name: Playground Location: Barnby Street, NW1 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A14SW (SE)	684	8	529261 183083
245	**Points of Interest - Recreational and Environmental** Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A14SW (SE)	697	8	529269 183071
246	**Points of Interest - Recreational and Environmental** Name: Playground Location: Bayham Place, NW1 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A14NE (E)	687	8	529316 183491
246	**Points of Interest - Recreational and Environmental** Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A14NE (E)	689	8	529318 183489

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
246	**Points of Interest - Recreational and Environmental** Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A14NE (E)	714	8	529324 183572
246	**Points of Interest - Recreational and Environmental** Name: Playground Location: Bayham Place, NW1 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A14NE (E)	714	8	529324 183573
247	**Points of Interest - Recreational and Environmental** Name: Play Area Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A19SW (NE)	691	8	529220 183750
247	**Points of Interest - Recreational and Environmental** Name: Play Area Location: Camden Street, NW1 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A19SW (NE)	692	8	529220 183751
248	**Points of Interest - Recreational and Environmental** Name: Regent's Park Location: London, NW1 Category: Recreational Class Code: Municipal Parks And Gardens Positional Accuracy: Positioned to address or location	A12SE (W)	707	8	527971 183120
249	**Points of Interest - Recreational and Environmental** Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A19SW (NE)	716	8	529163 183864
249	**Points of Interest - Recreational and Environmental** Name: Playground Location: Camden Street, NW1 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A19SW (NE)	716	8	529163 183864
250	**Points of Interest - Recreational and Environmental** Name: Play Area Location: NW1 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A14SE (E)	752	8	529372 183197
250	**Points of Interest - Recreational and Environmental** Name: Playground Location: Cranleigh Street, NW1 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A14SE (E)	790	8	529414 183213
250	**Points of Interest - Recreational and Environmental** Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A14SE (E)	791	8	529415 183213
251	**Points of Interest - Recreational and Environmental** Name: Play Area Location: NW1 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A9NW (SE)	761	8	529184 182838
252	**Points of Interest - Recreational and Environmental** Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A12NW (W)	772	8	527902 183631

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
252	**Points of Interest - Recreational and Environmental** Name: Playground Location: Prince Albert Road, NW8 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A12NW (W)	772	8	527902 183631
253	**Points of Interest - Recreational and Environmental** Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A9NE (SE)	789	8	529328 182983
253	**Points of Interest - Recreational and Environmental** Name: Playground Location: Barnby Street, NW1 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A9NE (SE)	790	8	529328 182982
254	**Points of Interest - Recreational and Environmental** Name: Regent's Park Location: London, NW1 Category: Recreational Class Code: Municipal Parks And Gardens Positional Accuracy: Positioned to address or location	A12SW (W)	800	8	527870 183126
255	**Points of Interest - Recreational and Environmental** Name: Playground Location: William Road, NW1 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A9SW (SE)	882	8	529007 182568
255	**Points of Interest - Recreational and Environmental** Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A9SW (SE)	884	8	529008 182566
256	**Points of Interest - Recreational and Environmental** Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A18NE (N)	891	8	528719 184265
256	**Points of Interest - Recreational and Environmental** Name: Playground Location: Castlehaven Road, NW1 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A18NE (N)	891	8	528719 184265
257	**Points of Interest - Recreational and Environmental** Name: Play Area Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A18NW (N)	906	8	528320 184227
257	**Points of Interest - Recreational and Environmental** Name: Play Area Location: Juniper Crescent, NW1 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A18NW (N)	906	8	528318 184227
257	**Points of Interest - Recreational and Environmental** Name: Play Area Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A17NE (N)	935	8	528293 184248
257	**Points of Interest - Recreational and Environmental** Name: Play Area Location: Juniper Crescent, NW1 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A17NE (N)	936	8	528293 184249

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
258	**Points of Interest - Recreational and Environmental** Name: Play Area Location: NW1 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A17NE (NW)	926	8	528013 184066
259	**Points of Interest - Recreational and Environmental** Name: Playground Location: Hampstead Road, NW1 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A9SW (SE)	938	8	529274 182679
260	**Points of Interest - Recreational and Environmental** Name: Play Area Location: NW1 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A8SE (S)	959	8	528945 182461
261	**Points of Interest - Recreational and Environmental** Name: Playground Location: Outer Circle, NW1 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A8SW (S)	984	8	528551 182387
261	**Points of Interest - Recreational and Environmental** Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A8SW (S)	987	8	528551 182384
262	**Points of Interest - Recreational and Environmental** Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A9NE (SE)	989	8	529373 182706
263	**Underground Electrical Cables** Unique Feature Identifier: 10008501 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 29th July 2020	A13NW (NW)	100	9	528546 183431
264	**Underground Electrical Cables** Unique Feature Identifier: 10008502 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 29th July 2020	A13NW (NW)	100	9	528547 183430
265	**Underground Electrical Cables** Unique Feature Identifier: 10005834 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 26th October 2017	A12NE (NW)	469	9	528263 183669
266	**Underground Electrical Cables** Unique Feature Identifier: 10006988 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 26th October 2017	A12NE (NW)	470	9	528262 183669
267	**Underground Electrical Cables** Unique Feature Identifier: 10005833 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 26th October 2017	A17SE (NW)	498	9	528271 183721

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
268	**Underground Electrical Cables** Unique Feature Identifier: 10006619 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 26th October 2017	A17SE (NW)	542	9	528285 183794
269	**Underground Electrical Cables** Unique Feature Identifier: 10006661 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 26th October 2017	A18SW (N)	657	9	528504 184022
270	**Underground Electrical Cables** Unique Feature Identifier: 10006670 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 26th October 2017	A12NE (W)	660	9	528009 183598
271	**Underground Electrical Cables** Unique Feature Identifier: 10006621 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 26th October 2017	A18SW (N)	671	9	528560 184044
272	**Underground Electrical Cables** Unique Feature Identifier: 10006662 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 26th October 2017	A12NW (W)	724	9	527931 183564
273	**Underground Electrical Cables** Unique Feature Identifier: 10006663 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 26th October 2017	A18NE (N)	806	9	528804 184167
274	**Underground Electrical Cables** Unique Feature Identifier: 10006656 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 26th October 2017	A19NW (NE)	815	9	529021 184097
275	**Underground Electrical Cables** Unique Feature Identifier: 10008503 Cable Status: Commissioned Cable Type: Not Supplied Record Last Updated: 25th August 2020	A19NW (NE)	841	9	529137 184055
276	**Underground Electrical Cables** Unique Feature Identifier: 10008505 Cable Status: Commissioned Cable Type: Not Supplied Record Last Updated: 25th August 2020	A19NW (NE)	842	9	529137 184056
277	**Underground Electrical Cables** Unique Feature Identifier: 10008504 Cable Status: Commissioned Cable Type: Not Supplied Record Last Updated: 25th August 2020	A19NW (NE)	842	9	529137 184055

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
278	**Underground Electrical Cables** Unique Feature Identifier: 10008328 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 26th October 2017	A19NW (NE)	882	9	529111 184122
279	**Underground Electrical Cables** Unique Feature Identifier: 10006622 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 26th October 2017	A19NW (NE)	894	9	529174 184093
280	**Underground Electrical Cables** Unique Feature Identifier: 10008027 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 27th October 2017	A12NW (W)	896	9	527752 183550
281	**Underground Electrical Cables** Unique Feature Identifier: 10005733 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 27th October 2017	A12NW (W)	933	9	527723 183594
282	**Underground Electrical Cables** Unique Feature Identifier: 10008141 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 27th October 2017	A12NW (W)	955	9	527679 183462
283	**Underground Electrical Cables** Unique Feature Identifier: 10008290 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 26th October 2017	A12NW (W)	961	9	527672 183452
284	**Underground Electrical Cables** Unique Feature Identifier: 10008222 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 26th October 2017	A12NW (W)	988	9	527645 183445
285	**Underground Electrical Cables** Unique Feature Identifier: 10006210 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 27th October 2017	A12NW (W)	989	9	527682 183657

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices		
London Borough of Southwark - Pollution Control Unit	April 2013	Annual Rolling Update
London Borough of Wandsworth - Environmental Health Department	January 2013	Annual Rolling Update
London Borough of Barnet - Environmental Health Department	January 2015	Annual Rolling Update
Environment Agency - Head Office	June 2020	Annually
London Borough of Camden - Pollution Projects Team	March 2013	Annual Rolling Update
Royal Borough of Kensington And Chelsea - Environmental Services	May 2014	Annual Rolling Update
London Borough of Lambeth - Environmental Health Department	November 2014	Annual Rolling Update
City of London - Environmental Health Department	October 2014	Annual Rolling Update
London Borough of Haringey - Planning and Environmental Health	October 2014	Annual Rolling Update
London Borough of Tower Hamlets - Environmental Health Department	October 2014	Annual Rolling Update
Westminster City Council - Environmental Health Department	October 2014	Annual Rolling Update
London Borough of Hackney - Environmental Health Department	October 2017	Annual Rolling Update
London Borough of Hammersmith And Fulham - Environmental Health Department	September 2013	Annual Rolling Update
London Borough of Brent - Environmental Health Department	September 2014	Annual Rolling Update
London Borough of Islington - Public Protection	September 2017	Annual Rolling Update
Discharge Consents		
Environment Agency - Thames Region	January 2021	Quarterly
Enforcement and Prohibition Notices		
Environment Agency - Thames Region	March 2013	Annual Rolling Update
Integrated Pollution Controls		
Environment Agency - Thames Region	October 2008	Variable
Integrated Pollution Prevention And Control		
Environment Agency - South East Region - Kent & South London Area	January 2021	Quarterly
Environment Agency - South East Region - North East Thames Area	January 2021	Quarterly
Environment Agency - Thames Region	January 2021	Quarterly
Local Authority Integrated Pollution Prevention And Control		
London Borough of Barnet - Environmental Health Department	April 2013	Variable
London Borough of Southwark - Environmental Health Department	April 2014	Variable
City of London - Environmental Health Department	August 2014	Variable
London Borough of Wandsworth - Environmental Health Department	August 2014	Variable
London Borough of Islington - Environmental Health Department	January 2015	Variable
London Borough of Haringey - Planning and Environmental Health	June 2014	Variable
London Borough of Hammersmith And Fulham - Environmental Health Department	March 2014	Variable
London Borough of Hackney - Environmental Health Department	March 2015	Variable
London Borough of Brent - Environmental Health Department	March 2016	Variable
London Borough of Lambeth - Environmental Health Department	May 2016	Variable
Westminster City Council - Environmental Health Department	November 2015	Variable
London Borough of Camden - Pollution Projects Team	October 2014	Variable
London Borough of Tower Hamlets - Environmental Health Department	October 2014	Variable
London Port Health Authority - Environmental Services	October 2014	Variable
Royal Borough of Kensington And Chelsea - Environmental Health Department	September 2014	Variable

Agency & Hydrological	Version	Update Cycle
Local Authority Pollution Prevention and Controls		
London Borough of Southwark - Environmental Health Department	April 2014	Annual Rolling Update
London Borough of Wandsworth - Environmental Health Department	August 2014	Annual Rolling Update
City of London - Environmental Health Department	August 2014	Not Applicable
London Borough of Barnet - Environmental Health Department	December 2014	Annual Rolling Update
London Borough of Islington - Environmental Health Department	January 2015	Annual Rolling Update
London Borough of Haringey - Planning and Environmental Health	June 2014	Annual Rolling Update
London Borough of Hammersmith And Fulham - Environmental Health Department	March 2014	Annual Rolling Update
London Borough of Hackney - Environmental Health Department	March 2015	Annual Rolling Update
London Borough of Brent - Environmental Health Department	March 2016	Annual Rolling Update
London Borough of Lambeth - Environmental Health Department	May 2016	Annual Rolling Update
Westminster City Council - Environmental Health Department	November 2015	Not Applicable
London Borough of Camden - Pollution Projects Team	October 2014	Annual Rolling Update
London Borough of Tower Hamlets - Environmental Health Department	October 2014	Annual Rolling Update
London Port Health Authority - Environmental Services	October 2014	Annual Rolling Update
Royal Borough of Kensington And Chelsea - Environmental Health Department	September 2014	Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements		
London Borough of Southwark - Environmental Health Department	April 2014	Variable
City of London - Environmental Health Department	August 2014	Variable
London Borough of Wandsworth - Environmental Health Department	August 2014	Variable
London Borough of Barnet - Environmental Health Department	December 2014	Variable
London Borough of Islington - Environmental Health Department	January 2015	Variable
London Borough of Haringey - Planning and Environmental Health	June 2014	Variable
London Borough of Hammersmith And Fulham - Environmental Health Department	March 2014	Variable
London Borough of Hackney - Environmental Health Department	March 2015	Variable
London Borough of Brent - Environmental Health Department	March 2016	Variable
London Borough of Lambeth - Environmental Health Department	May 2016	Variable
Westminster City Council - Environmental Health Department	November 2015	Variable
London Borough of Camden - Pollution Projects Team	October 2014	Variable
London Borough of Tower Hamlets - Environmental Health Department	October 2014	Variable
London Port Health Authority - Environmental Services	October 2014	Variable
Royal Borough of Kensington And Chelsea - Environmental Health Department	September 2014	Variable
Nearest Surface Water Feature		
Ordnance Survey	October 2020	
Pollution Incidents to Controlled Waters		
Environment Agency - Thames Region	September 1999	Not Applicable
Prosecutions Relating to Authorised Processes		
Environment Agency - Thames Region	March 2013	Annual Rolling Update
Prosecutions Relating to Controlled Waters		
Environment Agency - Thames Region	March 2013	Annual Rolling Update
Registered Radioactive Substances		
Environment Agency - Thames Region	June 2016	
River Quality		
Environment Agency - Head Office	November 2001	Not Applicable
River Quality Biology Sampling Points		
Environment Agency - Head Office	July 2012	Annually
River Quality Chemistry Sampling Points		
Environment Agency - Head Office	July 2012	Annually
Substantiated Pollution Incident Register		
Environment Agency - South East Region - Kent & South London Area	January 2021	Quarterly
Environment Agency - South East Region - North East Thames Area	January 2021	Quarterly
Environment Agency - Thames Region - North East Area	January 2021	Quarterly
Environment Agency - Thames Region - South East Area	January 2021	Quarterly

Data Currency

Agency & Hydrological	Version	Update Cycle
Water Abstractions Environment Agency - Thames Region	January 2021	Quarterly
Water Industry Act Referrals Environment Agency - Thames Region	October 2017	Quarterly
Groundwater Vulnerability Map Environment Agency - Head Office	June 2018	As notified
Bedrock Aquifer Designations Environment Agency - Head Office	January 2018	Annually
Superficial Aquifer Designations Environment Agency - Head Office	January 2018	Annually
Source Protection Zones Environment Agency - Head Office	October 2019	Quarterly
Extreme Flooding from Rivers or Sea without Defences Environment Agency - Head Office	September 2020	Quarterly
Flooding from Rivers or Sea without Defences Environment Agency - Head Office	September 2020	Quarterly
Areas Benefiting from Flood Defences Environment Agency - Head Office	September 2020	Quarterly
Flood Water Storage Areas Environment Agency - Head Office	September 2020	Quarterly
Flood Defences Environment Agency - Head Office	September 2020	Quarterly
OS Water Network Lines Ordnance Survey	September 2020	Quarterly
Surface Water 1 in 30 year Flood Extent Environment Agency - Head Office	October 2013	Annually
Surface Water 1 in 100 year Flood Extent Environment Agency - Head Office	October 2013	Annually
Surface Water 1 in 1000 year Flood Extent Environment Agency - Head Office	October 2013	Annually
Surface Water Suitability Environment Agency - Head Office	October 2013	Annually
BGS Groundwater Flooding Susceptibility British Geological Survey - National Geoscience Information Service	May 2013	Annually

Waste	Version	Update Cycle
BGS Recorded Landfill Sites		
British Geological Survey - National Geoscience Information Service	June 1996	Not Applicable
Historical Landfill Sites		
Environment Agency - Head Office	October 2019	Quarterly
Integrated Pollution Control Registered Waste Sites		
Environment Agency - Thames Region	October 2008	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries)		
Environment Agency - South East Region - Kent & South London Area	January 2021	Quarterly
Environment Agency - South East Region - North East Thames Area	January 2021	Quarterly
Environment Agency - Thames Region - North East Area	January 2021	Quarterly
Environment Agency - Thames Region - South East Area	January 2021	Quarterly
Licensed Waste Management Facilities (Locations)		
Environment Agency - South East Region - Kent & South London Area	January 2021	Quarterly
Environment Agency - South East Region - North East Thames Area	January 2021	Quarterly
Environment Agency - Thames Region - North East Area	January 2021	Quarterly
Environment Agency - Thames Region - South East Area	January 2021	Quarterly
Local Authority Landfill Coverage		
City of London - Environmental Health Department	May 2000	Not Applicable
London Borough of Barnet	May 2000	Not Applicable
London Borough of Brent - Environmental Health Department	May 2000	Not Applicable
London Borough of Camden	May 2000	Not Applicable
London Borough of Hackney	May 2000	Not Applicable
London Borough of Hammersmith And Fulham - Environmental Health Department	May 2000	Not Applicable
London Borough of Haringey - Planning Department	May 2000	Not Applicable
London Borough of Islington - Environmental Health Department	May 2000	Not Applicable
London Borough of Lambeth - Environmental Health Department	May 2000	Not Applicable
London Borough of Southwark - Environmental Health Department	May 2000	Not Applicable
London Borough of Tower Hamlets - Environmental Health Department	May 2000	Not Applicable
London Borough of Wandsworth - Environmental Health Department	May 2000	Not Applicable
Royal Borough of Kensington And Chelsea	May 2000	Not Applicable
Westminster City Council - Environmental Health Department	May 2000	Not Applicable
Local Authority Recorded Landfill Sites		
London Borough of Tower Hamlets - Environmental Health Department	April 2003	Not Applicable
London Borough of Wandsworth - Environmental Health Department	April 2003	Not Applicable
City of London - Environmental Health Department	May 2000	Not Applicable
London Borough of Barnet	May 2000	Not Applicable
London Borough of Brent - Environmental Health Department	May 2000	Not Applicable
London Borough of Camden	May 2000	Not Applicable
London Borough of Hackney	May 2000	Not Applicable
London Borough of Hammersmith And Fulham - Environmental Health Department	May 2000	Not Applicable
London Borough of Haringey - Planning Department	May 2000	Not Applicable
London Borough of Islington - Environmental Health Department	May 2000	Not Applicable
London Borough of Lambeth - Environmental Health Department	May 2000	Not Applicable
London Borough of Southwark - Environmental Health Department	May 2000	Not Applicable
Royal Borough of Kensington And Chelsea	May 2000	Not Applicable
Westminster City Council - Environmental Health Department	May 2000	Not Applicable
Potentially Infilled Land (Non-Water)		
Landmark Information Group Limited	December 1999	Not Applicable
Potentially Infilled Land (Water)		
Landmark Information Group Limited	December 1999	Not Applicable
Registered Landfill Sites		
Environment Agency - Thames Region - North East Area	March 2003	Not Applicable
Environment Agency - Thames Region - South East Area	March 2003	Not Applicable

Waste	Version	Update Cycle
Registered Waste Transfer Sites		
Environment Agency - Thames Region - North East Area	March 2003	Not Applicable
Environment Agency - Thames Region - South East Area	March 2003	Not Applicable
Registered Waste Treatment or Disposal Sites		
Environment Agency - Thames Region - North East Area	June 2015	Not Applicable
Environment Agency - Thames Region - South East Area	March 2003	Not Applicable
Hazardous Substances	**Version**	**Update Cycle**
Control of Major Accident Hazards Sites (COMAH)		
Health and Safety Executive	April 2018	Bi-Annually
Explosive Sites		
Health and Safety Executive	March 2017	Annually
Notification of Installations Handling Hazardous Substances (NIHHS)		
Health and Safety Executive	November 2000	Not Applicable
Planning Hazardous Substance Enforcements		
City of London	February 2016	Variable
London Borough of Barnet	February 2016	Variable
London Borough of Camden	February 2016	Variable
London Borough of Hackney	February 2016	Variable
London Borough of Haringey	February 2016	Variable
London Borough of Lambeth - Planning Department	February 2016	Variable
London Borough of Southwark - Regeneration Department	February 2016	Variable
London Borough of Tower Hamlets	February 2016	Variable
London Borough of Wandsworth - Technical Services	February 2016	Variable
Royal Borough of Kensington And Chelsea	February 2016	Variable
Westminster City Council	February 2016	Variable
London Port Health Authority - Environmental Services	January 2008	Annual Rolling Update
London Borough of Brent	January 2016	Variable
London Borough of Islington	October 2015	Variable
London Borough of Hammersmith And Fulham - Environmental Protection	September 2014	Variable
Planning Hazardous Substance Consents		
London Borough of Hammersmith And Fulham - Environmental Protection	August 2015	Variable
City of London	February 2016	Variable
London Borough of Barnet	February 2016	Variable
London Borough of Camden	February 2016	Variable
London Borough of Hackney	February 2016	Variable
London Borough of Haringey	February 2016	Variable
London Borough of Lambeth - Planning Department	February 2016	Variable
London Borough of Southwark - Regeneration Department	February 2016	Variable
London Borough of Tower Hamlets	February 2016	Variable
London Borough of Wandsworth - Technical Services	February 2016	Variable
Royal Borough of Kensington And Chelsea	February 2016	Variable
Westminster City Council	February 2016	Variable
London Port Health Authority - Environmental Services	January 2008	Annual Rolling Update
London Borough of Brent	January 2016	Variable
London Borough of Islington	October 2015	Variable

Geological	Version	Update Cycle
BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service	January 2009	Not Applicable
BGS Estimated Soil Chemistry British Geological Survey - National Geoscience Information Service	October 2015	Annually
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	November 2020	Bi-Annually
BGS Urban Soil Chemistry British Geological Survey - National Geoscience Information Service	October 2015	Annually
BGS Urban Soil Chemistry Averages British Geological Survey - National Geoscience Information Service	October 2015	Annually
CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011	Not Applicable
Coal Mining Affected Areas The Coal Authority - Property Searches	March 2014	Annual Rolling Update
Mining Instability Ove Arup & Partners	October 2000	Not Applicable
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	May 2015	Not Applicable
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	April 2020	Annually
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Radon Potential - Radon Affected Areas British Geological Survey - National Geoscience Information Service	July 2011	Annually
Radon Potential - Radon Protection Measures British Geological Survey - National Geoscience Information Service	July 2011	Annually

Data Currency

Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries Thomson Directories	January 2021	Quarterly
Fuel Station Entries Catalist Ltd - Experian	September 2020	Quarterly
Gas Pipelines National Grid	January 2021	
Points of Interest - Commercial Services PointX	December 2020	Quarterly
Points of Interest - Education and Health PointX	December 2020	Quarterly
Points of Interest - Manufacturing and Production PointX	December 2020	Quarterly
Points of Interest - Public Infrastructure PointX	December 2020	Quarterly
Points of Interest - Recreational and Environmental PointX	December 2020	Quarterly
Underground Electrical Cables National Grid	December 2020	

Sensitive Land Use	Version	Update Cycle
Ancient Woodland		
Natural England	February 2021	Bi-Annually
Areas of Adopted Green Belt		
City of London	June 2020	As notified
London Borough of Barnet	June 2020	As notified
London Borough of Brent	June 2020	As notified
London Borough of Camden	June 2020	As notified
London Borough of Hackney	June 2020	As notified
London Borough of Hammersmith And Fulham - Environment Department	June 2020	As notified
London Borough of Haringey	June 2020	As notified
London Borough of Islington	June 2020	As notified
London Borough of Lambeth	June 2020	As notified
London Borough of Southwark	June 2020	As notified
London Borough of Tower Hamlets	June 2020	As notified
London Borough of Wandsworth - Technical Services	June 2020	As notified
Royal Borough of Kensington And Chelsea	June 2020	As notified
Westminster City Council	June 2020	As notified
Areas of Unadopted Green Belt		
City of London	June 2020	As notified
London Borough of Barnet	June 2020	As notified
London Borough of Brent	June 2020	As notified
London Borough of Camden	June 2020	As notified
London Borough of Hackney	June 2020	As notified
London Borough of Hammersmith And Fulham - Environment Department	June 2020	As notified
London Borough of Haringey	June 2020	As notified
London Borough of Islington	June 2020	As notified
London Borough of Lambeth	June 2020	As notified
London Borough of Southwark	June 2020	As notified
London Borough of Tower Hamlets	June 2020	As notified
London Borough of Wandsworth - Technical Services	June 2020	As notified
Royal Borough of Kensington And Chelsea	June 2020	As notified
Westminster City Council	June 2020	As notified
Areas of Outstanding Natural Beauty		
Natural England	January 2021	Bi-Annually
Environmentally Sensitive Areas		
Natural England	January 2017	
Forest Parks		
Forestry Commission	April 1997	Not Applicable
Local Nature Reserves		
Natural England	February 2021	Bi-Annually
Marine Nature Reserves		
Natural England	July 2019	Bi-Annually
National Nature Reserves		
Natural England	January 2021	Bi-Annually
National Parks		
Natural England	April 2017	Bi-Annually
Nitrate Sensitive Areas		
Natural England	April 2016	Not Applicable
Nitrate Vulnerable Zones		
Environment Agency - Head Office	December 2017	Bi-Annually
Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	October 2015	
Ramsar Sites		
Natural England	August 2020	Bi-Annually

Data Currency

Sensitive Land Use	Version	Update Cycle
Sites of Special Scientific Interest Natural England	February 2021	Bi-Annually
Special Areas of Conservation Natural England	July 2020	Bi-Annually
Special Protection Areas Natural England	September 2020	Bi-Annually

Data Suppliers

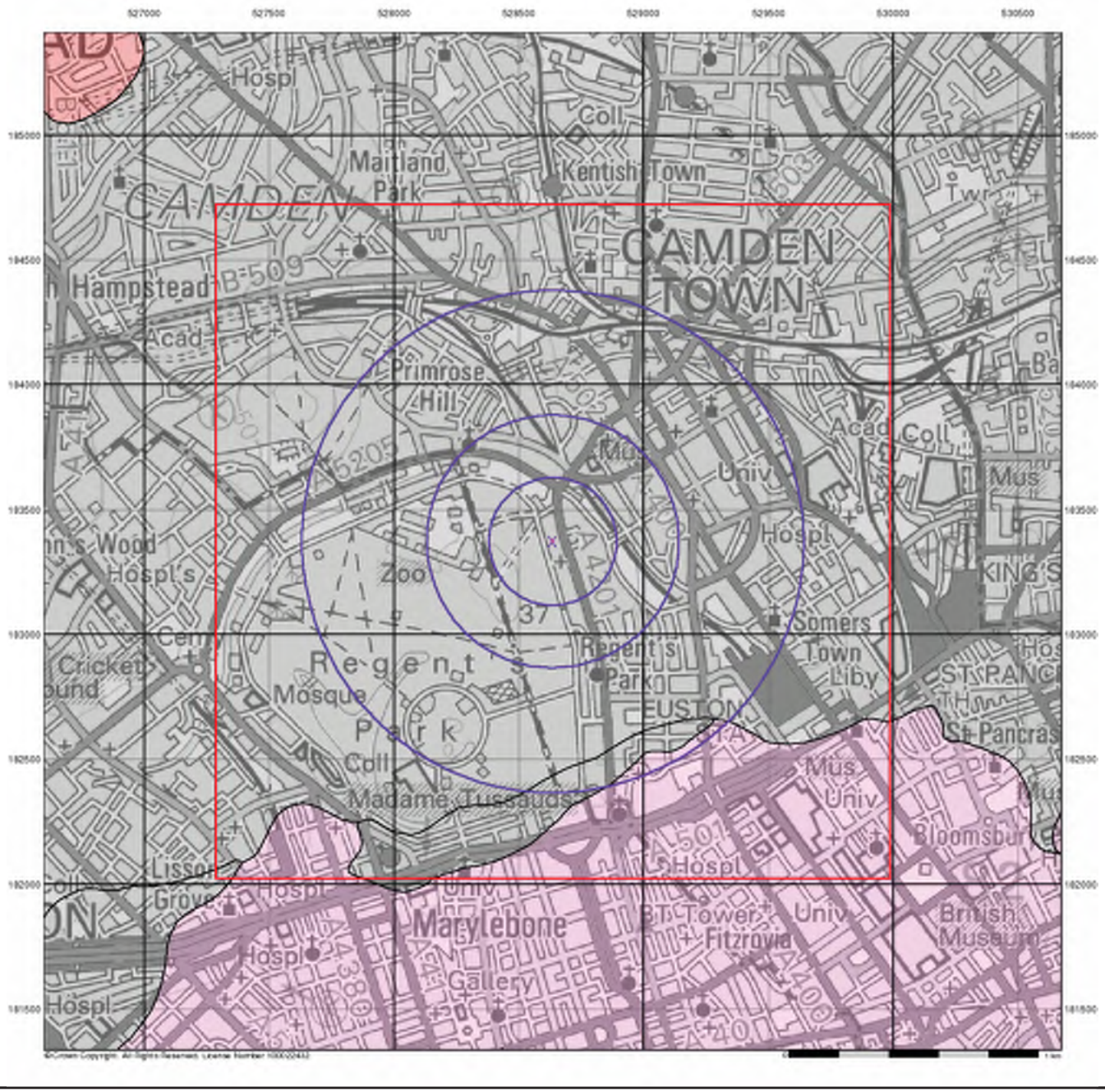
A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	
Environment Agency	
Scottish Environment Protection Agency	
The Coal Authority	
British Geological Survey	
Centre for Ecology and Hydrology	
Natural Resources Wales	
Scottish Natural Heritage	
Natural England	
Public Health England	
Ove Arup	
Stantec UK Ltd	

Useful Contacts

Contact	Name and Address	Contact Details
1	**British Geological Survey - Enquiry Service** British Geological Survey, Environmental Science Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
2	**Environment Agency - National Customer Contact Centre (NCCC)** PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
3	**London Borough of Camden - Pollution Projects Team** Seventh Floor, Town Hall Extension, Argyle Street, London, WC1H 8EQ	Telephone: 020 7278 4444 Fax: 020 7860 5713 Website: www.camden.gov.uk
4	**Westminster City Council - Environmental Health Department** Council House, Marylebone Road, London, NW1 5PT	Telephone: 020 7641 1317 Fax: 020 7641 1142 Website: www.westminster.gov.uk
5	**Environment Agency - Head Office** Rio House, Waterside Drive, Aztec West, Almondsbury, Bristol, Avon, BS32 4UD	Telephone: 01454 624400 Fax: 01454 624409
6	**Ordnance Survey** Adanac Drive, Southampton, Hampshire, SO16 0AS	Telephone: 03456 05 05 05 Email: customerservices@ordnancesurvey.co.uk Website: www.ordnancesurvey.gov.uk
7	**London Borough of Camden** Town Hall, Judd Street, London, WC1H 9JE	Telephone: 020 7974 4444 Fax: 020 7974 6866 Email: info@camden.gov.uk Website: www.camden.gov.uk
8	**PointX** 7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Website: www.pointx.co.uk
9	**Landmark Information Group Limited** Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9966 Fax: 0844 844 9951 Email: helpdesk@landmark.co.uk Website: www.landmark.co.uk
10	**Natural England** County Hall, Spetchley Road, Worcester, WR5 2NP	Telephone: 0300 060 3900 Email: enquiries@naturalengland.org.uk Website: www.naturalengland.org.uk
-	**Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards** Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org
-	**Landmark Information Group Limited** Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

Please note that the Environment Agency / Natural Resources Wales / SEPA have a charging policy in place for enquiries.



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LANDMARK INFORMATION GROUP

Groundwater Vulnerability

General

Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice | Map ID

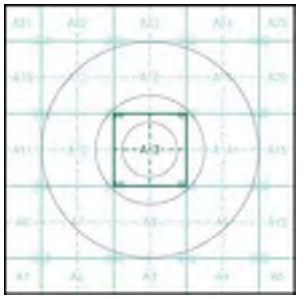
Agency and Hydrological

Bedrock Aquifers	Superficial Aquifers
High Vulnerability, Principal Aquifer	High Vulnerability, Principal Aquifer
High Vulnerability, Secondary Aquifer	High Vulnerability, Secondary Aquifer
Medium Vulnerability, Principal Aquifer	Medium Vulnerability, Principal Aquifer
Medium Vulnerability, Secondary Aquifer	Medium Vulnerability, Secondary Aquifer
Low Vulnerability, Principal Aquifer	Low Vulnerability, Principal Aquifer
Low Vulnerability, Secondary Aquifer	Low Vulnerability, Secondary Aquifer

Unproductive Aquifer

Soluble Rock

Site Sensitivity Context Map - Slice A



Order Details

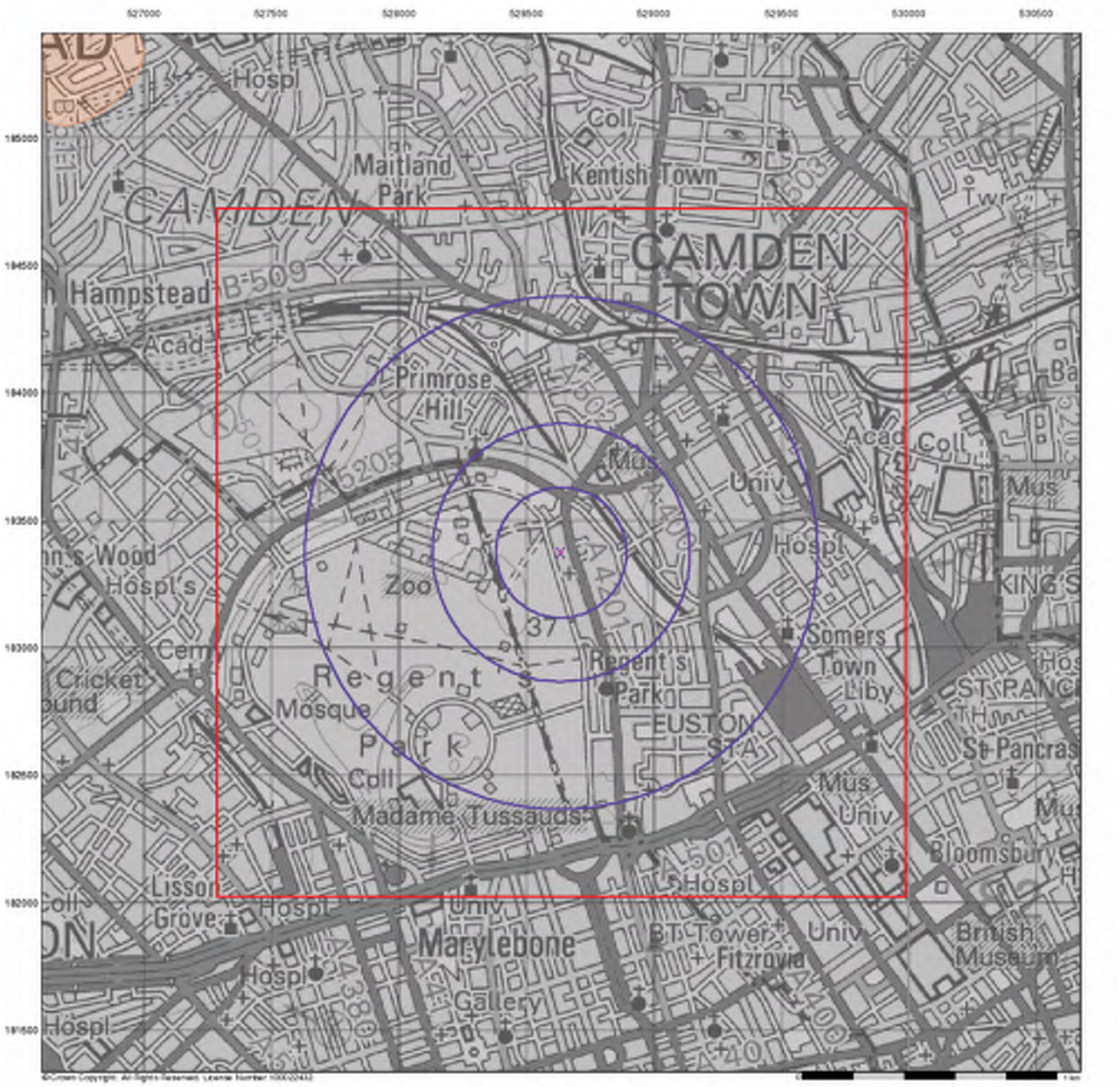
Order Number:	273837874_1_1
Customer Ref:	253-20-651
National Grid Reference:	528640, 183370
Slice:	A
Site Area (Ha):	0.01
Search Buffer (m):	1000

Site Details

205 Albany Street, London, NW1 4AB

Landmark INFORMATION GROUP

Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



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LANDMARK INFORMATION GROUP

Bedrock Aquifer Designation

General

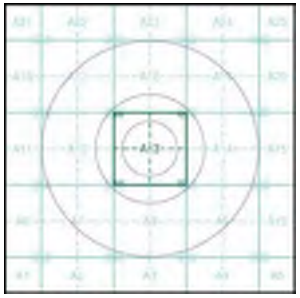
Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice | Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice A

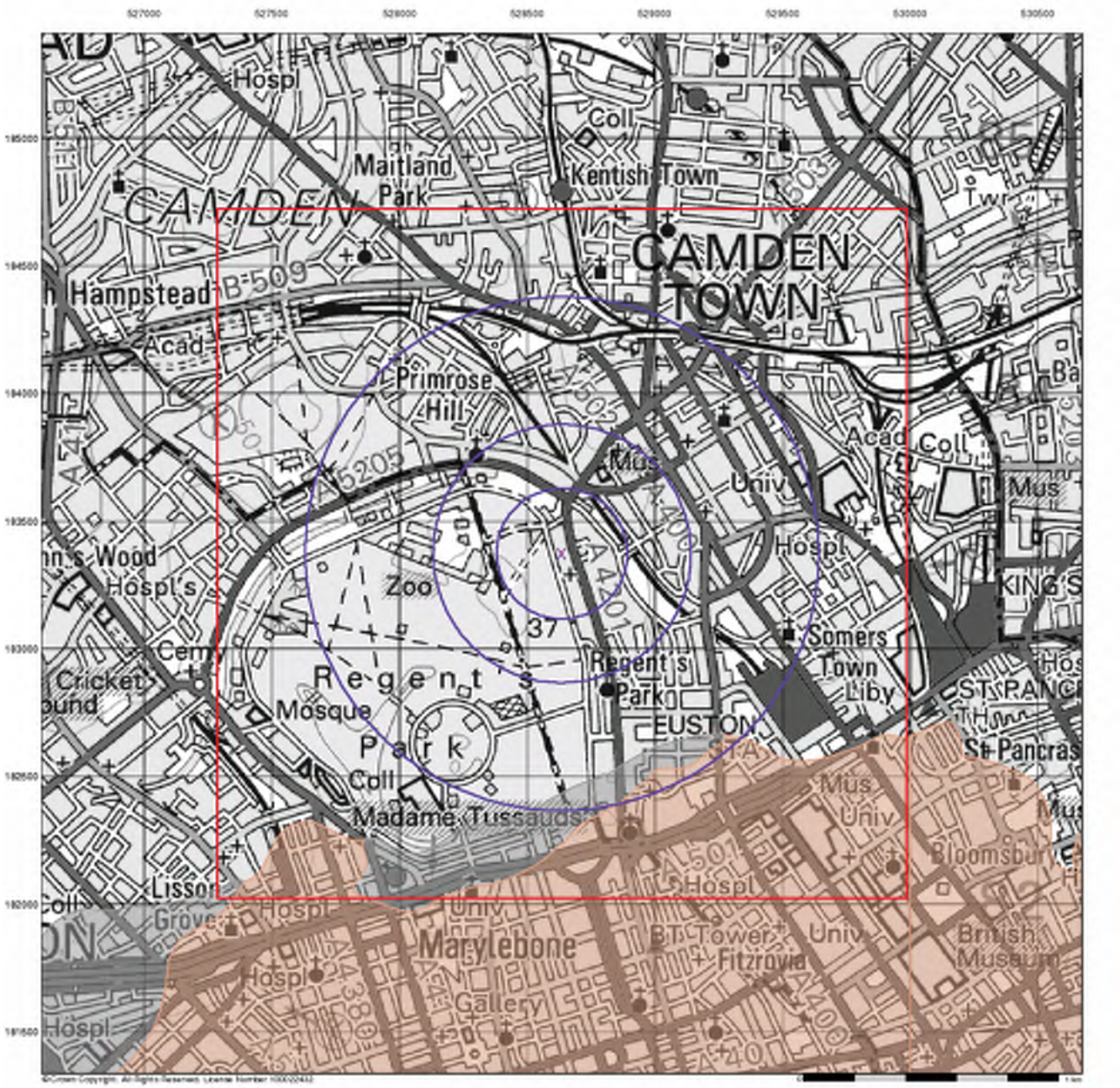


Order Details

Order Number:	273837874_1_1
Customer Ref:	253-20-651
National Grid Reference:	528640, 183370
Slice:	A
Site Area (Ha):	0.01
Search Buffer (m):	1000

Site Details

205 Albany Street, London, NW1 4AB



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Superficial Aquifer Designation

General

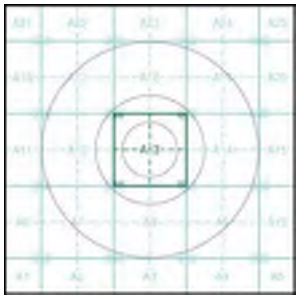
Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice | Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice A

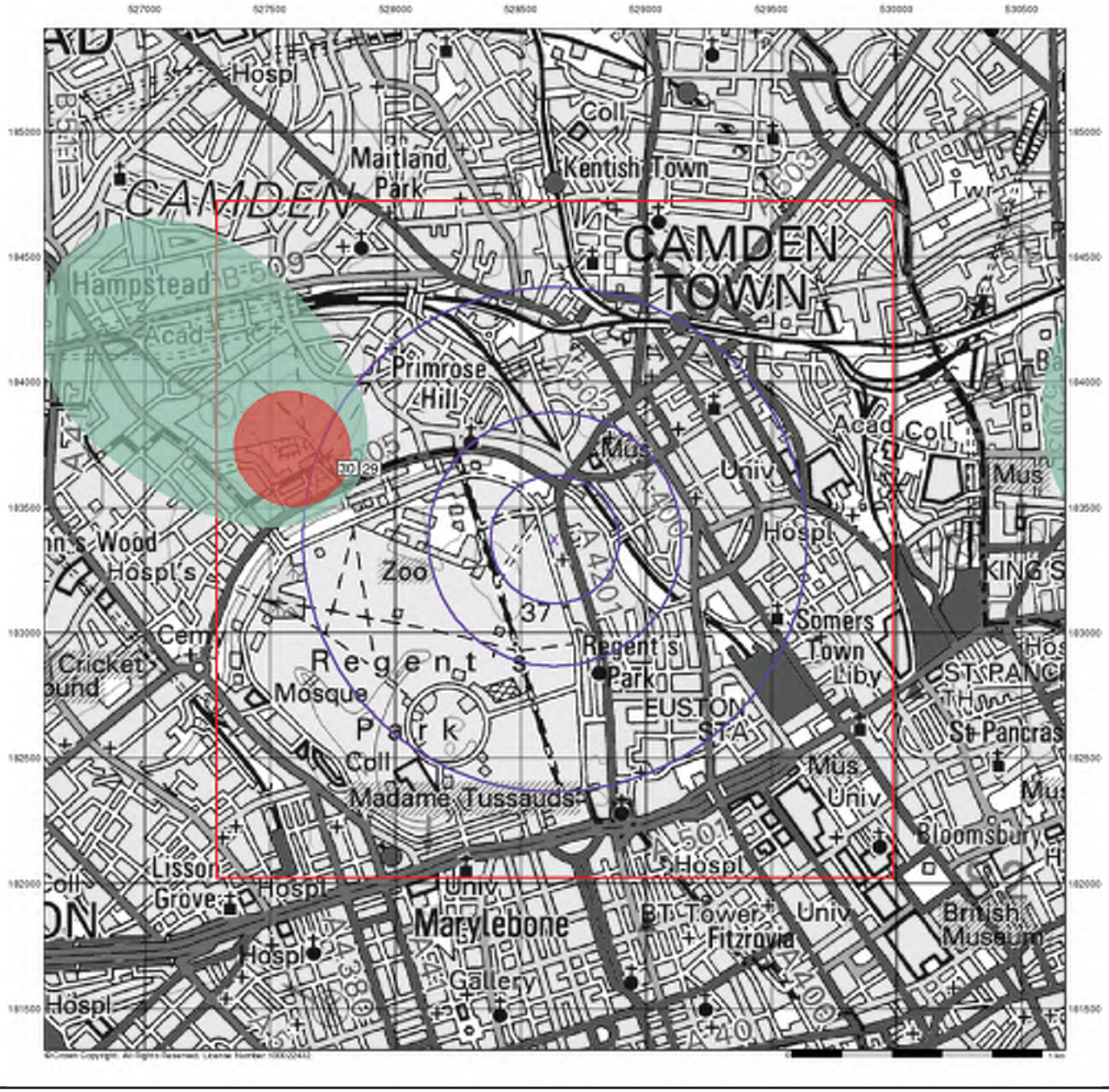


Order Details

Order Number:	273837874_1_1
Customer Ref:	253-20-651
National Grid Reference:	528640, 183370
Slice:	A
Site Area (Ha):	0.01
Search Buffer (m):	1000

Site Details

205 Albany Street, London, NW1 4AB



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LANDMARK INFORMATION GROUP

Source Protection Zones

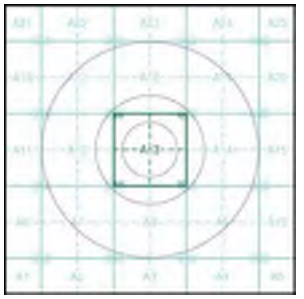
General

Specified Site | Specified Buffer(s) | Bearing Reference Point
Slice | Map ID

Agency and Hydrological

- Inner zone (Zone 1)
- Inner zone - subsurface activity only (Zone 1c)
- Outer zone (Zone 2)
- Outer zone - subsurface activity only (Zone 2c)
- Total catchment (Zone 3)
- Total catchment - subsurface activity only (Zone 3c)
- Special interest (Zone 4)

Site Sensitivity Context Map - Slice A



Order Details

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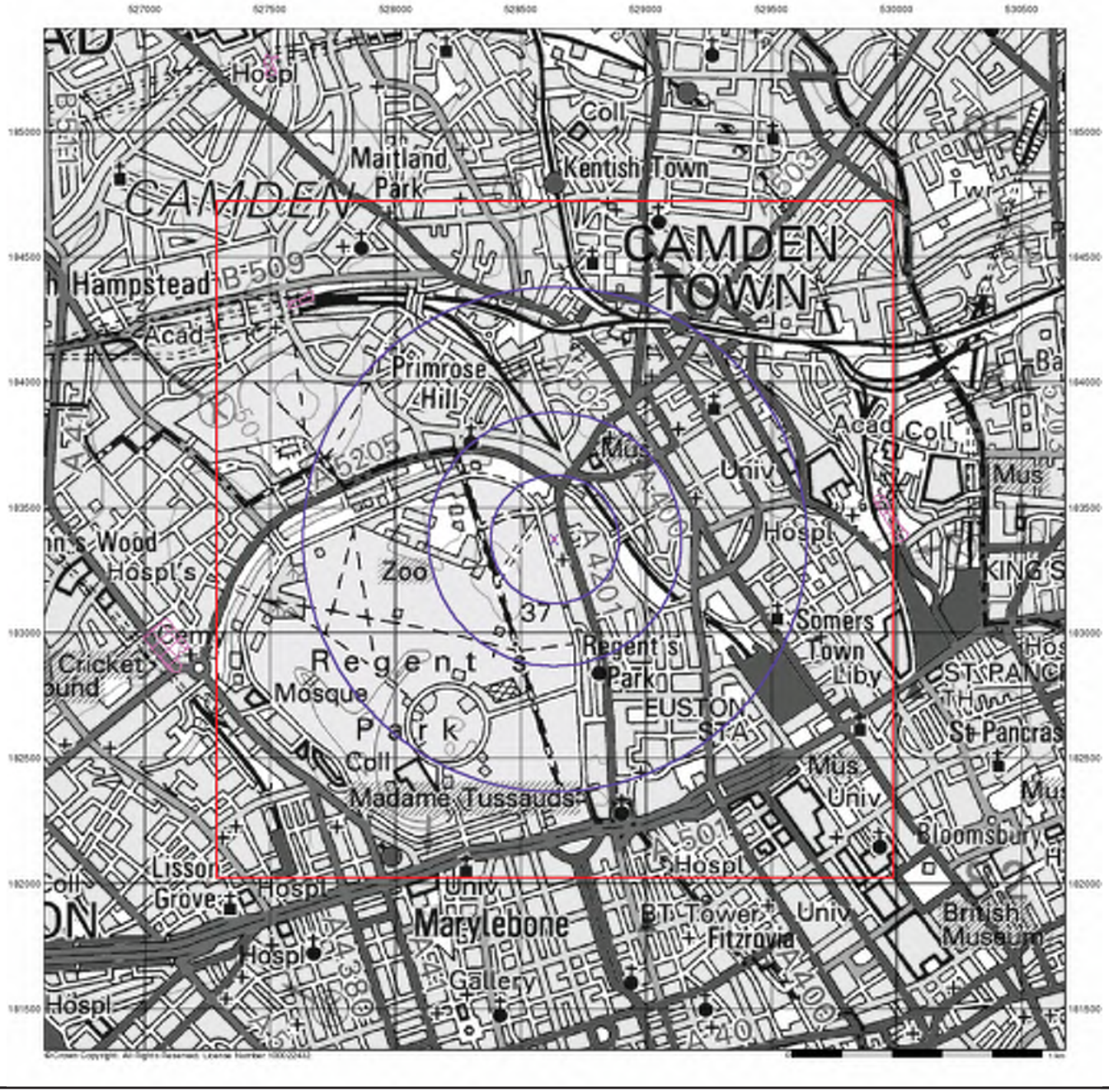
Customer Ref:	253-20-651
National Grid Reference:	528640, 183370
Slice:	A
Site Area (Ha):	0.01
Search Buffer (m):	1000

Site Details

205 Albany Street, London, NW1 4AB



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LANDMARK INFORMATION GROUP

Sensitive Land Uses

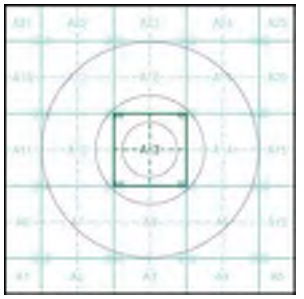
General

Specified Site | Specified Buffer(s) | Bearing Reference Point
Slice | Map ID

Sensitive Land Uses

- Ancient Woodland
- Area of Adopted Green Belt
- Area of Unadopted Green Belt
- Area of Outstanding Natural Beauty
- Environmentally Sensitive Area
- Forest Park
- Local Nature Reserve
- Marine Nature Reserve
- National Nature Reserve
- National Park
- Nitrate Sensitive Area
- Nitrate Vulnerable Zone
- Ramsar Site
- Site of Special Scientific Interest
- Special Area of Conservation
- Special Protection Area
- World Heritage Sites

