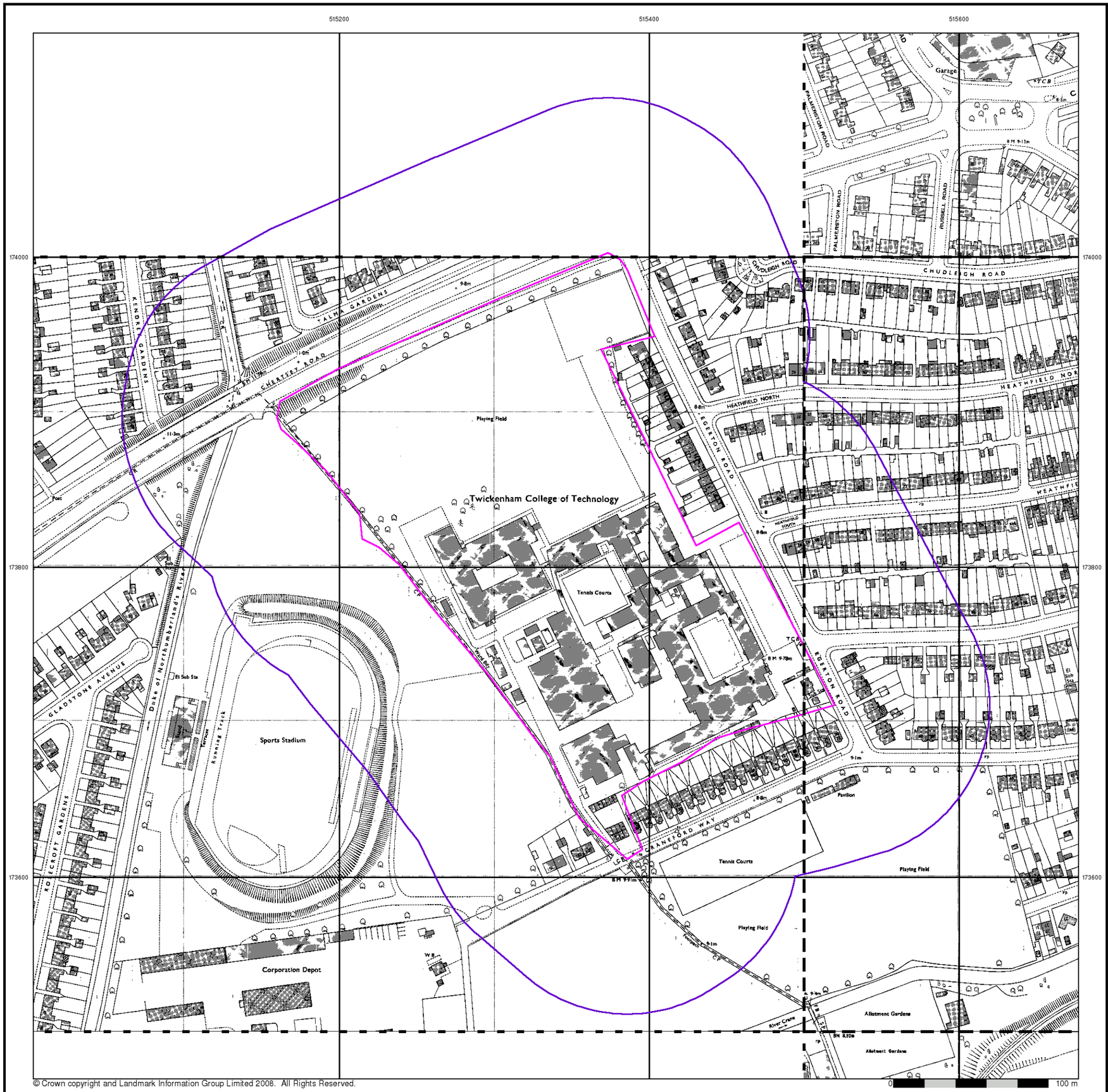


SOILTECHNICS

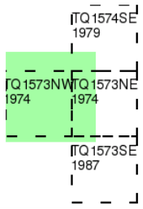
Ordnance Survey Plan

Published 1974 - 1987

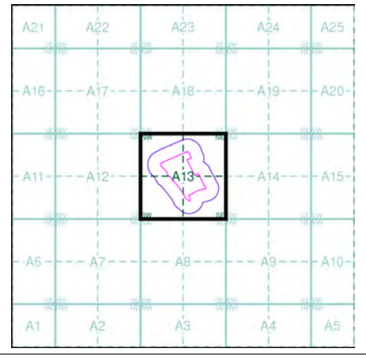
Source map scale - 1:1,250

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:	25489111_1_1
Customer Ref:	STE1297R
National Grid Reference:	515350, 173810
Slice:	A
Site Area (Ha):	6.28
Search Buffer (m):	100

Site Details