Site Sensitivity Context Map - Slice A

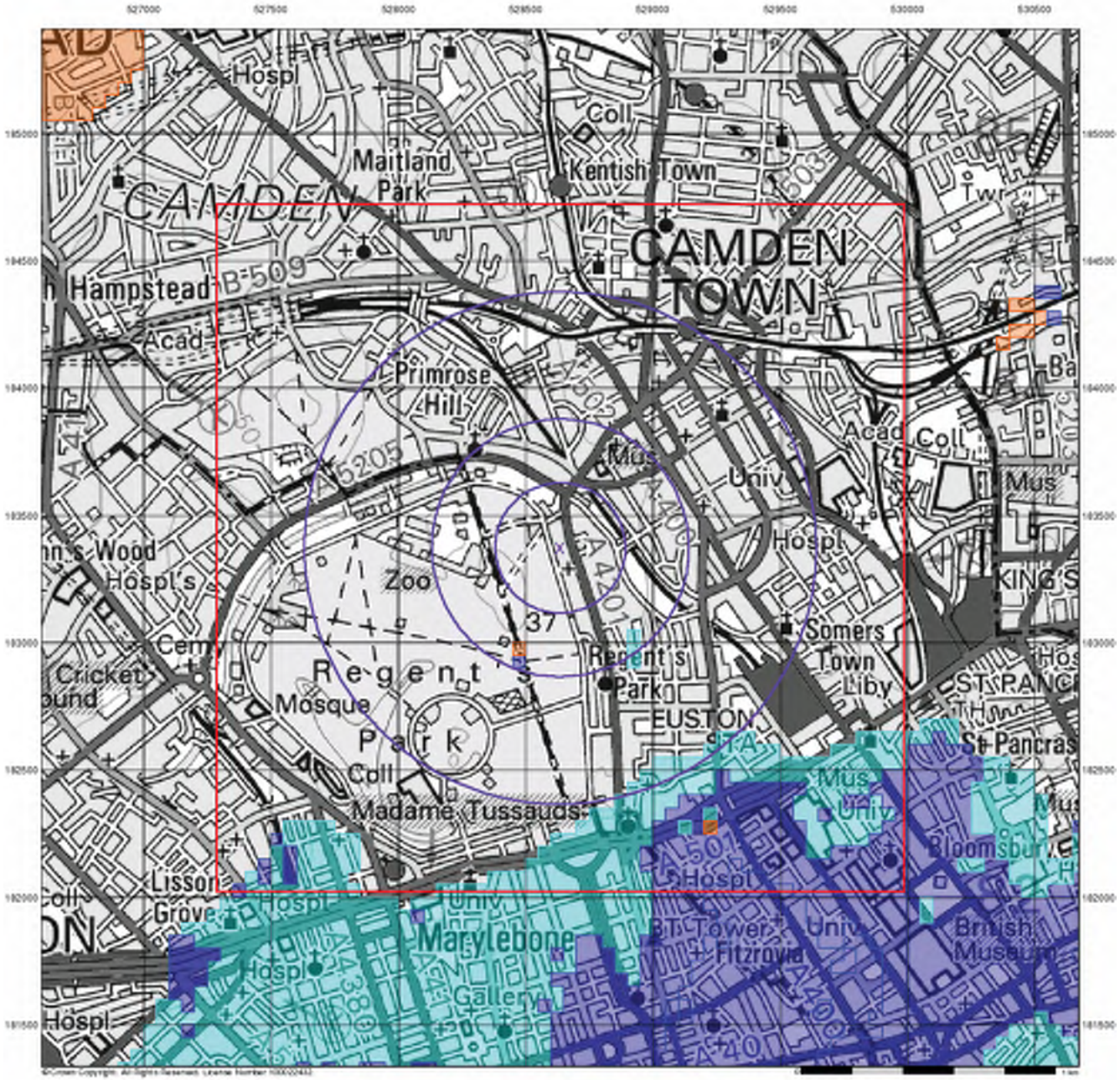


Order Details

Order Number:	273837874_1_1
Customer Ref:	253-20-651
National Grid Reference:	528640, 183370
Slice:	A
Site Area (Ha):	0.01
Search Buffer (m):	1000

Site Details

205 Albany Street, London, NW1 4AB



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BGS Flood GFS Data

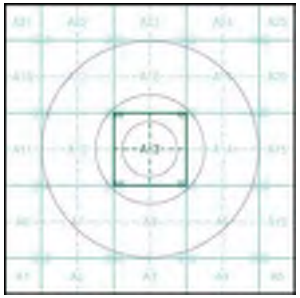
General

Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice

Agency and Hydrological (Flood)

- Limited Potential for Groundwater Flooding to Occur
- Potential for Groundwater Flooding of Property Situated Below Ground Level
- Potential for Groundwater Flooding to Occur at Surface

Site Sensitivity Context Map - Slice A



Order Details

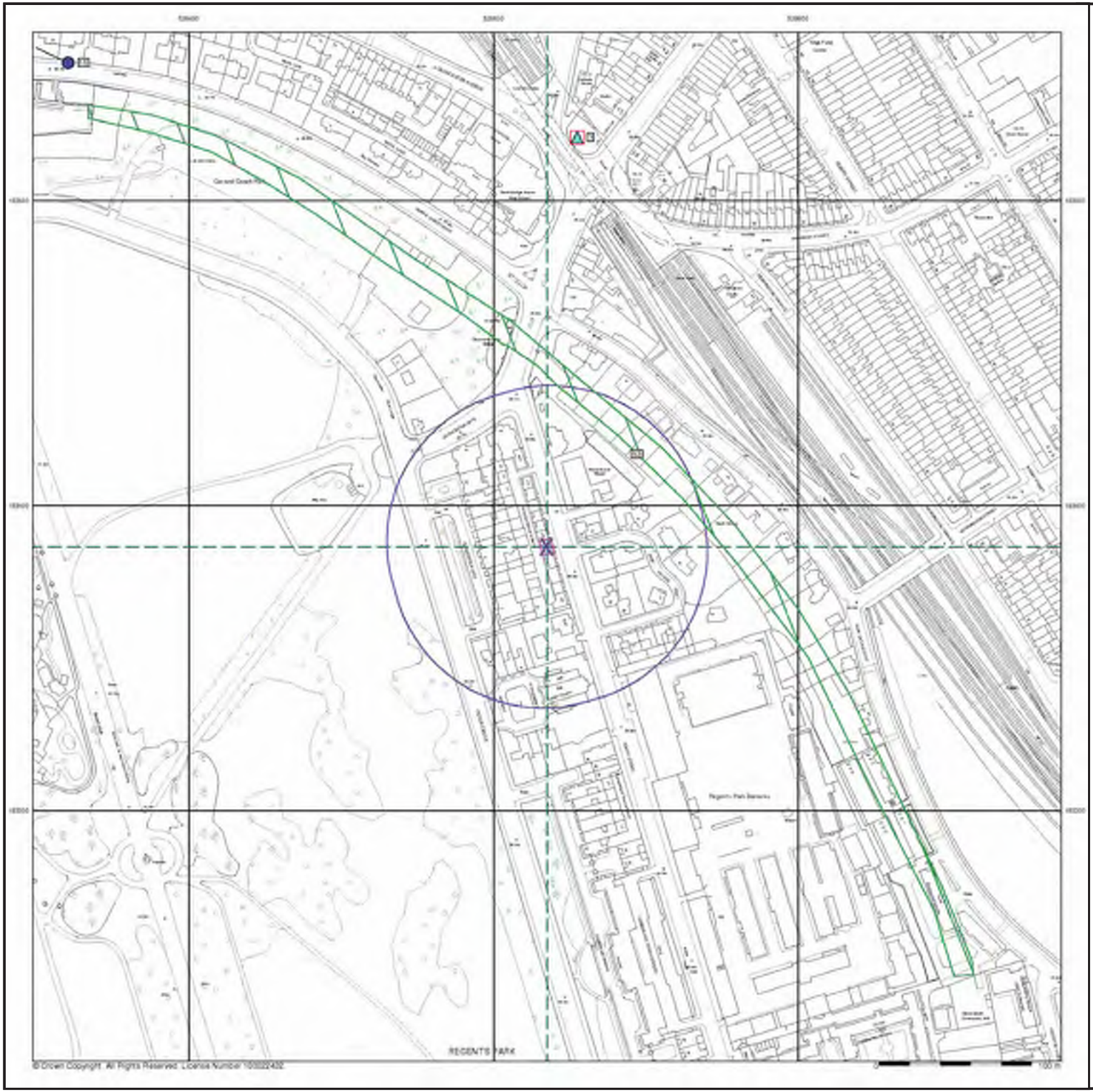
Order Number:	273837874_1_1
Customer Ref:	253-20-651
National Grid Reference:	528640, 183370
Slice:	A
Site Area (Ha):	0.01
Search Buffer (m):	1000

Site Details

205 Albany Street, London, NW1 4AB

Landmark INFORMATION GROUP

Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



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LANDMARK INFORMATION GROUP

General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Map ID
- Several of Type at Location
- Pylon
- Overhead Transmission Line

Agency and Hydrological

- Contaminated Land Register Entry or Notice (Location)
- Contaminated Land Register Entry or Notice
- Discharge Consent
- Enforcement or Prohibition Notice
- Integrated Pollution Control
- Integrated Pollution Prevention Control
- Local Authority Integrated Pollution Prevention and Control
- Local Authority Pollution Prevention and Control
- Local Authority Pollution Prevention and Control Enforcement
- Pollution Incident to Controlled Waters
- Prosecution Relating to Authorised Processes
- Prosecution Relating to Controlled Waters
- Registered Radioactive Substance
- River Network or Water Feature
- River Quality Sampling Point
- Substantiated Pollution Incident Register
- Water Abstraction
- Water Industry Act Referral

Hazardous Substances

- COMAH Site
- Explosive Site
- NIHHS Site
- Planning Hazardous Substance Consent
- Planning Hazardous Substance Enforcement

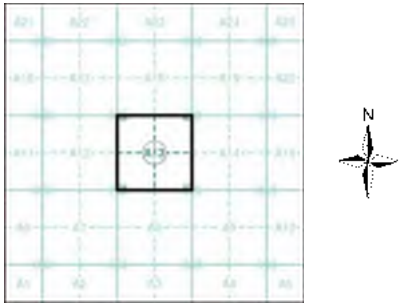
Geological

- BGS Recorded Mineral Site

Waste

- BGS Recorded Landfill Site (Location)
- BGS Recorded Landfill Site
- EA Historic Landfill (Buffered Point)
- EA Historic Landfill (Polygon)
- Integrated Pollution Control Registered Waste Site
- Licensed Waste Management Facility (Landfill Boundary)
- Licensed Waste Management Facility (Location)
- Local Authority Recorded Landfill Site (Location)
- Local Authority Recorded Landfill Site
- Potentially Infilled Land (Non-water)
- Potentially Infilled Land (Non-water)
- Potentially Infilled Land (Non-water)
- Potentially Infilled Land (Water)
- Potentially Infilled Land (Water)
- Potentially Infilled Land (Water)
- Registered Landfill Site
- Registered Landfill Site (Location)
- Registered Landfill Site (Point Buffered to 100m)
- Registered Landfill Site (Point Buffered to 250m)
- Registered Waste Transfer Site (Location)
- Registered Waste Transfer Site
- Registered Waste Treatment or Disposal Site (Location)
- Registered Waste Treatment or Disposal Site

Site Sensitivity Map - Segment A13



Order Details

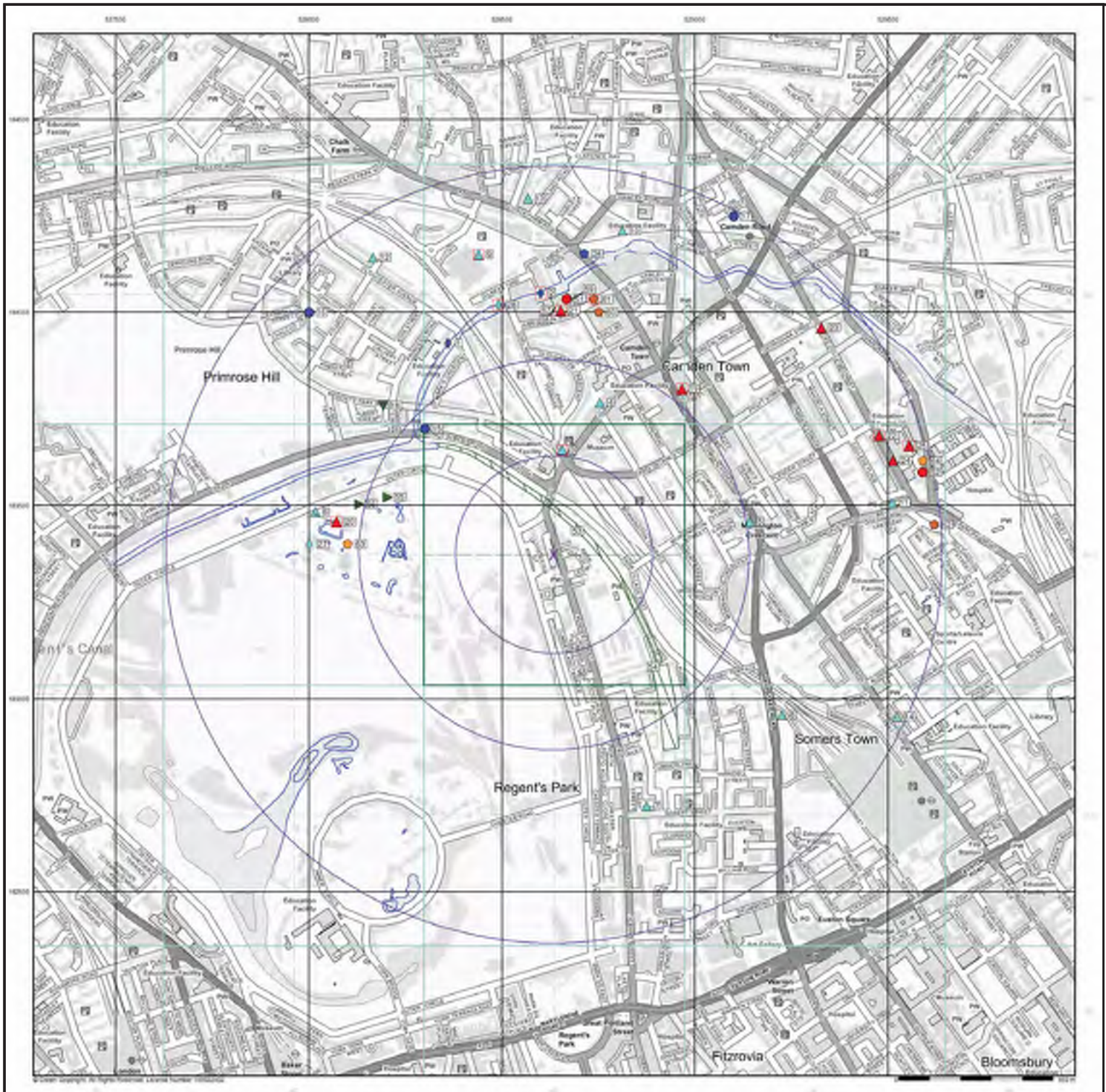
Order Number:	273837874_1_1
Customer Ref:	253-20-651
National Grid Reference:	528640, 183370
Slice:	A
Site Area (Ha):	0.01
Plot Buffer (m):	100

Site Details

205 Albany Street, London, NW1 4AB

Landmark INFORMATION GROUP

Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



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LANDMARK INFORMATION GROUP

General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Map ID
- Several of Type at Location

Agency and Hydrological

- Contaminated Land Register Entry or Notice (Location)
- Contaminated Land Register Entry or Notice
- Discharge Consent
- Enforcement or Prohibition Notice
- Integrated Pollution Control
- Integrated Pollution Prevention Control
- Local Authority Integrated Pollution Prevention and Control
- Local Authority Pollution Prevention and Control
- Local Authority Pollution Prevention and Control Enforcement
- Pollution Incident to Controlled Waters
- Prosecution Relating to Authorised Processes
- Prosecution Relating to Controlled Waters
- Registered Radioactive Substance
- River Network or Water Feature
- River Quality Sampling Point
- Substantiated Pollution Incident Register
- Water Abstraction
- Water Industry Act Referral

Hazardous Substances

- COMAH Site
- Explosive Site
- NIHHS Site
- Planning Hazardous Substance Consent
- Planning Hazardous Substance Enforcement

Geological

- BGS Recorded Mineral Site

Waste

- BGS Recorded Landfill Site (Location)
- BGS Recorded Landfill Site
- EA Historic Landfill (Buffered Point)
- EA Historic Landfill (Polygon)
- Integrated Pollution Control Registered Waste Site
- Licensed Waste Management Facility (Landfill Boundary)
- Licensed Waste Management Facility (Location)
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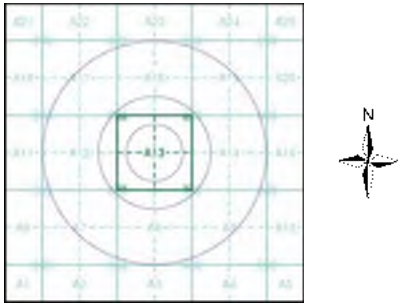
- Local Authority Recorded Landfill Site
- Potentially Infilled Land (Non-water)
- Potentially Infilled Land (Non-water)
- Potentially Infilled Land (Non-water)
- Potentially Infilled Land (Water)
- Potentially Infilled Land (Water)
- Potentially Infilled Land (Water)
- Registered Landfill Site
- Registered Landfill Site (Location)
- Registered Landfill Site (Point Buffered to 100m)
- Registered Landfill Site (Point Buffered to 250m)
- Registered Waste Transfer Site (Location)
- Registered Waste Transfer Site
- Registered Waste Treatment or Disposal Site (Location)
- Registered Waste Treatment or Disposal Site

Site Sensitivity Map - Slice A



Order Details

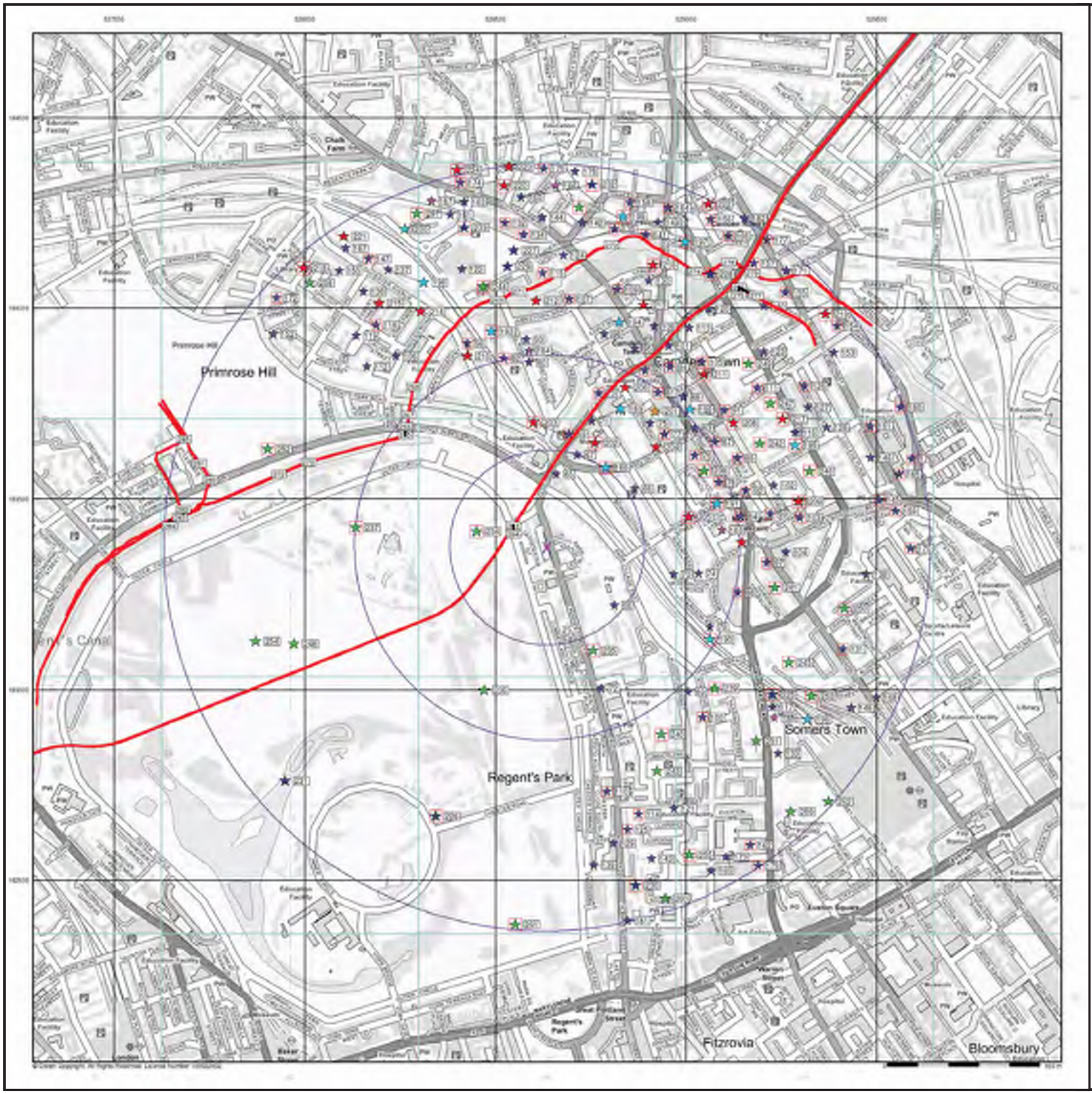
Order Number:	273837874_1_1
Customer Ref:	253-20-651
National Grid Reference:	528640, 183370
Slice:	A
Site Area (Ha):	0.01
Search Buffer (m):	1000

Site Details

205 Albany Street, London, NW1 4AB

Landmark INFORMATION GROUP

Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



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LANDMARK INFORMATION GROUP

Industrial Land Use Map

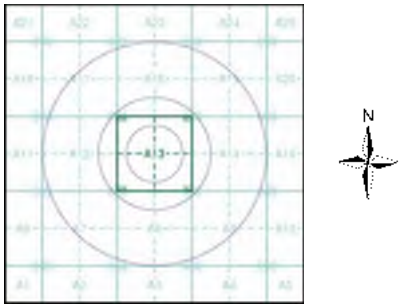
General

Specified Site
Specified Buffer(s)
Bearing Reference Point
Slice
Map ID

Industrial Land Use

Contemporary Trade Directory Entry
Fuel Station Entry
Gas Pipeline
Points of Interest - Commercial Services
Points of Interest - Education and Health
Points of Interest - Manufacturing and Production
Points of Interest - Public Infrastructure
Points of Interest - Recreational and Environmental
Underground Electrical Cables

Industrial Land Use Map - Slice A



Order Details

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Customer Ref:	253-20-651
National Grid Reference:	528640, 183370
Slice:	A
Site Area (Ha):	0.01
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Site Details

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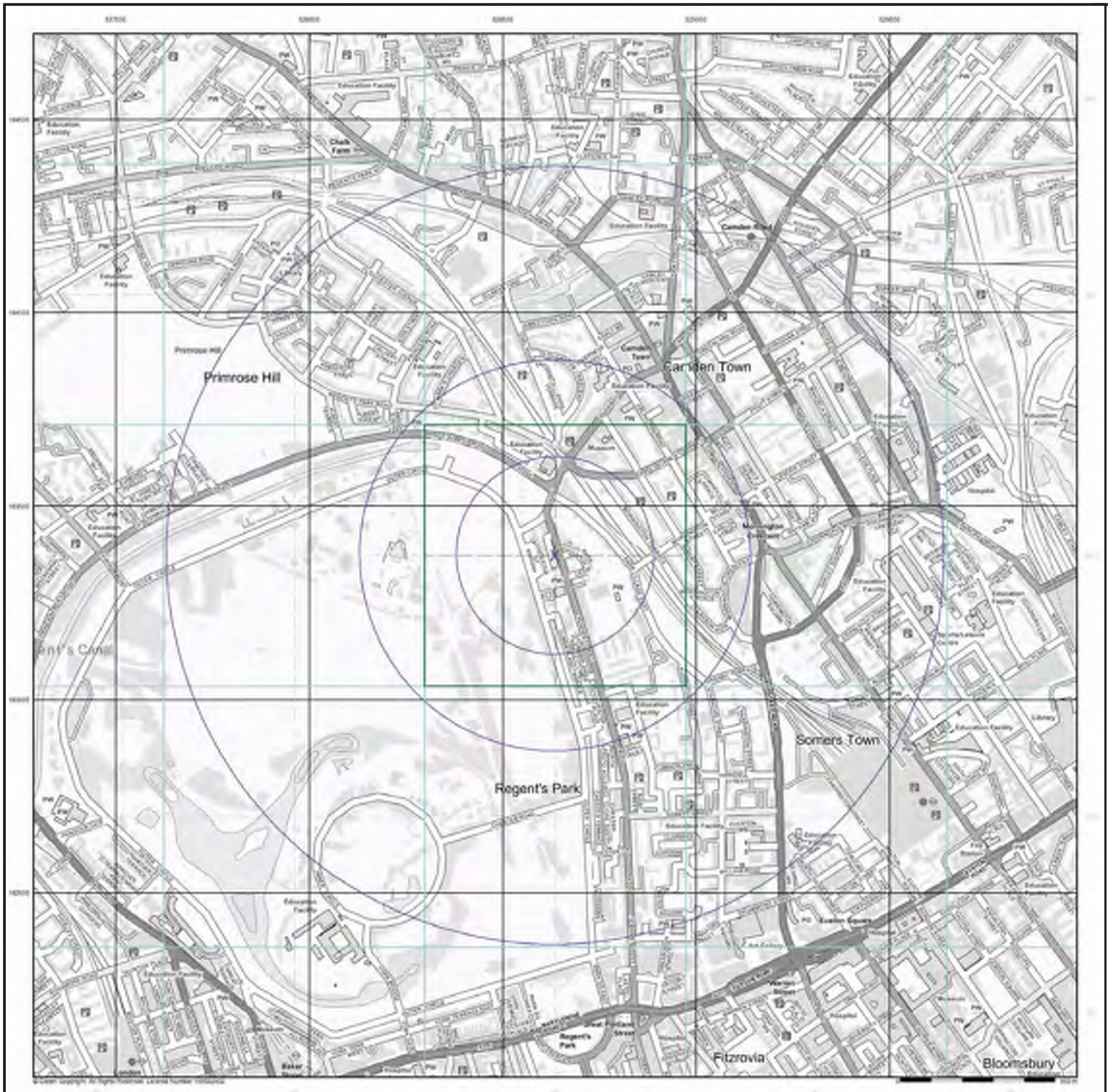
Web: www.envirocheck.co.uk



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LANDMARK INFORMATION GROUP

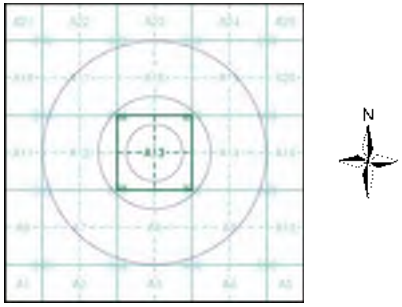
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

Agency and Hydrological (Flood)

- Extreme Flooding from Rivers or Sea without Defences (Zone 2)
- Flooding from Rivers or Sea without Defences (Zone 3)
- Area Benefiting from Flood Defence
- Flood Water Storage Areas
- Flood Defence

Flood Map - Slice A



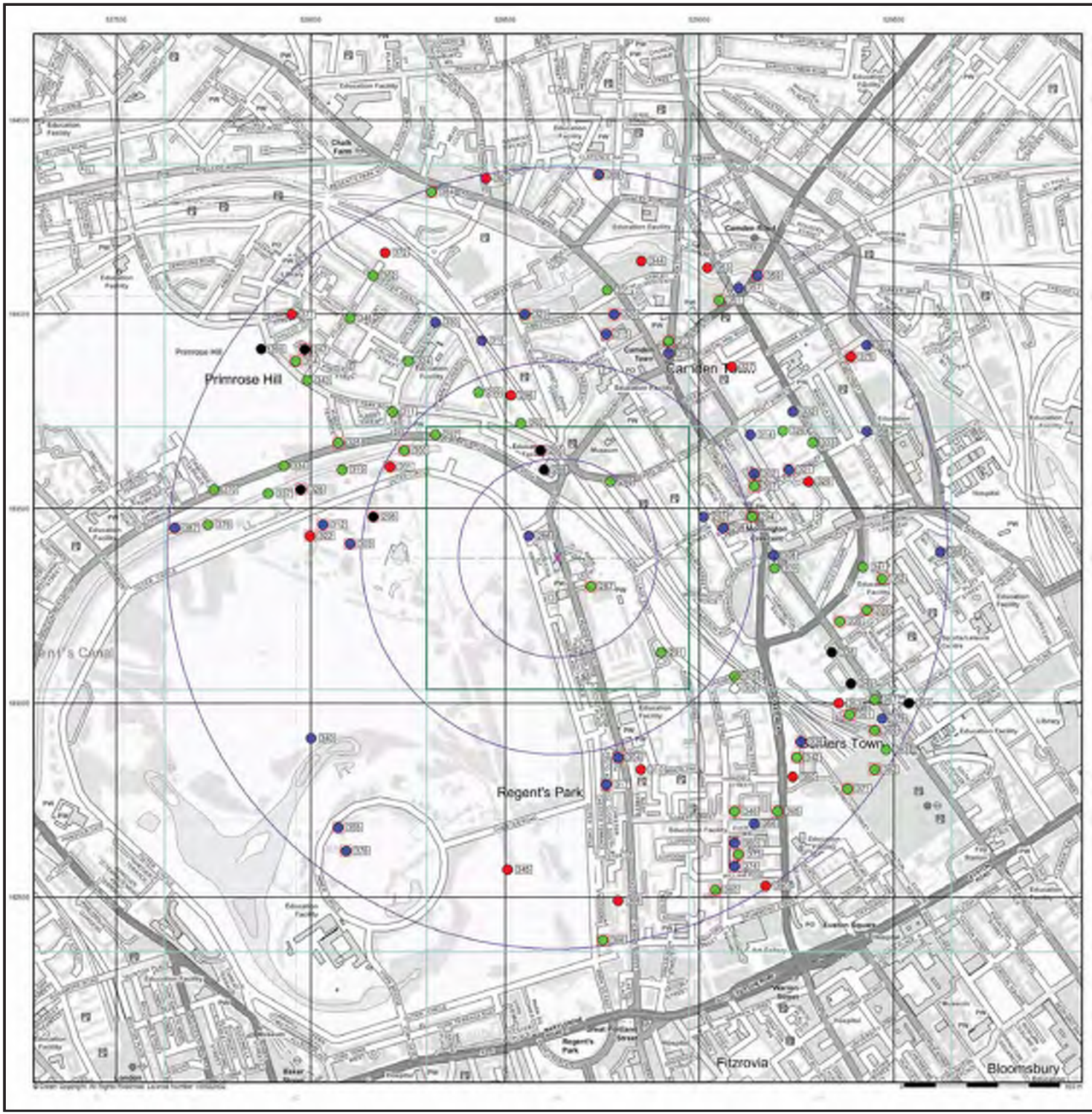
Order Details

Order Number:	273837874_1_1
Customer Ref:	253-20-651
National Grid Reference:	528640, 183370
Slice:	A
Site Area (Ha):	0.01
Search Buffer (m):	1000

Site Details

205 Albany Street, London, NW1 4AB

Landmark INFORMATION GROUP
Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



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General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Map ID
- Several of Type at Location

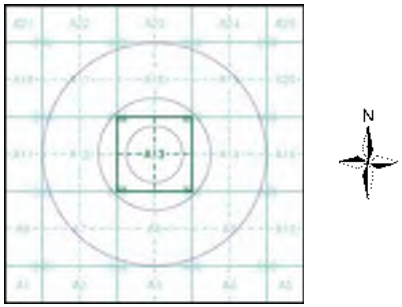
Agency and Hydrological (Boreholes)

- BGS Borehole Depth 0 - 10m
- BGS Borehole Depth 10 - 30m
- BGS Borehole Depth 30m +
- Confidential
- Other

For Borehole information please refer to the Borehole .csv file which accompanied this slice.

A copy of the BGS Borehole Ordering Form is available to download from the Support section of www.envirocheck.co.uk.

Borehole Map - Slice A



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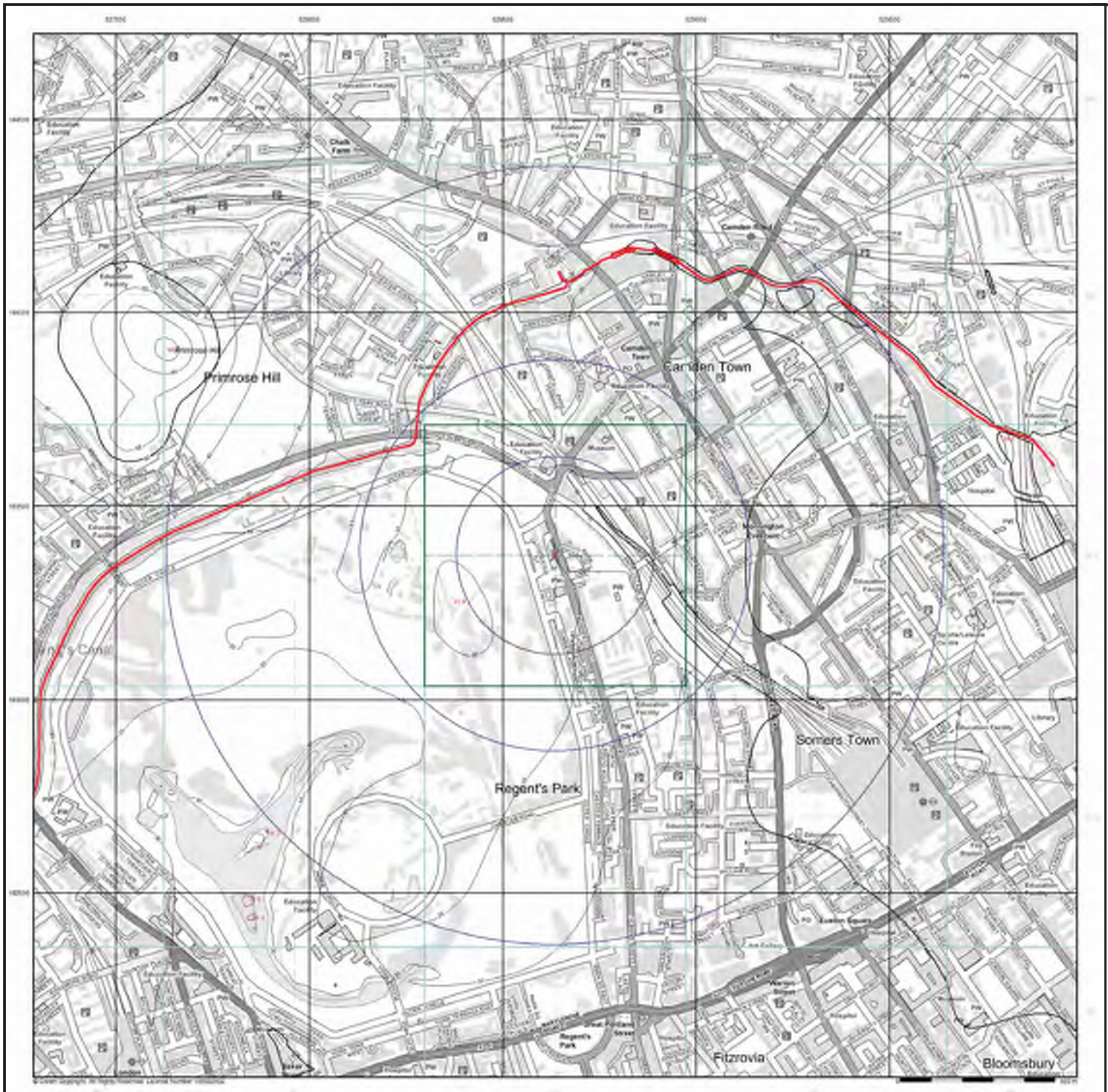

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LANDMARK INFORMATION GROUP

General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

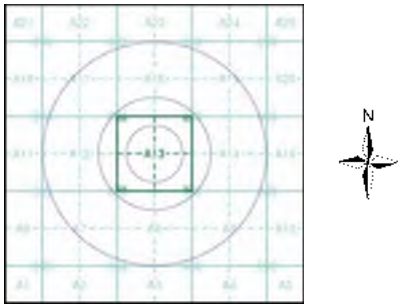
OS Water Network Data

- Canal
- Reservoir
- Foreshore
- Marsh
- Tidal River
- Inland River
- Drain
- Other
- Lake
- Transfer
- Lock Or Flight Of Locks
- Sea

Contours (height in meters)

- Standard Contour
- Master Contour
- Spot Height
- Mean Low Water
- Mean High Water

OS Water Network Map - Slice A



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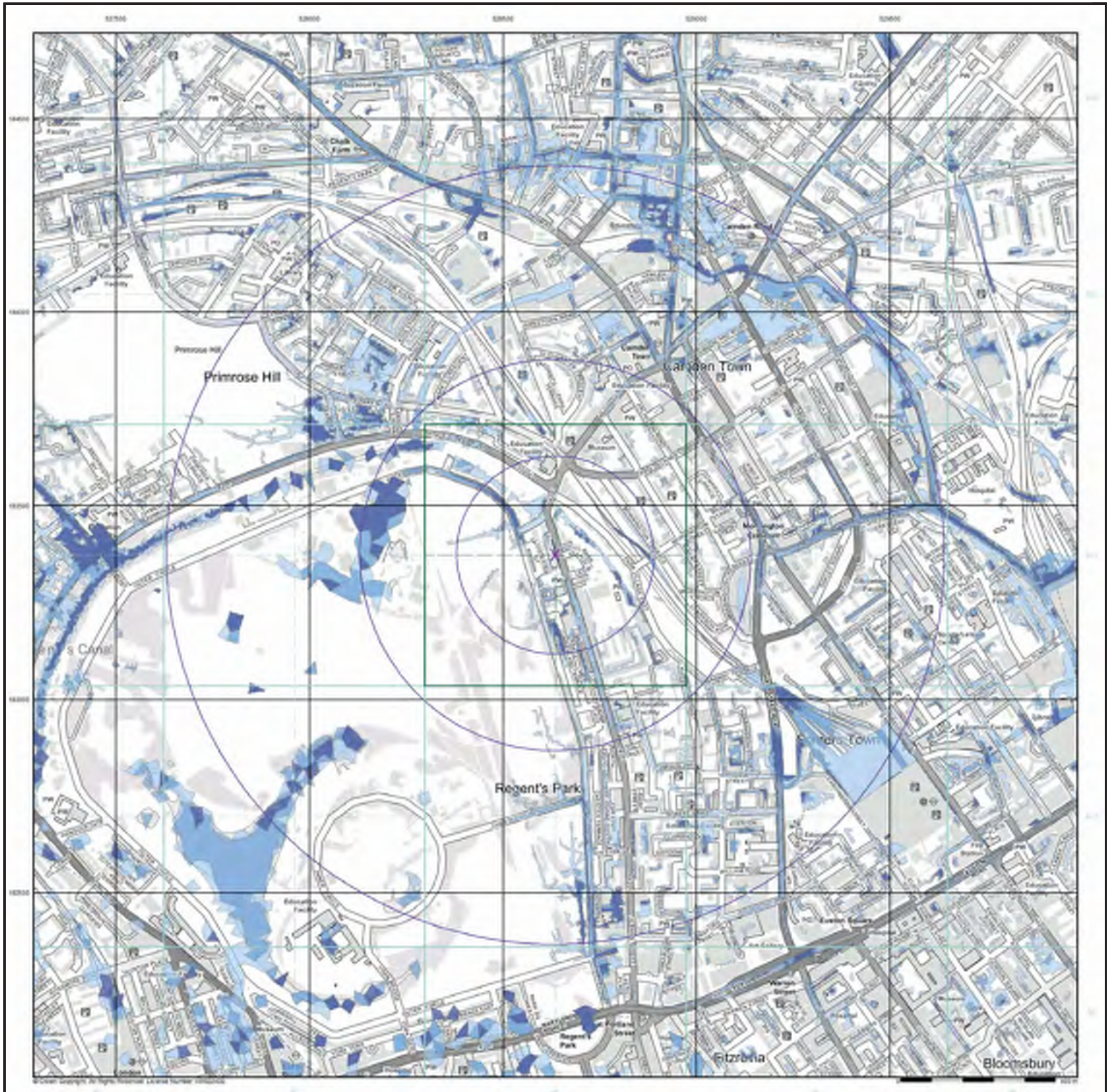


Envirocheck®
LANDMARK INFORMATION GROUP®

General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

Risk of Flooding from Surface Water

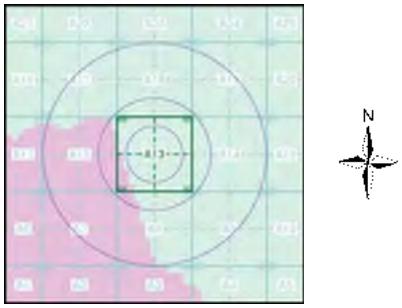
- High - 30 Year Return
- Medium - 100 Year Return
- Low - 1000 Year Return

Suitability

See the suitability map below

- National to county
- County to town
- Town to street
- Street to parcels of land
- Property

EA/NRW Suitability Map - Slice A



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Envirocheck

LANDMARK INFORMATION GROUP

General

Specified Site Specified Buffer(s) Bearing Reference Point

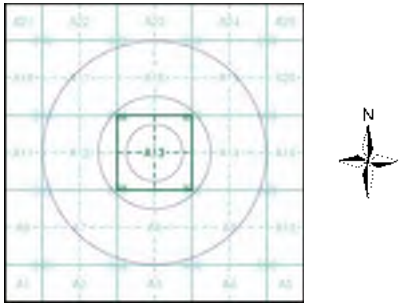
Urban Soil Chemistry Arsenic

BGS Urban Soil Chemistry Measured Concentration Values (mg/kg)

Arsenic Concentrations mg/kg

- < 15
- 15 - 25
- 25 - 35
- 35 - 45
- 45 - 60
- 60 - 120
- > 120

Urban Soil Chemistry Arsenic - Slice A



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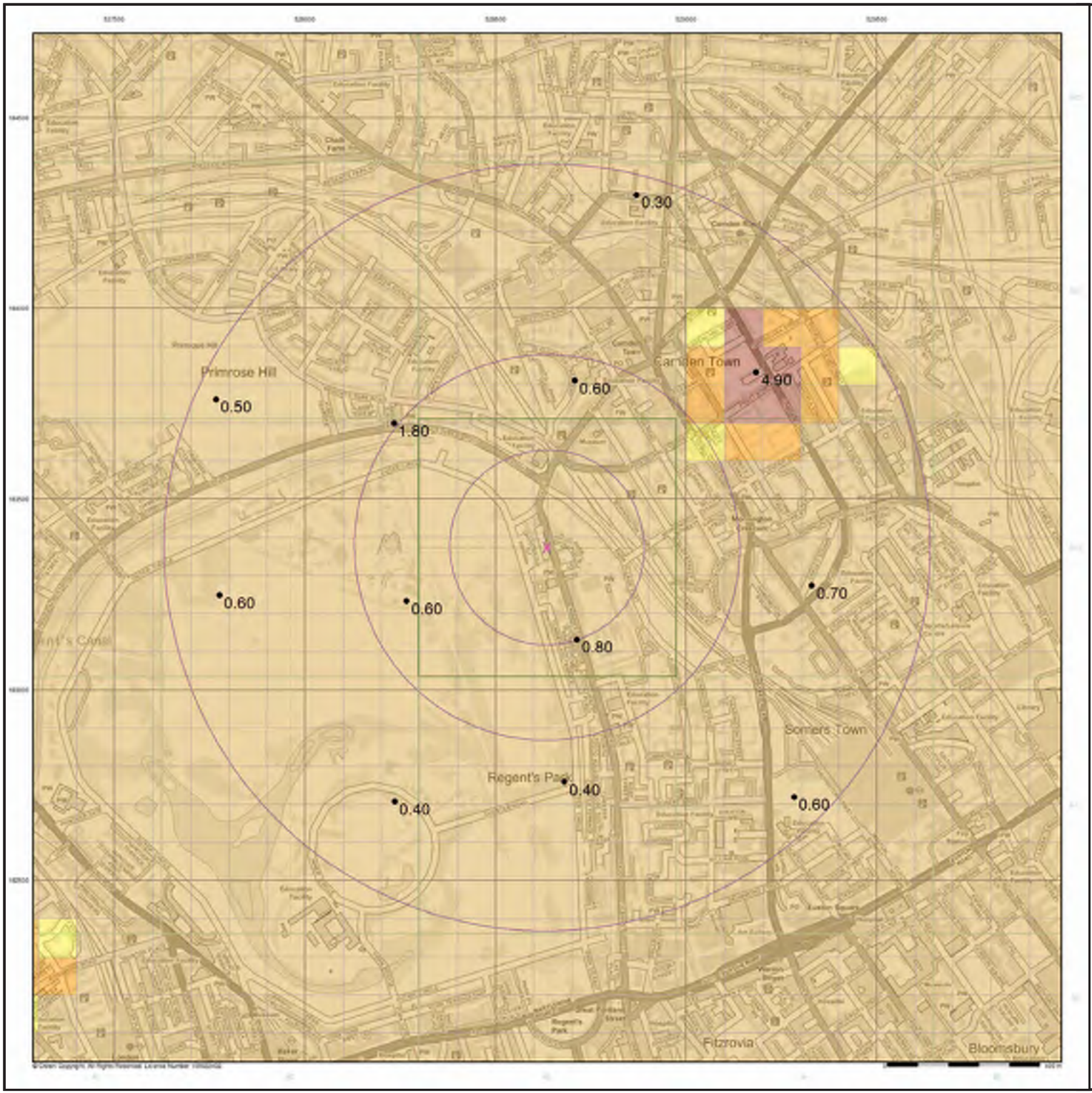


Envirocheck

LANDMARK INFORMATION GROUP

General

Specified Site Specified Buffer(s) X Bearing Reference Point

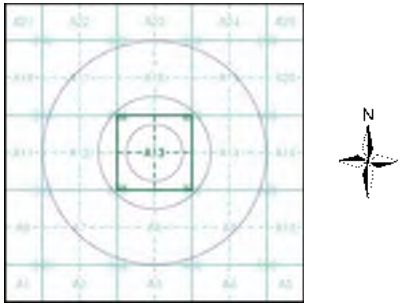
Urban Soil Chemistry Cadmium

BGS Urban Soil Chemistry Measured Concentration Values (mg/kg)

Cadmium Concentrations mg/kg

- < 1.8
- 1.8 - 2.2
- 2.2 - 3.0
- > 3.0

Urban Soil Chemistry Cadmium - Slice A



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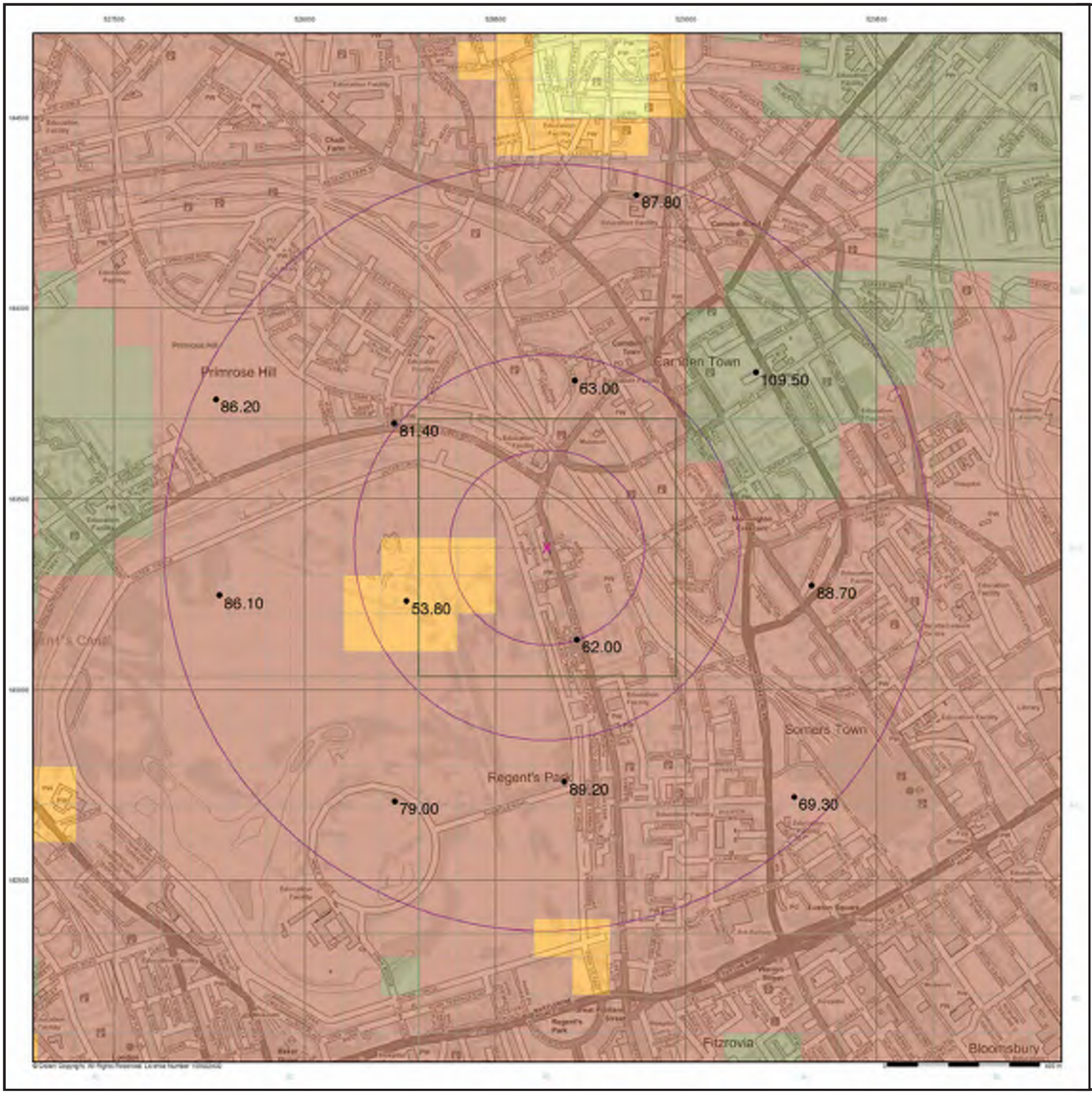


Envirocheck

LANDMARK INFORMATION GROUP

General

Specified Site Specified Buffer(s) Bearing Reference Point

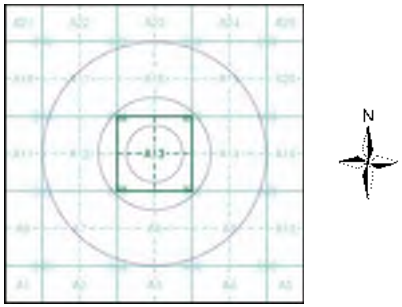
Urban Soil Chemistry Chromium

BGS Urban Soil Chemistry Measured Concentration Values (mg/kg)

Chromium Concentrations mg/kg

- < 20
- 20 - 40
- 40 - 60
- 60 - 90
- 90 - 120
- 120 - 180
- > 180

Urban Soil Chemistry Chromium - Slice A



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10.2 Site Investigation Data

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306 Davina House
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EC1V 7ET

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W: www.qedstructures.co.uk

The Geo-Environmental Service Provider

SITE INVESTIGATION
205 ALBANY STREET
LONDON

Prepared for: Afrijanus Property UK 1 Limited

ASL Report No. 253-20-651-09Rev1

March 2021

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SITE INVESTIGATION
205 ALBANY STREET
LONDON

SITE INVESTIGATION
205 ALBANY STREET
LONDON

1 INTRODUCTION

In August 2019, ASL were instructed by QED Structures on behalf of the client, Afrijanus Property UK 1 Limited to undertake the necessary site investigation and consultancy services associated with the site known as 205 Albany Street, London.

A site investigation is required in order to determine the ground conditions at the site ahead of its proposed development. It is understood that the proposed development comprises alterations and extensions to the existing property including extensions to the existing lower ground floor. In addition, as part of the proposed development, it is understood that floor levels within the existing lower ground floor are to be lowered by approximately 0.4m to 0.75m, with the floor level within the existing vaults in the east of the site lowered by approximately 0.75m. A proposed development layout is presented as Appendix I.

The scope of works for this project was set out in ASL's proposal references 253-20-651 205.elo.3384 dated 26th August 2020. The proposal was formerly accepted by Afrijanus Property UK 1 Limited in their completed Project Award Form dated 17th November 2020.

This report presents a desk study and conceptual site model, the factual results from an intrusive investigation and subsequent laboratory analyses and interpretative comment in terms of the geotechnical properties of the ground conditions encountered at the site in relation to the proposed development together with an assessment of the contaminative status of the site.

This report has been prepared for the sole benefit of the Client, Afrijanus Property UK 1 Limited, and their representatives and agents. The report has been written based on the results of data searches and ground conditions encountered at the time of the investigation and the results of subsequent analyses. Future changes in legislation and advances in current best practises or provision of more detailed design proposals will result in this report requiring review and possible further assessment after the date of issue. The general notes section within this report should be noted in relation to the limitations of this investigation and assessment.

2 THE SITE

The site is located to the immediate west of Albany Street approximately 0.6km to the south-west of Camden Town Centre and can be located approximately by National Grid Reference TQ 286 833 as shown on Figure 1.

The site comprises a roughly rectangular shaped piece of land with maximum dimensions of approximately 10m by 10m. The site is generally flat lying with no significant changes in elevation across the site.

The site is currently occupied by a terraced residential property (205 Albany Street). The existing structure comprises a brick built four-storey residential property with sloping tiled roof. An existing lower ground floor is present beneath the main house structure, the level of which is approximately 2m to 3m below the general site level.

The remainder of the site comprises an area measuring approximately 5m by 1.5m which forms a small area of courtyard located directly to the west of the existing structure.

The western boundary of the site is formed by a brick built wall approximately 2m in height. The site is bound to the east by Albany Street and to the north and south by residential properties.

It is understood that the proposed development comprises alterations and extensions to the existing property including extensions to the existing lower ground floor. In addition, as part of the proposed development, it is understood that floor levels within the existing lower ground floor are to be lowered by approximately 0.4m to 0.75m, with the floor level within the existing vaults in the east of the site lowered by approximately 0.75m. A proposed development layout is presented as Appendix I.

3 GEOLOGY

The British Geological Survey (BGS) Sheet No. 256 – 'North London' (Solid and Drift) and the Geology of Britain viewer indicates the site to be devoid of drift geology and directly underlain by solid geology the London Clay Formation generally described as, 'bioturbated or poorly laminated, blue-grey or grey-brown, slightly calcareous, silty to very silty clay, clayey silt and sometimes silt, with some layers of sandy clay. It commonly contains thin courses of carbonate concretions ('cementstone nodules') and disseminated pyrite' by the BGS. The thickness of the London Clay Formation is not defined by the BGS in the vicinity of the site, however it is anticipated to extend to significant depth.

A large area of mapped Worked Ground is indicated to be present approximately 250m to the east of the site. The Worked Ground is generically described as 'an area where the land surface (natural or artificial) has been lowered as a result of man-made excavations. The purpose of the excavation is unspecified' by the BGS.

The site is located in an area that may not be affected by coal mining and an area at no hazard from non coal mining activities. There are no BGS recorded mineral sites located within 0.5km of the site.

The environmental database search indicates the site to be in a lower probability radon area and that no radon protective measures are necessary in the construction of new dwellings or extensions.

Further details are presented in Appendix II.

4 HYDROGEOLOGY

The London Clay Formation is classified by the EA as an 'Unproductive Strata' described as 'These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow'.

The site is not located in a Source Protection Zone (SPZ). A Boundary with a SPZ II (Outer Protection Zone) and a SPZ I (Inner Protection Zone) are present approximately 810m and 870m to the west, respectively.

There is one abstraction from groundwater located within 1km of the site. This listing relates to the abstraction of water for 'Zoos/Kennels/Stables: Animal Watering & General Use (Non Agricultural)' use located approximately 630m to the west.

There are no discharge consents to groundwater located within 1km of the site.

The site is not located in an area with the potential for groundwater flooding to occur.

The site is not located in a groundwater nitrate vulnerable zone.

Further details are presented in Appendix II.

5 HYDROLOGY

The nearest identified surface water features are a number of unnamed ponds associated with London Zoo located approximately 380m to the west. None of these surface water features are classified chemically or biologically by the EA in the vicinity of the site.

The Grand Union Canal is located approximately 400m to the north-west of the site. The Grand Union Canal was classified as a category E – Poor by the EA in the vicinity of the site in 2000.

There are no abstractions from or discharges to surface water within 0.5km of the site.

The site is not indicated to be in an area at risk of flooding from rivers or seas without defences.

The site is not indicated to be in an area at risk from surface water flooding.

The site is not indicated to be in a surface water nitrate vulnerable zone.

Further details are presented in Appendix II.

6 SITE HISTORY

The site history has been derived from historical OS maps dating back to 1872. The map extracts are presented in Appendix III. Table 1 below presents a summary of the key developments in and around the site shown on the historical maps.

Table 1 Summary of Site History

Date of Map Extract	On site and surrounding Land-use
1872 - 82 (1:1056, 1:2500 & 1:10560)	The site is occupied by an assumed residential property, the layout of which is broadly consistent with that seen today. Albany Street is present directly to the east with Gloucester Mews present directly to the west. Regents Canal (Collateral Cut) is present approximately 60m to the north-east, with an assumed wharf present approximately 375m to the south-east. Railway lines are present approximately 175m to the north-east. Regents Park Barracks are present approximately 100m to the south-east. Regents Park is present approximately 80m to the west. A large railway goods depot is present approximately 700m to the north, with Euston Station present approximately 750m to the south-east. The remainder of the surrounding area generally comprises areas of residential properties, public buildings and associated road infrastructure.
1895 - 96 (1:10560, 1:2500 & 1:10560)	The site appears to remain unchanged. Limited residential development has taken place approximately 40m to the north-east. The buildings approximately 50m to the south are now labelled as St Katherines Royal Hospital. Zoological gardens are present approximately 350m to the west.
1916 - 20 (1:2500 & 1:10560)	The site area remains generally unchanged. A significant area of railway infrastructure and sidings together with two carriage sheds is present approximately 125m to the east. A hospital is present within the north of the barracks to the south-east.
1938 (1:10560)	The site and surrounding area remain generally unchanged.
1946 (Aerial Photo)	The site remains generally unchanged. The canal to the north-east appears to have been infilled. Assumed allotment gardens are present approximately 150m to the west. A number of further structures are present within the barracks to the south-east.
1951 - 53 (1:1250 & 1:10000)	The site remains unchanged. Further structures are present within the barracks to the south-east. A garage is present approximately 150m to the north-east. A number of works together with a warehouse and garage are present in excess of approximately 250m to the north and north-east. Allotment gardens are present on the route of the former canal approximately 250m to the south-east. Ruins are present approximately 125m to the south-west. In addition, the residential property approximately 20m to the south-east has been removed together with a limited number of properties in the wider surrounding area. It is considered that the ruins and removed property may be associated with bomb damaged sustained during World War II.
1954 - 57 (1:2500 & 1:10000)	The site and surrounding area remain generally unchanged.
1962 - 69 (1:1250 & 1:10000)	The site remains generally unchanged. Assumed lock-up garage structures are present approximately 50m to the south. A large tank feature is present approximately 25m to the east.
1971 (1:2500)	The site remains generally unchanged. The tank feature to the east has been removed and redeveloped with two assumed residential properties.
1973 -75 (1:1250 & 1:10000)	The site and surrounding area remain generally unchanged.
1976 (1:1250)	The site remains generally unchanged. The residential properties present approximately 10m to the south-west appeared to have undergone redevelopment with their layout now broadly consistent with that seen today.
1977 (1:1250)	The site and surrounding area remain generally unchanged.

Date of Map Extract	On site and surrounding Land-use
1990 (1:1250)	The site remains generally unchanged. Limited assumed residential development has taken place approximately 40m to the north-east. The carriage shed approximately 200m to the north-east has been removed.
1991 (1:1250 & 1:10000)	The site remains unchanged. The goods depot and associated railway infrastructure to the north has been removed and replaced with a distribution centre.
1999 (Aerial Photo & 1:10000)	The site and surrounding area remain generally unchanged. The zoological gardens to the west are now labelled as London Zoo, with a number of ponds present within its grounds
2006 (1:10000)	The site and surrounding area remain generally unchanged. The barracks to the south-east has undergone limited alteration.
2020 (1:10000)	The site and surrounding area remain generally unchanged. The carriage shed approximately 250m to the south-east has been removed.

The site's history dating back to 1872 indicates the site to have been occupied by an assumed residential property, the layout of which is consistent with the property currently present onsite.

Regents Canal (Collateral Cut) is indicated to have been present approximately 60m to the north-east of the site until approximately 1946 after which this feature appears to have been infilled.

A significant area of railway infrastructure and sidings including two carriage sheds is indicated to have been present approximately 125m to the east of the site since approximately 1916. The carriage sheds are indicated to have been removed by 1990 and 2020, however the railway infrastructure remains.

A number of garages, works and warehouses have been identified in the vicinity of the site, the closest of which is located approximately 150m to the north-east.

The remainder of the surrounding area has generally comprised residential properties, public buildings, recreational land and local road infrastructure.

7 STATUTORY DATABASE SEARCH

7.1 General

This section details any relevant information from registers maintained by the EA. Information provided by the BGS, The Coal Authority, Health Protection Agency and the National Environment Research Council (NERC) is also considered. The information held by the various bodies is summarised below and presented in detail in Appendix II.

It should be noted that the information provided in the desk study is obtained from independent third party sources. It is provided in good faith, but no guarantee can be provided as to its accuracy. Independent enquiries should be made relating to information provided in the desk study information that may impact on the proposed development. The desk study information is not necessarily exhaustive and further information relevant to the site may be available from other sources.

7.2 Database Search Results

There are no registrations listed within 0.5km of the site under the following:

- Contaminated Land Register Entries and Notices;
- Prosecutions Relating to Controlled Waters
- Enforcement and Prohibition Notices;
- Integrated Pollution Controls;
- Integrated Pollution Prevention and Control;
- Local Authority Integrated Pollution Prevention and Control;
- Local Authority Pollution Prevention and Control Enforcements;
- Prosecutions Relating to Authorised Processes;
- Registered Radioactive Substance Sites;
- Substantiated Pollution Incident Register;
- Water Industry Act Referrals;
- Any landfill sites;
- Integrated Pollution Control Registered Waste Sites;
- Any Licensed Waste Management Facilities;
- Any waste transfer, treatment or disposal sites;
- Any areas of potentially infilled land (non-water);
- Any Hazardous Substance Sites.

The following sections discuss the database search results which identified registrations listed within 0.5km of the site.

7.3 Environment Agency Search Results

There are three Local Authority pollution prevention and controls located within 0.5km of the site. The closest listing relates to a petrol filling station located approximately 260m to the north. The status of this listing is detailed as ‘authorised’. The remaining two listings relate to ‘dry cleaning’ located approximately 300m and 400m to the north. The status of these listings is detailed as ‘permitted’.

There is one pollution incidents to controlled waters located within 0.5km of the site. This listing relates to the release of an unknown pollutant to an undefined water feature located approximately 465m to the north. This incident was classified as a Category 3 – minor incident by the EA.

There are three areas of potentially infilled land (water) located within 0.5km of the site. The closest listing relates to an area of unknown filled land (pond, marsh, river, stream, dock etc.) located approximately 80m to the north-east. The remaining listings relate to areas of unknown filled land (pond, marsh, river, stream, dock etc.) located at distances greater than approximately 380m from the site. The mapping date of all of these features is detailed as 1951.

Further details are presented in Appendix II.

7.4 Geological Hazards

There is either a very low risk or no hazard from collapsible ground stability hazards, compressible ground stability hazards, landslide ground stability hazards or running sand ground stability hazards at the site.

The site is indicated to be in an area at moderate risk from shrinking or swelling clay ground stability hazards.

The site is located in an area that may not be affected by coal mining and an area at no hazard from non coal mining activities. There are no BGS recorded mineral sites located within 0.5km of the site.

The environmental database search indicates the site to be in a lower probability radon area and that no radon protective measures are necessary in the construction of new dwellings or extensions.

Further details are presented in Appendix II.

7.5 Contemporary Trade References

There are thirty-nine contemporary trade references located within 0.5km of the site. The closest listing relates to commercial cleaning services located approximately 190m to the north. The status of this listing is detailed as 'inactive'. The remaining listings relate to various industrial and commercial services completed at distances greater than approximately 230m from the site.

There is one fuel station entry located within 0.5km of the site. The listing relates to an obsolete facility located approximately 455m to the east.

There are seven commercial services points of interest located within 0.5km of the site. The closest listing relates to 'vehicle repair, testing and servicing' located approximately 250m to the north. The remaining listings relate to 'scrap metal merchants', 'vehicle repair, testing and servicing' and 'distribution and haulage' located at distances greater than approximately 305m from the site.

There is one education and health point of interest located within 0.5km of the site. this listing relates to a hospital located approximately 470m to the north-east.

There are ten manufacturing and production points of interest located within 0.5km of the site. The listings relate to 'unspecified works or factories', 'business parks and industrial estates' and' unspecified quarries or mines' located at distances greater than approximately 275m from the site.

There are five recreational and environmental points of interest located within 0.5km of the site. These listings relate to 'playgrounds' and 'municipal parks and gardens' located approximately at distances greater than approximately 130m from the site.

Further details are presented in Appendix II.

8 ASSESSMENT OF POTENTIAL CONTAMINATION RISKS

8.1 General

The following sections identify potential sources of contamination at the site and the surrounding area. The receptors to any contamination are also identified together with the pathways by which the contamination may make contact with the receptors. This section of the report uses the guidance presented in CLR 11 'Model Procedures for the Management of Land Contamination' produced by DEFRA and the EA to develop a conceptual site model as a 'source-pathway-receptor' model in accordance with current best practise.

8.2 On-Site Sources of Contamination

The potential sources of on-site contamination are associated with the site's former land uses. The site's history dating back to 1872 indicates the site to have been occupied by an assumed residential property, the layout of which is consistent with the property currently present onsite.

The former and current use of the site as a residential property is not classified by the Department for Environment, Food and Rural Affairs and the Environment Agency's document CLR8 as being potential sources of contamination.

There is the potential for vehicles and machinery use or stored at the site to contaminate the site from incidental leaks or spills of fuels and oils. This would give rise to the presence of oil and fuel based hydrocarbons within the near surface soils. No visual or olfactory evidence of contamination was noted at the site during the site walkover.

There is the potential for Made Ground to be present at the site associated with the existing development. Should Made Ground be identified, a general suite of determinants including asbestos should be considered.

The environmental database search indicates the site to be in an area where lead concentrations of between 300mg/kg and 600mg/kg may be present, with lead concentrations in excess 900mg/kg likely to be present within the vicinity of the site to the north. The elevated concentrations of lead are associated with historical industrial activity completed in the vicinity of the site.

There is the potential for asbestos to be present within the building fabric of the existing onsite structure. It is recommended that an asbestos survey is completed prior to the commencement of any development or refurbishment works.

8.3 Off-Site Sources of Contamination

The site has generally been surrounded by residential dwellings, recreational land, public buildings and local infrastructure. These land uses are not classified in the Department for Environment, Food and Rural Affairs and the Environment Agency's document CLR8 and the Department of the Environment Industry Profiles as being a potential source of contamination.

The railway infrastructure to the north-east is considered to be a potential source of contamination in the form of wind-blown metal and polycyclic aromatic hydrocarbon contamination.

A limited number of commercial and industrial land uses, including railway infrastructure, have been identified in the vicinity of the site, the closest of which is located approximately 125m to the east. In addition, areas of infilled land have been identified in the vicinity of the site, the closest of which is located approximately 80m to the north-east. These features and land uses are considered to be potential off-site sources of contamination and hazardous ground gases. However, due to the distance to these features and the likely cohesive nature of the underlying ground conditions the potential risk posed at the site from these off-site sources is considered to be very low.

8.4 Receptors

The receptors to any potential contamination and therefore the element actually at risk from the potential sources of contamination have been identified as the following:

- Construction and maintenance workers (R1);
- Current and future site users (R2);
- Service Lines, constructed as part of any new development (R3);
- Groundwater hydraulically down gradient of the site – Unproductive Strata (R4);
- Surface watercourses - Unnamed ponds located approximately 380m to the west and Grand Union Canal located approximately 400m to the north-west (R5);
- Neighbouring properties and residents (R6).

8.5 Pathways

A pathway is the means by which a contamination source makes contact with the receptor creating a pollutant linkage. The three elements of an identified pollutant linkage (source-pathway-receptor) need to be present for there to be a perceived risk from any identified contamination present in soils and/or groundwater.

The pathways considered in this assessment are as follows:

- Direct Physical Contact – Dermal contact, ingestion, inhalation (PL1);
- Migration from soils to groundwater via leaching (PL2);
- Migration within groundwater (PL3);
- Migration via service lines (PL4);
- Volatilisation of contaminants from soils and groundwater (PL5);
- Migration of hazardous ground gases (PL6)
- Vegetable intake (PL7).

8.6 Conceptual Site Model

The conceptual site model has been produced in accordance with the guidance presented in DEFRA R&D Publication CLR11 to produce this source-pathway-receptor model.

The desk study assessment of the site's environmental setting has identified potential pollutant linkages that may pose a risk to human health and controlled waters. The potential pollutant linkages are detailed in the conceptual site model, Figure 3.

The conceptual site model assumes the presence of contamination on the site in the Made Ground and/or the near surface soils and should be refined in relation to the results of the investigation as necessary. Refinement should also be made should the nature of the development result in pollutant linkages being broken. Refinements as necessary will be discussed in the qualitative risk assessment section of this report.

Table 2 presents a summary of the identified pollutant linkages.

Table 2 Summary of Pollutant Linkages

Potential Source of Contamination	Potential Pathway	Description / Comment	Potential Receptors
Potential Made Ground at the site.	PL1, PL2, PL3, PL4, PL5, PL6, PL7	Potential for contamination and hazardous ground gases. Presence not yet proven but expected.	R1, R2, R3, R4, R5, R6
Incidental leaks and spills from vehicles and machinery used and stored at the site.		Presence not yet proven. No visual or olfactory evidence of contamination noted during the site walkover.	
Elevated background concentrations of lead associated with historical industrial activity.		Presence not yet proven but expected.	
Areas of infilled land and limited industrial and commercial land uses identified in the vicinity of the site.		Potential for the migration of contamination and hazardous ground gases. Presence not yet proven.	
Asbestos within the existing building fabric.	PL1	Presence not yet proven.	R1, R2

8.7 Summary

The potential pollutant linkages noted in Table 2 will be discussed in light of the findings of the intrusive investigation from which an assessment of the actual risks posed by any contamination to the identified receptors will be determined.

From the assessment of the potential pollutant linkages the critical receptors are considered to be site end users (female child for a residential development) and groundwater hydraulically down gradient of the site in the Unproductive Strata. Maintenance and construction workers, service lines and neighbouring properties may also require consideration.

Due to the potential for asbestos to be present within the existing building fabric, it is recommended that an asbestos survey is completed prior to the completion of any development or refurbishment works.

9 GROUND INVESTIGATION AND TESTING

9.1 Ground Investigation

The scope of works was defined for the project by ASL in conjunction with QED Structures and comprised one windowless sample borehole. The intrusive investigation was designed to target the location of the proposed development. This investigation was completed to obtain information relating to the contaminative status and geotechnical properties of the underlying ground conditions.

The position of exploratory hole has been surveyed and plotted approximately on Figure 2.

The ground investigation was carried out in general accordance with BS5930 (2015) 'Code of Practice for Site Investigations' and BS10175+A2:2017 "Investigation of Potentially Contaminated Sites - Code of Practice" and in accordance with current best practice.

The scope of works for the ground investigation was as follows:

- 1 No. windowless sampler borehole (WS) to a depth of 10.45m bgl;
- Insitu standard penetration tests (SPT) at regular intervals within WS;
- Installation of a combined gas and groundwater monitoring standpipe within WS;
- Chemical laboratory testing of selected soil samples
- Chemical and geotechnical laboratory testing;
- Gas and groundwater monitoring programme.

The ground investigation was undertaken on the 14th January 2021. The intrusive investigation was supervised by a suitably experienced geo-environmental engineer from ASL. The exploratory holes were logged by the supervising engineer and the logs are presented in Appendix IV.

9.2 Gas and Groundwater Monitoring Programme

A single monitoring event was conducted on the 4th February 2021 and comprised level measurements of methane, oxygen, carbon dioxide, carbon monoxide, hydrogen sulphide, relative and atmospheric pressure, gas flow rate and groundwater level. The results of the gas and groundwater level monitoring are presented in Table IVa of Appendix IV.

9.3 Falling Head Permeability Testing

A falling head permeability test was completed within the monitoring installation on the 4th February 2021. The falling head permeability test was completed by filling the installation with clean water and monitoring the rate at which the water fell. The results of the falling head permeability test are presented in Appendix IV.

9.4 Laboratory Testing

Selected soil samples were scheduled for chemical testing for a general suite of contaminants to determine the general contaminative status of the ground conditions on the site. The samples were scheduled for chemical laboratory testing for the following determinants:

> Arsenic, Boron (water soluble), Beryllium, Cadmium, Chromium, Copper, Cyanide (free and total) Lead, Mercury, Nickel, Selenium, Vanadium, Zinc, Poly-cyclic Aromatic Hydrocarbons (PAH) (16 No. speciated), Total Petroleum Hydrocarbons (TPH), pH, Phenols, Sulphate (soluble), Sulphide, Total Sulphur, Total Sulphate, fraction of organic carbon, asbestos (Made Ground only)

Selected samples were scheduled for inert waste acceptance criteria (WAC) testing.

Selected soil samples were scheduled for the following determinants in leachate:

> Arsenic, Boron, Beryllium, Cadmium, Chromium, Copper, Cyanide (free and total), Lead, Mercury, Nickel, Selenium, Zinc, pH

The chemical testing is being undertaken by a UKAS accredited laboratory in accordance with the MCERTS accreditation where available.

The results of the chemical laboratory testing are presented in Appendix V.

9.5 Geotechnical Laboratory Testing

Geotechnical laboratory testing was completed on selected soil samples. The samples have been scheduled for Atterberg Limit testing to assess shrinkage potential and for pH and sulphate testing to assess the concrete classification for the proposed development.

The results of the geotechnical laboratory testing are presented in Appendix V and VI.

10 GROUND, GROUNDWATER AND GAS CONDITIONS

10.1 Materials Encountered

The BGS indicates the site to be devoid of drift geology and directly underlain by solid geology comprising the London Clay Formation.

The intrusive investigation proved the published solid geology.

In addition to the published geology the intrusive investigation Made Ground at the site present overflying the London Clay Formation materials to a depth of 2.2m bgl.

Table 3 presents a summary of the ground conditions encountered during the intrusive investigation. Full details of the conditions encountered are presented on the exploratory hole logs in Appendix IV.

Table 3 Summary of Strata Encountered

Description	Top of Unit (m bgl)		Thickness of Unit (m)		SPT 'N' Value
	Min	Max	Min	Max	
Made Ground Yellow brown gravelly SAND with frequent cobbles of paving slab, brick and concrete. Gravel is subangular to subrounded fine to coarse slate, brick, concrete, sandstone and plastic; Soft to firm, locally very soft, brown sandy slightly gravelly CLAY. Gravel is subangular to subrounded fine to coarse brick, flint, charcoal and limestone; Soft to firm brown locally grey CLAY with occasional angular to subrounded gravel of slate, brick and limestone.	0.15	0.15	2.05	2.05	0 - 1
London Clay Formation Stiff becoming very stiff with depth light brown becoming brown and brown grey with depth CLAY locally with rare selenite crystals.	2.20	2.20	8.25*	8.25*	10 - 23

Notes: * Denotes base not proven

In addition to the strata summarised in Table 3, concrete paved hardstandings were encountered at the surface at WS1 to a depth of 0.15m bgl.

Two SPT's were completed within Made Ground materials encountered which recorded SPT 'N' values of 0 and 1, indicating extremely low strength cohesive materials.

Eight SPTs were completed within materials interpreted as the London Clay Formation that recorded SPT 'N' values between 10 and 23, with SPT 'N' values typically increasing with depth, indicating typically medium strength becoming high strength with depth cohesive materials.

Two samples of the London Clay Formation materials recovered from depths of 3.6m and 5.6 bgl were scheduled for Atterberg Limit determinations. The results indicate the London Clay Formation materials tested to comprise silts of very high plasticity with liquid limits of 72% and 81%, plastic limits of 40% and 41%% and plasticity indices of 32% and 40% indicating the materials to be of medium and high volume change potential.

Natural moisture contents of 33% were recorded for the two samples tested.

The results of the geotechnical laboratory testing are presented in Appendix IV.

10.2 Falling Head Permeability Testing

A falling head permeability test was completed at WS1 on 4th February 2021. The falling head permeability test recorded a positive infiltration rate of 7.01×10^{-9}m/s. The results of the permeability testing are presented in full in Appendix IV.

10.3 Groundwater

Groundwater was not encountered within the exploratory borehole during the intrusive investigation or subsequent monitoring event.

Full details are presented in Appendix IV.

10.4 Gas

As part of the monitoring programme below ground gas levels within the monitoring standpipe were measured during a single monitoring event completed on the 4th February 2021. The results are presented in full in Table IVa of Appendix IV.

Methane, carbon monoxide, carbon dioxide and hydrogen sulphide were not recorded in excess of their relevant analytical detection limits of the apparatus used during the monitoring events.

Oxygen was recorded in excess of the analytical detection limit of the apparatus used at the monitoring installation during the monitoring event at a concentration of 20.9% v/v.

Average downhole pressures and average flow rates were recorded as being zero during the monitoring event.

The monitoring event was completed during a period of lower atmospheric pressure of 1005 to 1006mb.

11 GEOTECHNICAL ASSESSMENT

11.1 General

It is understood that the proposed development comprises alterations and extensions to the existing property including extensions to the existing lower ground floor. In addition, as part of the proposed development, it is understood that floor levels within the existing lower ground floor are to be lowered by approximately 0.4m to 0.75m, with the floor level within the existing vaults in the east of the site lowered by approximately 0.75m. A proposed development layout is presented as Appendix I.

At this stage it is assumed that a formation level of approximately 3m to 4m below existing ground level is to be adopted for the proposed basement construction.

As it is proposed to reduce the floor level within the existing lower ground floor, it is considered that underpinning of the existing foundations within these areas will be required.

The ground conditions at the site have been found to comprise Made Ground materials to a depth of approximately 2.2m bgl overlying firm to very stiff cohesive materials considered to represent solid geology of the London Clay Formation.

11.2 Foundation Assessment

Due to their inconsistency and variability the Made Ground materials are not considered a suitable founding stratum in their current condition.

It is considered that conventional foundations could be adopted for the proposed basement construction and any associated underpinning works, with foundations placed within the London Clay Formation materials at depths between approximately 3m and 4m bgl and designed to a net allowable bearing pressure of 125kN/m^2 to limit total settlements to 25mm and differential settlements to acceptable levels. Foundations will need to be locally deepened through any deeper Made Ground materials or any otherwise unsuitable materials and placed a minimum of 200mm into the underlying founding strata.

Plasticity index results indicate the London Clay Formation materials to be of medium and high volume change potential. However, given the nature of the site and the absence of any trees or planting within the vicinity of the proposed development it is considered that the deepening of foundation due to tree influence is unlikely to be required.

However, if foundations lie within the influencing distance of existing, proposed or recently removed trees and planting, foundations may need to be locally deepened in accordance with NHBC guidelines.

11.3 Basement Construction

It has been assumed that a formation level of approximately 3m to 4m below existing ground level will be adopted for the proposed basement construction.

It is considered that the most suitable option for forming the basement is by sequenced excavation to formation level, with suitable temporary support to the excavations and adjacent structures, together with the construction of mass concrete or reinforced retaining walls.

It is considered that conventional foundations could be adopted for retaining walls forming the basement as detailed in Section 11.2.

The sequencing of excavation and the design of temporary and permanent support to the ground and existing structures should be determined by a suitably qualified structural engineer.

The soil parameters detailed in Table 4 below are considered appropriate in relation to retaining wall design and ground movements.

Table 4 Retaining Wall Design Parameters

Material	Effective Cohesion (kN/m^2)	Effective Friction Angle (°)	Undrained Stiffness (E) (MN/m^2)	Bulk Density (Mg/m^3)
Made Ground	c' = 0*	ǿ = 25*	5*	γ′ = 1.80*
London Clay Formation	c' = 0 - 5*	ǿ = 21 - 23*	15 - 20*	γ′ = 2.10*

Groundwater was not encountered within the exploratory borehole during the intrusive investigation or subsequent monitoring event.

Based on the results of the groundwater monitoring it is considered that groundwater issues are unlikely to be encountered in relation to basement construction. However, the potential for higher groundwater levels cannot be discounted, particularly if the construction works are undertaken during the winter or periods of wet weather.

It is therefore considered that the basement structure should be waterproofed and appropriate measures included to manage groundwater during construction. The basement structure should be designed to safeguard against flotation.

11.4 Floor Slabs

Due to the limited depth and extent of the proposed basement excavation, it is considered that any heave of the materials at basement formation level due to the removal of the overlying soils is likely to be limited.

It is therefore considered that the use of ground bearing floor slabs could be adopted within the proposed development, placed within the London Clay Formation materials, however as a precautionary measure it is recommended that heave precautions are included beneath any proposed ground bearing slabs.

Alternatively, it is considered that suspended floor slabs with suitable subfloor voids could be adopted.

11.5 Excavations

Excavation of the materials encountered on site is likely to be achieved using conventional plant however, should any obstructions remain in the ground, such as former foundations and basement structures, at shallow depths the use of pneumatic/hydraulic breakout equipment may be required, particularly within confined excavations.

Given the nature of the Made Ground materials excavations may be prone to collapse, particularly in association with inflows of water. Consequently, temporary support should be considered for all excavations where collapse is to be avoided. Heavier duty closed

shoring should be provided for any excavations where man entry is necessary, in compliance with statutory requirements, to ensure safe working conditions.

11.6 Dewatering

Groundwater was not encountered within the exploratory borehole during the intrusive investigation or subsequent monitoring event.

It is therefore considered that groundwater is unlikely to encountered in excavations forming part of the proposed development. However, in the event of groundwater inflows within excavations it is considered that these should be suitably controlled with the use of conventional sump pumping techniques in conjunction with construction techniques to limit inflows into the excavation.

If dewatering is to be undertaken, consideration should be given to obtaining any relevant discharge consents that may be required for the disposal of water to existing drainage systems.

11.7 Buried Concrete Classification

Based on the results of chemical laboratory testing undertaken on samples recovered from the Made Ground and London Clay Formation materials it is considered that a Design Sulphate Class “DS-4” and an Aggressive Chemical Environment for Concrete (ACEC) site classification “AC-4” should be adopted for all concrete placed within these materials such as foundations and services.

11.8 Gas Protection Measures

The gas monitoring results indicate gas conditions corresponding to a Hazardous Gas Flow (HGF) of <0.07l/hr indicating Characteristic Situation 1 (CS1 – characterised as very low potential hazard). For CS1, the guidance provided in BS 8485 indicates that incorporation of gas protection measures is not required for a development of this type.

This conclusion should be agreed with the relevant regulatory authorities prior to the commencement of development works to confirm that the assessment completed meets with their requirements.

11.9 Drainage Design and Surface Water Management

As part of the investigation a falling head permeability test was completed within the monitoring installation at WS1. The falling head permeability test recorded a positive infiltration rate 7.01×10^{-9}m/s. The result of the permeability test is presented in full in Appendix IV.

Based on the results of the falling head permeability test undertaken and the cohesive nature of the underlying ground conditions, it is considered that the use of soakaways or other infiltration systems will not be feasible at the site.

It is recommended that the advice of a specialist drainage engineer is sought with regards to the design and installation of any drainage systems which may form part of the proposed development.

12 GROUND MOVEMENT ASSESSMENT

12.1 General

This assessment has been based on the findings of the intrusive investigation, the current design proposals and assumes a construction sequence including installation of the temporary retaining structures, excavation and temporary propping of retaining structures and construction of permanent retaining structures.

The ground conditions at the site have been found to comprise Made Ground materials to a depth of approximately 2.2m bgl overlying cohesive natural materials of the London Clay Formation which has been proven to the termination depth of investigation at 10.45m bgl.

During the intrusive investigation groundwater was not encountered and during the subsequent monitoring event the monitoring standpipe, installed to a depth of approximately 5m bgl, was recorded as dry.

A ground model has been derived for the site based on the findings of the intrusive investigation and comprises a layer of Made Ground over cohesive materials. The ground model together with the proposed development proposals are shown on the CSM as Figure 3.

The geotechnical parameters used within the assessment have been established from the SPT results together with Figure 31 and Section 8.2 of CIRIA Report 143 'The Standard Penetration Test (SPT): Methods and Use'.

The interpretation of the SPT results is included as Figure 4; Plot of SPT 'N' versus Depth.

It is assumed that the construction sequence comprises the sequenced excavation of soil to formation level and installation of any temporary support or propping as required prior to construction of permanent works. The final scheme will provide permanent support consisting of reinforced concrete walls and floors/slabs. The temporary supports/props will be removed following completion of the permanent construction works.

To undertake the detailed ground movement assessment, the various components of the development have been considered, not only individually, but also in terms of the overall CSM. The assessment and analytical methods represent all of the considered scenarios, including the temporary and permanent conditions (where appropriate).

12.2 Slope Stability Assessment

A slope stability assessment is not considered necessary for this site as the site is currently flat lying and any excavations associated with the formation of the basement will be supported in both the temporary and permanent conditions.

12.3 Ground Movement

The Made Ground encountered from surface to a depth of 2.2m bgl comprised a thin layer of more granular materials overlying soft cohesive materials. The Made Ground recovered was very loose granular materials or very soft to firm low strength cohesive materials. Due to the depth of the more granular materials these are likely to be fully stripped from around the excavation. Given the low strength of the Made Ground these will need to be fully supported during construction to prevent collapse. Any collapse or loss of ground will need to be remediated as part of placing the support to the excavation. The collapse of

the Made Ground will be minimised by carrying the work out in a controlled sequenced manner.

The level of support provided during the excavation through the Made Ground will be sufficient to minimise any ground movements in these materials.

The ground movements within the more competent materials at depth have been estimated based on CIRIA C760 Guidance on Embedded Retaining Walls using Section 6.2.1 Empirical Methods for soft and firm clays (Made Ground) and stiff clays (London Clay). This is considered appropriate based on the depth and location of the basement and the ground conditions present at the site.

Given the nature of the proposed basement construction the potential ground movements will be due to excavation in front of the existing basement wall. The proposed construction scheme does not include installation of a temporary or permanent piled wall.

The proposed construction comprises sequenced top-down excavation and support to a depth of approximately 3m to 4m bgl, together with temporary props as necessary resulting in a 'High Support Stiffness' construction methodology.

The assessment has been completed based on the proximity of the existing building and adjacent buildings, numbers 203 and 207 Albany Street, which are the closest structures to the proposed basement excavation. The proposed basement extension will join the lower ground floor of the existing property.

In terms of ground movement due to excavation in front of the basement wall, a relationship between the depth of the basement wall, distance from the basement wall and settlement, for cohesive soils is given in Figure 6.14 (a) and (b) and Figure 6.15 of CIRIA C760.

The relationship indicates that the settlement (ground movement) is likely to be of the order of 3mm to 6mm at the wall and reducing with distance from the wall.

It is assumed that the horizontal movement will be equal to the vertical movement due to settlement of the ground surface as a result of excavation in front of the wall.

12.4 Building Damage Assessment

The ground movements resulting from excavation of the basement will need to be controlled and given the nature of the ground conditions and the proposed construction methodology these will need to be a high standard, in accordance with Section 6.3 of CIRIA C760 to minimise any resulting movement. The measures required will include all supports being tight to the wall, minimising the first stage of excavation and any excavation beyond supports and minimising any delays during the construction works.

The ground movements estimated based on the ground model and the proposed works have been used to estimate typical expected damage to the existing building. The damage assessment has been completed based on the methodology presented in CIRIA C760 Section 6.4.

The estimated damage category (CIRIA C760, Table 6.4), relevant to masonry structures, indicates expected damage based on tensile strain. The tensile strain calculated indicates the existing building falls within 'very slight' damage, as shown on Figure 5, generally described as 'cracks filled as normal decoration'.

The existing structure includes a lower ground floor, the level of which is approximately 2.5m below existing ground level, it is therefore considered that the ground movements associated with the construction of the proposed basement are likely to be less than those detailed above as the depth of excavation below the existing lower ground floor and associated foundations will be limited (less than 1m). The estimated damage category detail above is therefore considered to be a 'worst case' scenario, with the actual settlements and associated damage category expected to be less than those estimated corresponding to 'negligible' damage.

12.5 Recommendations

The proposed development comprises the construction of a new basement extension adjacent to an existing building.

The site ground level is currently flat lying and any excavations will be supported both in the temporary and permanent conditions and therefore slope stability does not pose a risk at the site and a detailed slope stability assessment is not considered necessary.

Horizontal ground movements due to excavation of typically around 3mm to 6mm at the existing building have been estimated. The ground movements will be controlled by use of appropriate temporary support within a controlled sequenced excavation.

Potential 'very slight' damage is predicted to the existing building due to excavation in front of the existing basement. However, to minimise the extent of damage it is considered that the wall should be propped at the top and middle of the wall where it is immediately adjacent to the existing building, in the temporary condition, to minimise any ground movement in the temporary condition due to the basement excavation.

The final structure will provide sufficient support to the basement walls to prevent movement in the permanent condition.

Given the depth to groundwater and the relatively limited size of the proposed basement, it is considered that the construction of the basement will have negligible impact on groundwater.

13 HYDROGEOLOGICAL AND HYDROLOGICAL ASSESSMENT

13.1 General

Based on the findings of the site investigation, the ground conditions at the site have been found to generally comprise a relatively limited thickness of Made Ground materials overlying cohesive materials of the London Clay Formation which were present to the termination depth of the investigation at 10.45m bgl.

The London Clay Formation is classified by the EA as an Unproductive Strata defined as 'these are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow'.

Groundwater monitoring undertaken at the site indicates the groundwater level is in excess of approximately 5m bgl, with groundwater not encountered within the monitoring installation or within the borehole during its formation to the completed depth of 10.45m bgl. Therefore, it is not possible to accurately determine the depth of groundwater or the direction of groundwater flow at the site.

13.2 Groundwater Flow

The proposed development comprises the demolition of the existing structure and the construction of a new building which includes a new basement level extending to approximately 3m to 4m bgl. The proposed extension basement will extend across the width of the site, although it should be noted that the site already includes a full width basement. The extension will only increase the length of the basement by around 2m.

The proposed basement will not extend below groundwater level and will be located within the low permeability London Clay Formation materials.

Therefore, a qualitative assessment has been undertaken to determine the potential impact the basement may have on the local hydrogeological regime and whether this could impact adjacent properties.

Given the anticipated groundwater depth and the nature of the development proposals, the proposed basement structure is expected to have negligible impact on groundwater flow beneath the site.

The proposed development is therefore not anticipated to have a significant impact on surrounding properties or soils.

13.3 Flooding

Information provided in Environmental Database, including the BGS Flood GFS data, indicates the site to be located in an area with a no risk from groundwater, Fluvial or Surface Water Flooding.

13.4 Discussion

The hydrological and hydrogeological assessment indicates there are negligible risks associated with the development and impact on groundwater flow or flooding.

14 CONTAMINATION ASSESSMENT – HUMAN HEALTH

14.1 Introduction

The results of the chemical laboratory testing undertaken on selected soil samples (see Section 9.4), have been compared where possible to the relevant industry guidance as detailed in the following section.

Defra have published Development of Category 4 Screening Levels (C4SL) for Assessment of Land Affected by Contamination (document reference SP1010, dated 20th December 2013). This document includes proposed C4SL for six contaminants of concern. In March 2014 it was agreed that the C4SL could be used as part of the planning process. The chemical laboratory test results have therefore been compared where relevant to the C4SL. The C4SL have been derived based on the proposed end use of the site. In this instance an end use of 'residential with plant uptake' has been considered the most appropriate. Should the proposed development at the site change the potential risk posed by the identified contamination should be reviewed.

C4SLs have not been provided for the full range of determinants assessed as part of this contamination assessment. Further Generic Assessment Criteria (GAC) in accordance with this guidance are currently in production. Contaminated Land Exposure Assessment (CLEA) guidance to assess the risk to human health (Document References SC050021/SR2, SC050021/SR3, SC050021/SR4 and SC050021/SR7) is available. As a result, GAC for the relevant contaminants of concern included in this report have been derived in accordance with this CLEA guidance and spreadsheet Version 1.06. These criteria are considered to remain appropriate as C4SL are proposed to be more pragmatic whilst still highly precautionary when compared to the previously published guidance and associated SGVs. The GAC in this report are therefore considered to be conservative and define a lower level of risk in consideration of the potential risk to human health when compared to the current guidance and C4SL. The derived GAC are presented in Appendix VII.

Laboratory data at the site recorded a result of approximately 0.34% for soil organic matter calculated using fraction or organic carbon results. The GAC for the site are therefore calculated assuming 0.34% SOM.

14.2 Chemical Test Results - Soils

The results of the chemical laboratory testing undertaken on the selected soil samples are summarised in Table 5. Only those determinants recorded in excess of their relevant laboratory detection limits are assessed here.

The chemical test results on soil are presented in full in Appendix V.

Table 5 Summary of Soils Data with Respect to Human Health (Tier 1)

Contaminants	Max Conc. (mg/kg)	C4SL mg/kg (Residential with Plant Uptake)	CLEA Derived GAC mg/kg (Residential with Plant Uptake)	No. of Tests
Arsenic	14	37 (0)	-	2
Beryllium	1.4	-	87.8 (0)	2
Boron	1.6	-	117 (0)	2
Chromium	52	-	1110 (0)	2
Copper	41	-	2380 (0)	2
Lead	36	200 (0)	-	2
Nickel	52	-	127 (0)	2
Vanadium	100	-	282 (0)	2
Zinc	96	-	3250 (0)	2

Note:
1. Number in brackets represents the number of results above guideline values.

In addition to the determinants summarised in Table 5, asbestos was analysed for in three samples of Made Ground. Asbestos was not identified in any of the soil samples analysed. No further assessment of the potential risk to human health from asbestos present in soils is considered necessary.

None of the contaminants of concern summarised in Table 5 are identified in excess of their relevant screening criteria. No further assessment of the potential risk to human health from the recorded concentrations of contaminants of concern is considered necessary. No remediation to be protective of human health is considered necessary.

However, it is recommended that the chemical laboratory test results within this report should be forwarded to the mains water service provider to ensure that their requirements for service line construction are satisfied.

15 CONTAMINATION ASSESSMENT – CONTROLLED WATERS

15.1 Introduction

To assess the potential risk to controlled waters from the recorded concentrations in soils the use of leachability is generally used to determine contaminant mobility within the ground with the results of these tests compared to the determinants respective environmental quality standards (EQS) or other applicable standards such as UK drinking water standards (DWS). The critical receptor is considered to be groundwater beneath the site, therefore the relevant DWS have been used where available.

15.2 Summary of Results - Soils

Table 6 presents a summary of the screening criteria compared with the maximum recorded concentrations of determinants at the site. Only those determinants recorded in excess of their relevant laboratory detection limits are assessed here. The chemical test results are presented in full in Appendix V.

Table 6 Summary of Soils Data with Respect to Controlled Waters (Tier 1)

Determinant	Max Conc. (mg/l)	Tier 1 Value (mg/l)	No. of Exceedances
Arsenic	0.0041	0.01	0 (1)
Boron	0.042	1	0 (1)
Chromium	0.0043	0.05	0 (1)
Copper	0.004	2	0 (1)
Lead	0.0057	0.01	0 (1)
Nickel	0.0029	0.02	0 (1)
Vanadium	0.0034	0.06	0 (1)
Zinc	0.0076	5	0 (1)

Notes
1. Numbers in brackets denote the number of tests undertaken.

None of the contaminants of concern are recorded in excess of their relevant screening criteria. No further assessment of the potential risk to controlled waters from contamination present in soil is considered necessary. No remediation of soils to be protective of controlled waters is considered necessary.

16 WASTE DISPOSAL

Based on the results of the chemical laboratory analysis including Waste Acceptance (WAC) testing it is considered that the cohesive the Made Ground and natural strata may be classified as inert waste in terms of disposal and should be considered as such until further testing is completed to prove otherwise.

Laboratory testing has not been undertaken on the shallow Made Ground materials, with the exception of testing for the presence of asbestos. However, based on the nature of these materials and the absence of asbestos, it is considered likely that these materials may also be classified as inert.

Prior to disposal, the characteristics of any excavated soils will need final classification in consultation with the relevant waste disposal facility and further testing and analysis may be required on the actual materials requiring off-site disposal.

17 DISCOVERY STRATEGY

This investigation has not identified significant contamination that may pose a potential risk to the identified receptors. However, there is the potential for more significantly contaminated materials, differing ground conditions and buried structures to be present at the site between exploratory hole locations. Should any of these conditions be identified during the development works, ASL should be contacted immediately to allow further assessment to be completed to ensure the identified critical receptors are not at risk.

This assessment may take the form of additional intrusive investigation, sampling and laboratory analyses subject to the nature of the conditions encountered.

18 CONCLUSIONS AND RECOMMENDATIONS

A ground investigation has been completed at the site to characterise the ground and groundwater conditions. A geotechnical and contamination assessment has been completed based on the results of these investigations. The conclusions of this assessment are summarised as follows:

It is recommended that an asbestos survey is completed prior to the commencement of any development or refurbishment works.

It is considered that conventional foundations could be adopted for the proposed basement construction and underpinning works, with foundations placed within the London Clay Formation materials at depths between approximately 3m and 4m bgl, designed to a net allowable bearing pressure of 125kN/m^2 to limit total settlements to 25mm and differential settlements to acceptable levels. Foundations will need to be locally deepened through any Made Ground materials or any otherwise unsuitable materials and placed a minimum of 200mm into the underlying founding strata.

Plasticity index results indicate the London Clay Formation materials to be of medium and high volume change potential.

It is considered that the most suitable option for forming the basement is by sequenced excavation to formation level, with suitable temporary support to the excavations and adjacent structures, together with mass concrete or reinforced retaining walls.

The sequencing of excavation and the design of temporary and permanent support to the ground and existing structures should be determined by a suitably qualified structural engineer.

The basement structure should be waterproofed and appropriate measures included to manage groundwater during construction. The basement structure should be designed to safeguard against flotation.

It is considered that the use of a ground bearing floor slab could be adopted within the proposed development placed within the London Clay Formation materials, however as a precautionary measure it is recommended that heave precautions are included beneath any proposed ground bearing slabs. Alternatively, it is considered that suspended floor slabs with suitable subfloor voids could be adopted.

Based on the results of chemical laboratory testing undertaken on samples recovered from the Made Ground and London Clay Formation materials it is considered that a Design Sulphate Class “DS-4” and an Aggressive Chemical Environment for Concrete (ACEC) site classification “AC-4” should be adopted for all concrete placed within these materials such as foundations and services.

The results of ground gas monitoring indicate that the gas protection measures are not required for the proposed development. This conclusion should be agreed with the relevant regulatory authorities prior to the commencement of development works.

Based on the results of the falling head permeability tests undertaken and the ground conditions encountered at the site, it is considered that the use of soakaways or other infiltration systems will not be feasible at the site.

The contamination assessment has not identified a potential risk to the identified critical human health or controlled waters receptors. No further assessment of the potential risk to human health or controlled waters is considered necessary. No remediation to be protective of human health or controlled waters is considered necessary.

It is recommended that the chemical laboratory test results within this report are forwarded to the mains water service provider to ensure that their requirements for service line construction are satisfied.

Based on the results of the chemical laboratory analysis it is considered that the Made Ground and natural strata may be classified as inert waste in terms of disposal.

Prior to disposal, the characteristics of any excavated soils will need final classification in consultation with the relevant waste disposal facility and further testing and analysis may be required on the actual materials requiring off-site disposal.

REFERENCES

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www.environment-agency.gov.uk

Department of the Environment Industry Profiles

BS5930:2015 "Code of Practice for Site Investigation"

BS10175+A1:2013 "Code of Practice for the Investigation of Potentially Contaminated Sites"

BS1377 "Method of Tests for Soils for Civil Engineering Purposes" : 1991

Environment Agency's Publication 'Methodology for the Derivation of Remedial Targets for Soil and Groundwater to Protect Water Resources' R&D Publication 20

Environment Agency's 'Remedial Targets Worksheet, Release 3.1' (October 2007)

RIVM report 711701 025 Re-evaluation of human-toxicological maximum permissible risk levels March 2001. A.J. Baars, R.M.C. Theelen, P.J.C.M. Janssen, J.M. Hesse, M.E. van Apeldoorn, M.C.M.Meijerink, L. Werdam and M.J. Zeilmaker.

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WHO, Concise International Chemical Assessment Document 32, "Beryllium and Beryllium Compounds" 2001

Total Petroleum Hydrocarbon Criteria Working Group Series Volume 3 and 4, 1997

Human health toxicological assessment of contaminants in soil (Report Reference SC050021/SR2, dated January 2009);

Updated technical background to the CLEA model (Report Reference SC050021/SR3, dated January 2009);

CLEA Software (Version 1.04) Handbook (Report Reference SC050021/SR4, dated January 2009);

Compilation of Data for Priority Organic Pollutants for Derivation of Soil Guideline Values (Report Reference SC050021/SR7, dated November 2008).

BS8485 'Code of practice for the characterisation and remediation from ground gas in affected developments', 2007

NHBC standards 2016

CIRIA C760 "Guidance on Embedded Retaining Wall Design" 2017

CIRIA Report 143 "The Standard Penetration Test (SPT): Methods and Use" 1995.

Environmental Database Search report reference: 273837874_1_1

GENERAL NOTES

The interpretation made in this report is based on the information obtained during the course of the desk study and ground investigation. It should be appreciated that any desk study information is not necessarily exhaustive and that further information relevant to the site and its proposed usage may be available. There may be conditions present on the site that have not been revealed by the ground investigation which as a result have not been addressed within this report.

The accuracy of any map extracts cannot be guaranteed and it should be recognised that different conditions on site may have existed between and subsequent to the various map surveys.

The qualitative assessment of risk presented in this report presents an assessment of potential pollutant linkages between sources, pathways and receptors. A level of risk is attributed to these linkages. However, a low or insignificant risk does not imply that elevated concentrations of various determinants are not present on the site when compared to background or 'greenfield' conditions.

The level of risk attributed is based on a number of factors and the interpretation of this risk may be applied in a different manner for a different end use or environmental setting. The presence of contaminants may be assessed in alternative ways by institutional bodies regardless of whether an apparent risk is present based on the identified pollutant linkages in this assessment.

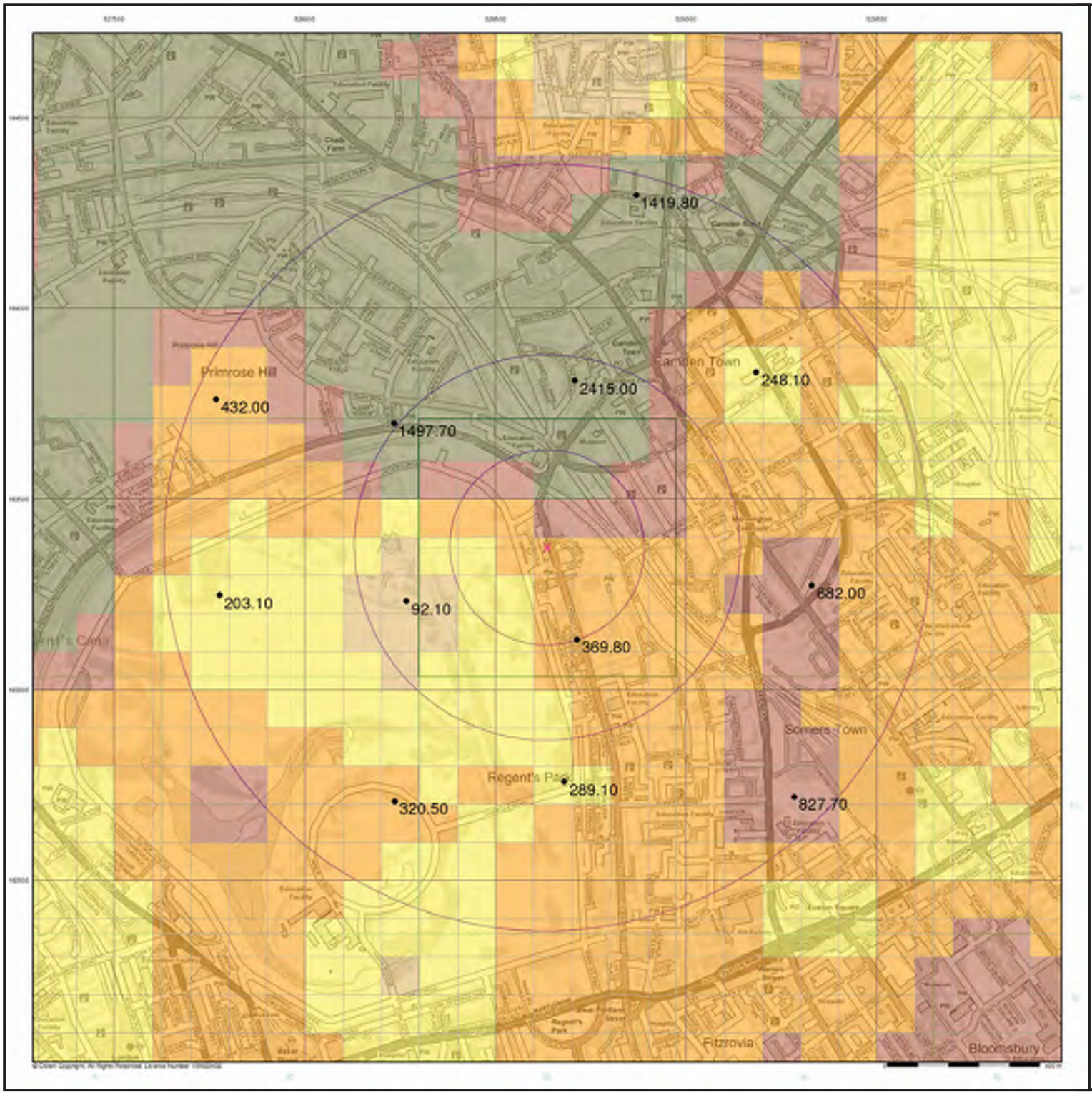
This report may express an opinion on possible configurations of strata underlying the site between or beyond the exploratory holes or on the possible presence of features based on either visual, verbal or published evidence, this is for guidance only and no liability can be accepted for its accuracy.

Comments made on ground conditions are based on the observations made at the time of the investigation works. It should be noted that groundwater levels may vary due to seasonal fluctuation or other factors. Observations made with respect to below ground gas concentrations may also vary due to seasonal factors and atmospheric conditions.

This report has been prepared in relation to the proposed development as detailed herein. Should the nature of the development change following the submission of this report a re-assessment of the conditions recorded on the site may be necessary.