Site at 515420, 173750

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SOILTECHNICS

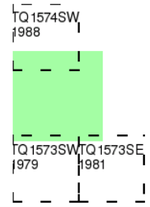
Additional SIMs

Published 1979 - 1988

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)



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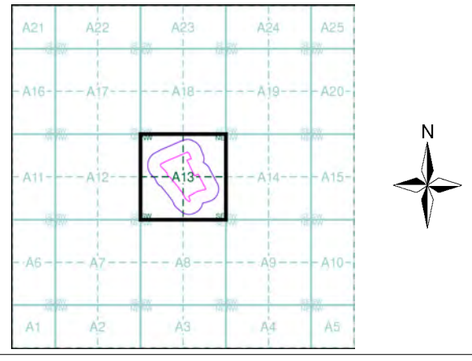

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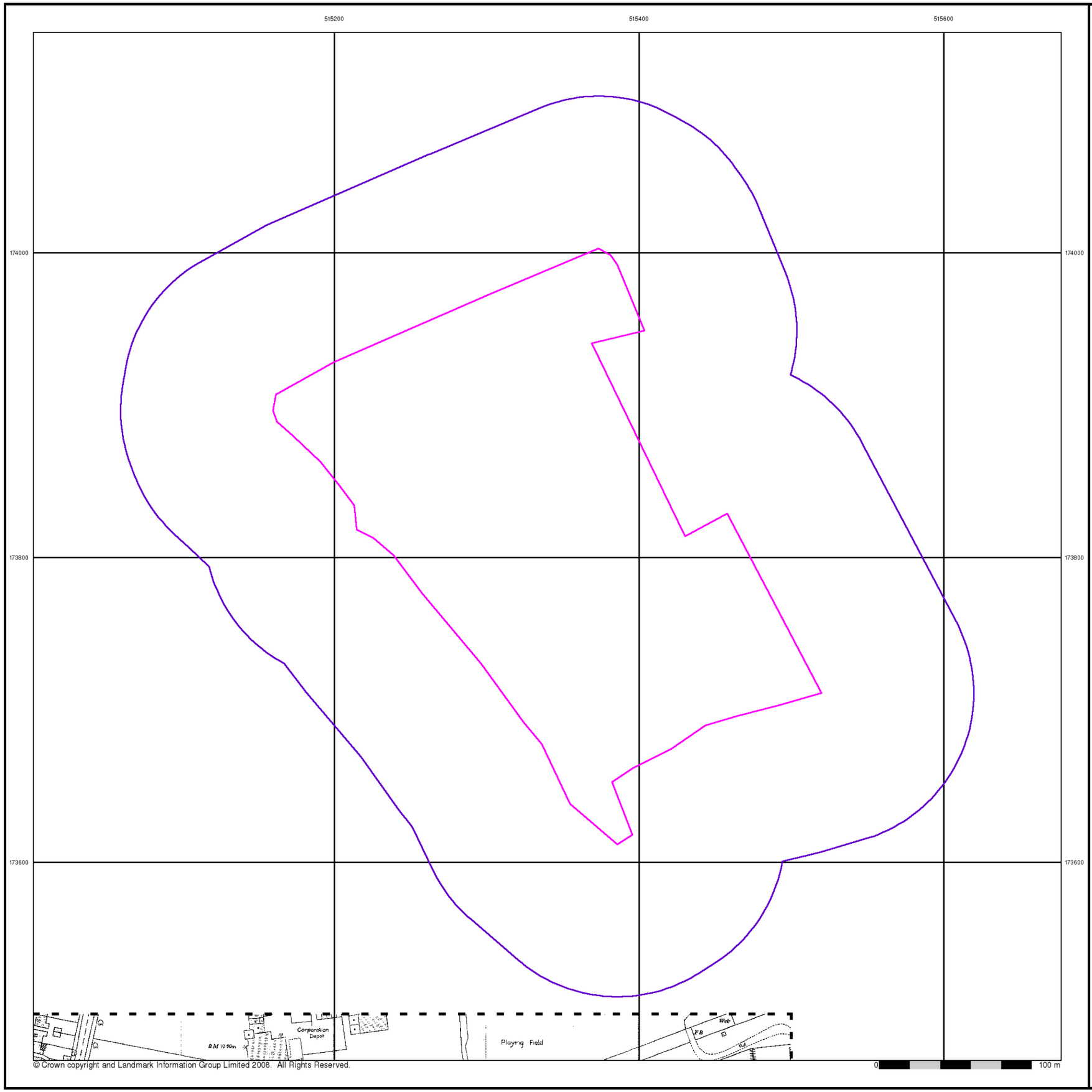