This report may not be used in the assessment of the conditions at any site other than the site described herein

This report has been prepared for the sole use of the client and the client's agents and advisors in relation to the proposed development as detailed herein. The issue of this report to third parties not involved in the proposed development as described herein is not permitted without the prior permission being received in writing by ASL. Reproduction of this report to include all figures, drawings and appendices is prohibited without the prior written consent of ASL.



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LANDMARK INFORMATION GROUP

General

Specified Site Specified Buffer(s) Bearing Reference Point

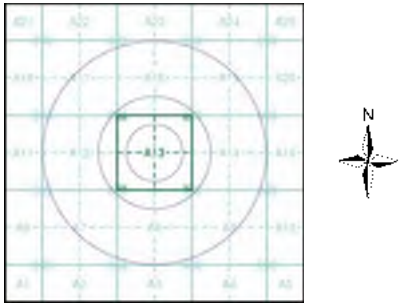
Urban Soil Chemistry Lead

BGS Urban Soil Chemistry Measured Concentration Values (mg/kg)

Lead Concentrations mg/kg

- < 150
- 150 - 300
- 300 - 600
- 600 - 900
- > 900

Urban Soil Chemistry Lead - Slice A



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Site Area (Ha)	0.01
Search Buffer (m)	1000

Site Details

205 Albany Street, London, NW1 4AB

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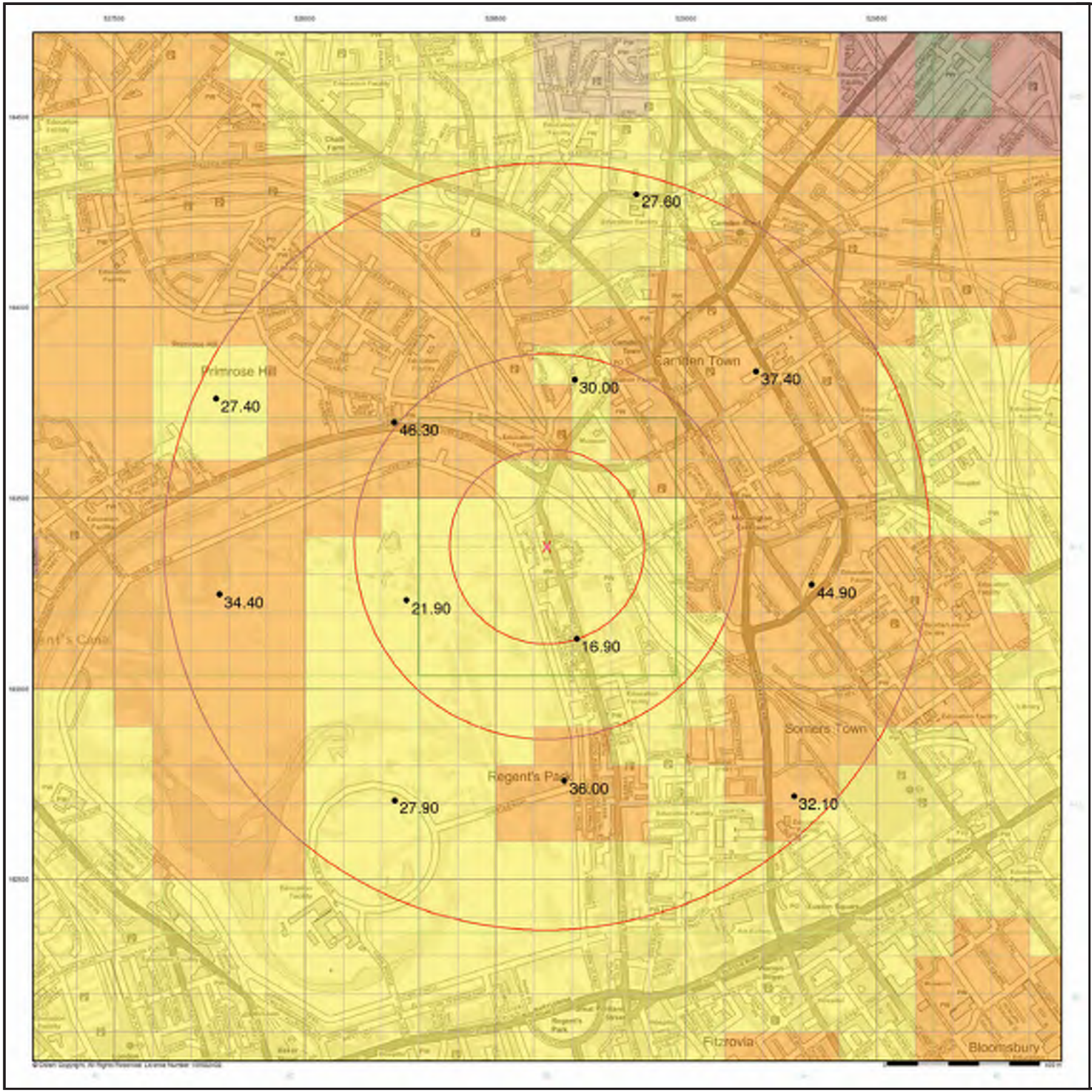

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LANDMARK INFORMATION GROUP

General

Specified Site | Specified Buffer(s) | Bearing Reference Point

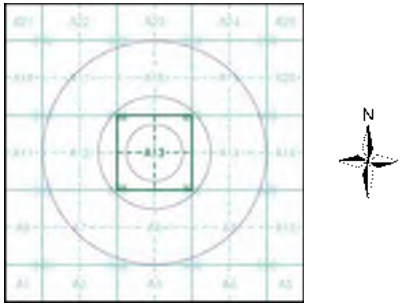
Urban Soil Chemistry Nickel

BGS Urban Soil Chemistry Measured Concentration Values (mg/kg)

Nickel Concentrations mg/kg

- < 15
- 15 - 30
- 30 - 45
- 45 - 60
- 60 - 80
- 80 - 100
- > 100

Urban Soil Chemistry Nickel - Slice A



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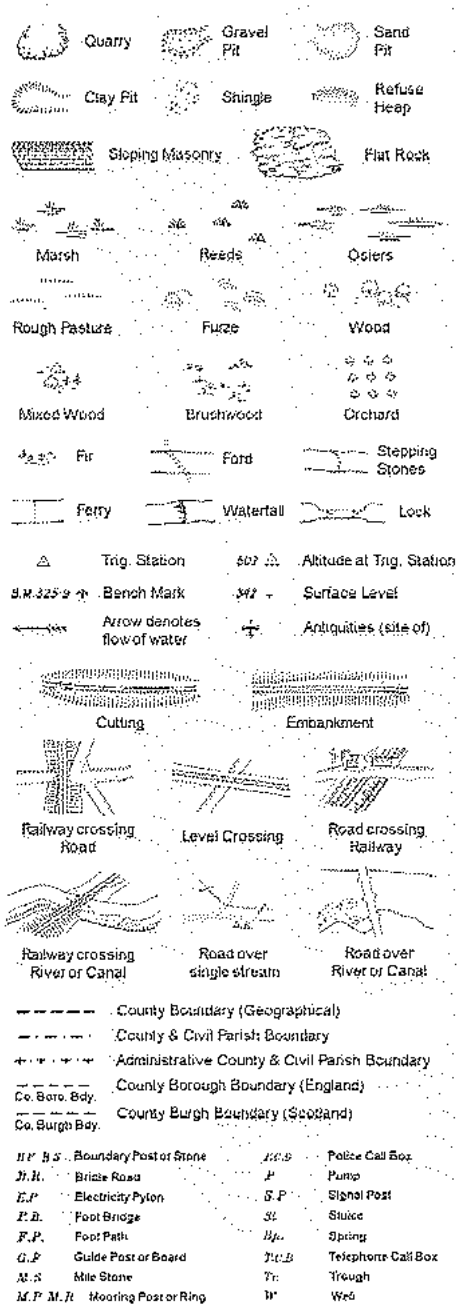
APPENDIX III

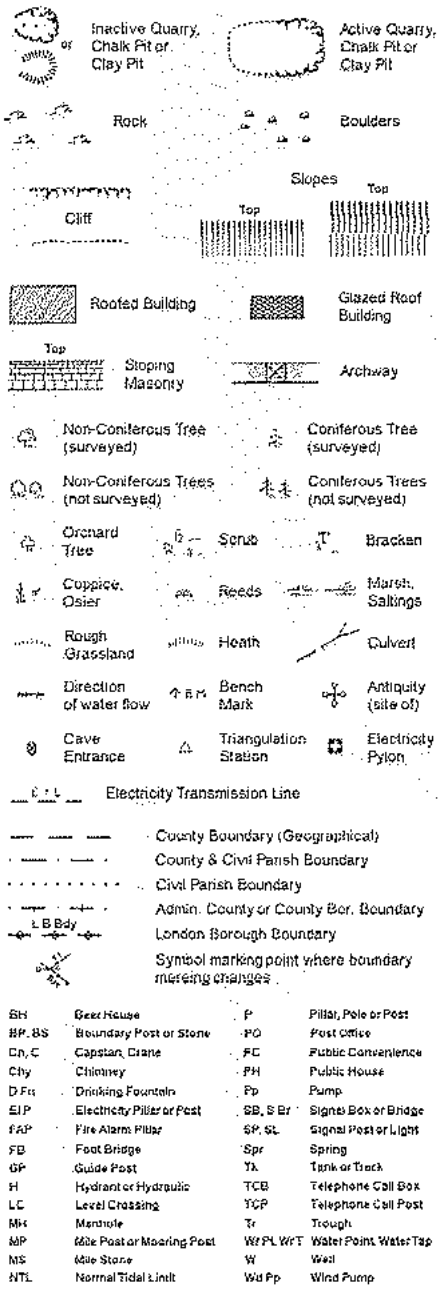
HISTORICAL MAP EXTRACTS

Historical Mapping Legends

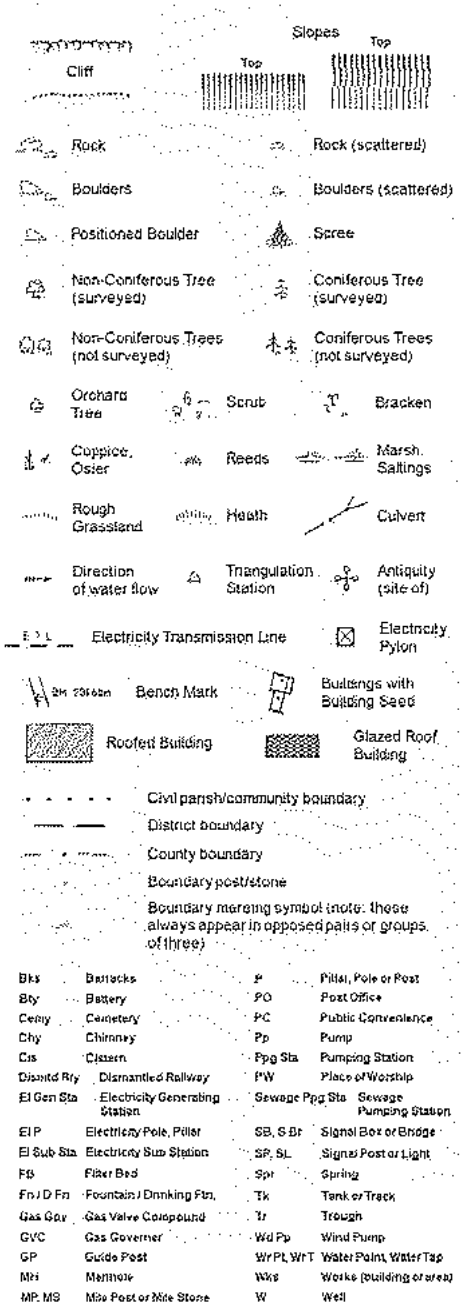
Ordnance Survey County Series and Ordnance Survey Plan 1:2,500



Ordnance Survey Plan, Additional SIMs and Supply of Unpublished Survey Information 1:2,500 and 1:1,250



Large-Scale National Grid Data 1:2,500 and 1:1,250



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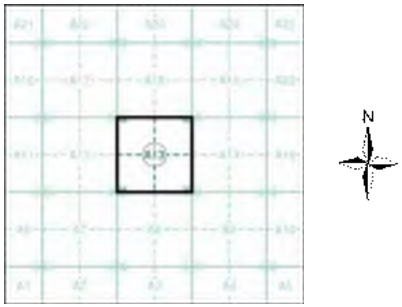
Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
London	1:2,500	1875 - 1876	2
London	1:2,500	1896	3
London	1:2,500	1916	4
Historical Aerial Photography	1:1,250	1946	5
Ordnance Survey Plan	1:1,250	1953	6
Additional SIMs	1:1,250	1953 - 1986	7
Ordnance Survey Plan	1:2,500	1954	8
Ordnance Survey Plan	1:1,250	1962 - 1969	9
Ordnance Survey Plan	1:2,500	1971	10
Supply of Unpublished Survey Information	1:1,250	1973 - 1975	11
Supply of Unpublished Survey Information	1:1,250	1976	12
Ordnance Survey Plan	1:1,250	1977	13
Additional SIMs	1:1,250	1982 - 1990	14
Large-Scale National Grid Data	1:1,250	1991	15
Large-Scale National Grid Data	1:1,250	1995	16
Large-Scale National Grid Data	1:1,250	1996	17
Historical Aerial Photography	1:2,500	1999	18

Historical Map - Segment A13



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Slice: A
Site Area (Ha): 0.01
Search Buffer (m): 100

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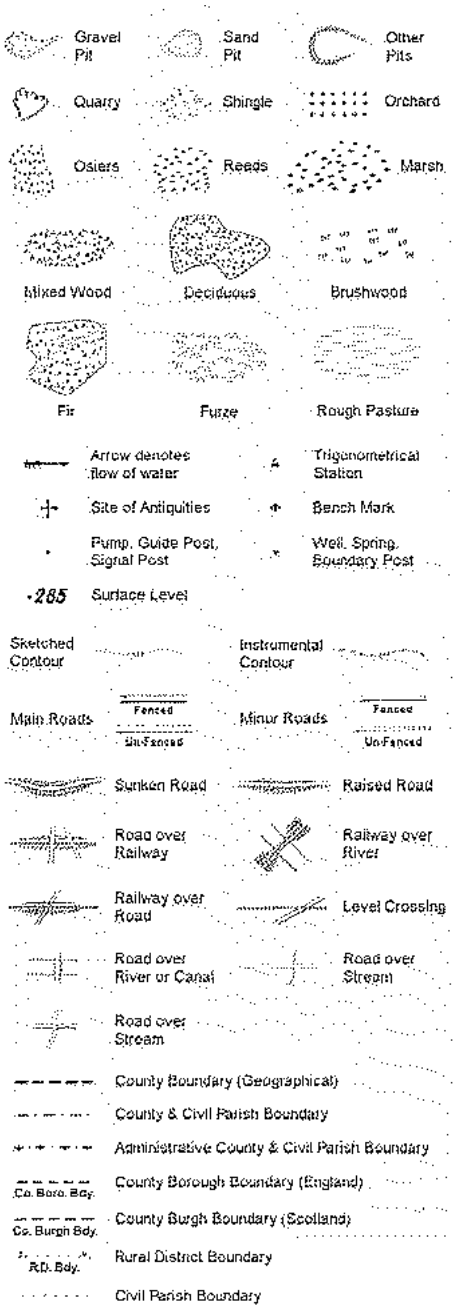
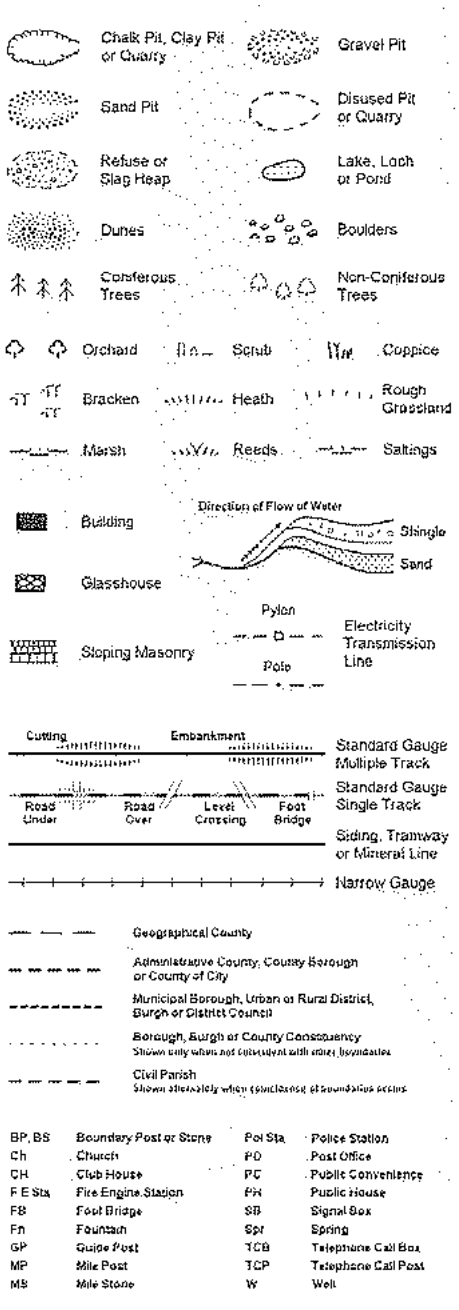
Historical Mapping Legends

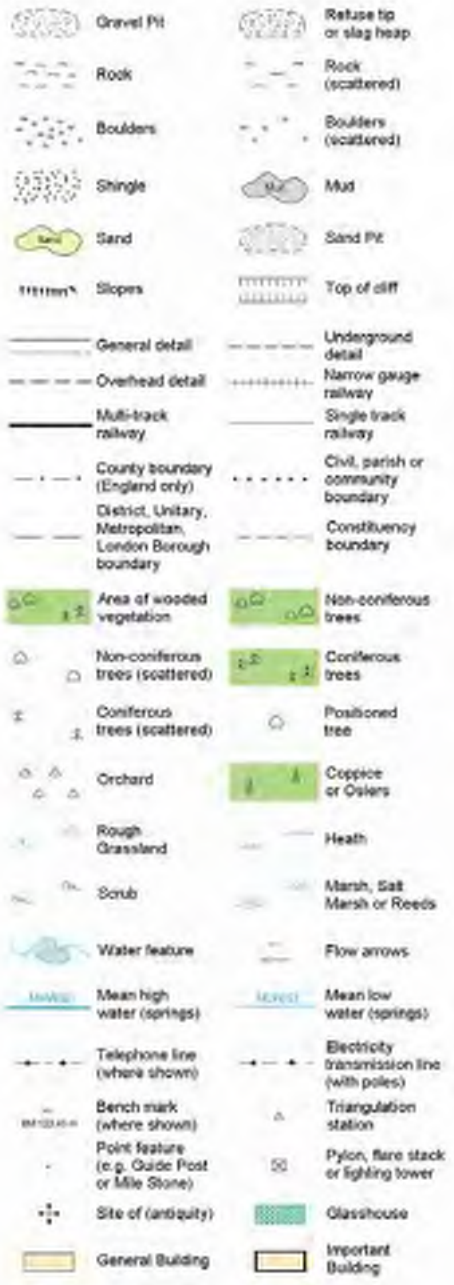
Ordnance Survey County Series 1:10,560



Ordnance Survey Plan 1:10,000



1:10,000 Raster Mapping



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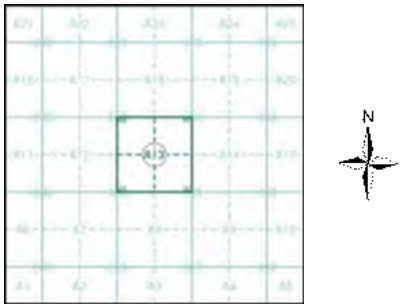
Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Middlesex	1:10,560	1874 - 1882	3
Surrey	1:10,560	1874 - 1880	4
London	1:10,560	1896	5
Surrey	1:10,560	1898	6
London	1:10,560	1920	7
London	1:10,560	1938	8
Ordnance Survey Plan	1:10,000	1951	9
Ordnance Survey Plan	1:10,000	1957	10
Ordnance Survey Plan	1:10,000	1968	11
Ordnance Survey Plan	1:10,000	1974	12
London	1:25,000	1985	13
Ordnance Survey Plan	1:10,000	1991	14
10K Raster Mapping	1:10,000	1999	15
10K Raster Mapping	1:10,000	2006	16
VectorMap Local	1:10,000	2020	17

Historical Map - Slice A



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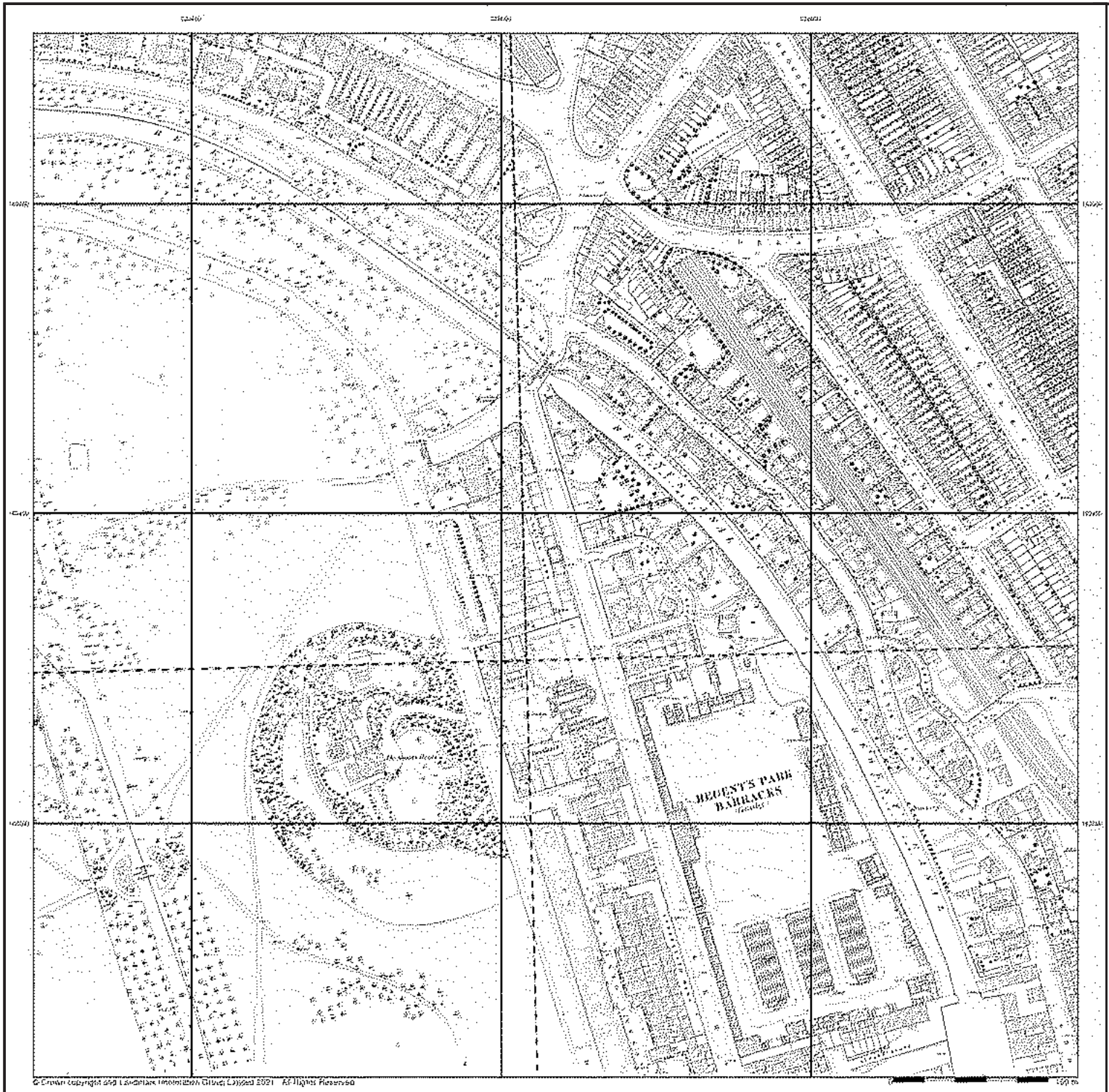

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London

Published 1872 - 1873

Source map scale - 1:1,056

The 1:1056 scale of Ordnance Survey mapping was adopted from Ireland in 1848 and was used to survey towns with a population of over 4000, plus county towns of lesser population, in those counties mapped at the six-inch scale in 1841-55. The scale was the largest scale at which London was mapped by the Ordnance Survey and a 'skeleton' survey of the capital, showing little more than streets, street names, frontages and altitudes, was undertaken between 1848 and 1850. The majority of the 1:1056 surveys were later replaced by 1:500 surveys; although almost all the remainder were revised at this scale, sometimes more than once before 1895. The type of detail shown on the 1:1056 scale is broadly similar to that on 1:500; the apparent omission of minor details such as sewer access points and street lights may be as much a reflection of the generally earlier date of these plans, as of the specification of the map.

Please note: Due to the partial coverage of Historical Town Plans, it is possible that not all segments within an order will contain mapping. Only the segments that have Town Plan coverage will be generated.

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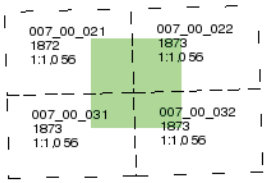
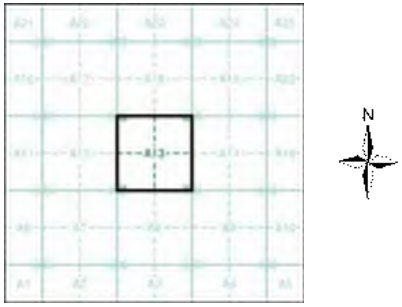


Historical Town Plan - Segment A13



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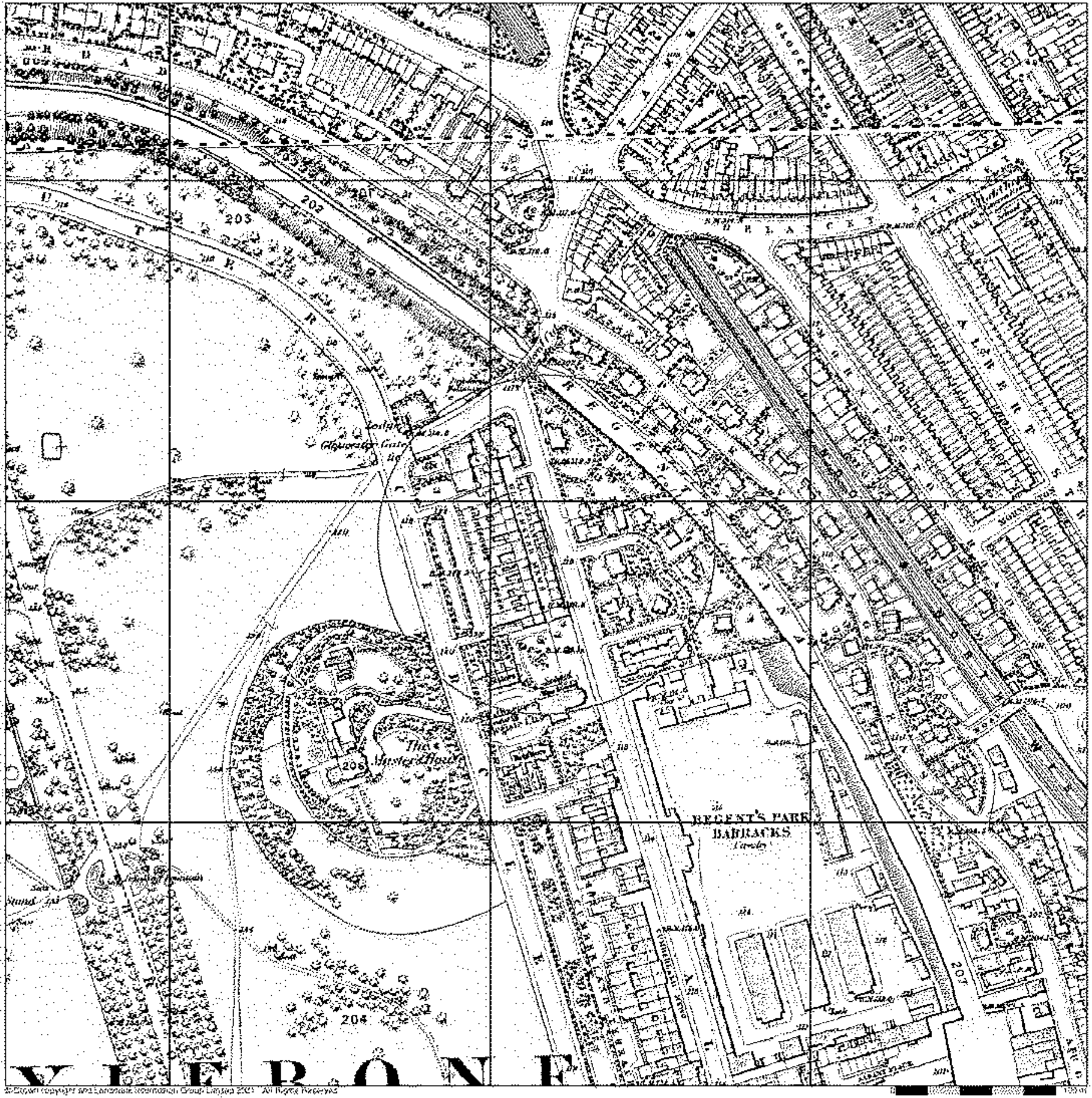

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LANDMARK INFORMATION GROUP®

London

Published 1875 - 1876

Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

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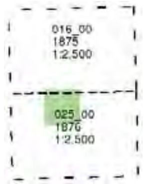
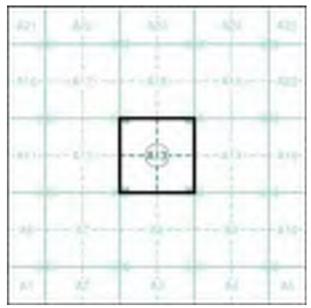


Historical Map - Segment A13



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Middlesex

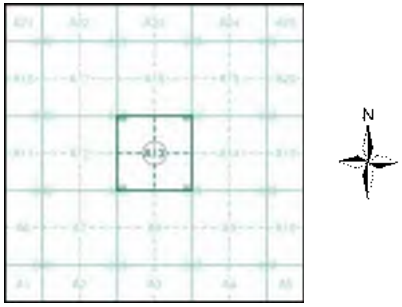
Published 1874 - 1882

Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940`s, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

Historical Map - Slice A



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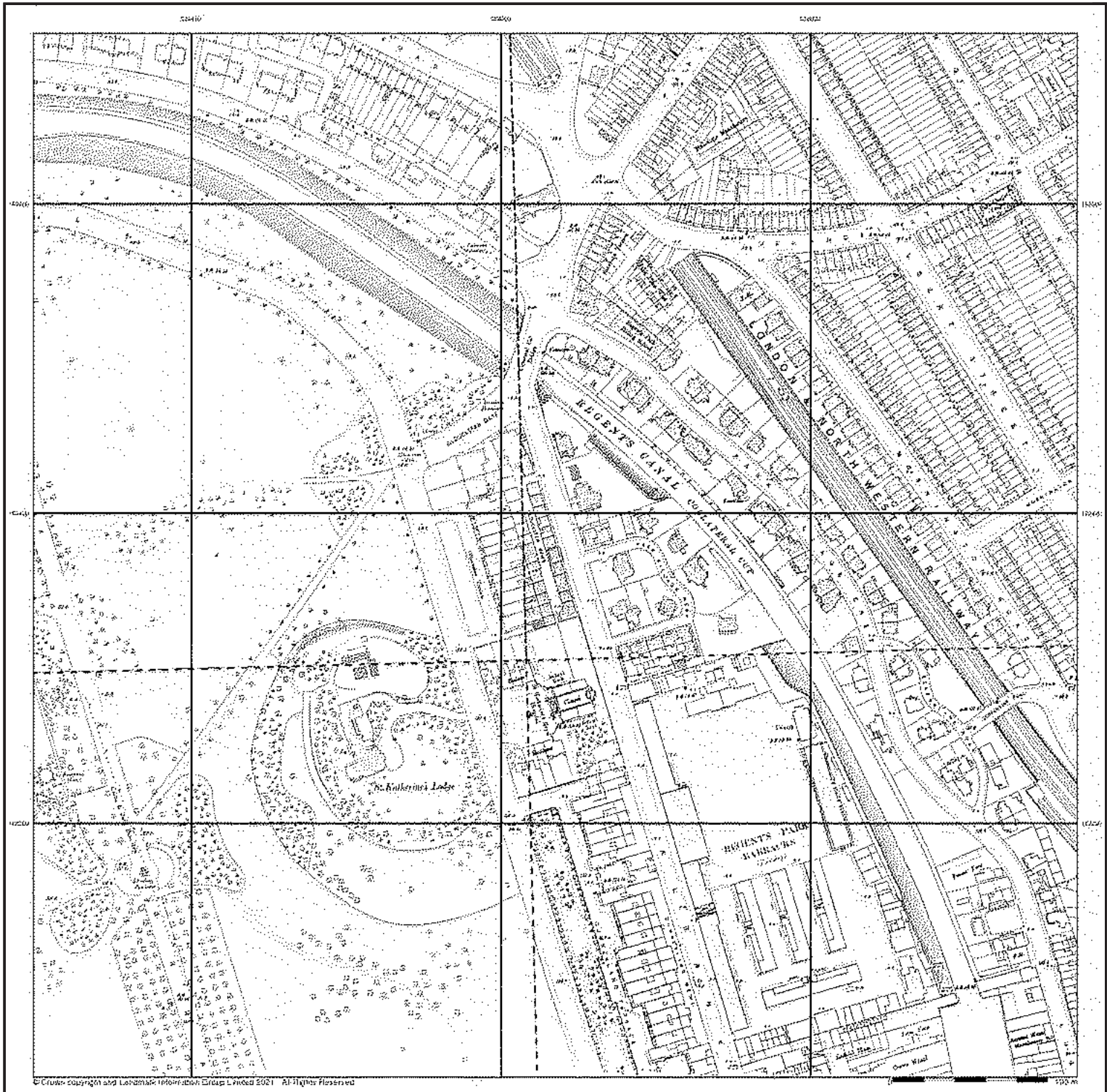

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LANDMARK INFORMATION GROUP

London

Published 1895

Source map scale - 1:1,056

The 1:1056 scale of Ordnance Survey mapping was adopted from Ireland in 1848 and was used to survey towns with a population of over 4000, plus county towns of lesser population, in those counties mapped at the six-inch scale in 1841-55. The scale was the largest scale at which London was mapped by the Ordnance Survey and a 'skeleton' survey of the capital, showing little more than streets, street names, frontages and altitudes, was undertaken between 1848 and 1850. The majority of the 1:1056 surveys were later replaced by 1:500 surveys; although almost all the remainder were revised at this scale, sometimes more than once before 1895. The type of detail shown on the 1:1056 scale is broadly similar to that on 1:500; the apparent omission of minor details such as sewer access points and street lights may be as much a reflection of the generally earlier date of these plans, as of the specification of the map.

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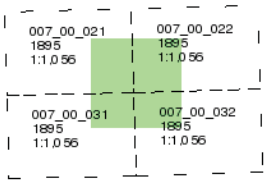
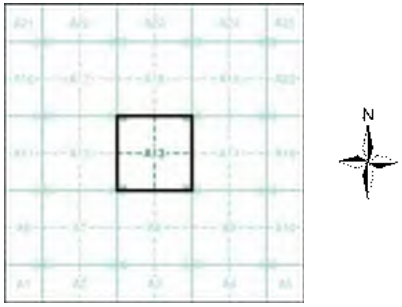


Historical Town Plan - Segment A13



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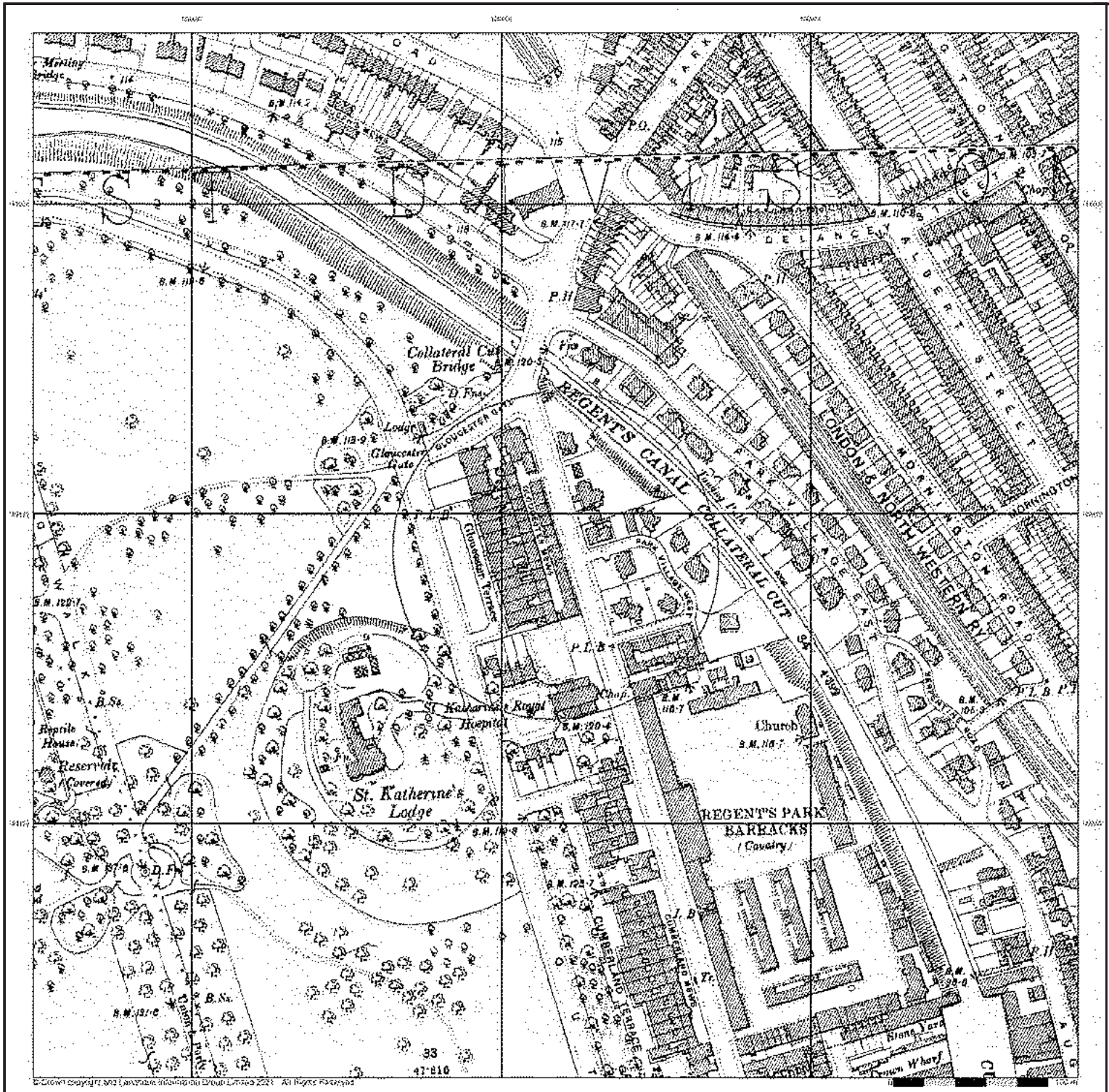

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London

Published 1896

Source map scale - 1:2,500

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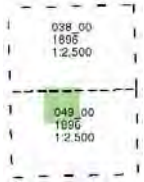
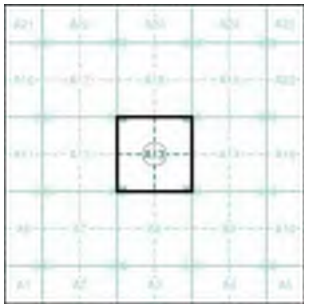


Historical Map - Segment A13



Order Details

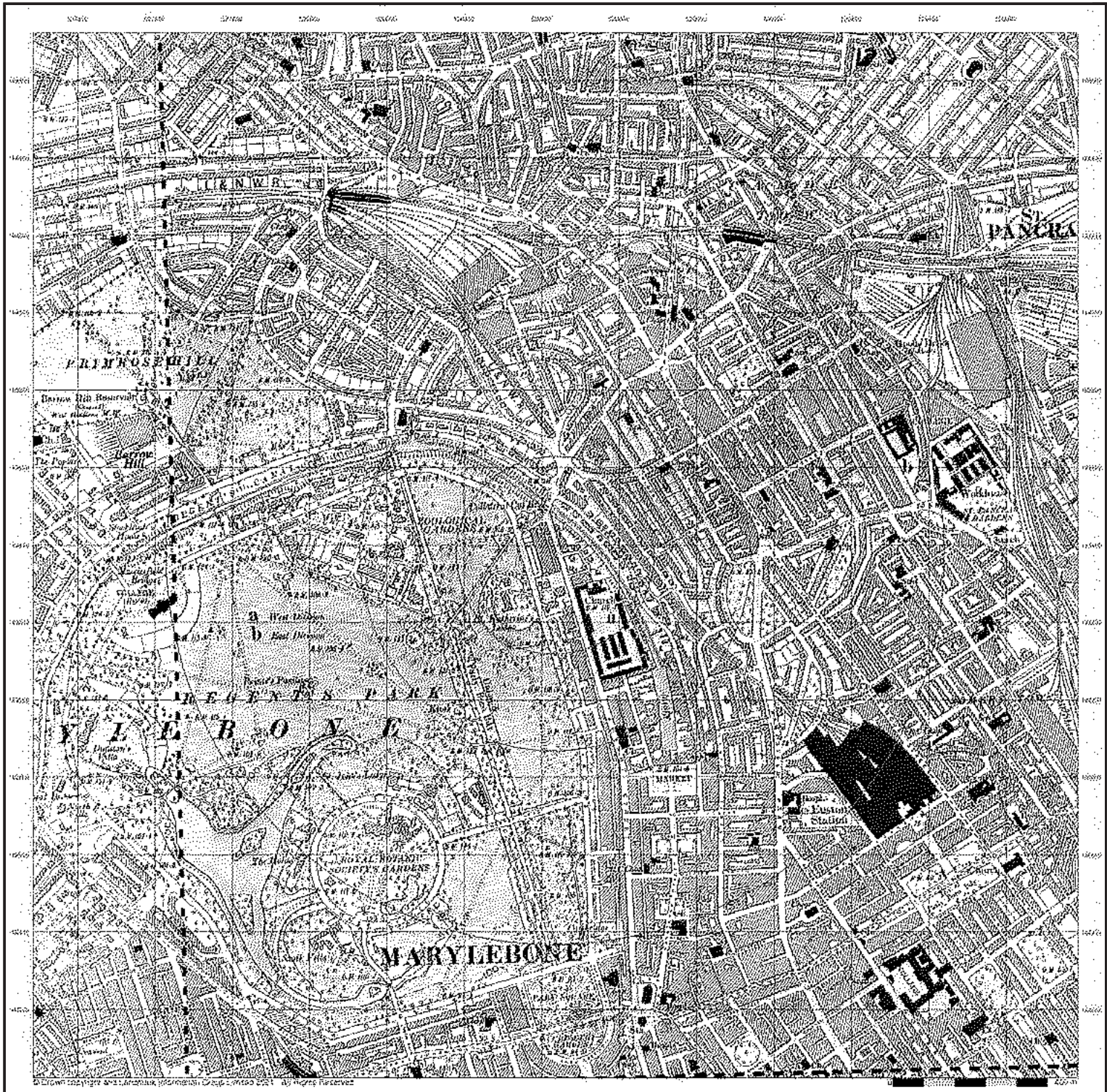
Order Number:	273837874_1_1
Customer Ref:	253-20-651
National Grid Reference:	528640, 183370
Slice:	A
Site Area (Ha):	0.01
Search Buffer (m):	100

Site Details

205 Albany Street, London, NW1 4AB

Landmark INFORMATION GROUP

Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



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LANDMARK INFORMATION GROUP

London

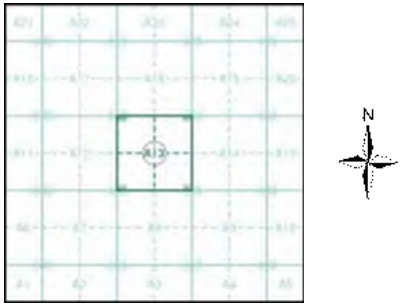
Published 1896

Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940`s, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

Historical Map - Slice A



Order Details

Order Number:	273837874_1_1
Customer Ref:	253-20-651
National Grid Reference:	528640, 183370
Slice:	A
Site Area (Ha):	0.01
Search Buffer (m):	1000

Site Details

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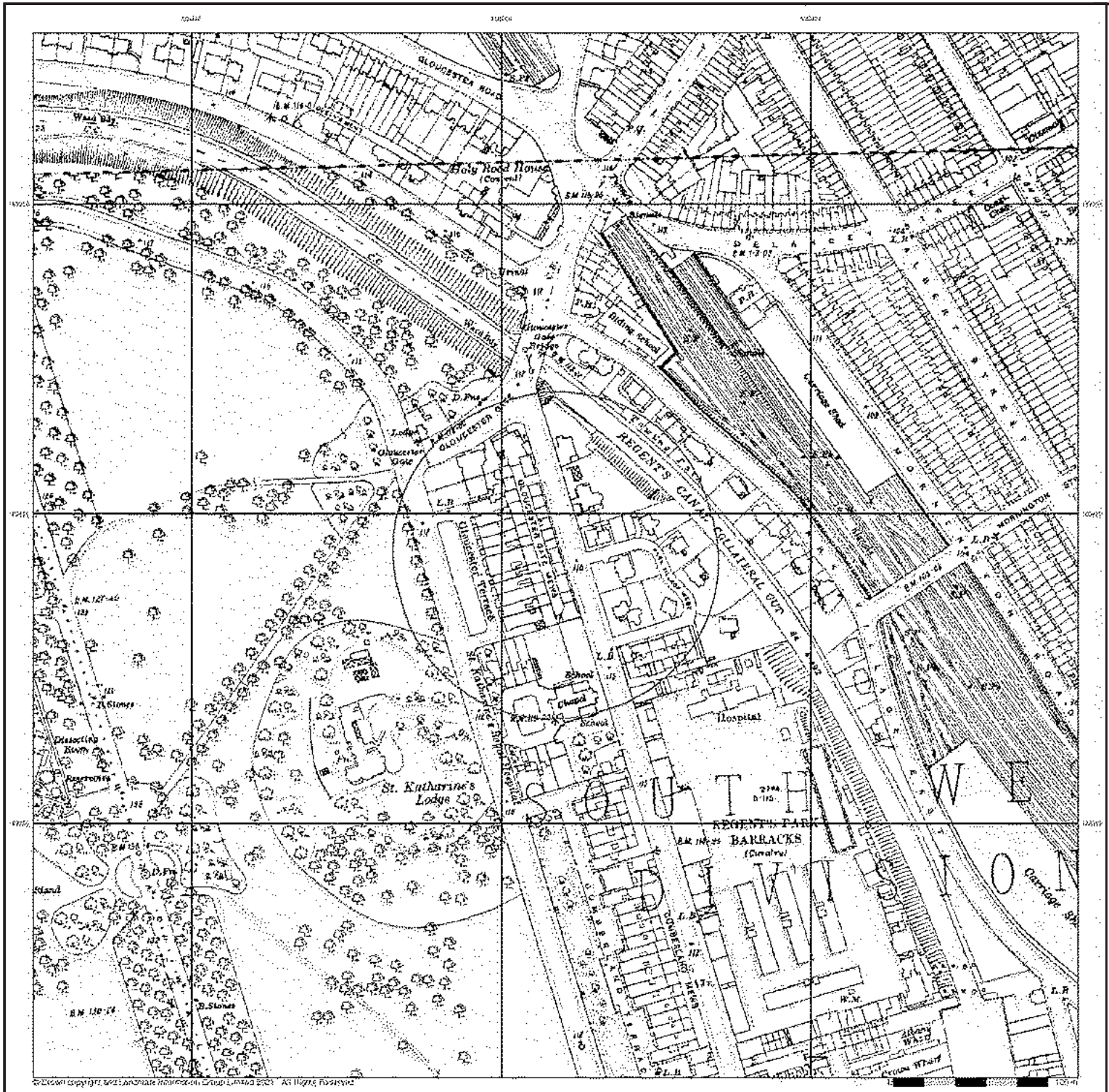


Envirocheck

LANDMARK INFORMATION GROUP

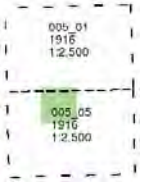
London

Published 1916

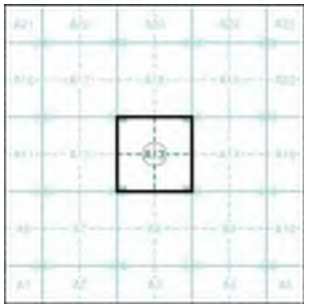
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number:	273837874_1_1
Customer Ref:	253-20-651
National Grid Reference:	528640, 183370
Slice:	A
Site Area (Ha):	0.01
Search Buffer (m):	100

Site Details

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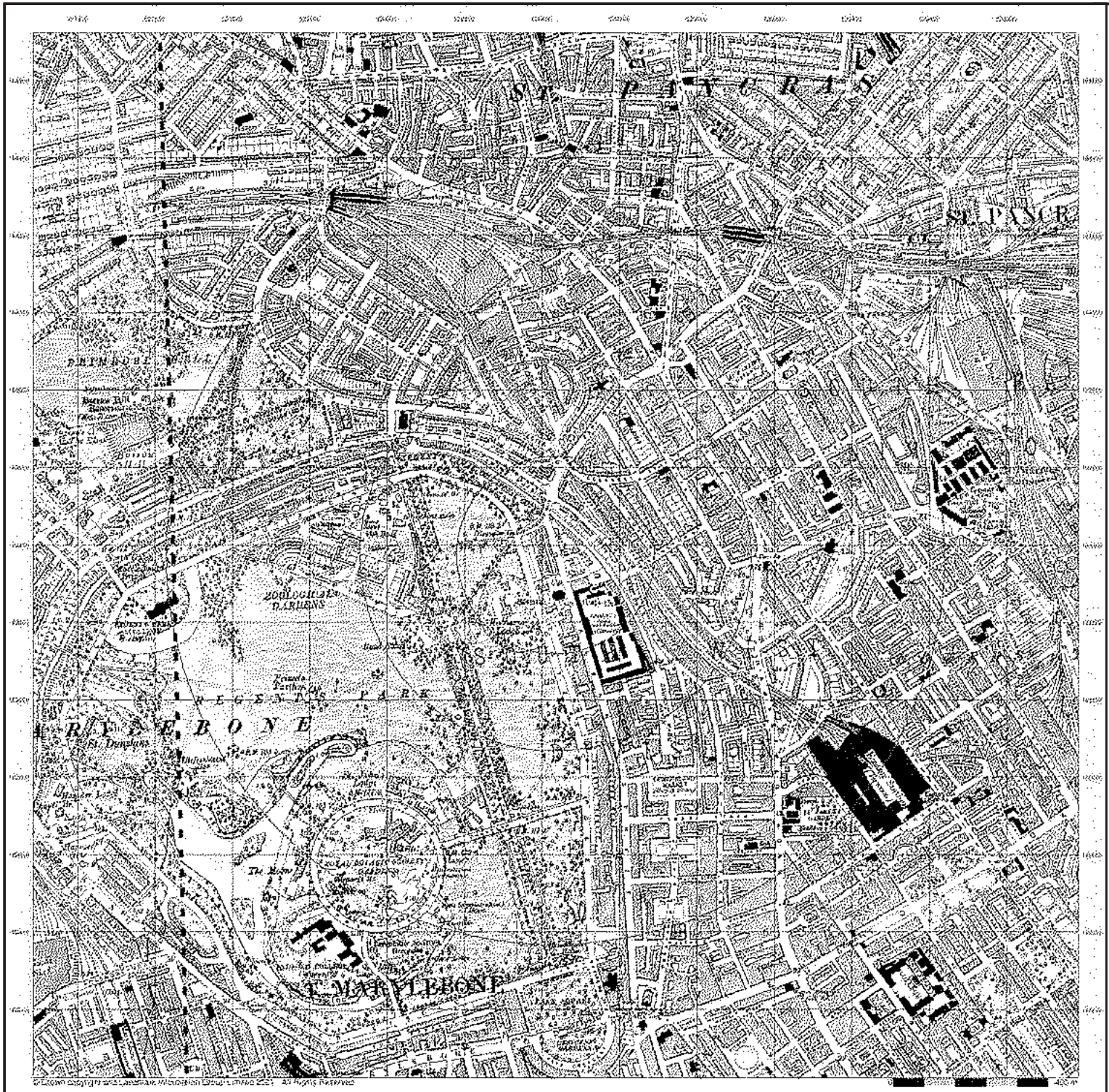

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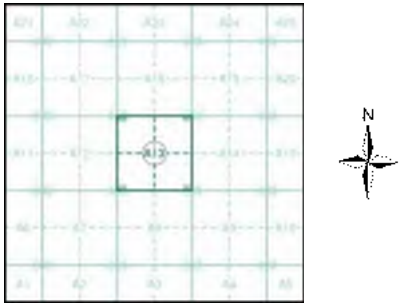
London
Published 1920
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940`s, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

Historical Map - Slice A



Order Details

Order Number:	273837874_1_1
Customer Ref:	253-20-651
National Grid Reference:	528640, 183370
Slice:	A
Site Area (Ha):	0.01
Search Buffer (m):	1000

Site Details

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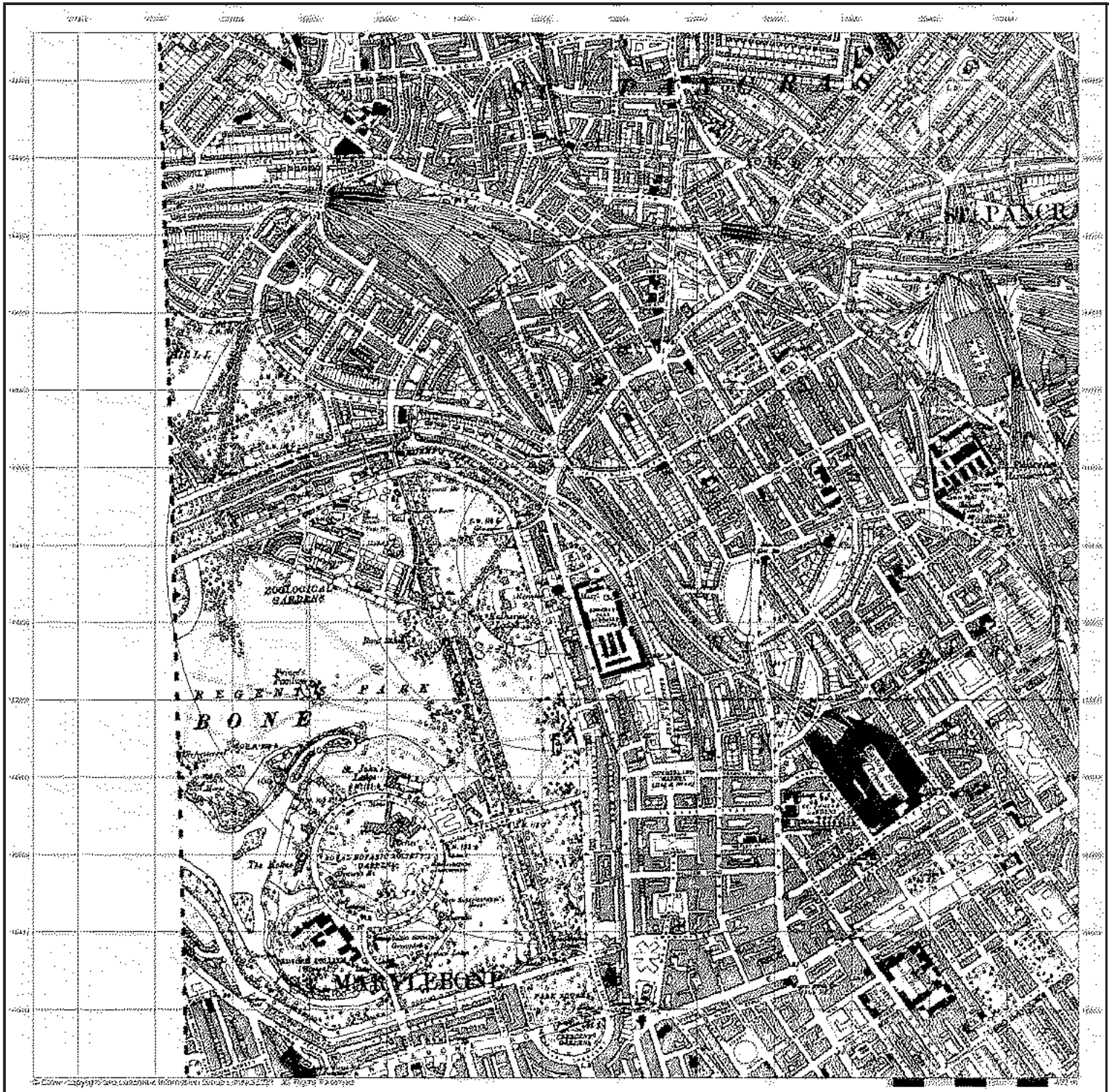

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London

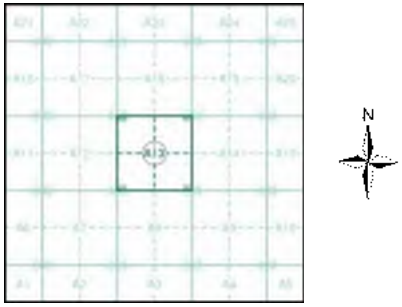
Published 1938

Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940`s, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

Historical Map - Slice A



Order Details

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Customer Ref:	253-20-651
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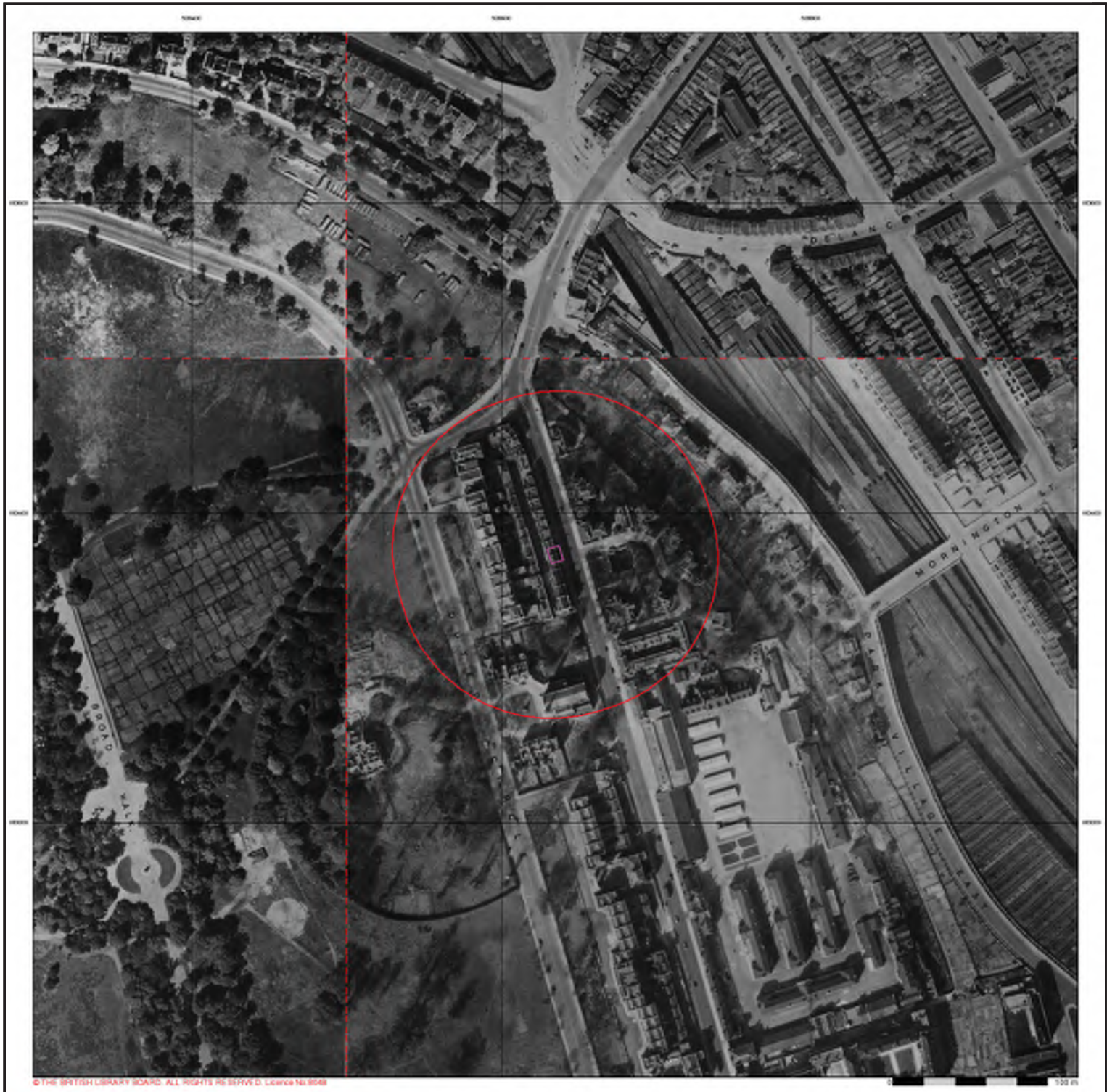
Slice:	A
Site Area (Ha):	0.01
Search Buffer (m):	1000

Site Details

205 Albany Street, London, NW1 4AB



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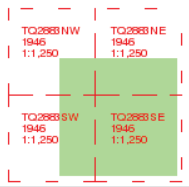
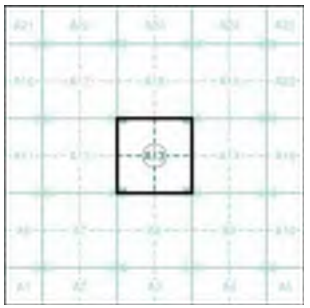
Historical Aerial Photography
Published 1946
Source map scale - 1:1,250

The Historical Aerial Photos were produced by the Ordnance Survey at a scale of 1:1,250 and 1:10,560 from Air Force photography. They were produced between 1944 and 1951 as an interim measure, pending preparation of conventional mapping, due to post war resource shortages. New security measures in the 1950's meant that every photograph was re-checked for potentially unsafe information with security sites replaced by fake fields or clouds. The original editions were withdrawn and only later made available after a period of fifty years although due to the accuracy of the editing, without viewing both revisions it is not easy to spot the edits. Where available Landmark have included both revisions.

Map Name(s) and Date(s)



Historical Aerial Photography - Segment A13



Order Details

Order Number:	273837874_1_1
Customer Ref:	253-20-651
National Grid Reference:	528640, 183370
Slice:	A
Site Area (Ha):	0.01
Search Buffer (m):	100

Site Details

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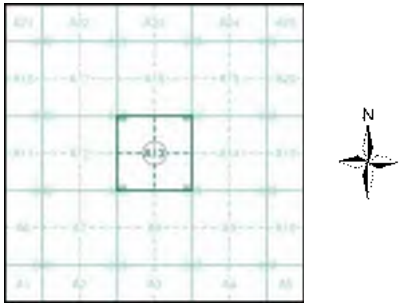
Ordnance Survey Plan
Published 1951
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940`s, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

Historical Map - Slice A



Order Details

Order Number:	273837874_1_1
Customer Ref:	253-20-651
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Slice:	A
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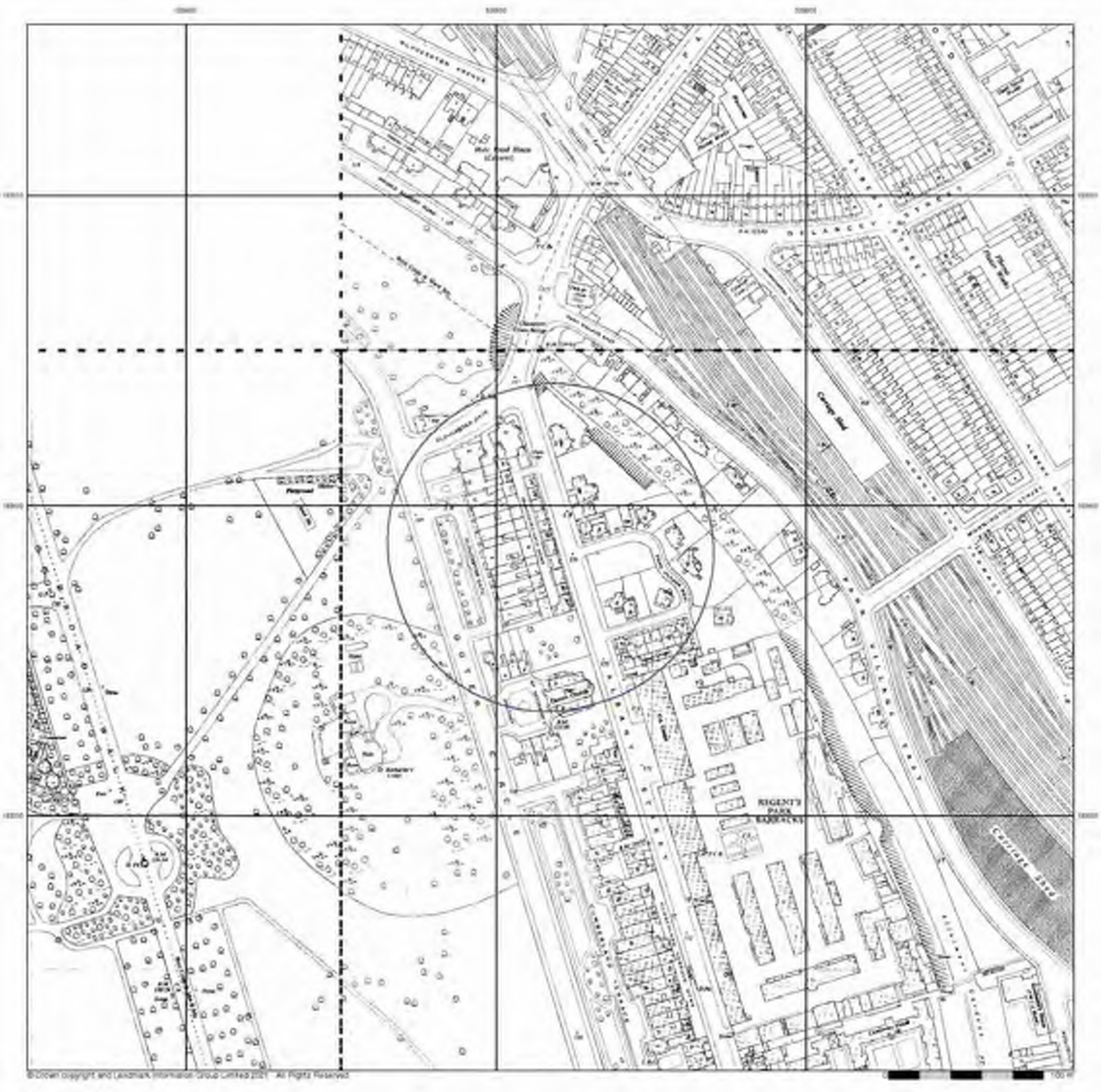
Site Details

205 Albany Street, London, NW1 4AB



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Ordnance Survey Plan

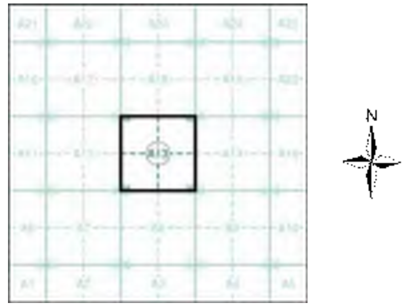
Published 1953

Source map scale - 1:1,250

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

Historical Map - Segment A13



Order Details

Order Number: 273837874_1_1
Customer Ref: 253-20-651
National Grid Reference: 528640, 183370
Slice: A
Site Area (Ha): 0.01
Search Buffer (m): 100

Site Details

205 Albany Street, London, NW1 4AB

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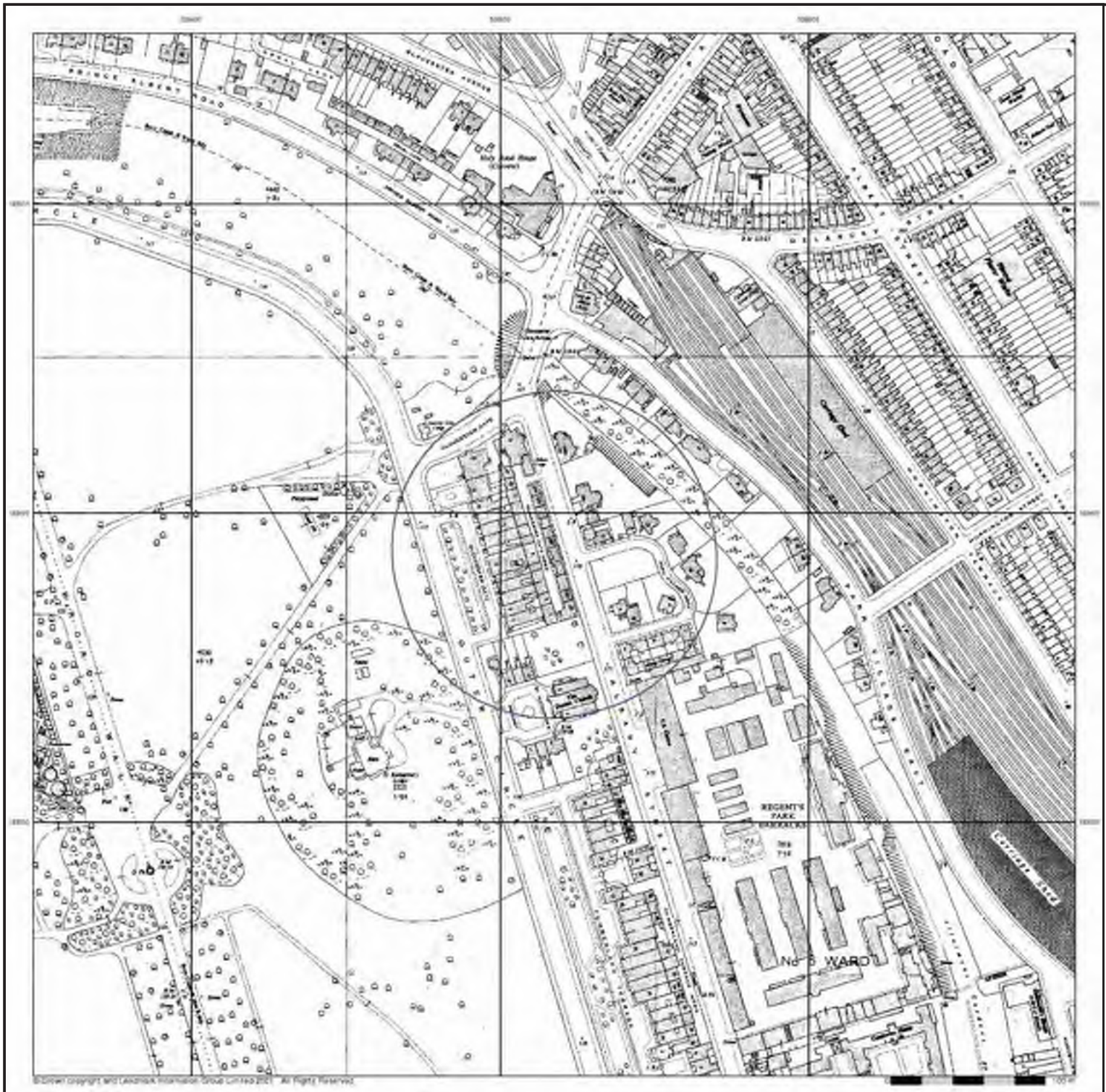
Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



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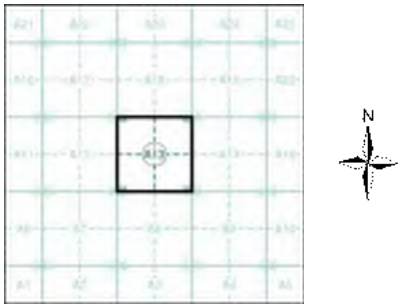
Ordnance Survey Plan
Published 1954
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

Historical Map - Segment A13



Order Details

Order Number:	273837874_1_1
Customer Ref:	253-20-651
National Grid Reference:	528640, 183370
Slice:	A
Site Area (Ha):	0.01
Search Buffer (m):	100

Site Details

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Ordnance Survey Plan

Published 1957

Source map scale - 1:10,000

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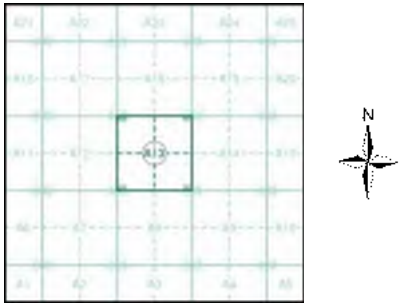
Map Name(s) and Date(s)

Historical Map - Slice A



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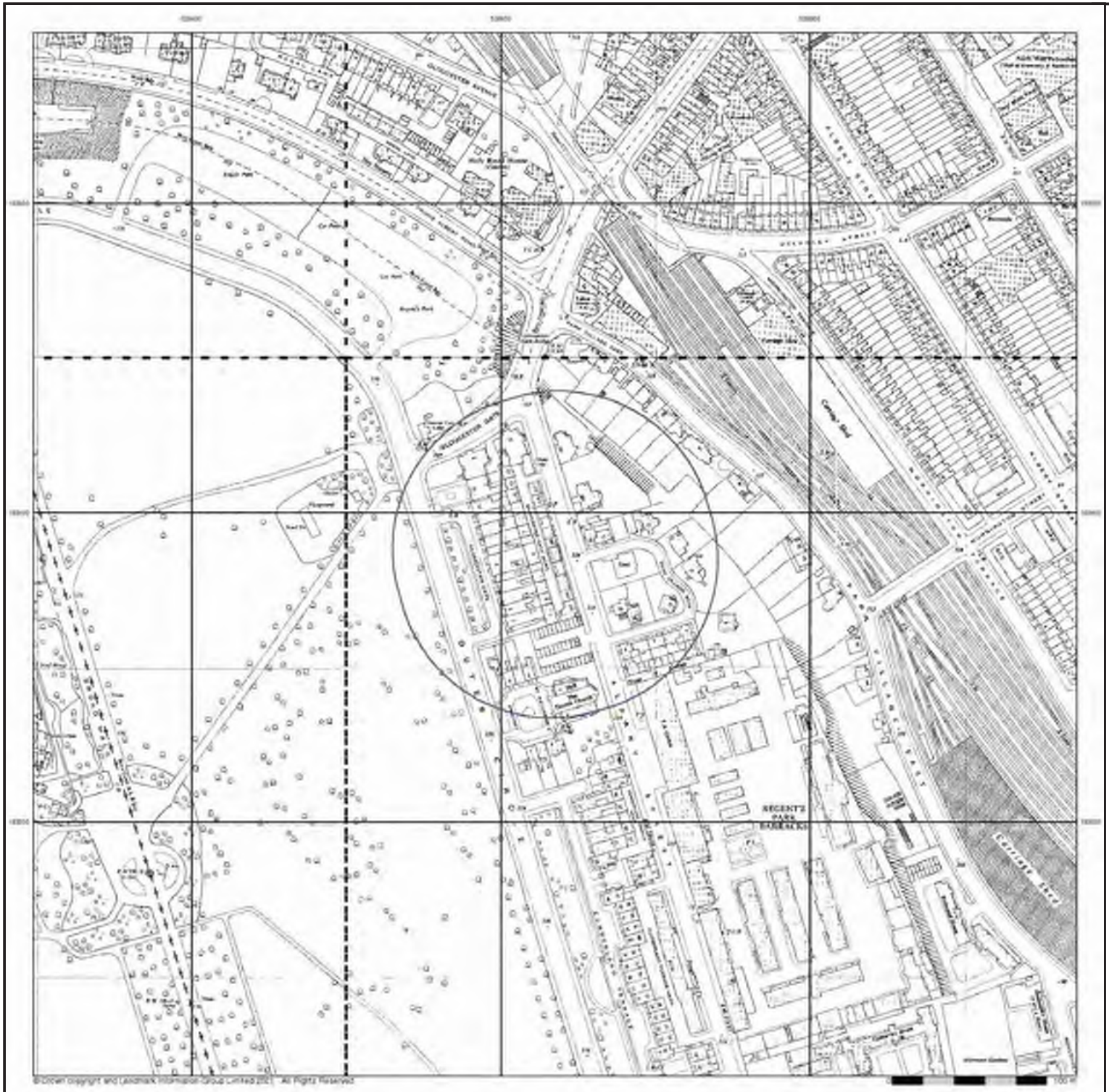

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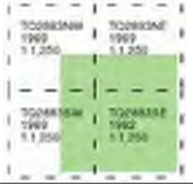
Ordnance Survey Plan

Published 1962 - 1969

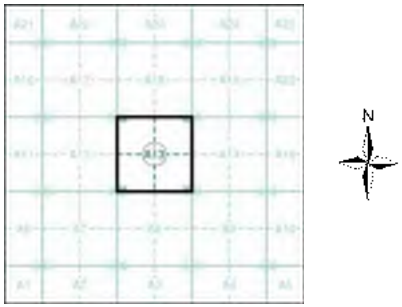
Source map scale - 1:1,250

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number:	273837874_1_1
Customer Ref:	253-20-651
National Grid Reference:	528640, 183370
Slice:	A
Site Area (Ha):	0.01
Search Buffer (m):	100

Site Details

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Ordnance Survey Plan

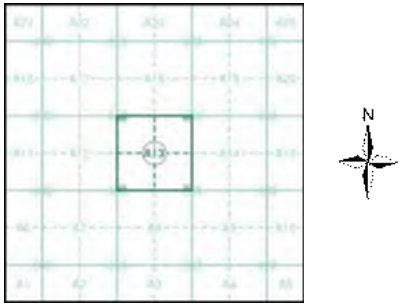
Published 1968

Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940`s, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

Historical Map - Slice A



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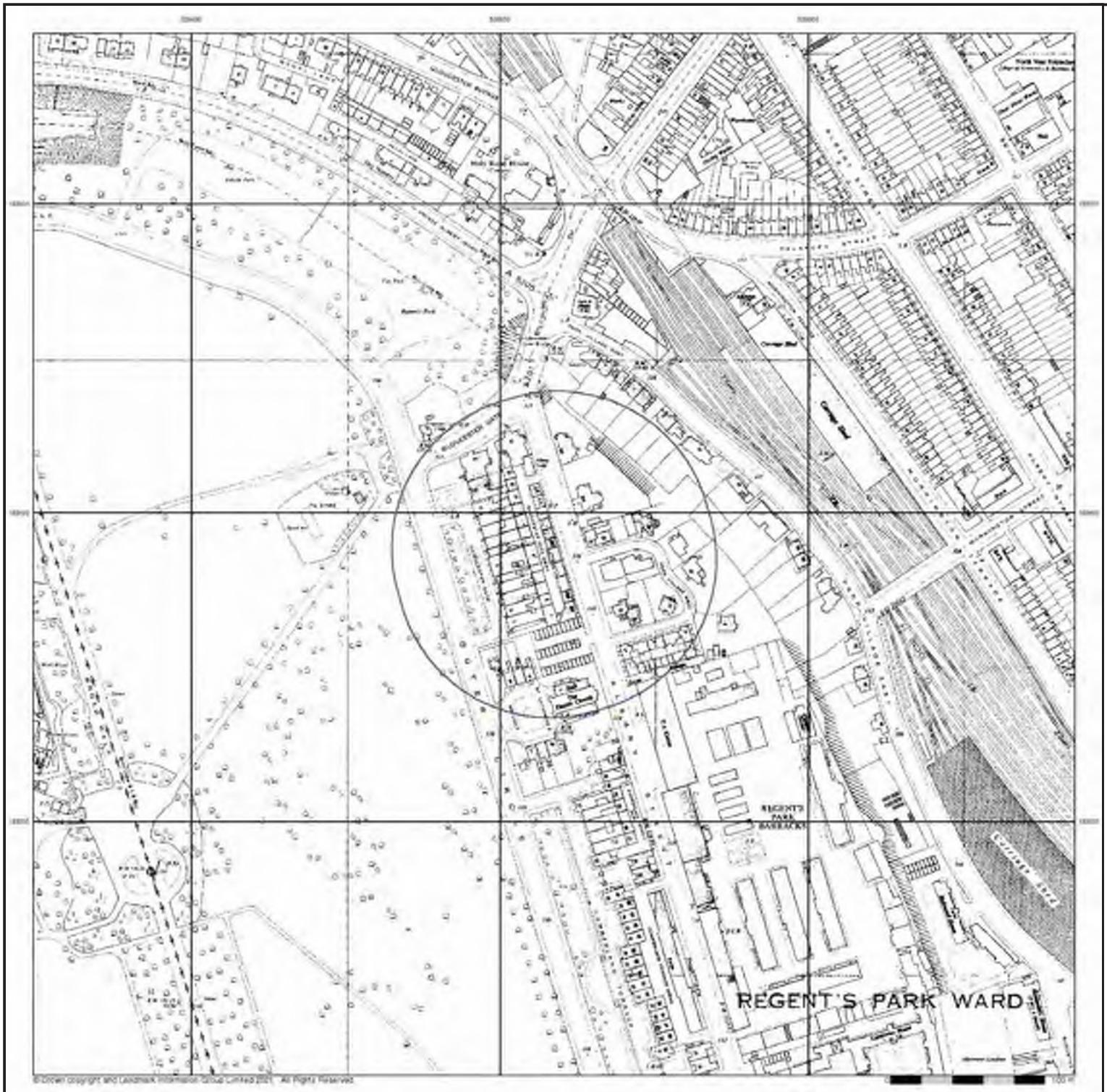

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Ordnance Survey Plan

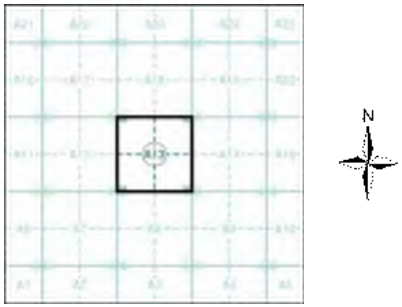
Published 1971

Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

Historical Map - Segment A13



Order Details

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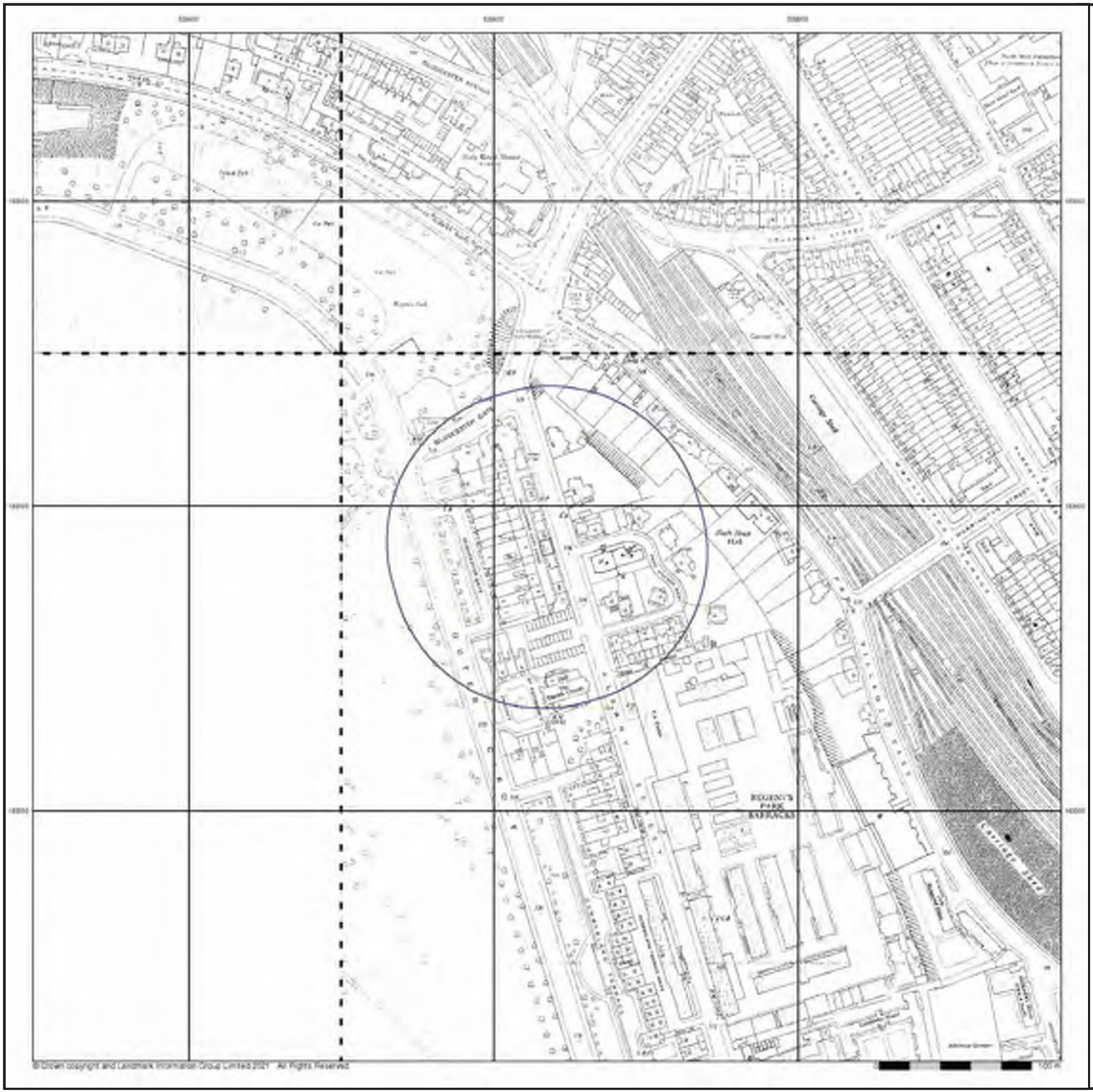

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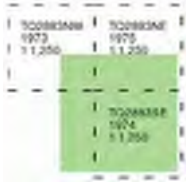
Supply of Unpublished Survey Information

Published 1973 - 1975

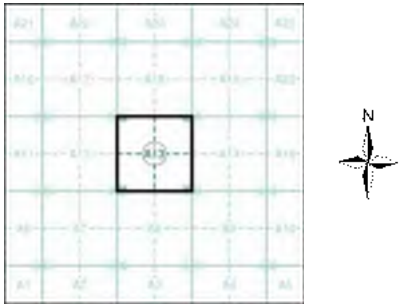
Source map scale - 1:1,250

SUSI maps (Supply of Unpublished Survey Information) were produced between 1972 and 1977, mainly for internal use at Ordnance Survey. These were more of a 'work-in-progress' plan as they showed updates of individual areas on a map. These maps were unpublished, and they do not represent a single moment in time. They were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

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Ordnance Survey Plan

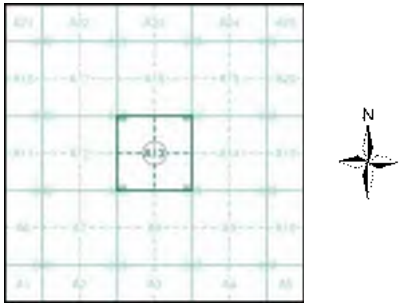
Published 1974

Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940`s, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

Historical Map - Slice A



Order Details

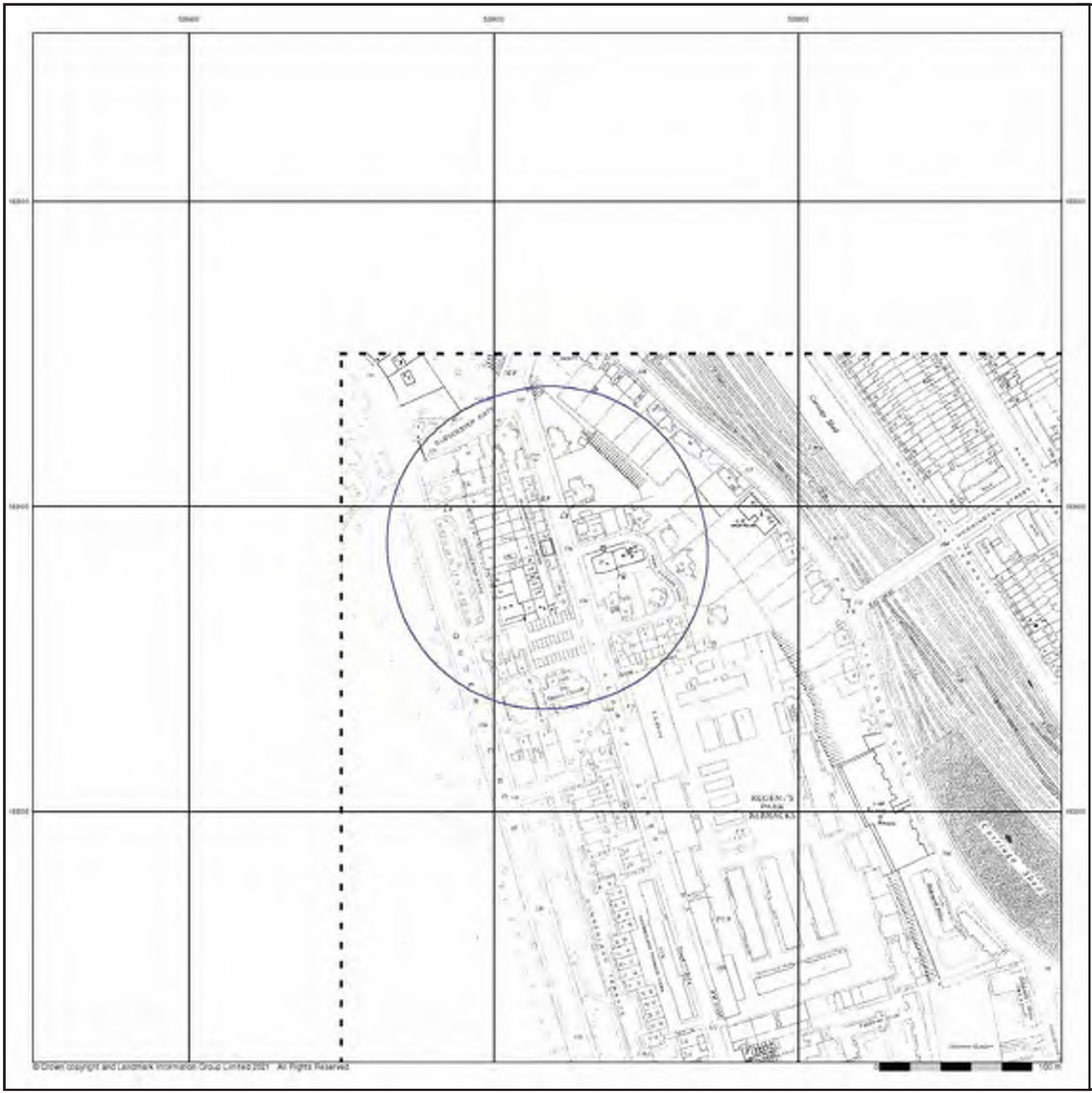
Order Number:	273837874_1_1
Customer Ref:	253-20-651
National Grid Reference:	528640, 183370
Slice:	A
Site Area (Ha):	0.01
Search Buffer (m):	1000

Site Details

205 Albany Street, London, NW1 4AB

Landmark INFORMATION GROUP

Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



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Supply of Unpublished Survey Information

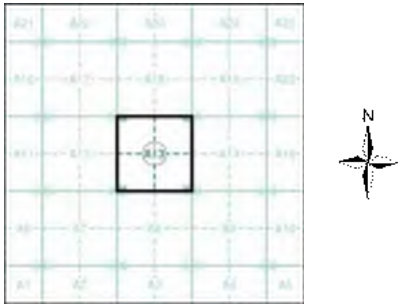
Published 1976

Source map scale - 1:1,250

SUSI maps (Supply of Unpublished Survey Information) were produced between 1972 and 1977, mainly for internal use at Ordnance Survey. These were more of a 'work-in-progress' plan as they showed updates of individual areas on a map. These maps were unpublished, and they do not represent a single moment in time. They were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

Historical Map - Segment A13



Order Details

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Customer Ref:	253-20-651
National Grid Reference:	528640, 183370
Slice:	A
Site Area (Ha):	0.01
Search Buffer (m):	100

Site Details

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Ordnance Survey Plan

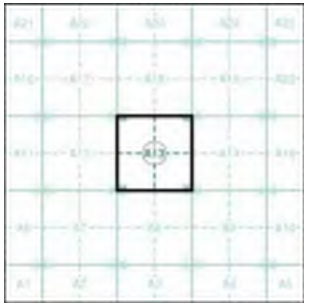
Published 1977

Source map scale - 1:1,250

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

Historical Map - Segment A13

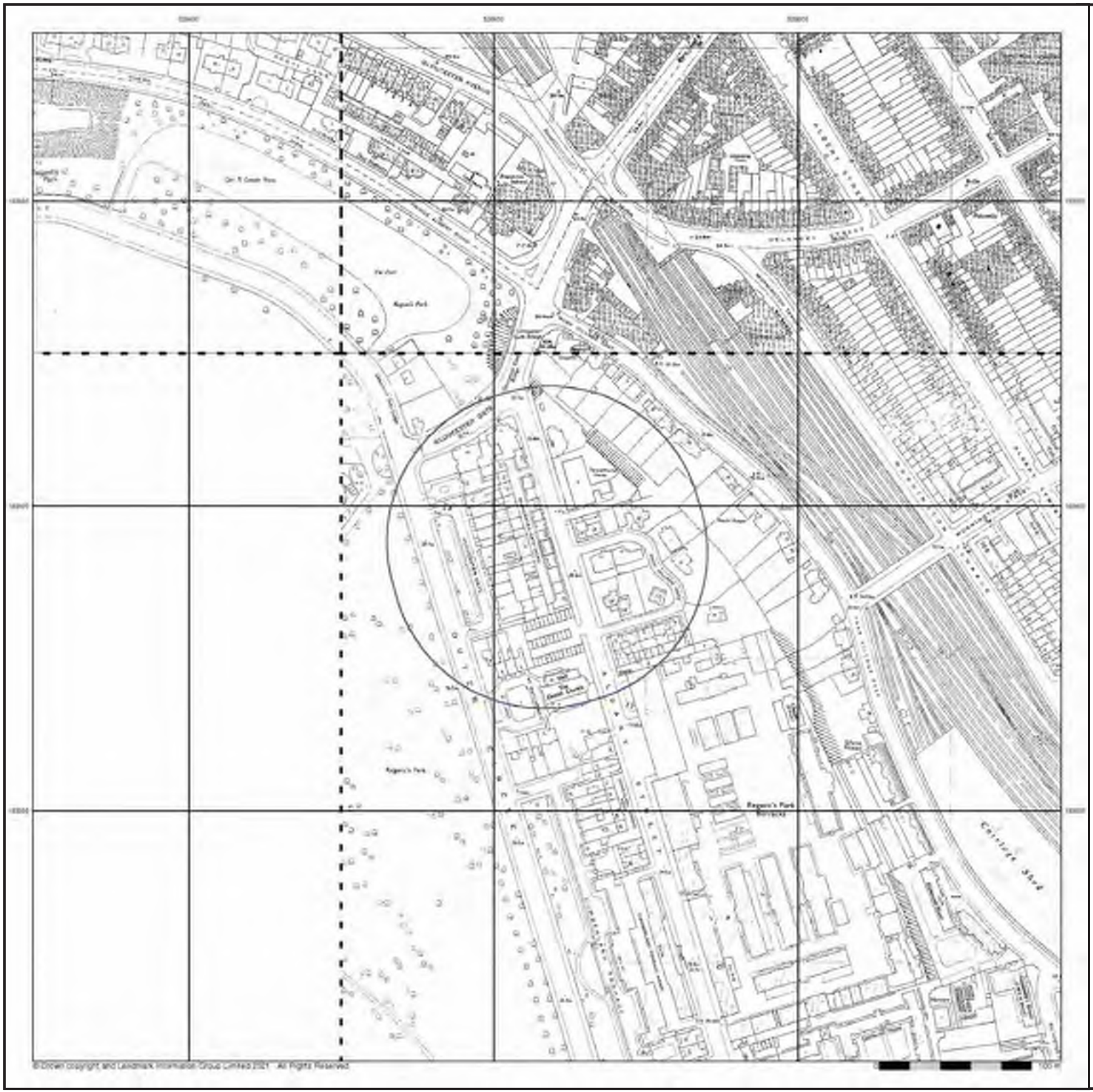


Order Details

Order Number:	273837874_1_1
Customer Ref:	253-20-651
National Grid Reference:	528640, 183370
Slice:	A
Site Area (Ha):	0.01
Search Buffer (m):	100

Site Details

205 Albany Street, London, NW1 4AB



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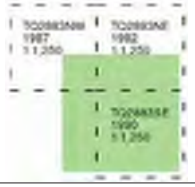
Additional SIMs

Published 1982 - 1990

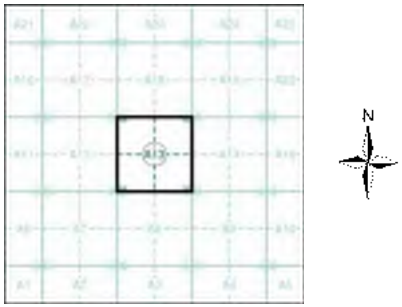
Source map scale - 1:1,250

The SIM cards (Ordnance Survey's `Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number:	273837874_1_1
Customer Ref:	253-20-651
National Grid Reference:	528640, 183370
Slice:	A
Site Area (Ha):	0.01
Search Buffer (m):	100

Site Details

205 Albany Street, London, NW1 4AB

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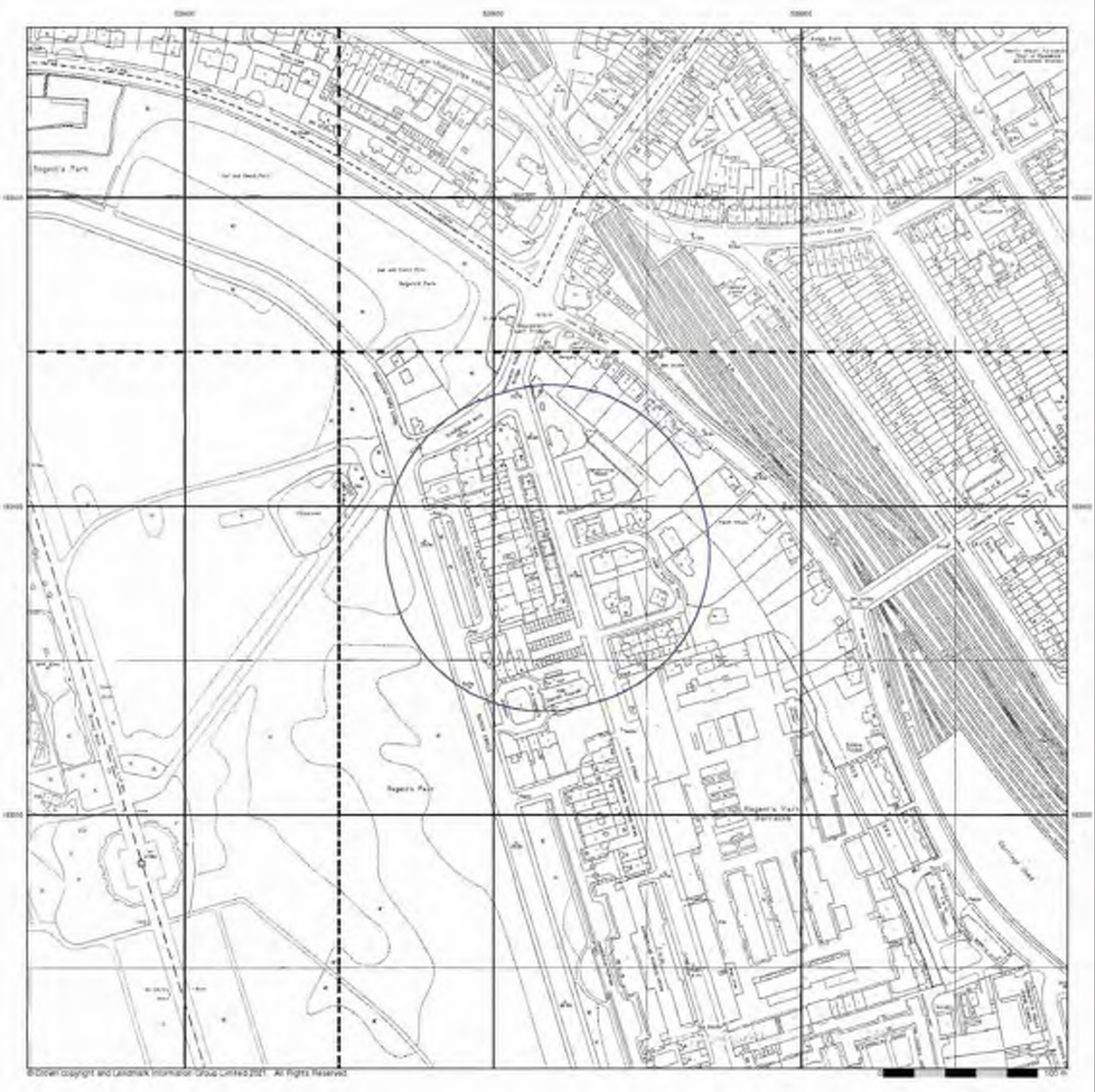
Web: www.envirocheck.co.uk



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Large-Scale National Grid Data

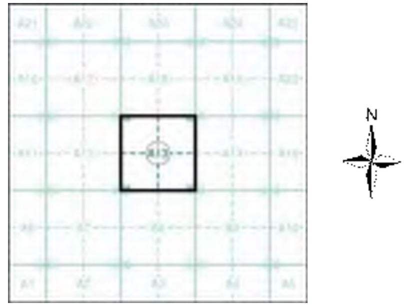
Published 1991

Source map scale - 1:1,250

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

Historical Map - Segment A13



Order Details

Order Number: 273837874_1_1
Customer Ref: 253-20-651
National Grid Reference: 528640, 183370
Slice: A
Site Area (Ha): 0.01
Search Buffer (m): 100

Site Details

205 Albany Street, London, NW1 4AB

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Ordnance Survey Plan

Published 1991

Source map scale - 1:10,000

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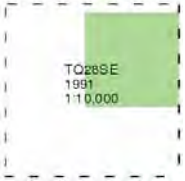
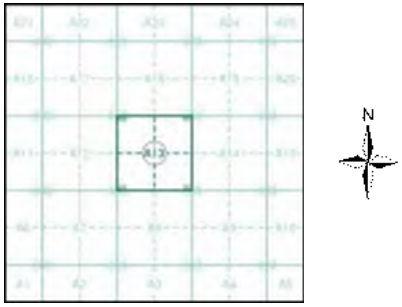
Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number:	273837874_1_1
Customer Ref:	253-20-651
National Grid Reference:	528640, 183370
Slice:	A
Site Area (Ha):	0.01
Search Buffer (m):	1000

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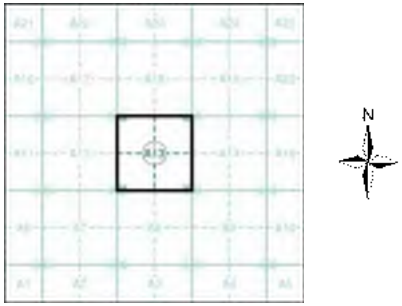
Historical Aerial Photography

Published 1999

This aerial photography was produced by Getmapping, these vertical aerial photographs provide a seamless, full colour survey of the whole of Great Britain

Historical Aerial Photography - Segment A13



Order Details

Order Number:	273837874_1_1
Customer Ref:	253-20-651
National Grid Reference:	528640, 183370
Slice:	A
Site Area (Ha):	0.01
Search Buffer (m):	100