SOILTECHNICS

Additional SIMs

Published 1988

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.

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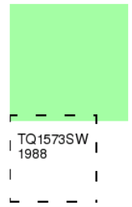

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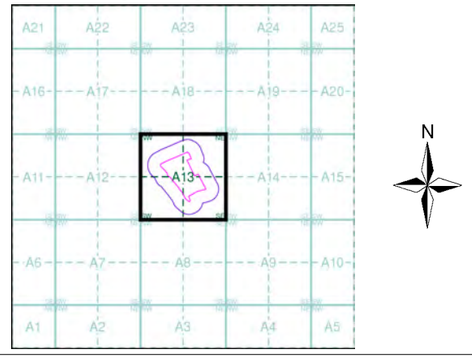

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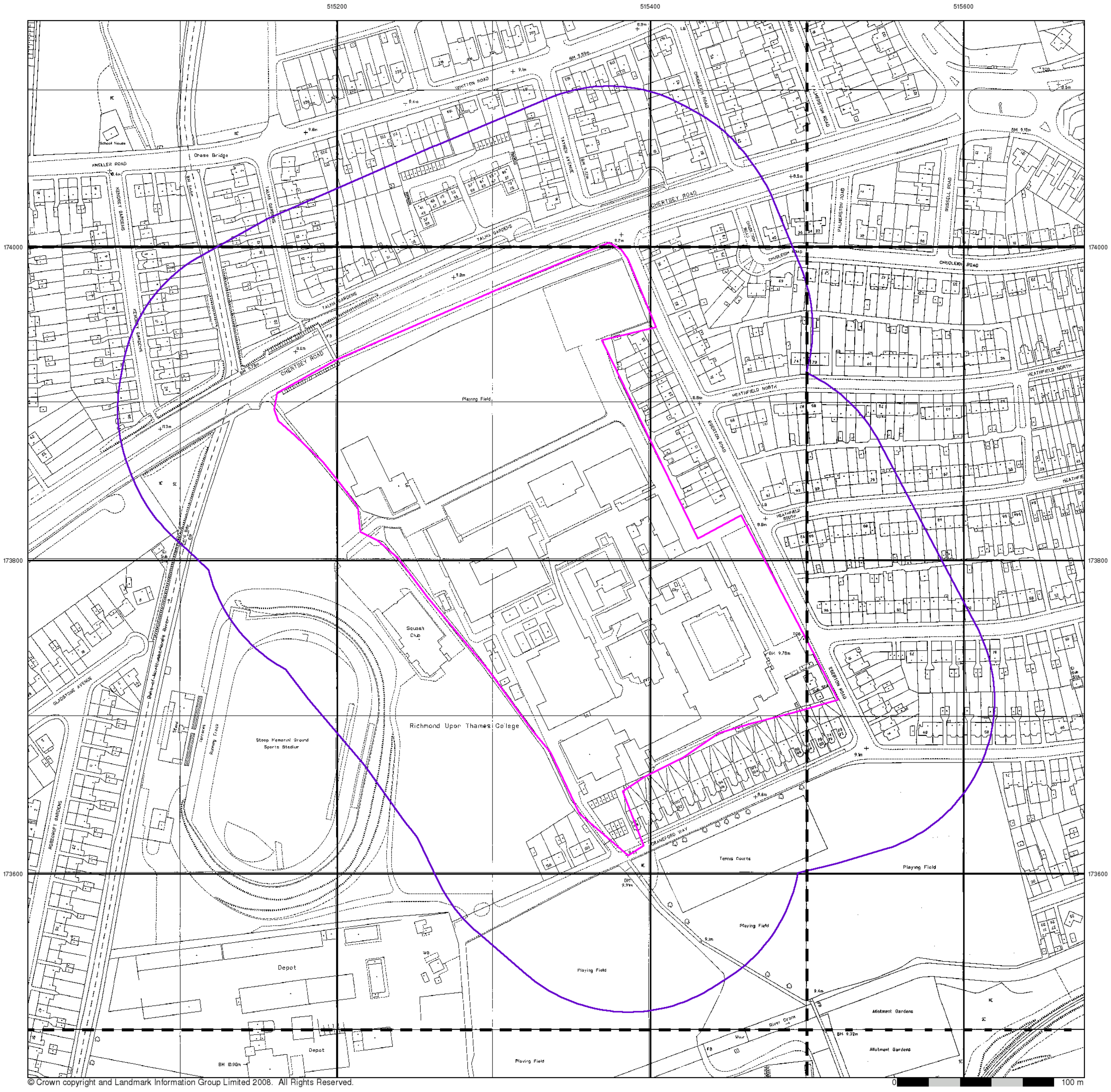