Site Details

205 Albany Street, London, NW1 4AB

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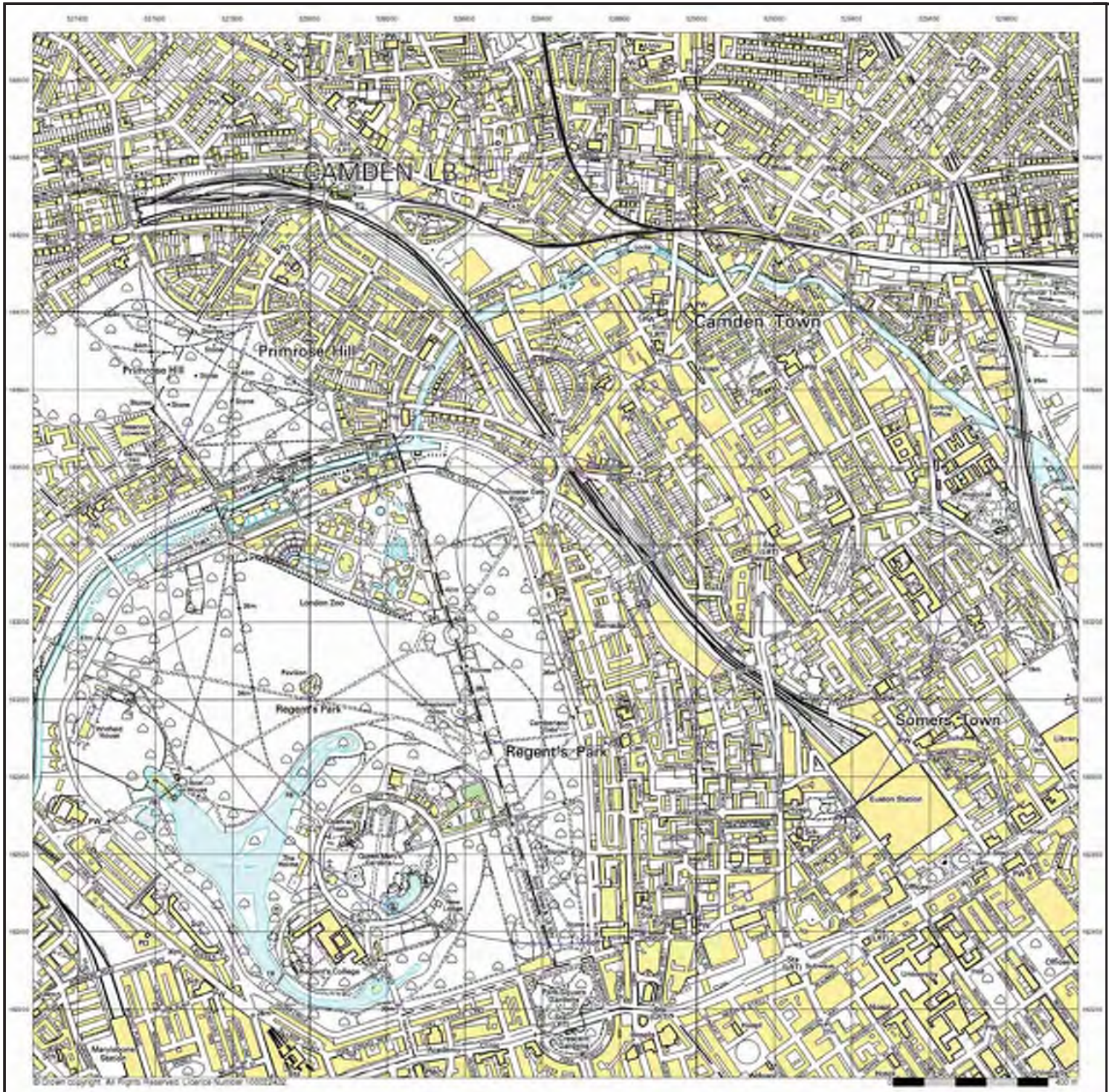

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10k Raster Mapping

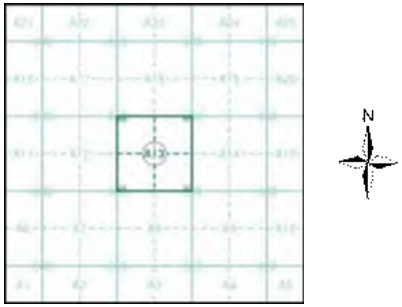
Published 1999

Source map scale - 1:10,000

The historical maps shown were produced from the Ordnance Survey`s 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

Map Name(s) and Date(s)

Historical Map - Slice A



Order Details

Order Number:	273837874_1_1
Customer Ref:	253-20-651
National Grid Reference:	528640, 183370
Slice:	A
Site Area (Ha):	0.01
Search Buffer (m):	1000

Site Details

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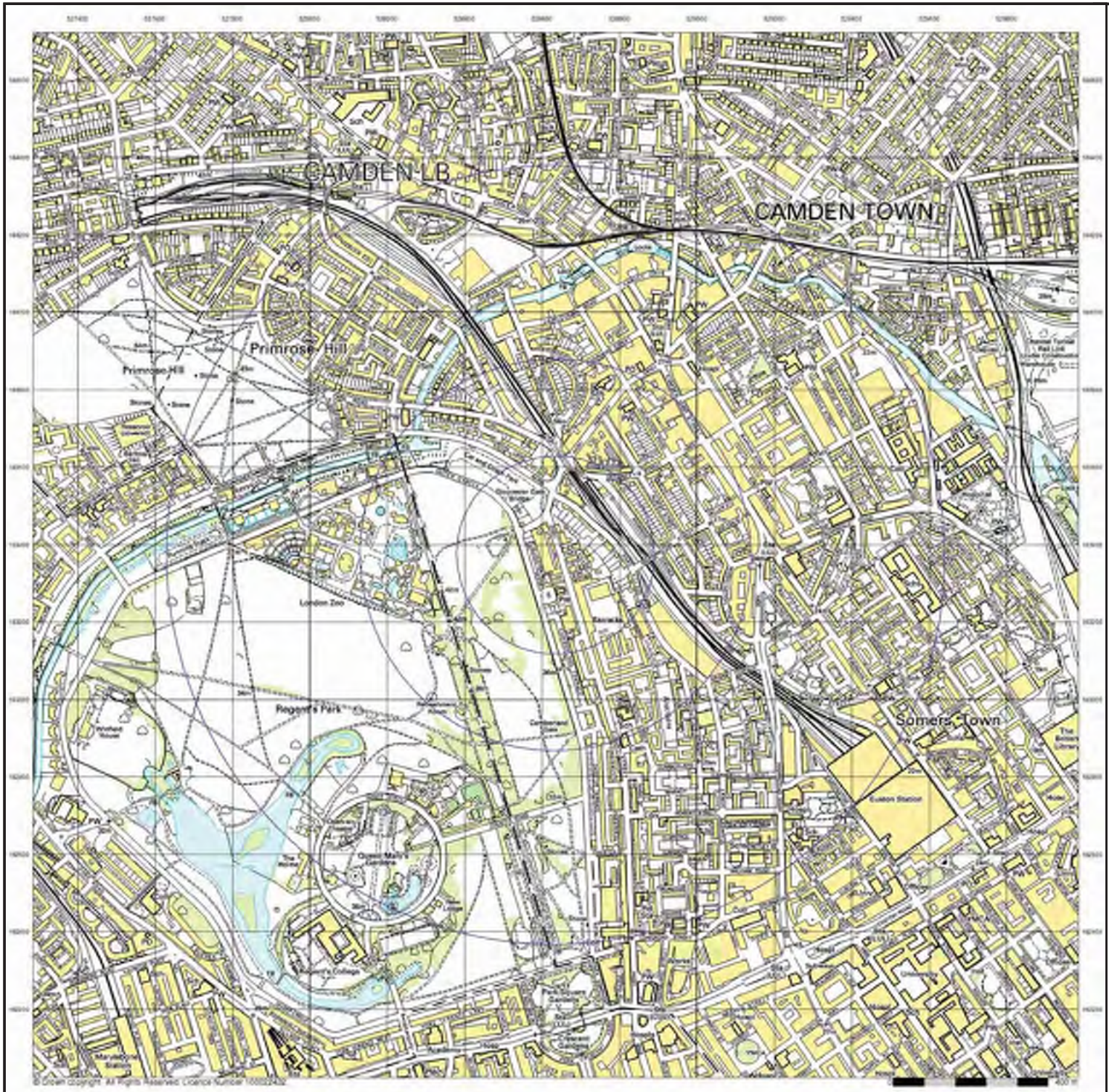

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10k Raster Mapping

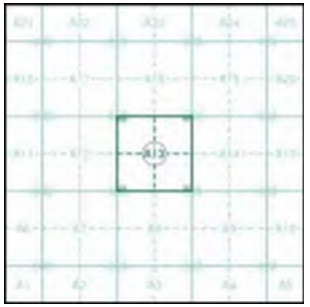
Published 2006

Source map scale - 1:10,000

The historical maps shown were produced from the Ordnance Survey`s 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

Map Name(s) and Date(s)

Historical Map - Slice A



Order Details

Order Number:	273837874_1_1
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National Grid Reference:	528640, 183370
Slice:	A
Site Area (Ha):	0.01
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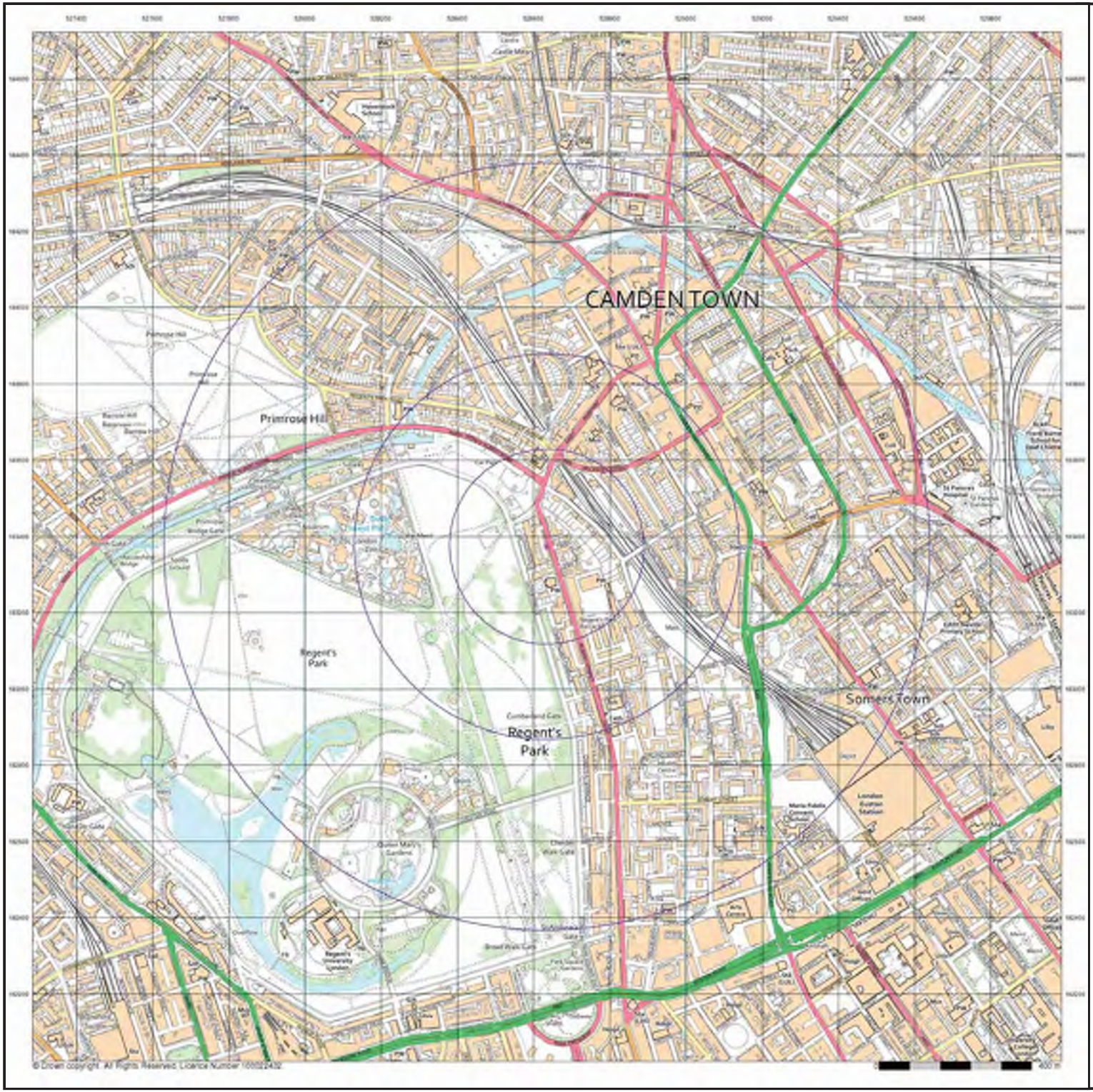

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VectorMap Local

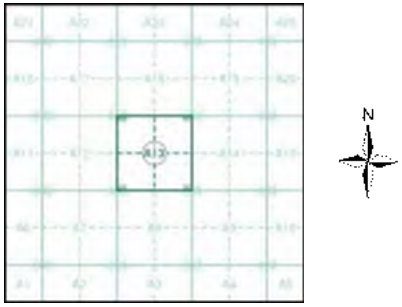
Published 2020

Source map scale - 1:10,000

VectorMap Local (Raster) is Ordnance Survey's highest detailed 'backdrop' mapping product. These maps are produced from OS's VectorMap Local, a simple vector dataset at a nominal scale of 1:10,000, covering the whole of Great Britain, that has been designed for creating graphical mapping. OS VectorMap Local is derived from large-scale information surveyed at 1:1250 scale (covering major towns and cities),1:2500 scale (smaller towns, villages and developed rural areas), and 1:10 000 scale (mountain, moorland and river estuary areas).

Map Name(s) and Date(s)

Historical Map - Slice A



Order Details

Order Number:	273837874_1_1
Customer Ref:	253-20-651
National Grid Reference:	528640, 183370
Slice:	A
Site Area (Ha):	0.01
Search Buffer (m):	1000

Site Details

205 Albany Street, London, NW1 4AB

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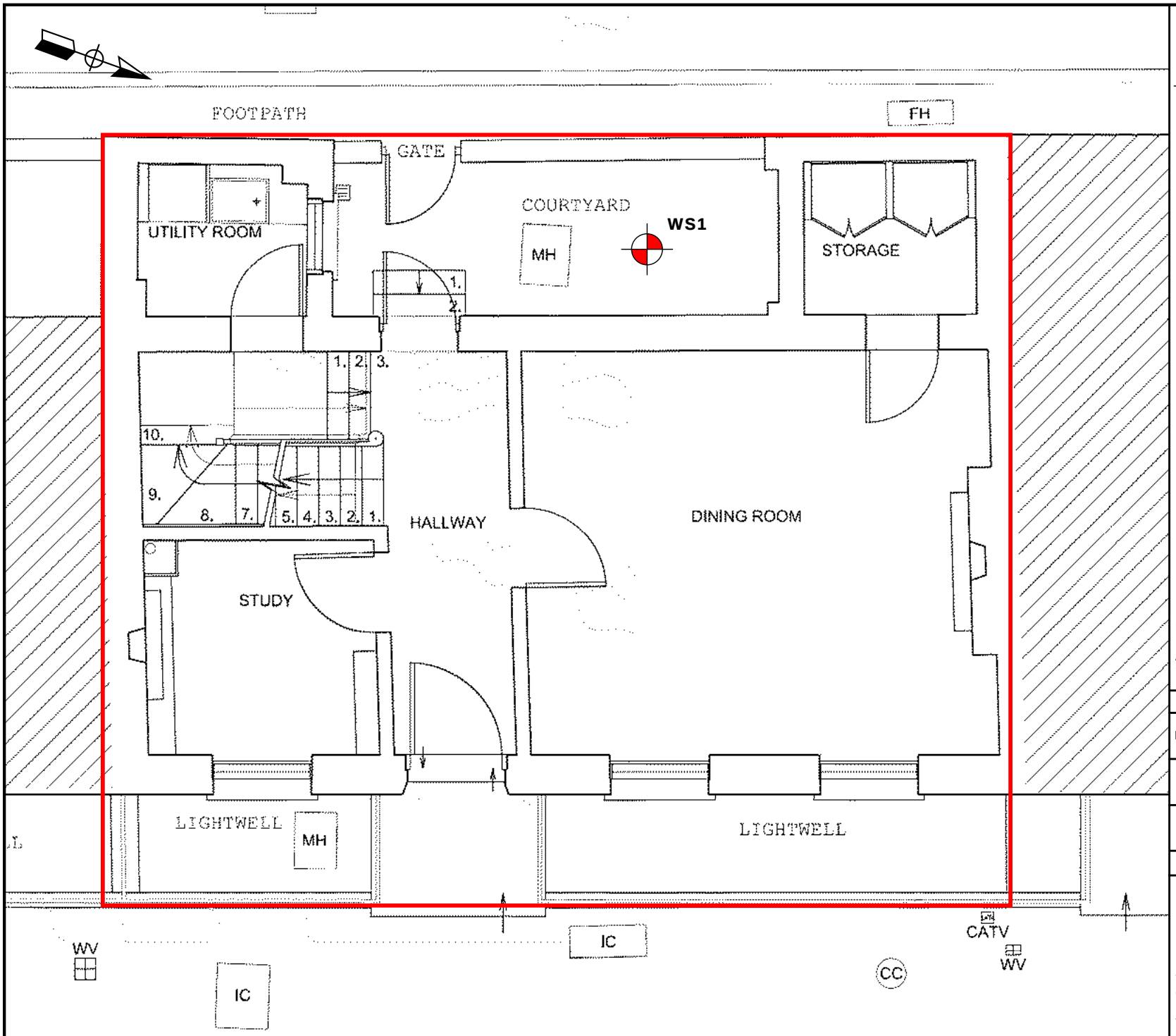
FIGURES



Key

Windowless Sampler Borehole Location

Approximate Site Boundary

Notes:

Not to Scale

All dimensions to be checked on site and not scaled on this drawing.

Drawing No.	**Figure 2**
Drawing Name	**Site Layout Plan**
Project	**205 Albany Street, London**
Client Name	**Afrijanus Property UK 1 Limited**
Project No.	**253-20-651**

ASL
Holly Farm Business Park
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Warwickshire
CV8 1NP

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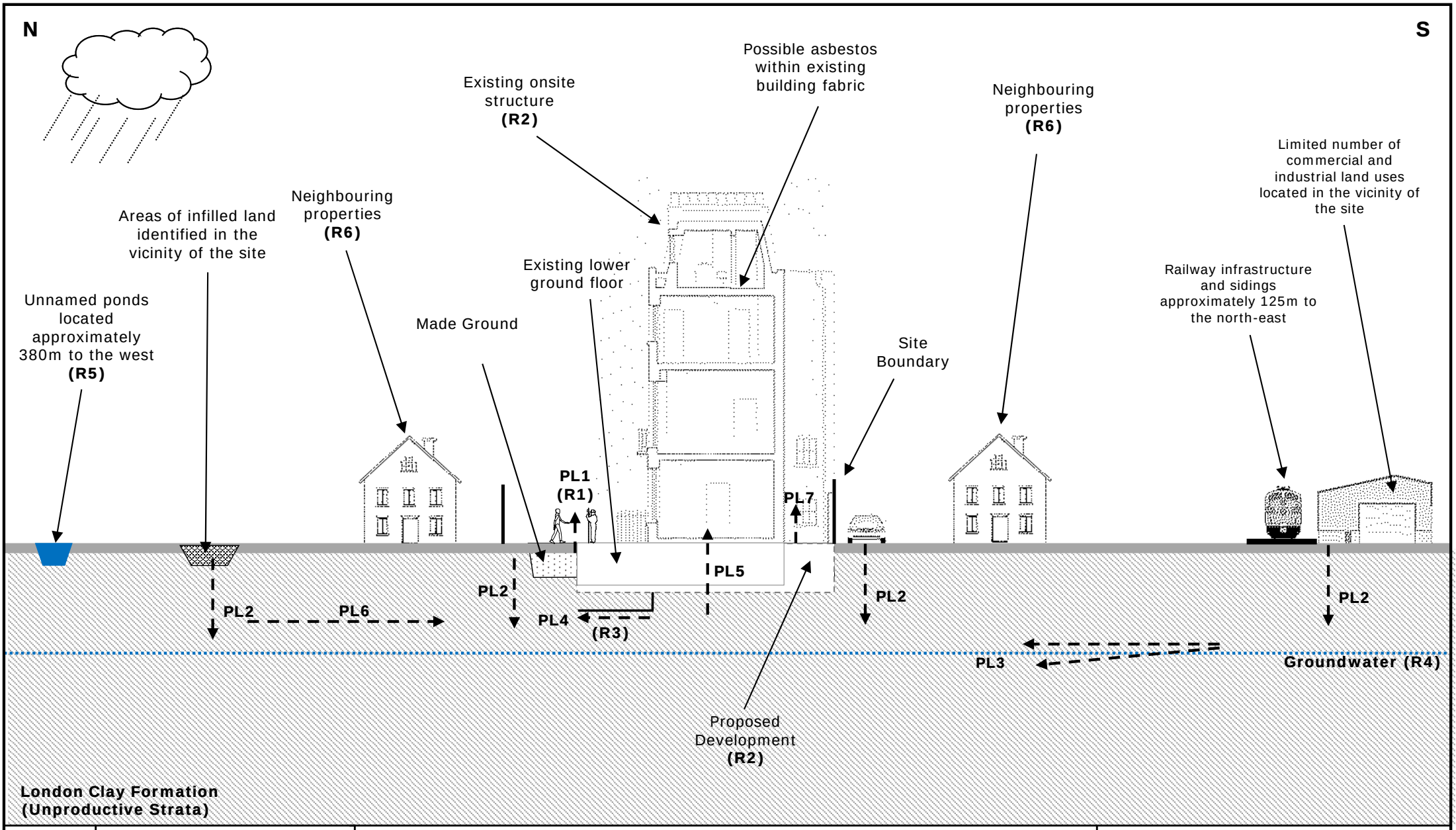

Drawing No.	**Figure 3**
Drawing Name	**Conceptual Site Model**
Project Name	**205 Albany Street, London**
Client Name	**Afrijanus Property UK 1 Limited**
Project No.	**253-20-651**

Summary of Pollutant Linkages (for full details see contamination associated report)

Receptors:
R1 - Construction and maintenance workers;
R2 - Current and future site users;
R3 - Service Lines;
R4 - Groundwater;
R5 - Surface watercourses;
R6 - Neighbouring properties and residents.

Pathways:
PL1 - Direct Physical Contact;
PL2 - Migration from soils to groundwater via leaching;
PL3 - Migration within groundwater;
PL4 - Migration via service lines;
PL5 - Volatilisation of contaminants from soils and groundwater;
PL6 - Migration of hazardous ground gases;
PL7 - Vegetable intake.

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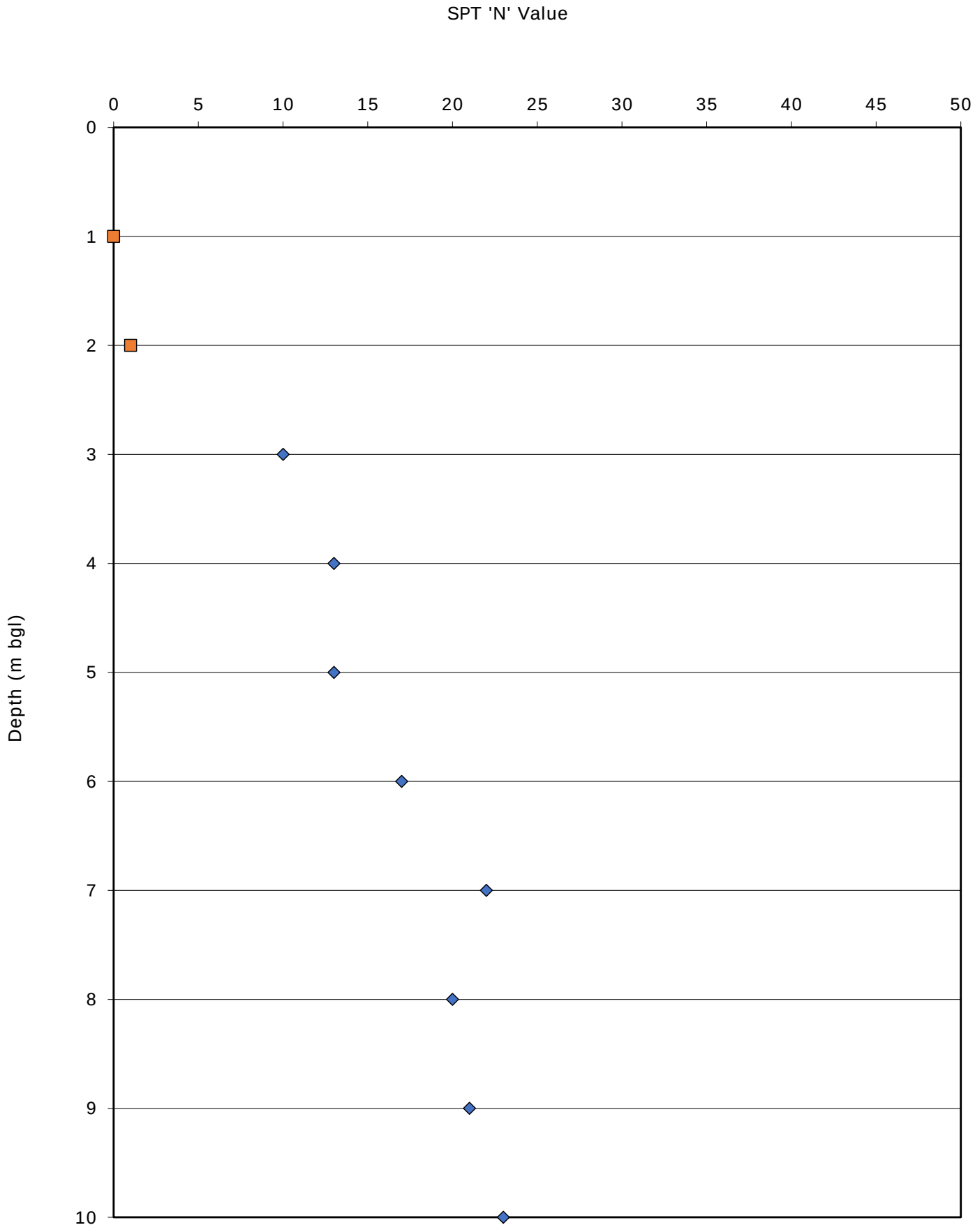

Drawing No.	**Figure 4**
Drawing Name	**SPT 'N' Value Versus Depth Below Ground Level**
Project Name	**205 Albany Street, London**
Client Name	**Afrijanus Property UK 1 Limited**
Project No.	**253-20-651**

Legend

- Made Ground
- London Clay Formation

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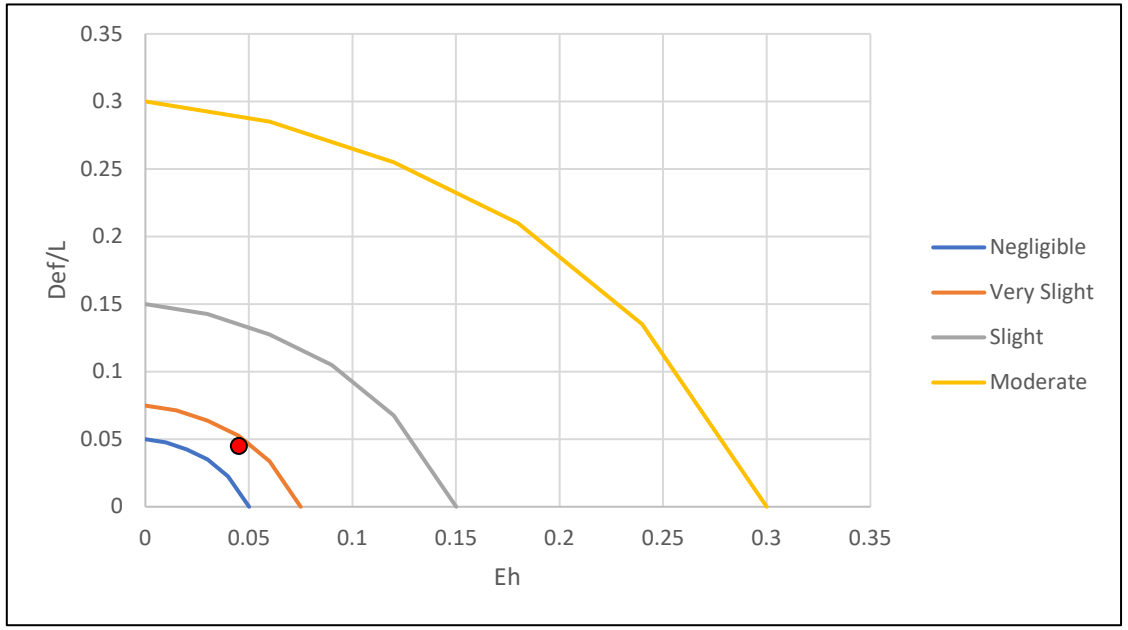
Strain & Damage Catergory Relationships (L/H = 0.5)	
Eh/Elim	Def/L/Elim
0	1
0.2	0.95
0.4	0.85
0.6	0.7
0.8	0.45
1	0

Negligible	
Elim	**0.05**
Eh	Def/L
0	0.05
0.01	0.0475
0.02	0.0425
0.03	0.035
0.04	0.0225
0.05	0

Very Slight	
Elim	**0.075**
Eh	Def/L
0	0.075
0.015	0.07125
0.03	0.06375
0.045	0.0525
0.06	0.03375
0.075	0

Slight	
Elim	**0.15**
Eh	Def/L
0	0.15
0.03	0.1425
0.06	0.1275
0.09	0.105
0.12	0.0675
0.15	0

Moderate	
Elim	**0.3**
Eh	Def/L
0	0.3
0.06	0.285
0.12	0.255
0.18	0.21
0.24	0.135
0.3	0



Def/L	0.045
Eh	0.045

Figure 5
Damage Assessment - Existing Building
Site Name: 205 Albany Street, London

APPENDIX IV

FIELD RECORDS

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Window Sample No.

WS1

Sheet 1 of 3

Project Name:	Project No.:	Hole Type
205 Albany Street, London	**253-20-651**	WLS
Location:	Co-ords: / Level:	Scale
Albany Street, London		1:25
Client:	Dates: Start / Finish	Logged By
Afrijanus Property UK 1 Limited	14/01/2021 / 14/01/2021	JT

Sample and In Situ Testing					Depth (m)	Level (m)	Stratum Description	Legend	W/S	Well
Depth (m)	Type	SPT	HPV (KPa)	PID (ppm)						
							MADE GROUND: Concrete paving.			
					0.15					
0.30	ES1						MADE GROUND: Yellow brown gravelly SAND with frequent subangular to subrounded cobbles of paving slab, brick and concrete. Gravel is subangular to subrounded fine to coarse slate, brick, concrete, sandstone and plastic.			
					1.00					
1.10	ES2						MADE GROUND: Soft to firm locally very soft brown sandy slightly gravelly CLAY. Gravel is subangular to subrounded fine to coarse brick, flint, charcoal and limestone.			
1.20 - 1.65 1.20	D3 SPT (S)	N=0 (0,0/0,0,0,0)								
					1.70					
1.80	D4						MADE GROUND: Soft to firm brown locally grey CLAY with occasional angular to subrounded gravel of slate, brick and limestone.			
2.00	SPT (S)	N=1 (0,0/0,0,0,1)								
					2.20		Firm to stiff becoming very stiff with depth light brown becoming brown and brown grey with depth CLAY.			
2.50	ES5									
3.00 - 3.45 3.00	D6 SPT (S)	N=10 (1,1/1,2,3,4)					*Becoming very stiff below 3m bgl.*			
3.60	D7									
4.00 - 4.45 4.00	D8 SPT (S)	N=13 (2,2/2,3,3,5)								
4.50	D9									
5.00 - 5.45	D10						Continued on Next Sheet			

Remarks

Windowless sampling from ground level to completed depth. Groundwater not encountered. Installed with combined gas and groundwater standpipe on completion.

Key

D - Disturbed Sample
ES - Environmental Sample
B - Bulk Sample
U - Undisturbed Sample
SS - Surface Sample
VS - Validation Sample
W - Water Sample
N/R - No Recovery
HVP - Hand Vane Shear Test
W/S - Water Strike

AGS

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Window Sample No.
WS1
Sheet 2 of 3

Project Name:	Project No.:	Hole Type
205 Albany Street, London	**253-20-651**	WLS
Location:	Co-ords: / Level:	Scale
Albany Street, London		1:25
Client:	Dates: Start / Finish	Logged By
Afrijanus Property UK 1 Limited	14/01/2021 / 14/01/2021	JT

Sample and In Situ Testing					Depth (m)	Level (m)	Stratum Description	Legend	W/S	Well
Depth (m)	Type	SPT	HPV (KPa)	PID (ppm)						
5.00	SPT (S)	N=13 (3,2/3,3,3,4)					Firm to stiff becoming very stiff with depth light brown becoming brown and brown grey with depth CLAY.			
5.60	D11									
6.00 - 6.45	D12						*Rare selenite crystals.*			6
6.00	SPT (S)	N=17 (4,4/4,4,4,5)								
6.60	D13									
7.00 - 7.45	D14									7
7.00	SPT (S)	N=22 (3,4/4,5,6,7)								
7.70	D15									
8.00 - 8.45	D16									8
8.00	SPT (S)	N=20 (4,4/4,5,5,6)								
8.70	D17									
9.00 - 9.45	D18									9
9.00	SPT (S)	N=21 (4,4/4,5,6,6)								
9.70	D19									
10.00 - 10.45	D20									10

Continued on Next Sheet

Remarks

Windowless sampling from ground level to completed depth. Groundwater not encountered. Installed with combined gas and groundwater standpipe on completion.

Key

D - Disturbed Sample
ES - Environmental Sample
B - Bulk Sample
U - Undisturbed Sample
SS - Surface Sample
VS - Validation Sample
W - Water Sample
N/R - No Recovery
HVP - Hand Vane Shear Test
W/S - Water Strike

AGS

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Window Sample No.
WS1
Sheet 3 of 3

Project Name:	Project No.:		Hole Type
205 Albany Street, London	**253-20-651**		WLS
Location:	Co-ords:	Level:	Scale
Albany Street, London			1:25
Client:	Dates: Start	Finish	Logged By
Afrijanus Property UK 1 Limited	14/01/2021	14/01/2021	JT

Sample and In Situ Testing					Depth (m)	Level (m)	Stratum Description	Legend	W/S	Well
Depth (m)	Type	SPT	HPV (KPa)	PID (ppm)						
10.00	SPT (S)	N=23 (4,4/5,6,6,6)					Firm to stiff becoming very stiff with depth light brown becoming brown and brown grey with depth CLAY.			
					10.45		End of Borehole at 10.450m			

11
12
13
14
15

Remarks

Windowless sampling from ground level to completed depth. Groundwater not encountered. Installed with combined gas and groundwater standpipe on completion.

Key

D - Disturbed Sample
ES - Environmental Sample
B - Bulk Sample
U - Undisturbed Sample
SS - Surface Sample
VS - Validation Sample
W - Water Sample
N/R - No Recovery
HVP - Hand Vane Shear Test
W/S - Water Strike

AGS

The Geo-Environmental Service Provider

Falling Head Permeability Test

Project No:	253-20-651
Project:	205 Albany Street, London
Date:	04/02/2021
Borehole No.:	WS1

Time (seconds)	Depth to Water (mbgl)	Head	Head Ratio (H/Ho)
0	1.31	3.62	1.0
1	1.32	3.61	0.998
2	1.33	3.60	0.994
3	1.34	3.59	0.990
4	1.35	3.58	0.988
5	1.36	3.57	0.985
6	1.37	3.56	0.981
7	1.39	3.54	0.978
8	1.40	3.53	0.974
9	1.41	3.52	0.972
10	1.42	3.51	0.969
20	1.51	3.42	0.945
30	1.57	3.36	0.928
40	1.62	3.31	0.915
50	1.66	3.27	0.903
60	1.70	3.23	0.892
70	1.74	3.19	0.881
80	1.76	3.17	0.875
90	1.79	3.14	0.868
100	1.80	3.13	0.863
110	1.82	3.11	0.859
120	1.82	3.11	0.857
180	1.85	3.08	0.849
240	1.86	3.07	0.846
300	1.87	3.06	0.845
360	1.87	3.06	0.843
660	1.89	3.04	0.838
960	1.91	3.02	0.832
1260	1.93	3.00	0.829
2160	1.95	2.98	0.822
3060	1.97	2.96	0.817
3960	1.97	2.96	0.817
5760	1.99	2.94	0.811
7560	2.00	2.93	0.808
9360	2.00	2.93	0.808
11160	2.00	2.93	0.808
12960	2.00	2.93	0.809

Diameter of piezometer (or where surrounded by granular filter, the diameter of the filter)	80	**mm**
Diameter of standpipe	50	**mm**
Top of response zone	1.00	**m bgl**
Base of response zone	4.00	**m bgl**
Length of response zone (saturated)	2.69	**m**
L/D	33.66	
Area	0.0019625	**m^2**
Starting Water Level	4.93	**m**

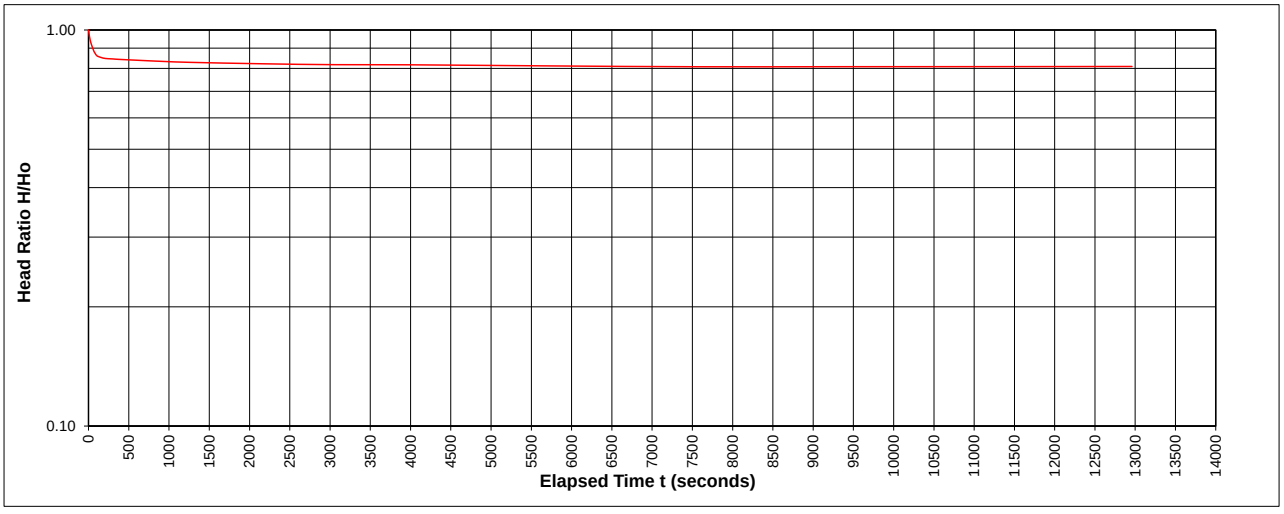
Comments:
Test carried out in general accordance with the methodology set out in BS 5930:1999

Time Interval (t_1)	0	**seconds**
Time Interval (t_2)	12960	**seconds**

Method	Intake Factor (F)	
a = Soil flush with bottom at impervious boundary	0.160	○
b = Soil flush with bottom in uniform soil	0.220	○
c = Well or hole extended at impervious boundary	3.895	○
d = Well or hole extended in uniform soil	4.018	○
e = Soil in casing with bottom at impervious boundary	0.002	○
f = Soil in casing with bottom in uniform soil	0.002	○
Test carried out in piezometer tube	4.5846	◉

Intake Factor (F)	4.5846	
Permeability (k) - General Method	**7.01E-09**	**m/s**

Installation surcharged with approximately 30 litres of water in approximately 137 seconds. Installation dry on arrival so base depth utilised as starting water level. Surcharge didn't reach surface.



Hole ID	Event	GW Level (m bgl)	Borehole Depth (m bgl)	CH_4 (% v/v)	CO_2 (% v/v)	O_2 (% v/v)	CO (ppm)	H_2S (ppm)	Downhole Pressure (Pa)		Average Flow Rate (l/hr)	
									Average	Peak	Average	Peak
Start	1	-	-	<0.1	<0.1	20.9	<1	<1	0	-	0.0	-
Finish	1	-	-	<0.1	<0.1	21.1	<1	<1	0	-	0.0	-
WS1	1	Dry	4.93	<0.1	<0.1	20.9	<1	<1	0	-	0.0	-

Notes:
Date: 04/02/21
Atmospheric Pressure: 1005mb-1006mb
Weather Conditions: 9°C, gentle breeze, dry, overcast, dry/damp ground.
Engineer: A Bensley
Gas concentrations recorded in either parts per million (ppm) or as a percentage of the total volume of gas recorded by the testing apparatus.

Table IVa
Gas and Groundwater Monitoring Results
Site Name: 205 Albany Street, London
Project No. 253-20-651
Prepared for: Afrijanus Property UK 1 Limited

APPENDIX V

CHEMICAL LABORATORY TEST DATA

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Analytical Report Number : 21-52219

Project / Site name:	205 Albany Street London	**Samples received on:**	20/01/2021
Your job number:	253 20 61	**Samples instructed on/ Analysis started on:**	20/01/2021
Your order number:	253 20 651	**Analysis completed by:**	02/02/2021
Report Issue Number:	1	**Report issued on:**	02/02/2021
Samples Analysed:	1 leachate sample - 6 soil samples		

Signed: Karolina Marek

Karolina Marek
PL Head of Reporting Team
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting
asbestos - 6 months from reporting

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Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 21-52219
Project / Site name: 205 Albany Street London
Your Order No: 253 20 651

Lab Sample Number				1743578	1743579	1743580	1743581	1743582
Sample Reference				WS1	WS1	WS1	WS1	WS1
Sample Number				ES4	ES5	D3	D6	D15
Depth (m)				1.90	2.50	1.20-1.65	3.00-3.45	7.70
Date Sampled				14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	22	28	20	19	16
Total mass of sample received	kg	0.001	NONE	1.0	1.5	0.3	0.3	0.3
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	-	-	-
General Inorganics								
pH - Automated	pH Units	N/A	MCERTS	8.3	8.1	8.9	7.8	7.9
Total Cyanide	mg/kg	1	MCERTS	< 1	< 1	-	-	-
Free Cyanide	mg/kg	1	MCERTS	< 1	< 1	-	-	-
Total Sulphate as SO4	mg/kg	50	MCERTS	1000	530	-	-	-
Total Sulphate as SO4	%	0.005	MCERTS	-	-	0.191	2.37	-
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.41	0.2	0.31	3.3	4.7
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-	-	309	3270	-
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5	MCERTS	-	-	3.4	29	-
Total Sulphur	mg/kg	50	MCERTS	300	150	-	-	-
Total Sulphur	%	0.005	MCERTS	-	-	0.058	0.935	-
Ammoniacal Nitrogen as NH4	mg/kg	0.5	MCERTS	-	-	< 0.5	< 0.5	-
Ammonium as NH4 (10:1 leachate equivalent)	mg/l	0.05	MCERTS	-	-	< 0.05	< 0.05	-
Fraction Organic Carbon (FOC)	N/A	0.001	MCERTS	0.0026	0.0013	-	-	-
Water Soluble Nitrate (2:1) as N (leachate equivalent)	mg/l	2	NONE	-	-	< 2.0	< 2.0	-
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	-	-	-
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	-
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	-
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	-
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	-
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	-
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	-
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	-
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	-
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	< 0.80	< 0.80	-	-	-

Analytical Report Number: 21-52219
Project / Site name: 205 Albany Street London
Your Order No: 253 20 651

Lab Sample Number				1743578	1743579	1743580	1743581	1743582
Sample Reference				WS1	WS1	WS1	WS1	WS1
Sample Number				ES4	ES5	D3	D6	D15
Depth (m)				1.90	2.50	1.20-1.65	3.00-3.45	7.70
Date Sampled				14/01/2021	14/01/2021	14/01/2021	14/01/2021	14/01/2021
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	12	14	-	-	-
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	1.4	1.4	-	-	-
Boron (water soluble)	mg/kg	0.2	MCERTS	0.6	1.6	-	-	-
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	-	-	-
Chromium (hexavalent)	mg/kg	4	MCERTS	< 4.0	< 4.0	-	-	-
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	50	52	-	-	-
Copper (aqua regia extractable)	mg/kg	1	MCERTS	41	40	-	-	-
Lead (aqua regia extractable)	mg/kg	1	MCERTS	36	22	-	-	-
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	-	-	-
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	48	52	-	-	-
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	-	-	-
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	100	97	-	-	-
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	93	96	-	-	-
Magnesium (water soluble)	mg/kg	5	NONE	-	-	12	740	-
Magnesium (leachate equivalent)	mg/l	2.5	NONE	-	-	5.8	370	-
Petroleum Hydrocarbons								
TPH C10 - C40	mg/kg	10	MCERTS	< 10	< 10	-	-	-
TPH2 (C6 - C10)	mg/kg	0.1	MCERTS	< 0.1	< 0.1	-	-	-

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number: 21-52219
Project / Site name: 205 Albany Street London
Your Order No: 253 20 651

Lab Sample Number				1743583
Sample Reference				WS1
Sample Number				ES1
Depth (m)				0.30
Date Sampled				14/01/2021
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**	
Stone Content	%	0.1	NONE	-
Moisture Content	%	0.01	NONE	-
Total mass of sample received	kg	0.001	NONE	-

Asbestos in Soil	Type	N/A	ISO 17025	Not-detected

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	-
Total Cyanide	mg/kg	1	MCERTS	-
Free Cyanide	mg/kg	1	MCERTS	-
Total Sulphate as SO4	mg/kg	50	MCERTS	-
Total Sulphate as SO4	%	0.005	MCERTS	-
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-
Water Soluble Chloride (2:1) (leachate equivalent)	mg/l	0.5	MCERTS	-
Total Sulphur	mg/kg	50	MCERTS	-
Total Sulphur	%	0.005	MCERTS	-
Ammoniacal Nitrogen as NH4	mg/kg	0.5	MCERTS	-
Ammonium as NH4 (10:1 leachate equivalent)	mg/l	0.05	MCERTS	-
Fraction Organic Carbon (FOC)	N/A	0.001	MCERTS	-
Water Soluble Nitrate (2:1) as N (leachate equivalent)	mg/l	2	NONE	-

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	-

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	-
Acenaphthylene	mg/kg	0.05	MCERTS	-
Acenaphthene	mg/kg	0.05	MCERTS	-
Fluorene	mg/kg	0.05	MCERTS	-
Phenanthrene	mg/kg	0.05	MCERTS	-
Anthracene	mg/kg	0.05	MCERTS	-
Fluoranthene	mg/kg	0.05	MCERTS	-
Pyrene	mg/kg	0.05	MCERTS	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-
Chrysene	mg/kg	0.05	MCERTS	-
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	-
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	MCERTS	-

Analytical Report Number: 21-52219
Project / Site name: 205 Albany Street London
Your Order No: 253 20 651

Lab Sample Number				1743583
Sample Reference				WS1
Sample Number				ES1
Depth (m)				0.30
Date Sampled				14/01/2021
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**	
Heavy Metals / Metalloids				
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	-
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	-
Boron (water soluble)	mg/kg	0.2	MCERTS	-
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	-
Chromium (hexavalent)	mg/kg	4	MCERTS	-
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	-
Copper (aqua regia extractable)	mg/kg	1	MCERTS	-
Lead (aqua regia extractable)	mg/kg	1	MCERTS	-
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	-
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	-
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	-
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	-
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	-
Magnesium (water soluble)	mg/kg	5	NONE	-
Magnesium (leachate equivalent)	mg/l	2.5	NONE	-
Petroleum Hydrocarbons				
TPH C10 - C40	mg/kg	10	MCERTS	-
TPH2 (C6 - C10)	mg/kg	0.1	MCERTS	-

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number: 21-52219
Project / Site name: 205 Albany Street London

Your Order No: 253 20 651

Lab Sample Number				1743584
Sample Reference				WS1
Sample Number				None Supplied
Depth (m)				1.90
Date Sampled				14/01/2021
Time Taken				None Supplied
Analytical Parameter (Leachate Analysis)	**Units**	**Limit of detection**	**Accreditation Status**	
General Inorganics				
pH	pH Units	N/A	ISO 17025	8.0
Total Cyanide (Low Level 1 µg/l)	µg/l	1	ISO 17025	< 1.0
Free Cyanide (Low Level 1 µg/l)	µg/l	1	ISO 17025	< 1
Dissolved Organic Carbon (DOC)	mg/l	0.1	NONE	2.53
Heavy Metals / Metalloids				
Arsenic (dissolved)	µg/l	1	ISO 17025	4.1
Beryllium (dissolved)	µg/l	0.2	ISO 17025	< 0.2
Boron (dissolved)	µg/l	10	ISO 17025	42
Cadmium (dissolved)	µg/l	0.08	ISO 17025	< 0.08
Chromium (hexavalent)	µg/l	5	ISO 17025	< 5.0
Chromium (dissolved)	µg/l	0.4	ISO 17025	4.3
Copper (dissolved)	µg/l	0.7	ISO 17025	4.0
Lead (dissolved)	µg/l	1	ISO 17025	5.7
Mercury (dissolved)	µg/l	0.5	ISO 17025	< 0.5
Nickel (dissolved)	µg/l	0.3	ISO 17025	2.9
Selenium (dissolved)	µg/l	4	ISO 17025	< 4.0
Vanadium (dissolved)	µg/l	1.7	ISO 17025	3.4
Zinc (dissolved)	µg/l	0.4	ISO 17025	7.6
Calcium (dissolved)	mg/l	0.012	ISO 17025	20

U/S = Unsuitable Sample I/S = Insufficient Sample

Analytical Report Number : 21-52219
Project / Site name: 205 Albany Street London

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
1743578	WS1	ES4	1.9	Brown clay.
1743579	WS1	ES5	2.5	Brown clay with gravel.
1743580	WS1	D3	1.20-1.65	Brown clay and sand with gravel.
1743581	WS1	D6	3.00-3.45	Brown clay.
1743582	WS1	D15	7.7	Brown clay.

Analytical Report Number : 21-52219
Project / Site name: 205 Albany Street London

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
NRA Leachate Prep	10:1 extract with de-ionised water shaken for 24 hours then filtered.	In-house method based on National Rivers Authority	L020-PL	W	NONE
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with disperion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Metals by ICP-OES in leachate	Determination of metals in leachate by acidification followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L039-PL	W	ISO 17025
Boron in leachate	Determination of boron in leachate. Sample acidified and followed by ICP-OES.	In-house method based on MEWAM	L039-PL	W	ISO 17025
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
Hexavalent chromium in leachate	Determination of hexavalent chromium in leachate by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method	L080-PL	W	ISO 17025
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method	L080-PL	W	MCERTS
Free cyanide in soil	Determination of free cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
Fraction of Organic Carbon in soil	Determination of fraction of organic carbon in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS
Magnesium, water soluble, in soil	Determination of water soluble magnesium by extraction with water followed by ICP-OES.	In-house method based on TRL 447	L038-PL	D	NONE
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
pH at 20oC in leachate	Determination of pH in leachate by electrometric measurement.	In house method.	L005-PL	W	ISO 17025

Analytical Report Number : 21-52219
Project / Site name: 205 Albany Street London

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Total sulphate (as SO4 in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES.	In house method.	L038-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
Total Sulphur in soil	Determination of total sulphur in soil by extraction with aqua-regia, potassium bromide/bromate followed by ICP-OES.	In house method.	L038-PL	D	MCERTS
TPH2 (Soil)	Determination of hydrocarbons C6-C10 by headspace GC-MS.	In-house method based on USEPA8260	L088-PL	W	MCERTS
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
Dissolved Organic Carbon in leachate	Determination of dissolved organic carbon in leachate by the measurement on a non-dispersive infrared analyser of carbon dioxide released by acidification.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L023-PL	W	NONE
Ammonium as NH4 in soil	Determination of Ammonium/Ammonia/ Ammoniacal Nitrogen by the colorimetric salicylate/nitroprusside method, 10:1 water extraction.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L082-PL	W	MCERTS
TPH Banding in Soil by FID	Determination of hexane extractable hydrocarbons in soil by GC-FID.	In-house method, TPH with carbon banding and silica gel split/cleanup.	L076-PL	W	MCERTS
Free cyanide in leachate	Determination of free cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	ISO 17025
Total cyanide in leachate - 1µg/l	Determination of total cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080-PL	W	ISO 17025
Total Sulphate in soil as %	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES.	In house method.	L038-PL	D	MCERTS
Total Sulphur in soil as %	Determination of total sulphur in soil by extraction with aqua-regia, potassium bromide/bromate followed by ICP-OES.	In house method.	L038-PL	D	MCERTS
Water Soluble Nitrate (2:1) as N in soil	Determination of nitrate by reaction with sodium salicylate and colorimetry.	In-house method based on Examination of Water and Wastewatern & Polish Standard Method PN-82/C-04579.08, 2:1 extraction.	L078-PL	W	NONE
Chloride, water soluble, in soil	Determination of Chloride colorimetrically by discrete analyser.	In house method.	L082-PL	D	MCERTS
Sulphate, water soluble, in soil	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.
For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

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Analytical Report Number : 21-52223

Project / Site name:	205 Albany Street London	**Samples received on:**	20/01/2021
Your job number:	253 20 651	**Samples instructed on/ Analysis started on:**	20/01/2021
Your order number:	253 20 651	**Analysis completed by:**	01/02/2021
Report Issue Number:	1	**Report issued on:**	01/02/2021
Samples Analysed:	2 10:1 WAC Samples		

Signed: A. Czerwińska

Agnieszka Czerwińska
Technical Reviewer (Reporting Team)
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting
asbestos - 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

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Waste Acceptance Criteria Analytical Results

Report No:	**21-52223**						
					Client:	**ASL**	
Location	**205 Albany Street London**						
Lab Reference (Sample Number)	1743607 / 1743608				**Landfill Waste Acceptance Criteria Limits**		
Sampling Date	14/01/2021				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID	WS1						
Depth (m)	1.90						
Solid Waste Analysis							
TOC (%)**	0.3				3%	5%	6%
Loss on Ignition (%) **	-				--	--	10%
BTEX (µg/kg) **	< 10				6000	--	--
Sum of PCBs (mg/kg) **	< 0.007				1	--	--
Mineral Oil (mg/kg)	< 10				500	--	--
Total PAH (WAC-17) (mg/kg)	< 0.85				100	--	--
pH (units)**	-				--	>6	--
Acid Neutralisation Capacity (mol / kg)	-				--	To be evaluated	To be evaluated
Eluate Analysis	10:1			10:1	Limit values for compliance leaching test		
(BS EN 12457 - 2 preparation utilising end over end leaching procedure)	mg/l			mg/kg	using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic *	0.0039			0.0333	0.5	2	25
Barium *	0.0228			0.194	20	100	300
Cadmium *	< 0.0001			< 0.0008	0.04	1	5
Chromium *	0.016			0.13	0.5	10	70
Copper *	0.014			0.12	2	50	100
Mercury *	< 0.0005			< 0.0050	0.01	0.2	2
Molybdenum *	< 0.0004			< 0.0040	0.5	10	30
Nickel *	0.0086			0.073	0.4	10	40
Lead *	0.0045			0.038	0.5	10	50
Antimony *	< 0.0017			< 0.017	0.06	0.7	5
Selenium *	< 0.0040			< 0.040	0.1	0.5	7
Zinc *	0.013			0.11	4	50	200
Chloride *	2.4			21	800	15000	25000
Fluoride	0.62			5.3	10	150	500
Sulphate *	80			680	1000	20000	50000
TDS*	120			990	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	4.24			36.0	500	800	1000
Leach Test Information							
Stone Content (%)	< 0.1						
Sample Mass (kg)	1.0						
Dry Matter (%)	76						
Moisture (%)	24						

Results are expressed on a dry weight basis, after correction for moisture content where applicable.
*= UKAS accredited (liquid eluate analysis only)
Stated limits are for guidance only and i2 cannot be held responsible for any discrepancies with current legislation
** = MCERTS accredited

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes as defined by the Waste (England and Wales) Regulations 2011 (as amended) and EA Guidance WM3.
This analysis is only applicable for landfill acceptance criteria (The Environmental Permitting (England and Wales) Regulations) and does not give any indication as to whether a waste may be hazardous or non-hazardous.

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Waste Acceptance Criteria Analytical Results

Report No:	**21-52223**						
					Client:	**ASL**	
Location	**205 Albany Street London**						
Lab Reference (Sample Number)	1743609 / 1743610				**Landfill Waste Acceptance Criteria Limits**		
Sampling Date	14/01/2021				Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill
Sample ID	WS1						
Depth (m)	2.50						
Solid Waste Analysis							
TOC (%)**	0.3				3%	5%	6%
Loss on Ignition (%) **	-				--	--	10%
BTEX (µg/kg) **	< 10				6000	--	--
Sum of PCBs (mg/kg) **	< 0.007				1	--	--
Mineral Oil (mg/kg)	< 10				500	--	--
Total PAH (WAC-17) (mg/kg)	< 0.85				100	--	--
pH (units)**	-				--	>6	--
Acid Neutralisation Capacity (mol / kg)	-				--	To be evaluated	To be evaluated
Eluate Analysis	10:1			10:1	Limit values for compliance leaching test		
(BS EN 12457 - 2 preparation utilising end over end leaching procedure)	mg/l			mg/kg	using BS EN 12457-2 at L/S 10 l/kg (mg/kg)		
Arsenic *	0.0047			0.0407	0.5	2	25
Barium *	0.0088			0.0767	20	100	300
Cadmium *	< 0.0001			< 0.0008	0.04	1	5
Chromium *	0.0009			0.0078	0.5	10	70
Copper *	0.0040			0.035	2	50	100
Mercury *	< 0.0005			< 0.0050	0.01	0.2	2
Molybdenum *	< 0.0004			< 0.0040	0.5	10	30
Nickel *	0.0041			0.035	0.4	10	40
Lead *	0.0016			0.014	0.5	10	50
Antimony *	< 0.0017			< 0.017	0.06	0.7	5
Selenium *	< 0.0040			< 0.040	0.1	0.5	7
Zinc *	0.011			0.093	4	50	200
Chloride *	1.5			13	800	15000	25000
Fluoride	0.78			6.8	10	150	500
Sulphate *	31			270	1000	20000	50000
TDS*	87			750	4000	60000	100000
Phenol Index (Monohydric Phenols) *	< 0.010			< 0.10	1	-	-
DOC	4.82			41.8	500	800	1000
Leach Test Information							
Stone Content (%)	< 0.1						
Sample Mass (kg)	1.5						
Dry Matter (%)	76						
Moisture (%)	24						

Results are expressed on a dry weight basis, after correction for moisture content where applicable.
*= UKAS accredited (liquid eluate analysis only)
Stated limits are for guidance only and i2 cannot be held responsible for any discrepencies with current legislation
** = MCERTS accredited

Landfill WAC analysis (specifically leaching test results) must not be used for hazardous waste classification purposes as defined by the Waste (England and Wales) Regulations 2011 (as amended) and EA Guidance WM3.
This analysis is only applicable for landfill acceptance criteria (The Environmental Permitting (England and Wales) Regulations) and does not give any indication as to whether a waste may be hazardous or non-hazardous.

Analytical Report Number : 21-52223
Project / Site name: 205 Albany Street London

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
1743607	WS1	None Supplied	1.9	Brown clay.
1743609	WS1	None Supplied	2.5	Brown clay.

Analytical Report Number : 21-52223
Project / Site name: 205 Albany Street London

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
BS EN 12457-2 (10:1) Leachate Prep	10:1 (as recieved, moisture adjusted) end over end extraction with water for 24 hours. Eluate filtered prior to analysis.	In-house method based on BSEN12457-2.	L043-PL	W	NONE
Mineral Oil (Soil) C10 - C40	Determination of mineral oil fraction extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L076-PL	D	NONE
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Speciated WAC-17 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270. MCERTS accredited except Coronene.	L064-PL	D	NONE
PCB's By GC-MS in soil	Determination of PCB by extraction with acetone and hexane followed by GC-MS.	In-house method based on USEPA 8082	L027-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS
BTEX in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	MCERTS
Total BTEX in soil (Poland)	Determination of BTEX in soil by headspace GC-MS.	In-house method based on USEPA8260	L073-PL	W	MCERTS
Metals in leachate by ICP-OES	Determination of metals in leachate by acidification followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil""	L039-PL	W	ISO 17025
Chloride 10:1 WAC	Determination of Chloride colorimetrically by discrete analyser.	In house based on MEWAM Method ISBN 0117516260.	L082-PL	W	ISO 17025
Fluoride 10:1 WAC	Determination of fluoride in leachate by 1:1ratio with a buffer solution followed by Ion Selective Electrode.	In-house method based on Use of Total Ionic Strength Adjustment Buffer for Electrode Determination"	L033B-PL	W	ISO 17025
Sulphate 10:1 WAC	Determination of sulphate in leachate by ICP-OES	In-house method based on MEWAM 1986 Methods for the Determination of Metals in Soil""	L039-PL	W	ISO 17025
Total dissolved solids 10:1 WAC	Determination of total dissolved solids in water by electrometric measurement.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L004-PL	W	ISO 17025
Monohydric phenols 10:1 WAC	Determination of phenols in leachate by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080-PL	W	ISO 17025
Dissolved organic carbon 10:1 WAC	Determination of dissolved inorganic carbon in leachate by TOC/DOC NDIR Analyser.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L037-PL	W	NONE

Analytical Report Number : 21-52223
Project / Site name: 205 Albany Street London

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.
For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

APPENDIX VI

GEOTECHNICAL LABORATORY TEST DATA

Laboratory Report

GEO Site & Testing Services Ltd

Contract Number: 52291

Client Ref: **253-20-651**
Client PO: **253-20-651**

Report Date: **05-02-2021**

Client **ASL**
Holly Farm Business Park
Honiley
Warwickshire
CV8 1NP

Contract Title: **205 Albany Street, London**
For the attention of: **Joseph Taylor**

Date Received: **21-01-2021**
Date Completed: **05-02-2021**

Test Description	Qty
Moisture Content BS 1377:1990 - Part 2 : 3.2 - * UKAS	2
4 Point Liquid & Plastic Limit BS 1377:1990 - Part 2 : 4.3 & 5.3 - * UKAS	2
Samples Received - @ Non Accredited Test	2
Disposal of samples for job	1

Notes: **Observations and Interpretations are outside the UKAS Accreditation**
*** - denotes test included in laboratory scope of accreditation**
 # - denotes test carried out by approved contractor
@ - denotes non accredited tests

Approved Signatories:
Emma Sharp (Office Manager/Director) - Paul Evans (Quality/Technical Manager) - Richard John (Advanced Testing Manager)
Shaun Jones (Laboratory manager) - Wayne Honey (Administrative/Quality Assistant)

GEO Site & Testing Services Ltd
Unit 3-4, Heol Aur, Dafen Ind Estate, Dafen, Llanelli, Carmarthenshire SA14 8QN
Tel: 01554 784040 Fax: 01554 784041 info@gstl.co.uk gstl.co.uk

GSTL	NATURAL MOISTURE, LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX (BS 1377 : Part 2 : 1990 Method 5)	
Contract Number	52291	
Project Location	205 Albany Street, London	
Date Tested	03/02/2021	

Sample/Hole Reference	Sample Number	Sample Type	Depth (m)			Moisture Content %	Liquid Limit %	Plastic Limit %	Plasticity index %	Passing 0.425mm %	Remarks
WS1	7	D	3.60	-		33	72	40	32	100	MV Very High Plasticity
WS1	9	D	5.60	-		33	81	41	40	100	MV Very High Plasticity
				-							
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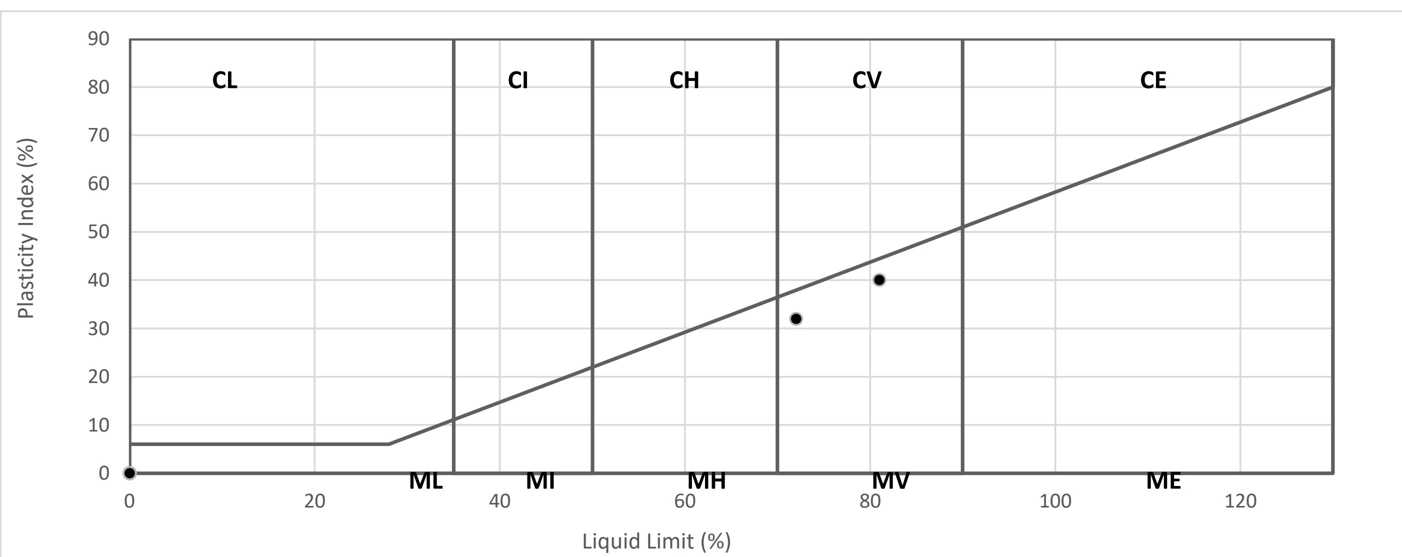
Symbols: NP : Non Plastic # : Liquid Limit and Plastic Limit Wet Sieved

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION
BS 5930:1999+A2:2010



Operators	Checked	05/02/2021	Wayne Honey (Administrative/Quality Assistant)
Clayton Jenkins	Approved	05/02/2021	Paul Evans (Quality/Technical Manager)

UKAS TESTING 2788

GSTL	NATURAL MOISTURE, LIQUID LIMIT, PLASTIC LIMIT AND PLASTICITY INDEX (BS 1377 : Part 2 : 1990 Method 5)	
Contract Number	52291	
Site Name	205 Albany Street, London	
Date Tested	03/02/2021	
	DESCRIPTIONS	

Sample/Hole Reference	Sample Number	Sample Type	Depth (m)			Descriptions
WS1	7	D	3.60	-		Brown clayey SILT
WS1	9	D	5.60	-		Brown clayey SILT
				-		
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Operators	Checked	05/02/2021	Wayne Honey (Administrative/Quality Assistant)
Clayton Jenkins	Approved	05/02/2021	Paul Evans (Quality/Technical Manager)

UKAS TESTING 2788

APPENDIX VII

QUALITATIVE RISK ASSESSMENT

STEP 2: BASIC SETTINGS

Apply Settings to Model

Back to Guide

SELECT LAND USE Residential with produce

RATIO MODE ☐

LAND USE OPTIONS

RECEPTOR Female (res)

BUILDING Small terraced house

START AC 1

END AC 6

SOIL TYPE Sandy clay loam

pH 7

SOM (%) 0.34

EXPOSURE PATHWAYS

ORAL ROUTES

direct soil and dust ingestion	☑ E
consumption of homegrown produce	☑ E
soil attached to homegrown produce	☑ E

DERMAL ROUTES

indoor	☑ E
outdoor	☑ E

INHALATION ROUTES

indoor dust	☑ JE
outdoor dust	☑ JE
indoor vapour	☑ JE
outdoor vapour	☑ JE

STEP 5: RESULTS

Find AC | Print Reports | Back to Guide

		Ratio of ADE to relevant Health Criteria Value			Soil Assessment Criteria			SAC Flag	Soil Saturation Limit
		oral HCV	inhal HCV	Combined	oral HCV	inhal HCV	Combined	Current SAC used for determining pathway contributions	
Number	Chemical	(dimensionless)	(dimensionless)	(dimensionless)	mg kg^{-1}	mg kg^{-1}	mg kg^{-1}	(unitless)	mg kg^{-1}
1	Beryllium	0.63	0.37	1.00	1.31E+02	2.39E+02	8.78E+01	Combined	NR
2	Boron	1.00	0.00	1.00	1.17E+02	3.65E+06	1.17E+02	Combined	NR
3	Chromium	0.06	0.94	1.00	1.97E+04	1.18E+03	1.11E+03	Combined	NR
4	Copper	0.80	0.20	1.00	2.69E+03	1.18E+04	2.38E+03	Combined	NR
5	Nickel.	1.00	0.66	NR	1.27E+02	1.92E+02	**NR**	Oral	NR
6	Vanadium	0.75	0.25	1.00	3.73E+02	1.15E+03	2.82E+02	Combined	NR
7	Zinc	1.00	0.00	1.00	3.25E+03	2.55E+07	3.25E+03	Combined	NR
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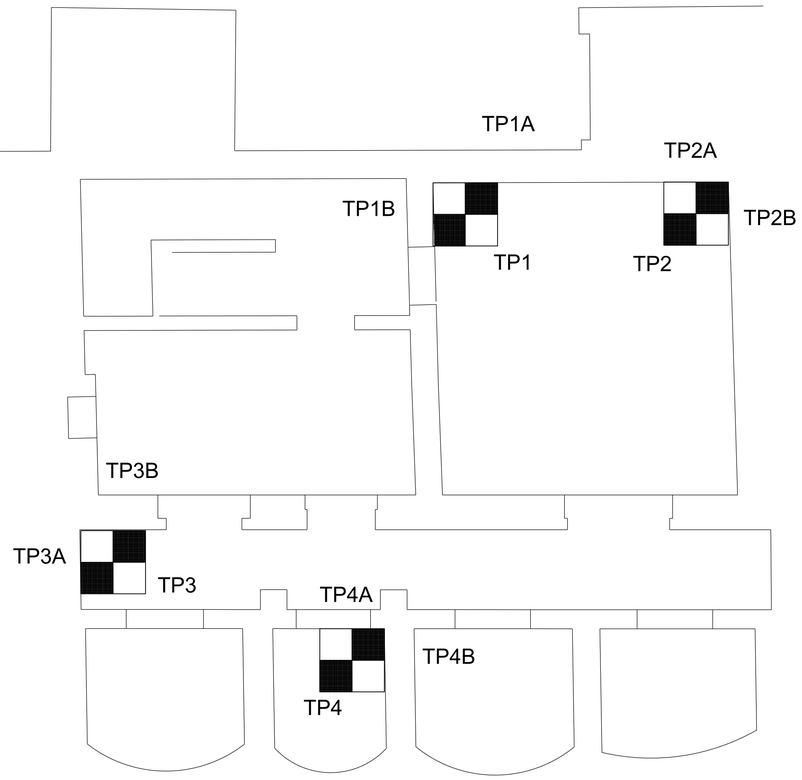

TRIAL PIT LOCATIONS

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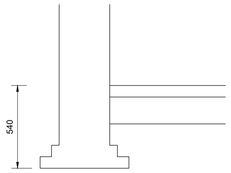

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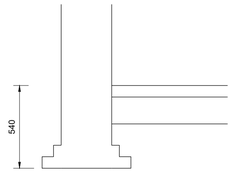

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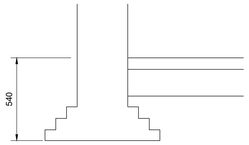

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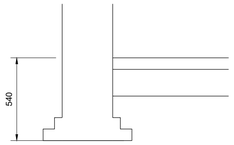

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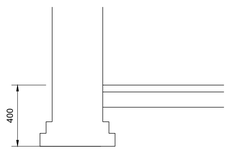

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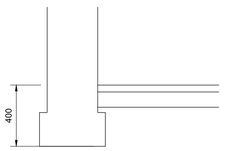
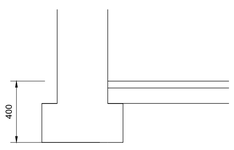
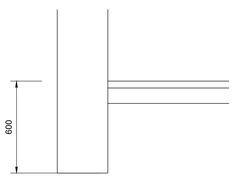


TP3B



TP4A



TP4B

NOTES:-

1. THIS DRAWING IS NOT TO BE SCALED, WORK FROM GIVEN DIMENSIONS ONLY.
2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS, SERVICE ENGINEERS, SPECIALISTS, QED STRUCTURES DRAWINGS, SPECIFICATIONS AND BILL OF QUANTITIES.
3. ANY DISCREPANCIES OR VARIATIONS ARE TO BE REPORTED IMMEDIATELY TO QED STRUCTURES FOR CLARIFICATION BEFORE THE AFFECTED WORK COMMENCES.
4. ALL DIMENSIONS ARE TO BE CHECKED ON SITE, ANY DISCREPANCIES TO BE REPORTED TO QED STRUCTURES IMMEDIATELY BEFORE THE AFFECTED WORK COMMENCES.
5. ALL PROPRIETARY PRODUCTS ARE TO BE USED IN ACCORDANCE WITH THE MANUFACTURERS DETAILS AND SPECIFICATIONS.
6. THE CONTRACTOR IS TO ENSURE THAT TEMPORARY LOADS PLACED ONTO THE NEW STRUCTURES SHALL BE LESS THAN THE LOADS FOR WHICH IT HAS BEEN DESIGNED.
7. THE CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY WORKS AND FOR THE STABILITY OF THE WORKS IN PROGRESS.
8. FOR THE FULL COMPREHENSIVE GENERAL NOTES SEE GENERAL NOTES DRAWING 100.

SCAN QR CODE FOR ALL THE LATEST DRAWINGS ON THE PROJECT

Rev	Description	Date	By	Checked
P1	FOR BIA ONLY	12.03.21	BS	SHL

FOR BASEMENT IMPACT ASSESSMENT ONLY

QED STRUCTURES
CONSULTING STRUCTURAL & CIVIL ENGINEERS

HOVE OFFICE:
7 HOVE MANOR PARADE
HOVE STREET
HOVE
EAST SUSSEX
BN3 2DF

T 01273 358 035
W www.qedstructures.co.uk

LONDON OFFICE:
306 DAVINA HOUSE
137-149 GOSWELL RD
LONDON
EC1V 7ET

T 02071 834 690

Client
AFRIJANUS PROPERTY UK LIMITED

Project
205 ALBANY STREET
RADLETT

Title
TRIAL PIT INFO

Date MAR 21	Drawn BS	Checked SHL
Distribution Office LONDON		
Scale AS INDICATED	Engineer BS	
Approved SHL	Status FOR BIA	

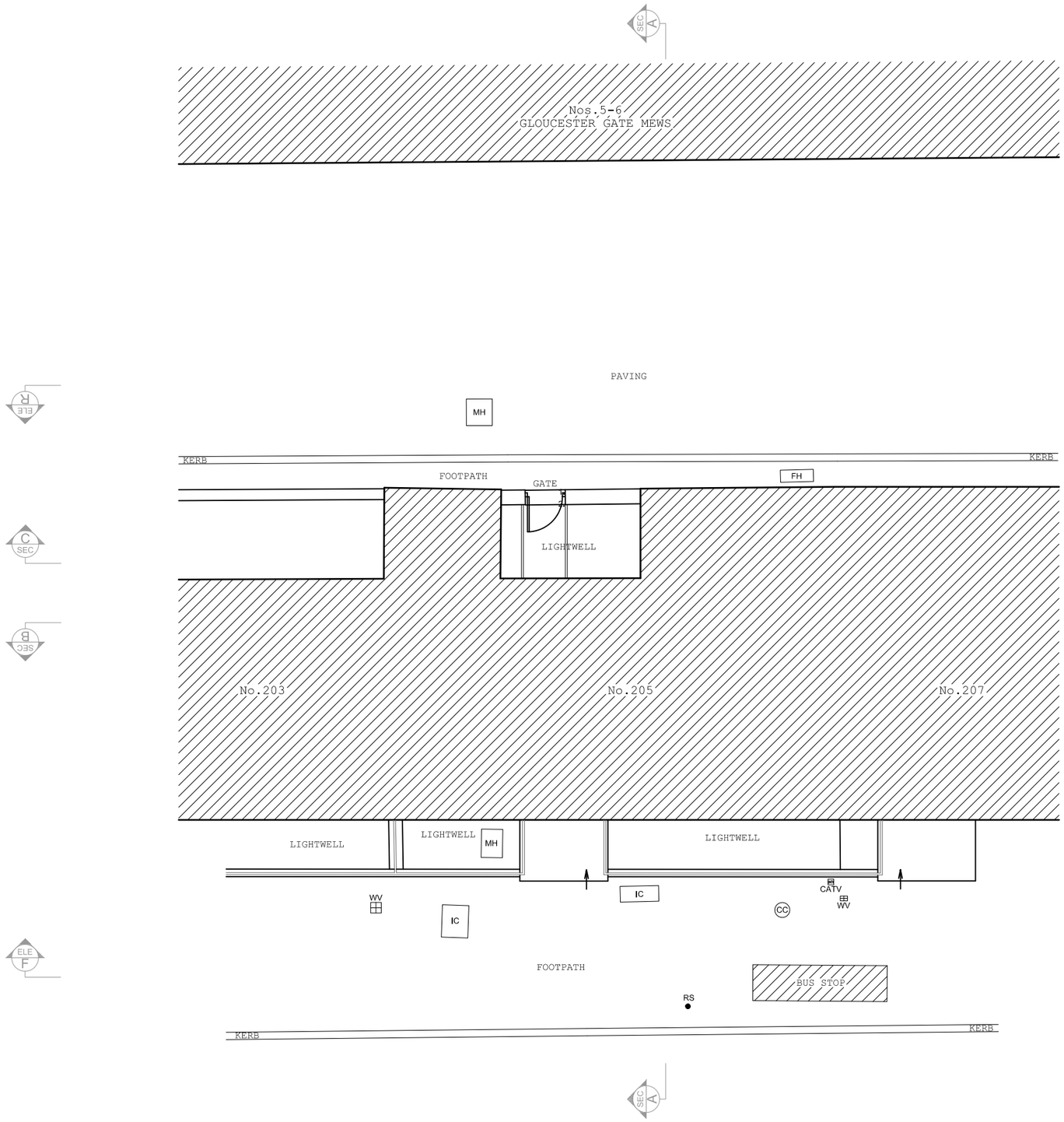
Project Number	Drawing Number	Revision
20-306	BIA 03	P1

ORIGINAL DRAWING SIZE A1

10.3 Existing And Proposed Development Drawings

QED Structures Ltd
Consulting, Structural & Civil Engineers
306 Davina House
137-149 Goswell Road
London
EC1V 7ET

T: +44 (0) 20 7183 4690
F: +44 (0) 1273 207451
E: info@qedstructures.co.uk
W: www.qedstructures.co.uk



1 Proposed Site Plan
1:100 @ A3

PLANNING

REVISIONS

NOTES

205 ALBANY STREET
LONDON, NW1 4AB

PROPOSED SITE PLAN

DWG No: 205AS/P100

SCALE: 1:100 @A3

DATE: JUNE 2020

Existing walls

New walls / partitions / floors

Partition omitted

Infilled walls

New openings

0 1m 2m 5m

BELSIZE ARCHITECTS

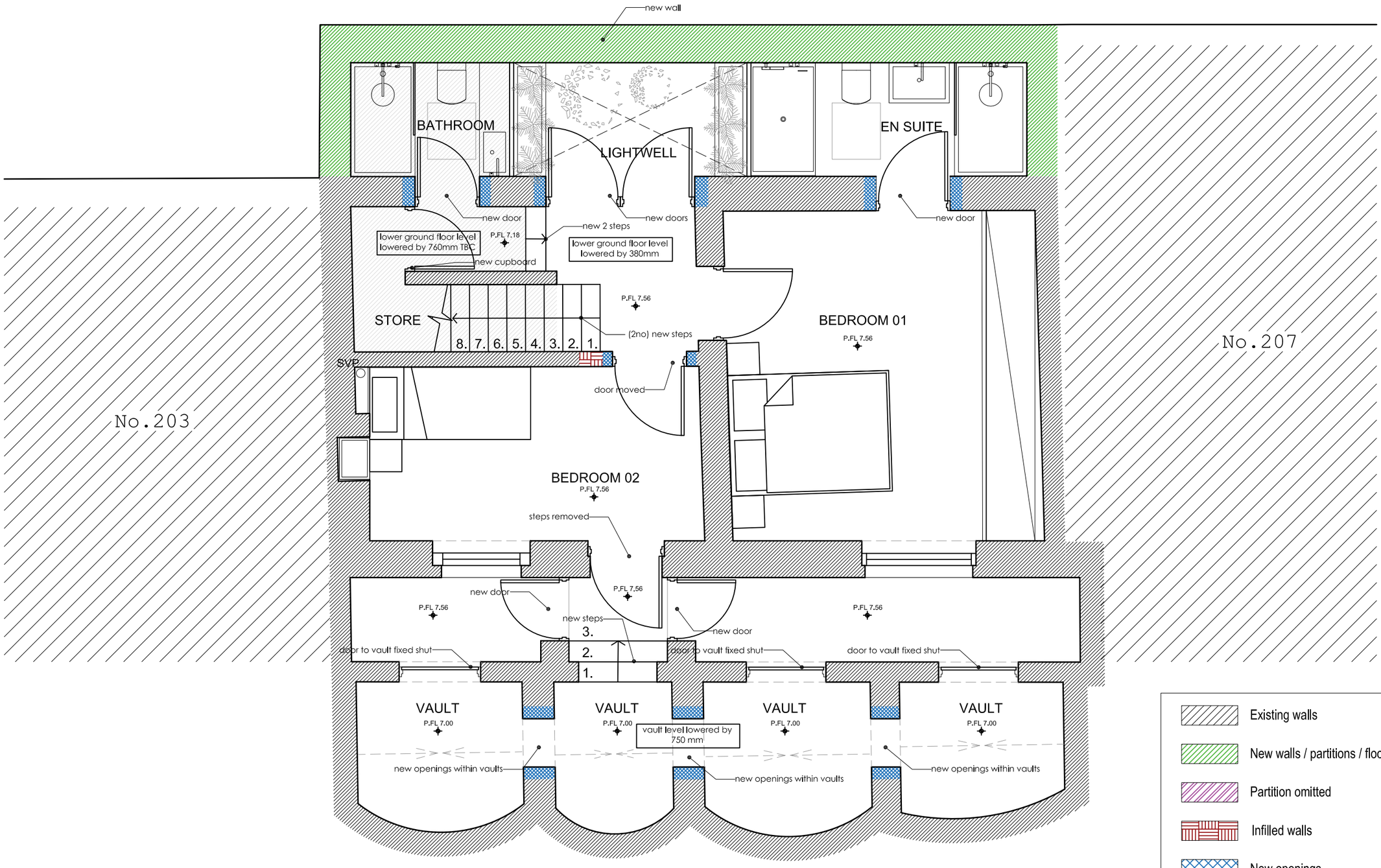
48 PARKHILL ROAD, LONDON, NW3 2YP
T: 020 7482 4420
E: MAIL@BELSIZEACHITECTS.COM

PLANNING

REVISIONS

01.11.2020_REV A
Bathroom area lowered 380 mm
12.03.2021_REV B
Vault doors info added.

NOTES



1 **Proposed Lower Ground Floor Plan**
1:50 @ A3

Existing walls
New walls / partitions / floors
Partition omitted
Infilled walls
New openings

0 1m 2m 5m

205 ALBANY STREET
LONDON, NW1 4AB

PROPOSED LOWER GROUND FLOOR PLAN

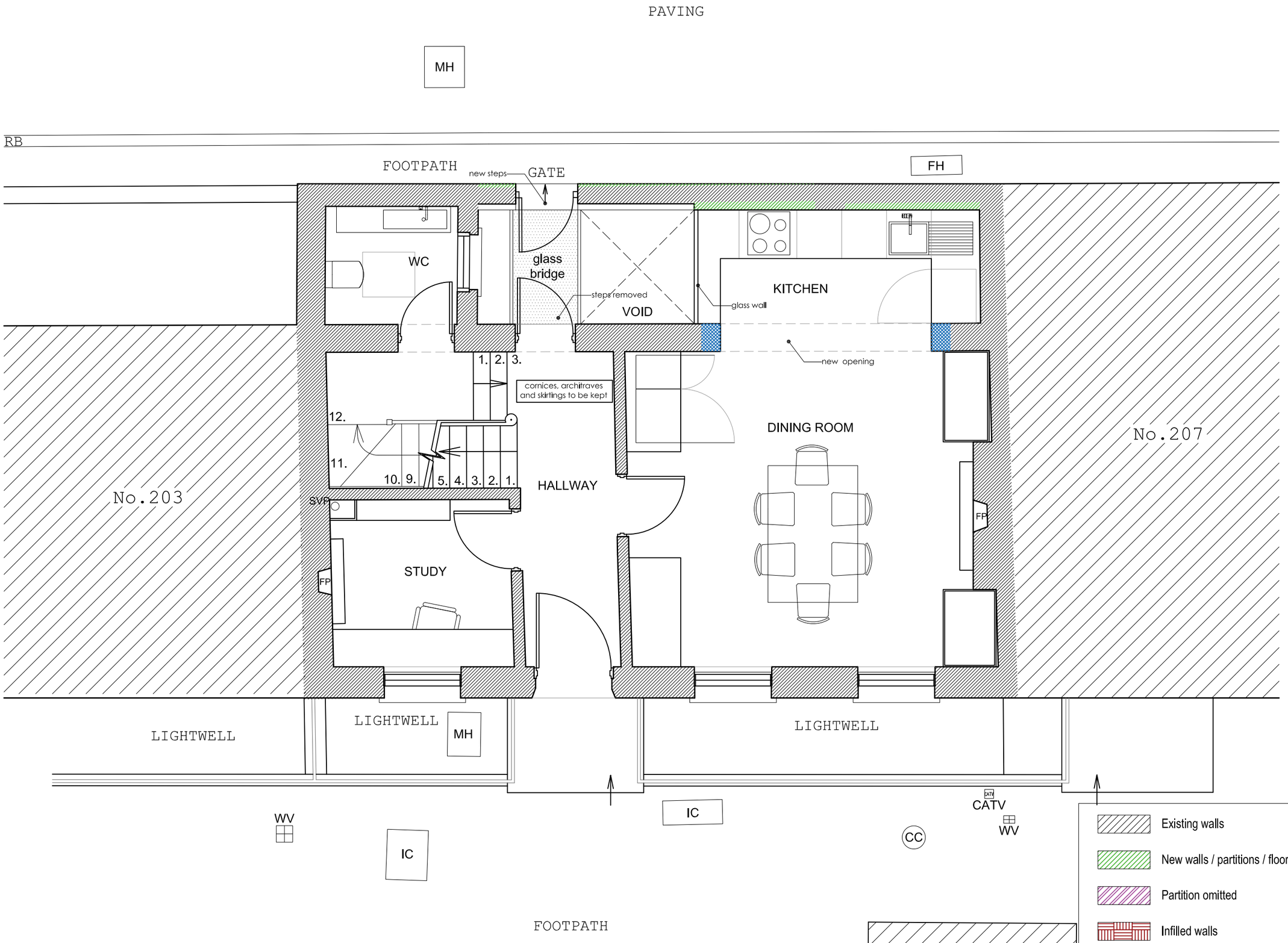
DWG No: 205AS/P101B

SCALE: 1:50 @A3

DATE: JUNE 2020

BELSIZE ARCHITECTS

48 PARKHILL ROAD, LONDON, NW3 2YP
T: 020 7482 4420
E: MAIL@BELSIZEACHITECTS.COM



1 **Proposed Ground Floor Plan**
1:50 @ A3

Existing walls
New walls / partitions / floors
Partition omitted
Infilled walls
New openings

0 1m 2m 5m

PLANNING

REVISIONS

NOTES

205 ALBANY STREET
LONDON, NW1 4AB

PROPOSED GROUND FLOOR PLAN

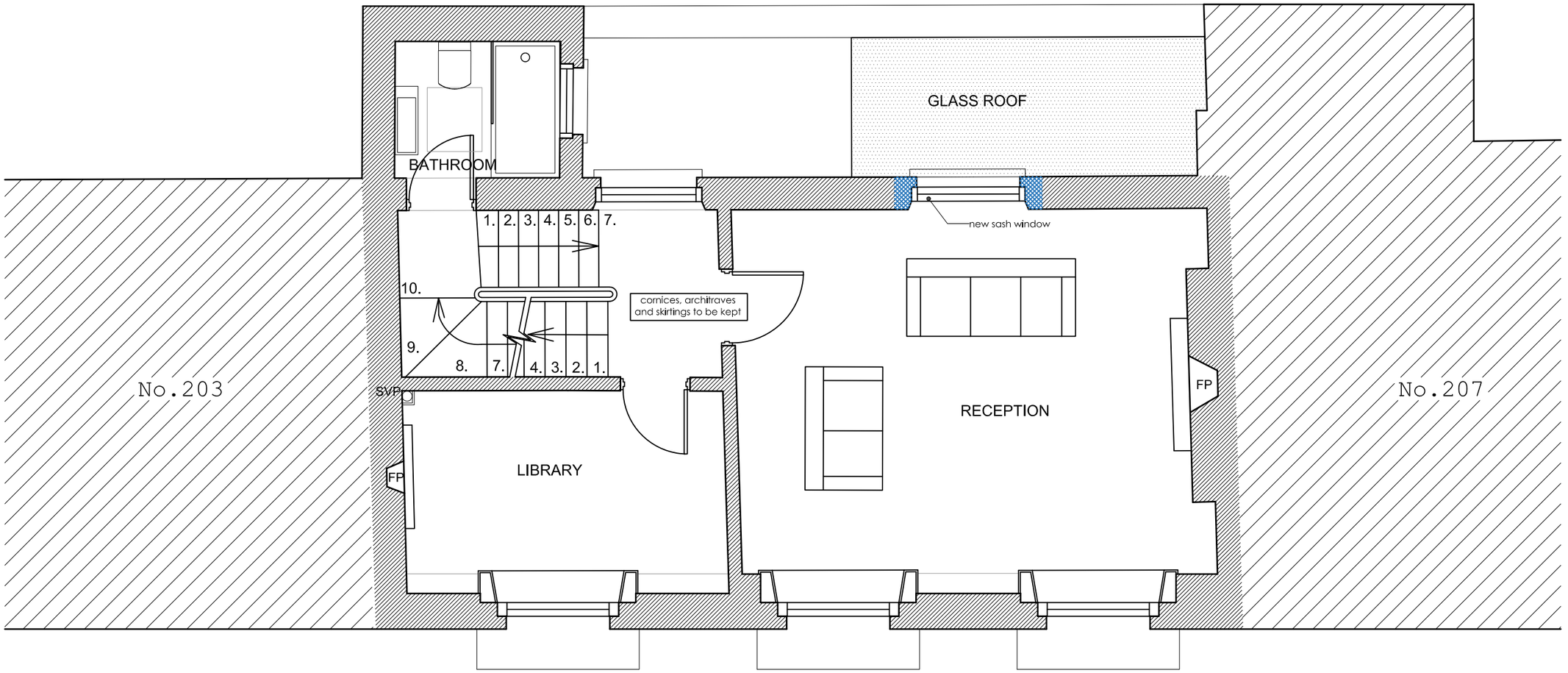
DWG No: 205AS/P102

SCALE: 1:50 @A3

DATE: JUNE 2020

BELSIZE ARCHITECTS

48 PARKHILL ROAD, LONDON, NW3 2YP
T: 020 7482 4420
E: MAIL@BELSIZEACHITECTS.COM



1 **Proposed First Floor Plan**
1:50 @ A3

Existing walls
New walls / partitions / floors
Partition omitted
Infilled walls
New openings

0 1m 2m 5m

PLANNING

REVISIONS

NOTES

205 ALBANY STREET
LONDON, NW1 4AB

PROPOSED FIRST FLOOR PLAN

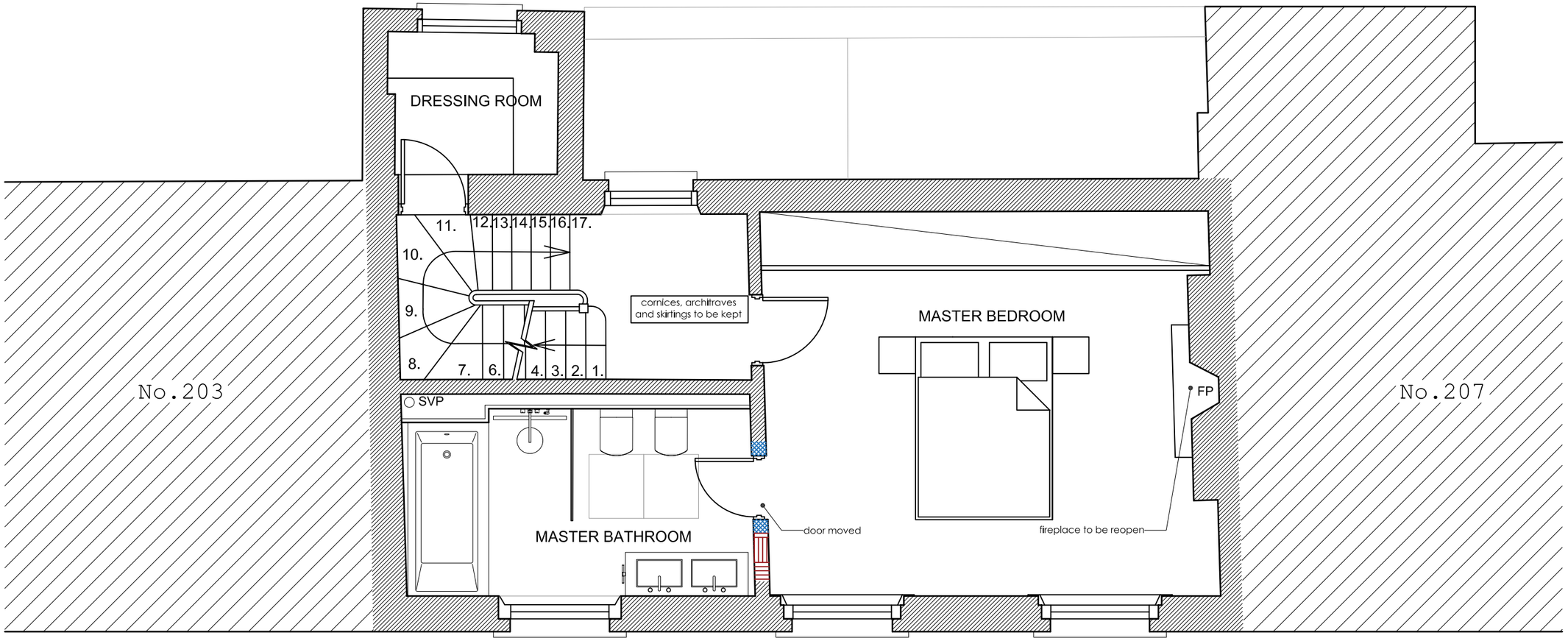
DWG No: 205AS/P103

SCALE: 1:50 @A3

DATE: JUNE 2020

BELSIZE ARCHITECTS

48 PARKHILL ROAD, LONDON, NW3 2YP
T: 020 7482 4420
E: MAIL@BELSIZEACHITECTS.COM



1 **Proposed Second Floor Plan**
1:50 @ A3

Existing walls
New walls / partitions / floors
Partition omitted
Infilled walls
New openings

0 1m 2m 5m

PLANNING

REVISIONS

NOTES

205 ALBANY STREET
LONDON, NW1 4AB

PROPOSED SECOND FLOOR PLAN

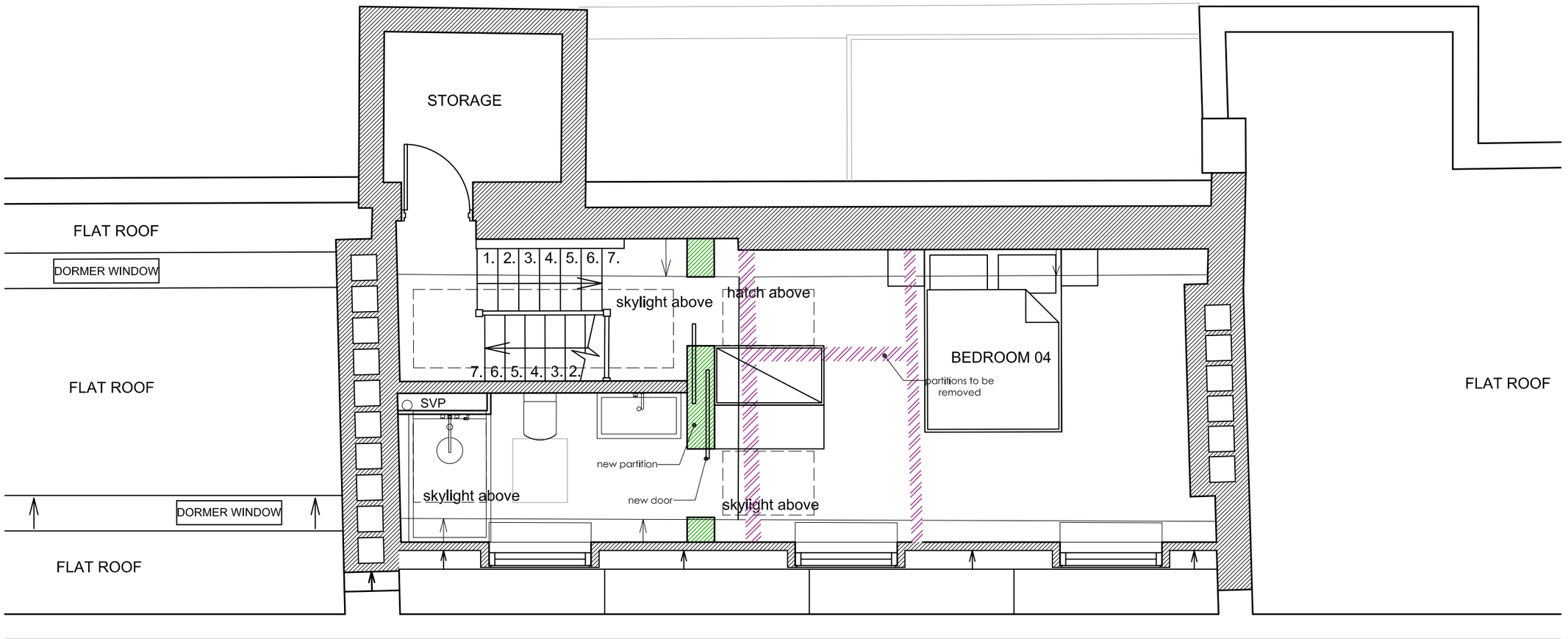
DWG No: 205AS/P104

SCALE: 1:50 @A3

DATE: JUNE 2020

BELSIZE ARCHITECTS

48 PARKHILL ROAD, LONDON, NW3 2YP
T: 020 7482 4420
E: MAIL@BELSIZEACHITECTS.COM



1 **Proposed Third Floor Plan**
1:50 @ A3

Existing walls
New walls / partitions / floors
Partition omitted
Infilled walls
New openings

0 1m 2m 5m

PLANNING

REVISIONS
01.11.2020_REV A
Partition amended.
Skylights amended.

NOTES

205 ALBANY STREET
LONDON, NW1 4AB

PROPOSED THIRD FLOOR PLAN

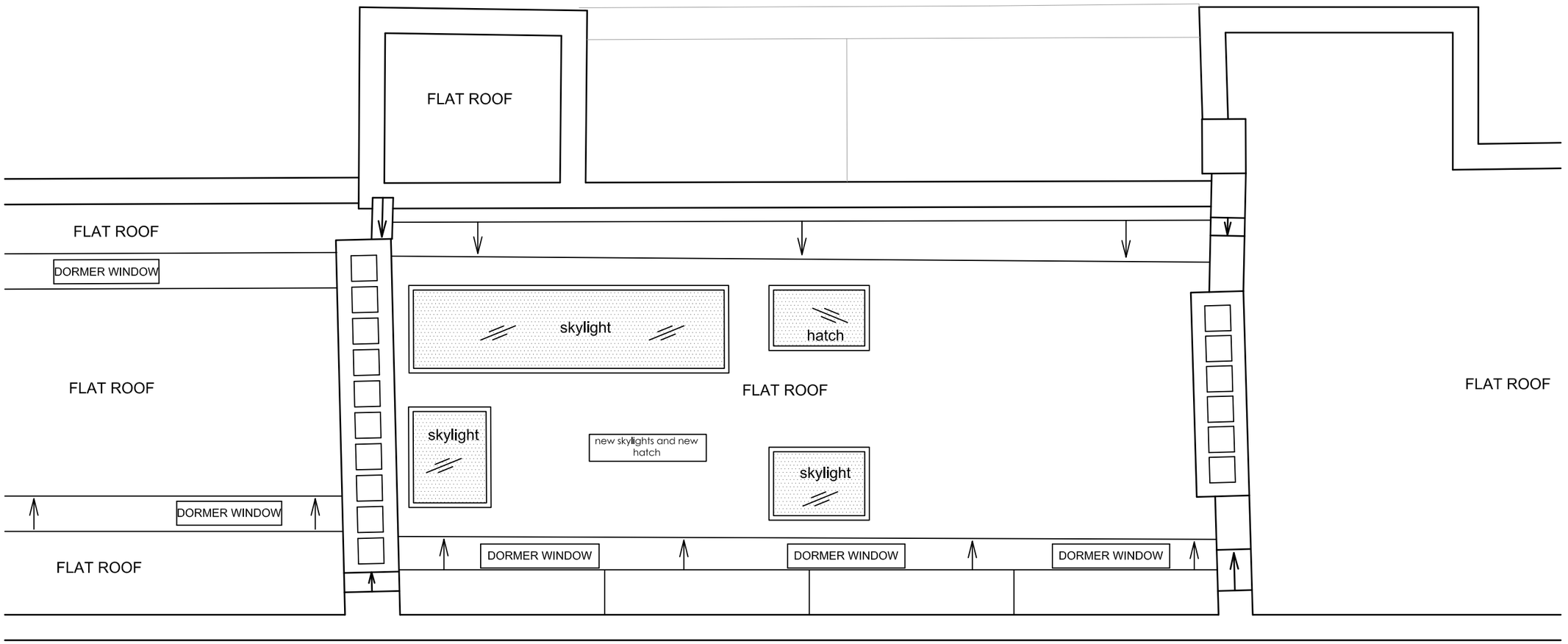
DWG No: 205AS/P105A

SCALE: 1:50 @A3

DATE: JUNE 2020

BELSIZE ARCHITECTS

48 PARKHILL ROAD, LONDON, NW3 2YP
T: 020 7482 4420
E: MAIL@BELSIZEACHITECTS.COM



1 **Proposed Roof Plan**
1:50 @ A3

Existing walls
New walls / partitions / floors
Partition omitted
Infilled walls
New openings

0 1m 2m 5m

PLANNING

REVISIONS
01.11.2020_REV A
Skylights amended.

NOTES

205 ALBANY STREET
LONDON, NW1 4AB

PROPOSED ROOF PLAN

DWG No: 205AS/P106A

SCALE: 1:50 @A3

DATE: JUNE 2020

BELSIZE ARCHITECTS

48 PARKHILL ROAD, LONDON, NW3 2YP
T: 020 7482 4420
E: MAIL@BELSIZEACHITECTS.COM

1 **Proposed Front Elevation**
1:50 @ A3

0 1m 2m 5m

PLANNING

REVISIONS

NOTES

205 ALBANY STREET
LONDON, NW1 4AB

PROPOSED FRONT ELEVATION

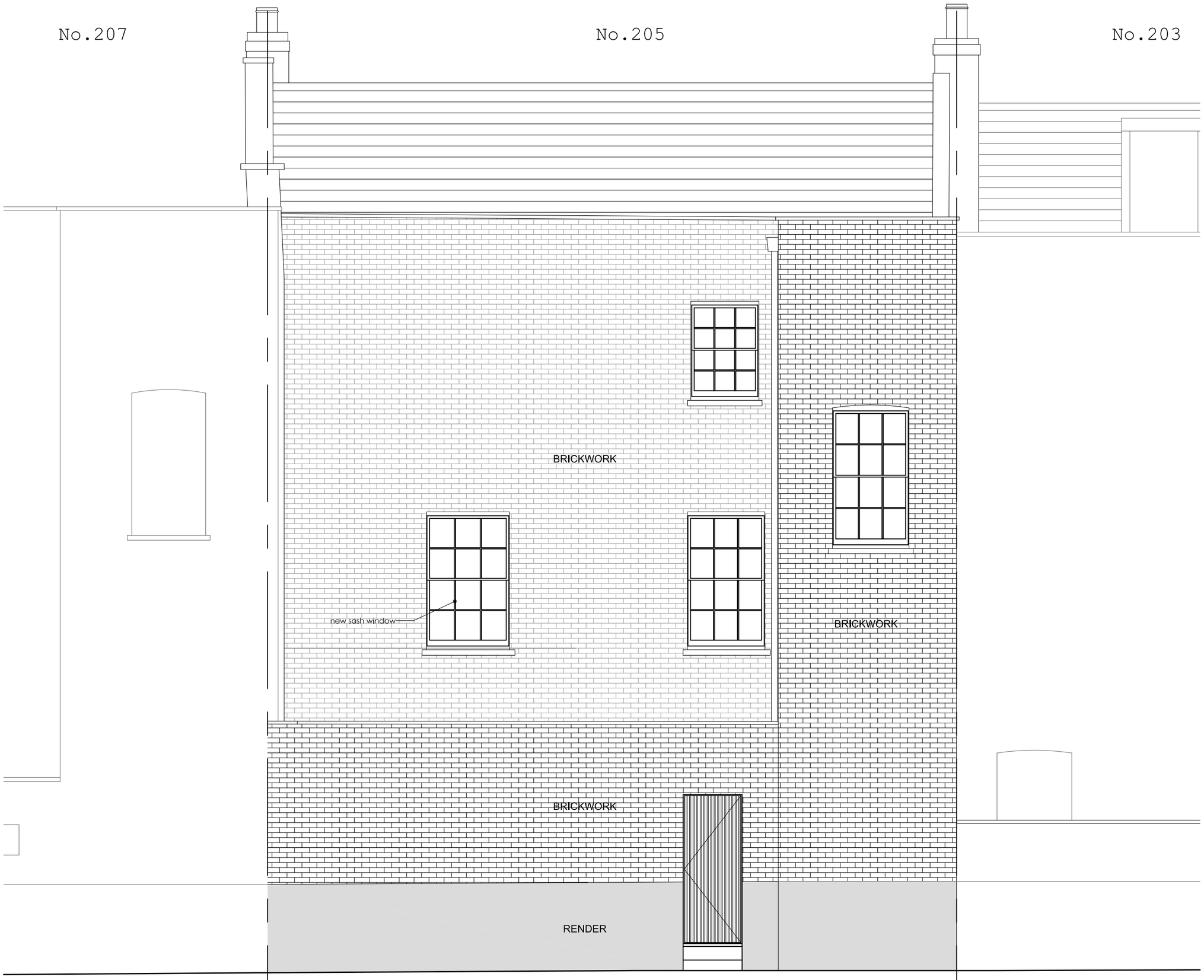
DWG No: 205AS/P200

SCALE: 1:50 @A3

DATE: JUNE 2020

BELSIZE ARCHITECTS

48 PARKHILL ROAD, LONDON, NW3 2YP
T: 020 7482 4420
E: MAIL@BELSIZEACHITECTS.COM



1 **Existing Rear Elevation**
1:50 @ A3

0 1m 2m 5m

PLANNING

REVISIONS

NOTES

205 ALBANY STREET
LONDON, NW1 4AB

PROPOSED REAR ELEVATION

DWG No: 205AS/P201

SCALE: 1:50 @A3

DATE: JUNE 2020

BELSIZE ARCHITECTS

48 PARKHILL ROAD, LONDON, NW3 2YP
T: 020 7482 4420
E: MAIL@BELSIZEACHITECTS.COM

PLANNING

REVISIONS

01.11.2020_REV A

Bathroom area lowered 380 mm

NOTES

205 ALBANY STREET
LONDON, NW1 4AB

PROPOSED SECTION BB

DWG No: 205AS/P301A

SCALE: 1:50 @A3

DATE: JUNE 2020

Existing walls

New walls / partitions / floors

Partition omitted

Infilled walls

New openings

0 1m 2m 5m

BELSIZE ARCHITECTS

48 PARKHILL ROAD, LONDON, NW3 2YP
T: 020 7482 4420
E: MAIL@BELSIZEACHITECTS.COM

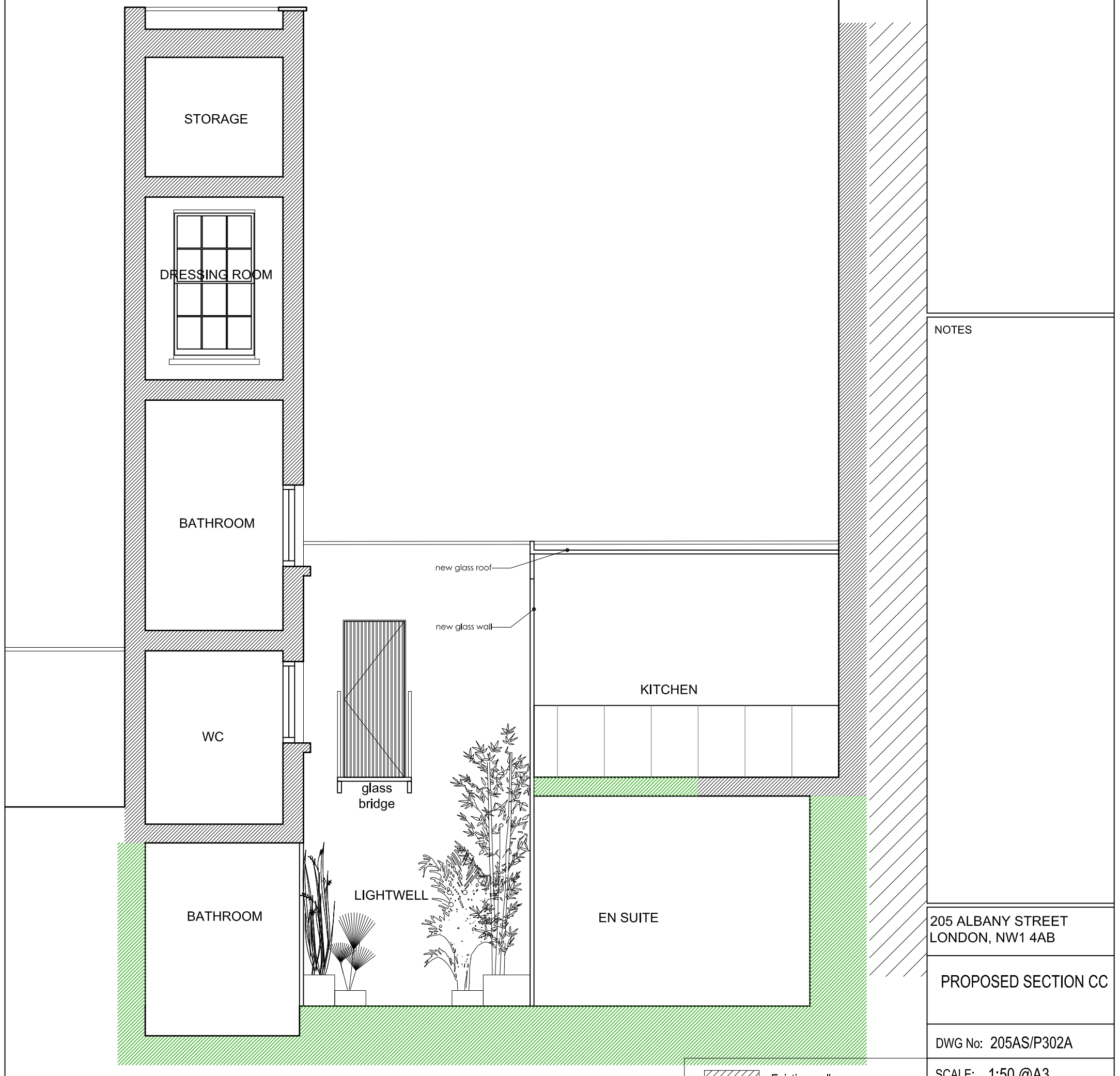
1 **Proposed Section BB**
1:50 @ A3

PLANNING

REVISIONS

01.11.2020_REV A

Bathroom area lowered 380 mm



NOTES

205 ALBANY STREET
LONDON, NW1 4AB

PROPOSED SECTION CC

DWG No: 205AS/P302A

SCALE: 1:50 @A3

DATE: JUNE 2020

BELSIZE ARCHITECTS

48 PARKHILL ROAD, LONDON, NW3 2YP
T: 020 7482 4420
E: MAIL@BELSIZEACHITECTS.COM

Existing walls

New walls / partitions / floors

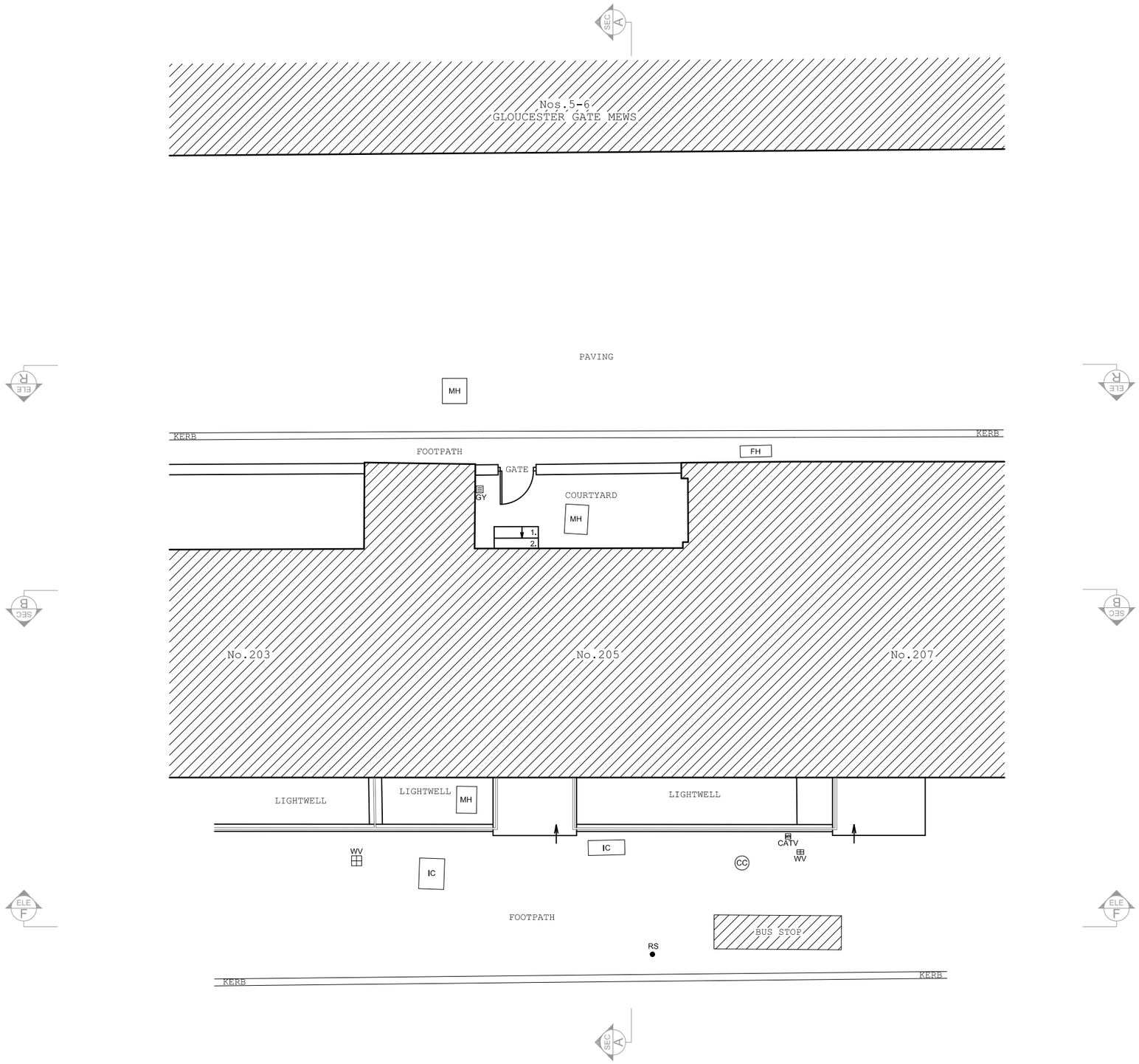
Partition omitted

Infilled walls

New openings

0 1m 2m 5m

1 **Proposed Section CC**
1:50 @ A3



1 **Existing Site Plan**
1:100 @ A3

PLANNING

REVISIONS

NOTES

205 ALBANY STREET
LONDON, NW1 4AB

EXISTING SITE PLAN

DWG No: 205AS/S100

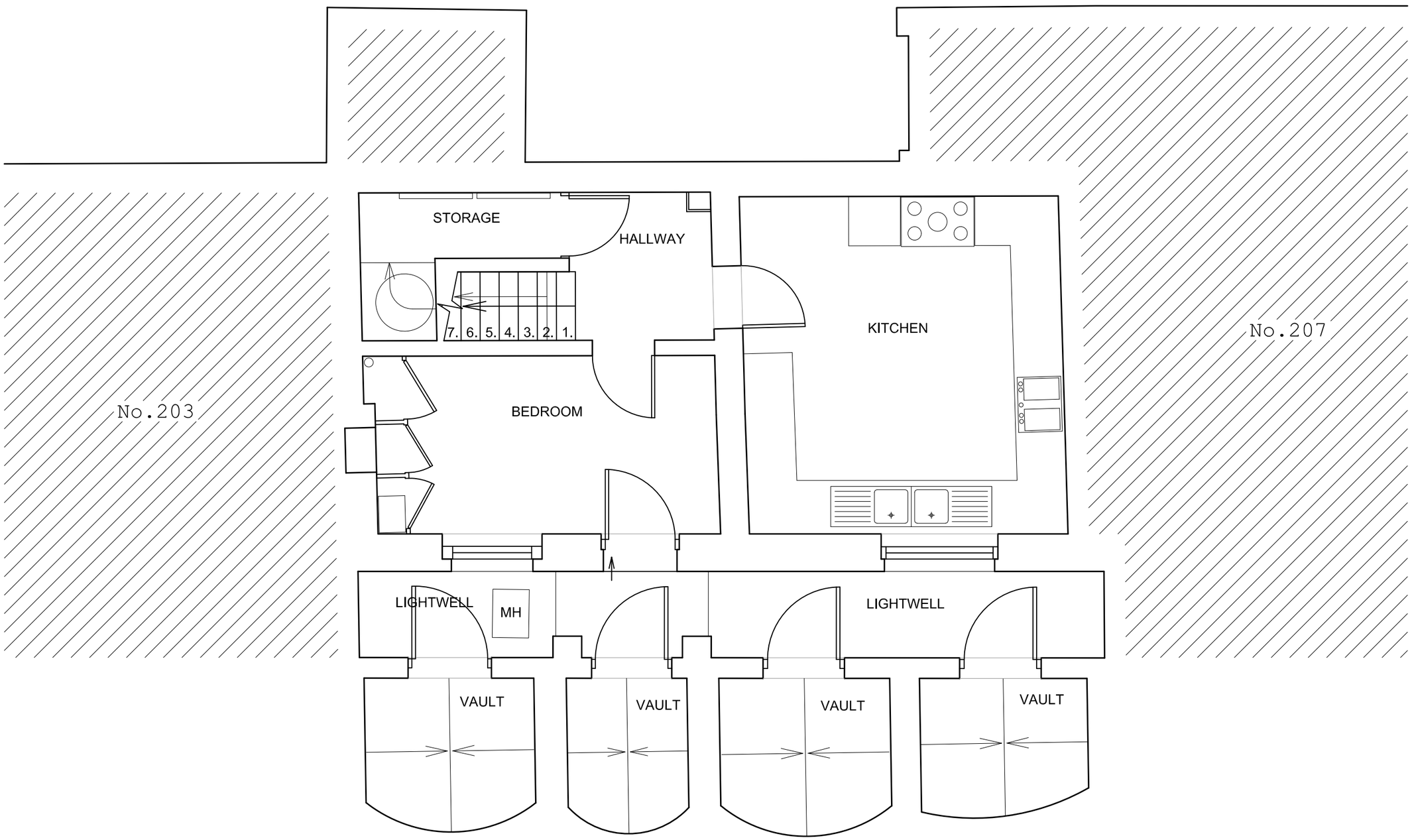
SCALE: 1:100 @A3

DATE: JUNE 2020

BELSIZE ARCHITECTS

48 PARKHILL ROAD, LONDON, NW3 2YP
T: 020 7482 4420
E: MAIL@BELSIZEACHITECTS.COM

0 1m 2m 5m



1 **Existing Lower Ground Floor Plan**
1:50 @ A3

0 1m 2m 5m

PLANNING

REVISIONS

NOTES

205 ALBANY STREET
LONDON, NW1 4AB

EXISTING LOWER GROUND FLOOR PLAN

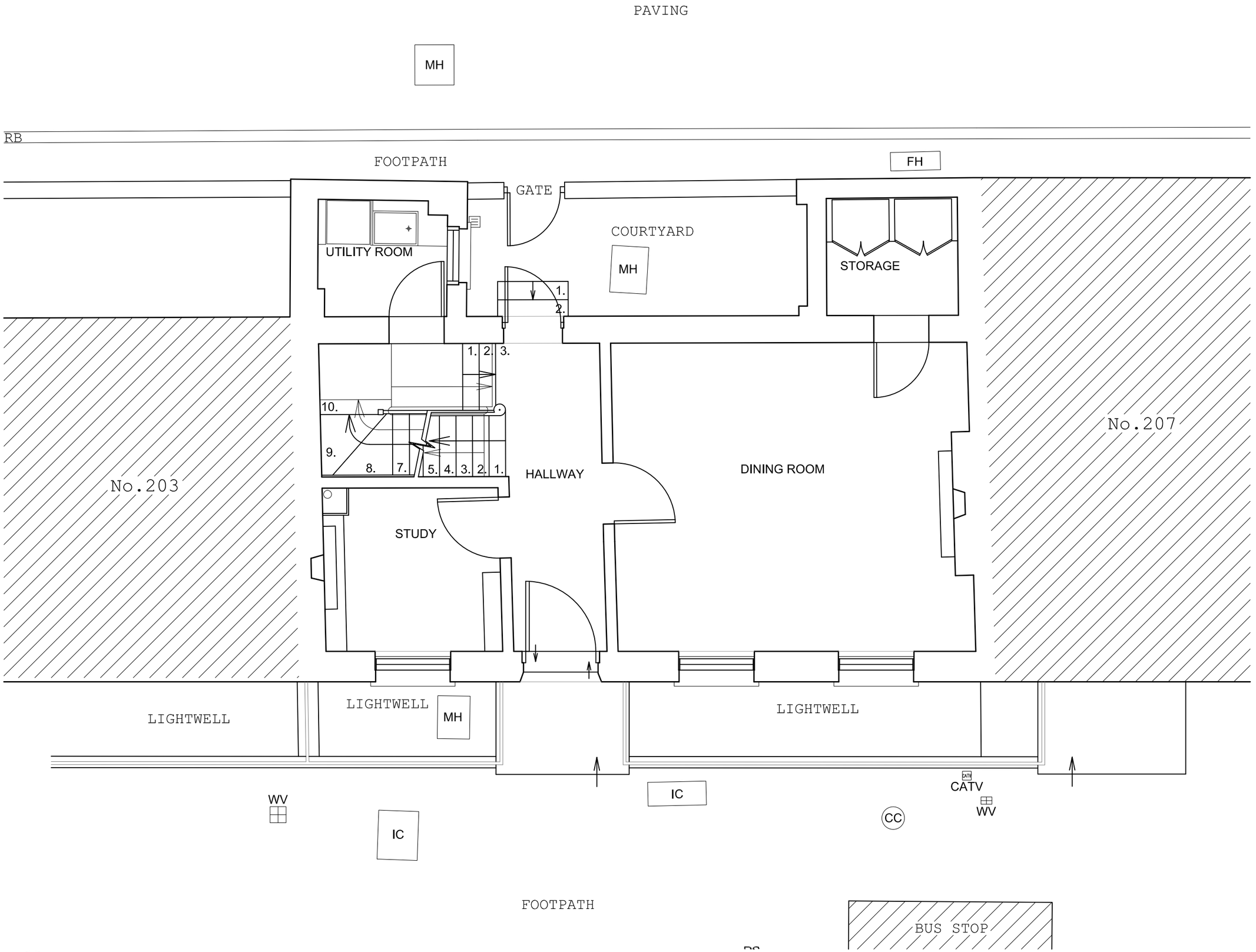
DWG No: 205AS/S101

SCALE: 1:50 @A3

DATE: JUNE 2020

BELSIZE ARCHITECTS

48 PARKHILL ROAD, LONDON, NW3 2YP
T: 020 7482 4420
E: MAIL@BELSIZEACHITECTS.COM



1 **Existing Ground Floor Plan**
1:50 @ A3

0 1m 2m 5m

PLANNING

REVISIONS

NOTES

205 ALBANY STREET
LONDON, NW1 4AB

EXISTING GROUND FLOOR PLAN

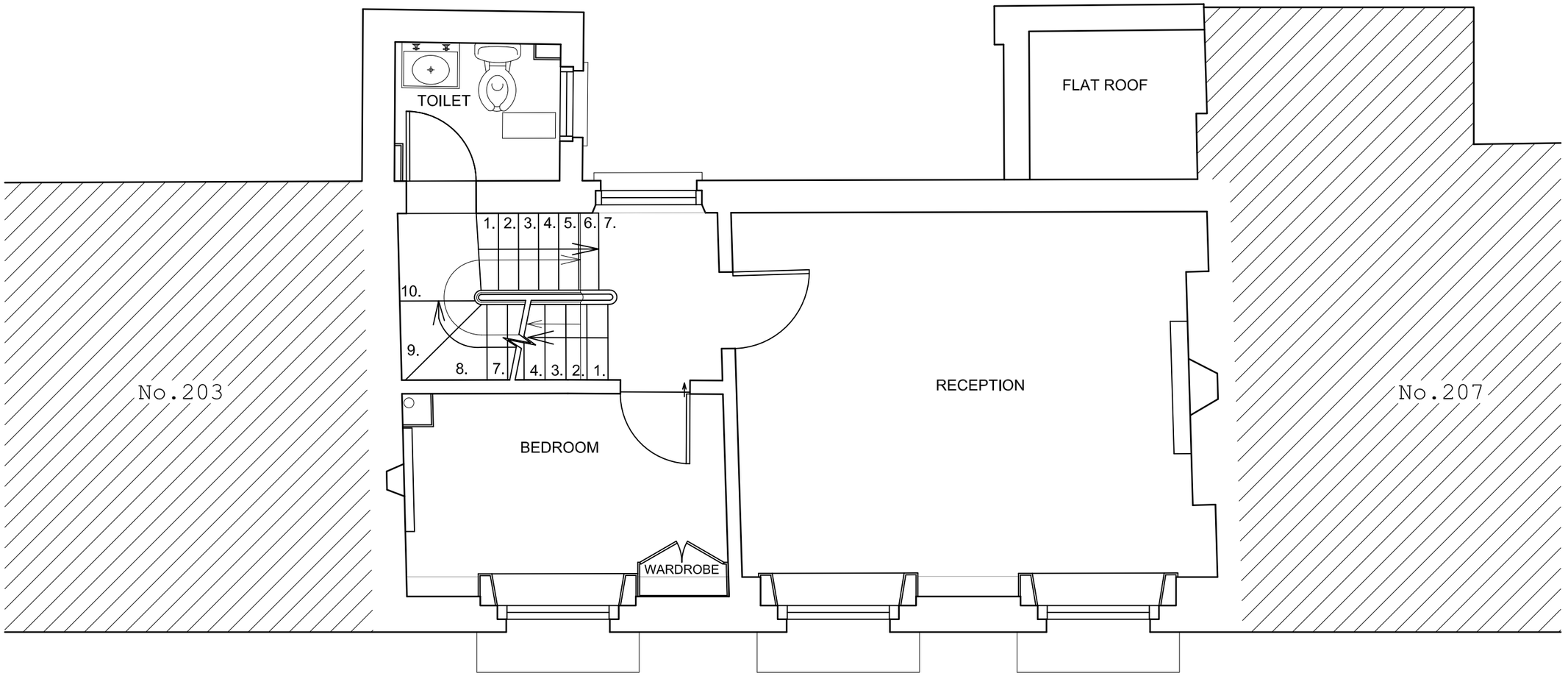
DWG No: 205AS/S102

SCALE: 1:50 @A3

DATE: JUNE 2020

BELSIZE ARCHITECTS

48 PARKHILL ROAD, LONDON, NW3 2YP
T: 020 7482 4420
E: MAIL@BELSIZEACHITECTS.COM



1 **Existing First Floor Plan**
1:100 @ A3

0 1m 2m 5m

PLANNING

REVISIONS

NOTES

205 ALBANY STREET
LONDON, NW1 4AB

EXISTING FIRST
FLOOR PLAN

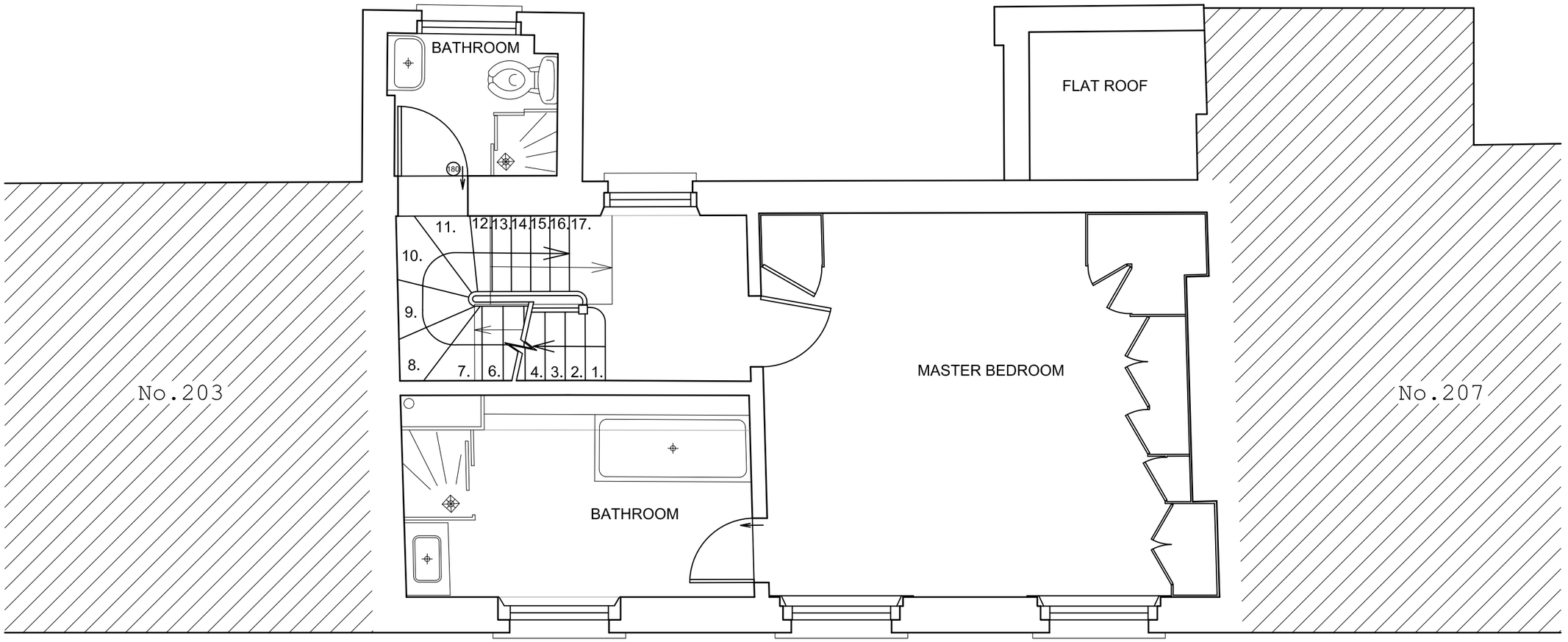
DWG No: 205AS/S103

SCALE: 1:50 @A3

DATE: JUNE 2020

BELSIZE ARCHITECTS

48 PARKHILL ROAD, LONDON, NW3 2YP
T: 020 7482 4420
E: MAIL@BELSIZEACHITECTS.COM



1 **Existing Second Floor Plan**
1:50 @ A3

0 1m 2m 5m

PLANNING

REVISIONS

NOTES

205 ALBANY STREET
LONDON, NW1 4AB

EXISTING SECOND FLOOR PLAN

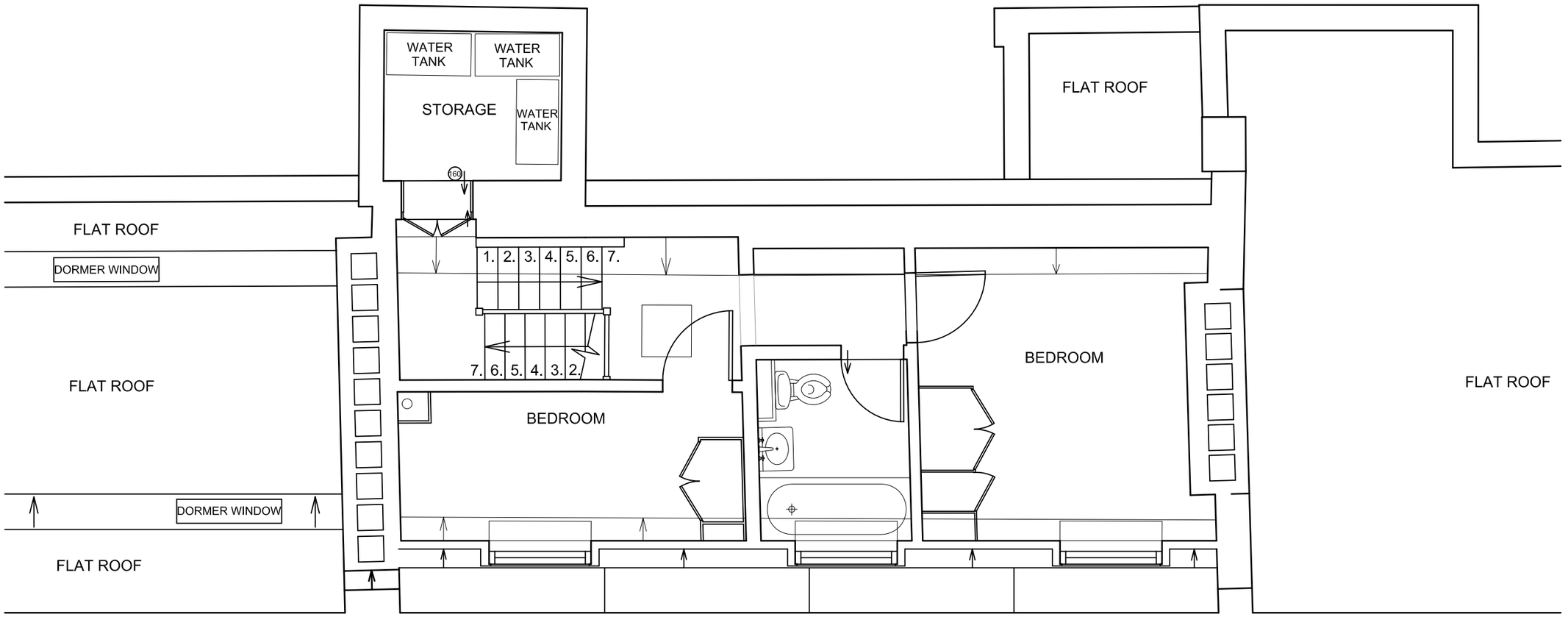
DWG No: 205AS/S104

SCALE: 1:50 @A3

DATE: JUNE 2020

BELSIZE ARCHITECTS

48 PARKHILL ROAD, LONDON, NW3 2YP
T: 020 7482 4420
E: MAIL@BELSIZEACHITECTS.COM



1 **Existing Third Floor Plan**
1:50 @ A3

0 1m 2m 5m

PLANNING

REVISIONS

NOTES

205 ALBANY STREET
LONDON, NW1 4AB

EXISTING THIRD FLOOR PLAN

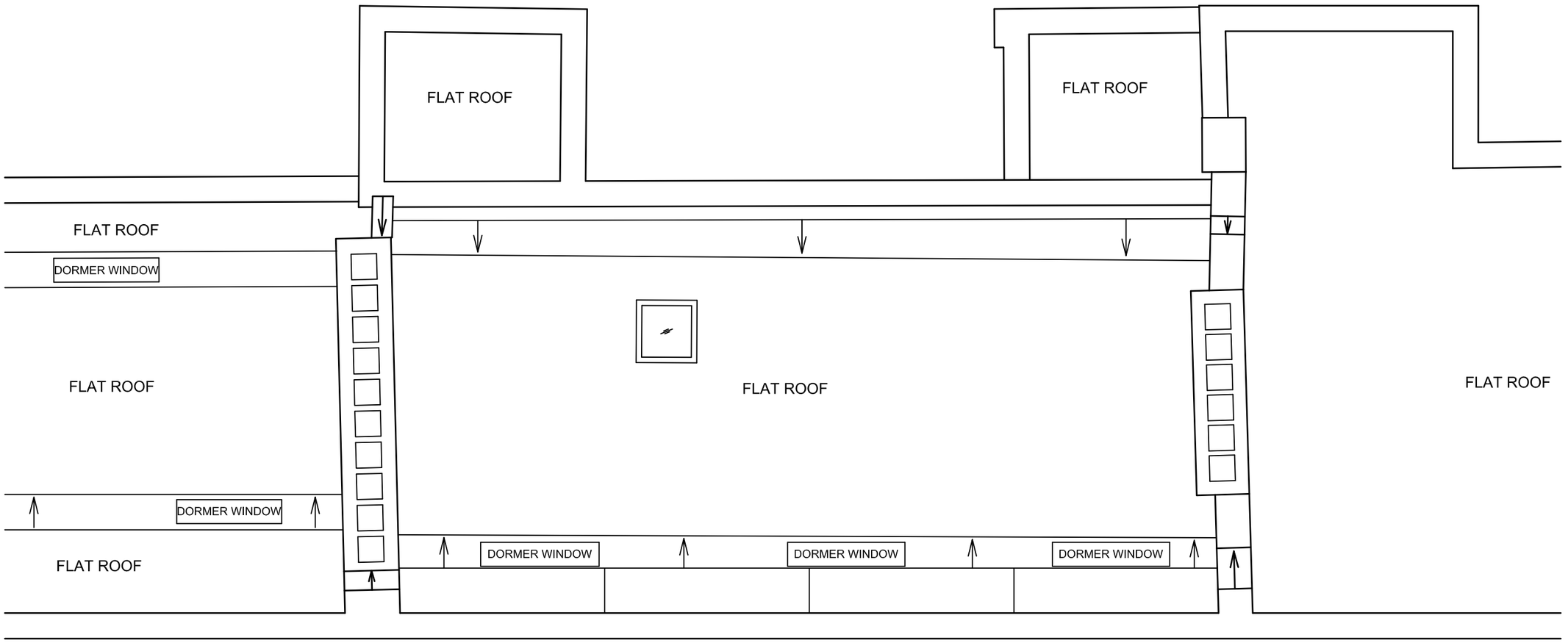
DWG No: 205AS/S105

SCALE: 1:50 @A3

DATE: JUNE 2020

BELSIZE ARCHITECTS

48 PARKHILL ROAD, LONDON, NW3 2YP
T: 020 7482 4420
E: MAIL@BELSIZEACHITECTS.COM



PLANNING

REVISIONS

NOTES

205 ALBANY STREET
LONDON, NW1 4AB

EXISTING ROOF PLAN

DWG No: 205AS/S106

SCALE: 1:50 @A3

DATE: JUNE 2020

BELSIZE ARCHITECTS

48 PARKHILL ROAD, LONDON, NW3 2YP
T: 020 7482 4420
E: MAIL@BELSIZEACHITECTS.COM

1 Existing Roof Plan
1:50 @ A3

0 1m 2m 5m

1 **Existing Front Elevation**
1:50 @ A3

0 1m 2m 5m

PLANNING

REVISIONS

NOTES

205 ALBANY STREET
LONDON, NW1 4AB

EXISTING FRONT ELEVATION

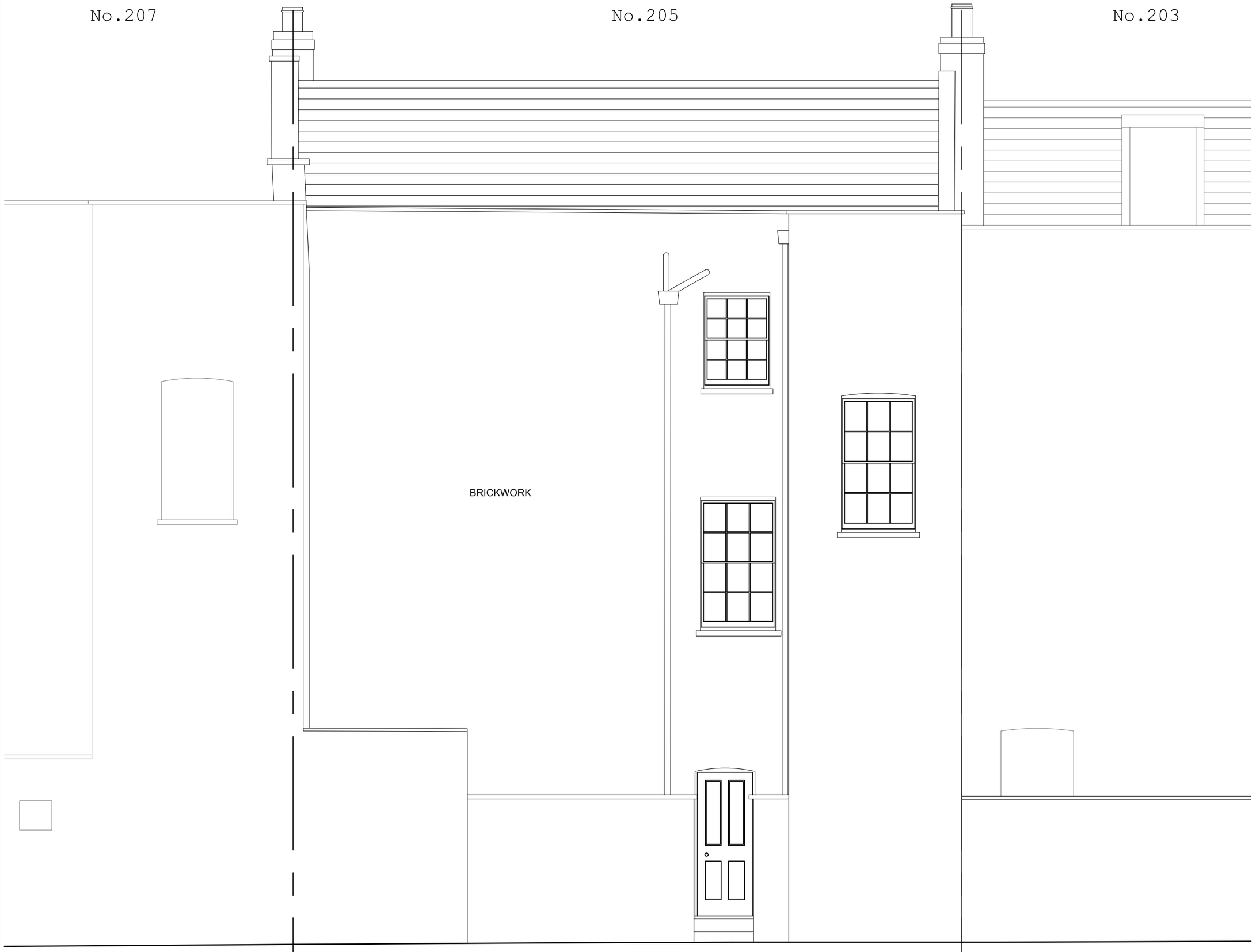
DWG No: 205AS/S200

SCALE: 1:50 @A3

DATE: JUNE 2020

BELSIZE ARCHITECTS

48 PARKHILL ROAD, LONDON, NW3 2YP
T: 020 7482 4420
E: MAIL@BELSIZEACHITECTS.COM



1 **Existing Rear Elevation**
1:100 @ A3

0 1m 2m 5m

PLANNING

REVISIONS

NOTES

205 ALBANY STREET
LONDON, NW1 4AB

EXISTING REAR ELEVATION

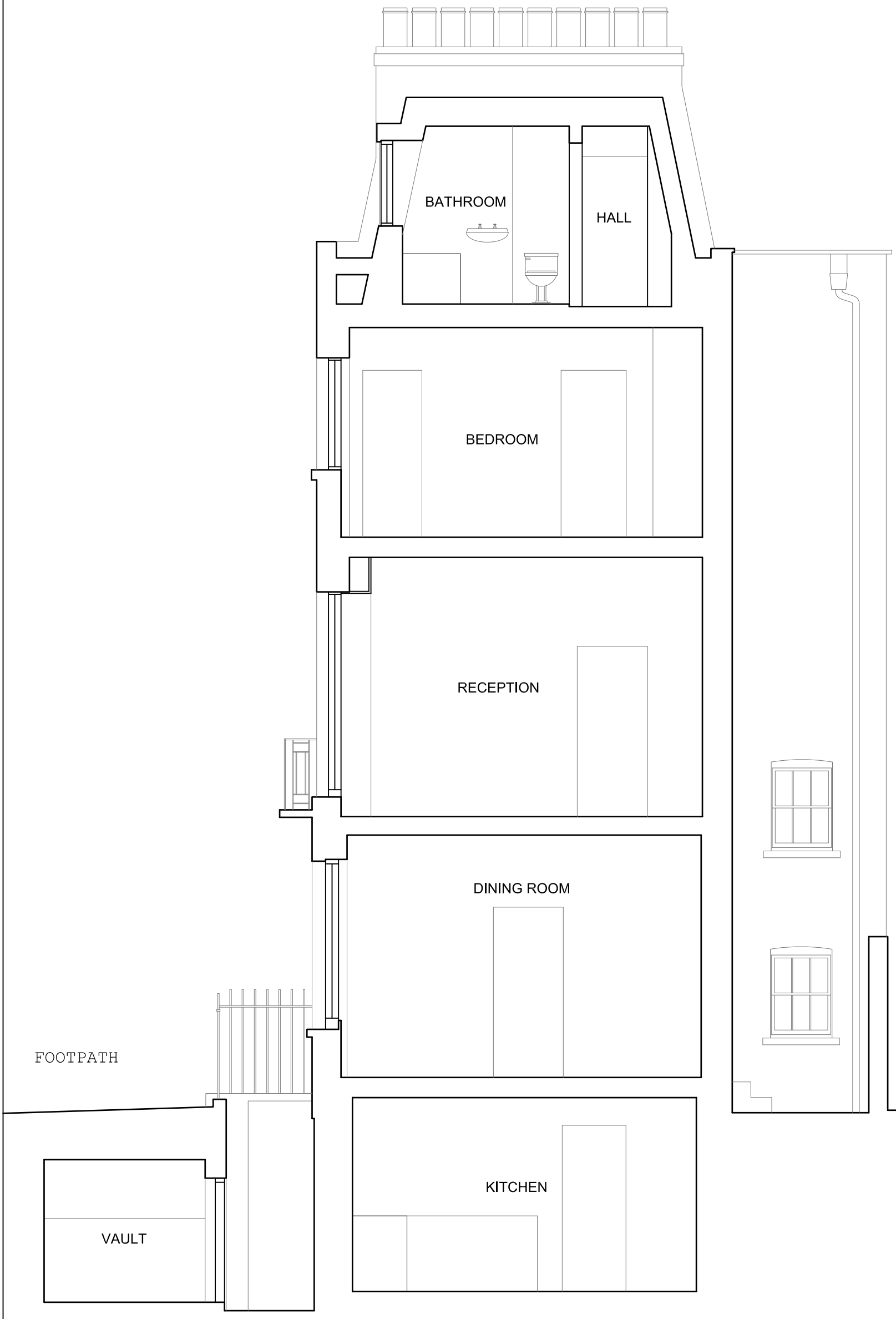
DWG No: 205AS/S201

SCALE: 1:100 @A3

DATE: JUNE 2020

BELSIZE ARCHITECTS

48 PARKHILL ROAD, LONDON, NW3 2YP
T: 020 7482 4420
E: MAIL@BELSIZEACHITECTS.COM



PLANNING

REVISIONS

NOTES

205 ALBANY STREET
LONDON, NW1 4AB

EXISTING SECTION AA

DWG No: 205AS/S300

SCALE: 1:50 @A3

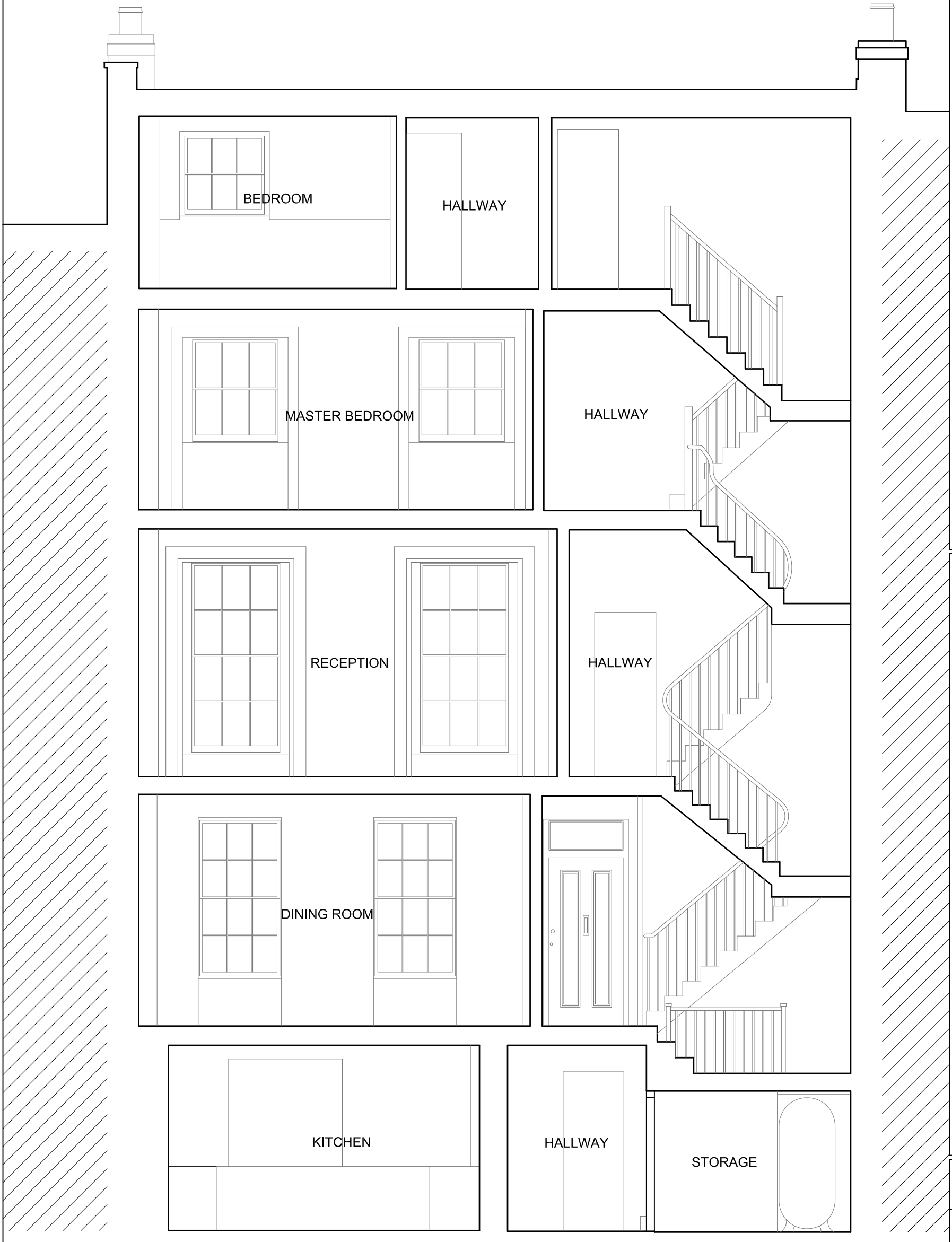
DATE: JUNE 2020

BELSIZE ARCHITECTS

48 PARKHILL ROAD, LONDON, NW3 2YP
T: 020 7482 4420
E: MAIL@BELSIZEACHITECTS.COM

1 **Existing Section AA**
1:50 @ A3

0 1m 2m 5m



PLANNING

REVISIONS

NOTES

205 ALBANY STREET
LONDON, NW1 4AB

EXISTING SECTION BB

DWG No: 205AS/S301

SCALE: 1:50 @A3

DATE: JUNE 2020

BELSIZE ARCHITECTS

48 PARKHILL ROAD, LONDON, NW3 2YP
T: 020 7482 4420
E: MAIL@BELSIZEACHITECTS.COM

1 **Existing Section BB**
1:50 @ A3

0 1m 2m 5m

10.4 Ground Movement and Damage Impact Assessment

QED Structures Ltd
Consulting, Structural & Civil Engineers
306 Davina House
137-149 Goswell Road
London
EC1V 7ET

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E: info@qedstructures.co.uk
W: www.qedstructures.co.uk

12 GROUND MOVEMENT ASSESSMENT

12.1 General

This assessment has been based on the findings of the intrusive investigation, the current design proposals and assumes a construction sequence including installation of the temporary retaining structures, excavation and temporary propping of retaining structures and construction of permanent retaining structures.

The ground conditions at the site have been found to comprise Made Ground materials to a depth of approximately 2.2m bgl overlying cohesive natural materials of the London Clay Formation which has been proven to the termination depth of investigation at 10.45m bgl.

During the intrusive investigation groundwater was not encountered and during the subsequent monitoring event the monitoring standpipe, installed to a depth of approximately 5m bgl, was recorded as dry.

A ground model has been derived for the site based on the findings of the intrusive investigation and comprises a layer of Made Ground over cohesive materials. The ground model together with the proposed development proposals are shown on the CSM as Figure 3.

The geotechnical parameters used within the assessment have been established from the SPT results together with Figure 31 and Section 8.2 of CIRIA Report 143 'The Standard Penetration Test (SPT): Methods and Use'.

The interpretation of the SPT results is included as Figure 4; Plot of SPT 'N' versus Depth.

It is assumed that the construction sequence comprises the sequenced excavation of soil to formation level and installation of any temporary support or propping as required prior to construction of permanent works. The final scheme will provide permanent support consisting of reinforced concrete walls and floors/slabs. The temporary supports/props will be removed following completion of the permanent construction works.

To undertake the detailed ground movement assessment, the various components of the development have been considered, not only individually, but also in terms of the overall CSM. The assessment and analytical methods represent all of the considered scenarios, including the temporary and permanent conditions (where appropriate).

12.2 Slope Stability Assessment

A slope stability assessment is not considered necessary for this site as the site is currently flat lying and any excavations associated with the formation of the basement will be supported in both the temporary and permanent conditions.

12.3 Ground Movement

The Made Ground encountered from surface to a depth of 2.2m bgl comprised a thin layer of more granular materials overlying soft cohesive materials. The Made Ground recovered was very loose granular materials or very soft to firm low strength cohesive materials. Due to the depth of the more granular materials these are likely to be fully stripped from around the excavation. Given the low strength of the Made Ground these will need to be fully supported during construction to prevent collapse. Any collapse or loss of ground will need to be remediated as part of placing the support to the excavation. The collapse of

the Made Ground will be minimised by carrying the work out in a controlled sequenced manner.

The level of support provided during the excavation through the Made Ground will be sufficient to minimise any ground movements in these materials.

The ground movements within the more competent materials at depth have been estimated based on CIRIA C760 Guidance on Embedded Retaining Walls using Section 6.2.1 Empirical Methods for soft and firm clays (Made Ground) and stiff clays (London Clay). This is considered appropriate based on the depth and location of the basement and the ground conditions present at the site.

Given the nature of the proposed basement construction the potential ground movements will be due to excavation in front of the existing basement wall. The proposed construction scheme does not include installation of a temporary or permanent piled wall.

The proposed construction comprises sequenced top-down excavation and support to a depth of approximately 3m to 4m bgl, together with temporary props as necessary resulting in a 'High Support Stiffness' construction methodology.

The assessment has been completed based on the proximity of the existing building and adjacent buildings, numbers 203 and 207 Albany Street, which are the closest structures to the proposed basement excavation. The proposed basement extension will join the lower ground floor of the existing property.

In terms of ground movement due to excavation in front of the basement wall, a relationship between the depth of the basement wall, distance from the basement wall and settlement, for cohesive soils is given in Figure 6.14 (a) and (b) and Figure 6.15 of CIRIA C760.

The relationship indicates that the settlement (ground movement) is likely to be of the order of 3mm to 6mm at the wall and reducing with distance from the wall.

It is assumed that the horizontal movement will be equal to the vertical movement due to settlement of the ground surface as a result of excavation in front of the wall.

12.4 Building Damage Assessment

The ground movements resulting from excavation of the basement will need to be controlled and given the nature of the ground conditions and the proposed construction methodology these will need to be a high standard, in accordance with Section 6.3 of CIRIA C760 to minimise any resulting movement. The measures required will include all supports being tight to the wall, minimising the first stage of excavation and any excavation beyond supports and minimising any delays during the construction works.

The ground movements estimated based on the ground model and the proposed works have been used to estimate typical expected damage to the existing building. The damage assessment has been completed based on the methodology presented in CIRIA C760 Section 6.4.

The estimated damage category (CIRIA C760, Table 6.4), relevant to masonry structures, indicates expected damage based on tensile strain. The tensile strain calculated indicates the existing building falls within 'very slight' damage, as shown on Figure 5, generally described as 'cracks filled as normal decoration'.

The existing structure includes a lower ground floor, the level of which is approximately 2.5m below existing ground level, it is therefore considered that the ground movements associated with the construction of the proposed basement are likely to be less than those detailed above as the depth of excavation below the existing lower ground floor and associated foundations will be limited (less than 1m). The estimated damage category detail above is therefore considered to be a 'worst case' scenario, with the actual settlements and associated damage category expected to be less than those estimated corresponding to 'negligible' damage.

12.5 Recommendations

The proposed development comprises the construction of a new basement extension adjacent to an existing building.

The site ground level is currently flat lying and any excavations will be supported both in the temporary and permanent conditions and therefore slope stability does not pose a risk at the site and a detailed slope stability assessment is not considered necessary.

Horizontal ground movements due to excavation of typically around 3mm to 6mm at the existing building have been estimated. The ground movements will be controlled by use of appropriate temporary support within a controlled sequenced excavation.

Potential 'very slight' damage is predicted to the existing building due to excavation in front of the existing basement. However, to minimise the extent of damage it is considered that the wall should be propped at the top and middle of the wall where it is immediately adjacent to the existing building, in the temporary condition, to minimise any ground movement in the temporary condition due to the basement excavation.

The final structure will provide sufficient support to the basement walls to prevent movement in the permanent condition.

Given the depth to groundwater and the relatively limited size of the proposed basement, it is considered that the construction of the basement will have negligible impact on groundwater.

10.5 Structural Engineers's Statement and Calculations

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BIA SUBMISSION CALCULATIONS

PROJECT ADDRESS:
205 Albany Street
London

PROJECT DESCRIPTION:
New basement extension

Date: Mar 20
Project Number: 20-186
Revision Number: BR1

205 Albany Street

1.0 - Project Details

Date:	Mar 20
Project Number:	20-186
Revision Number:	BR1