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SOILTECHNICS

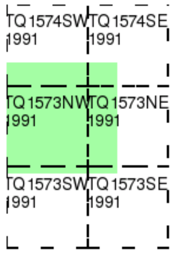
Large-Scale National Grid Data

Published 1991

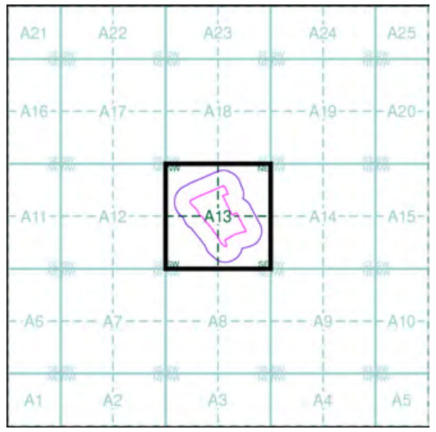
Source map scale - 1:1,250

'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



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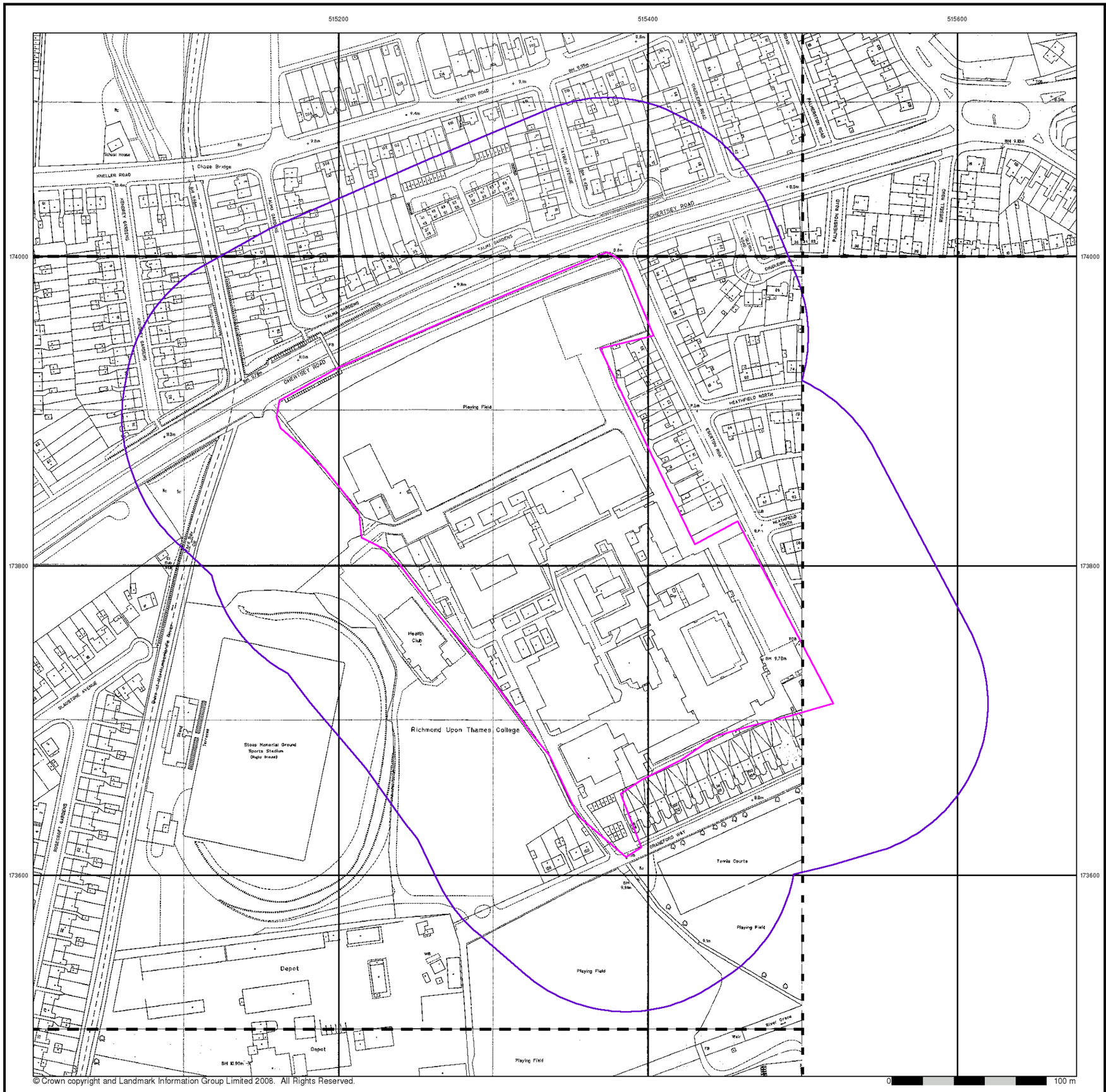

SOILTECHNICS

Large-Scale National Grid Data

Published 1993 - 1994

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.

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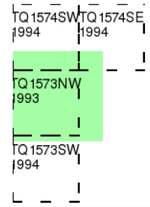
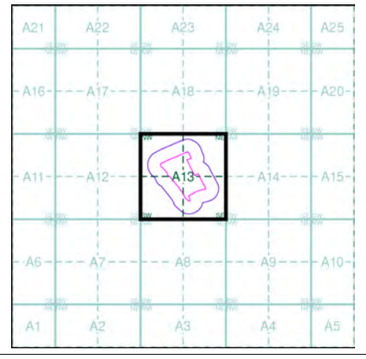


Historical Map - Segment A13



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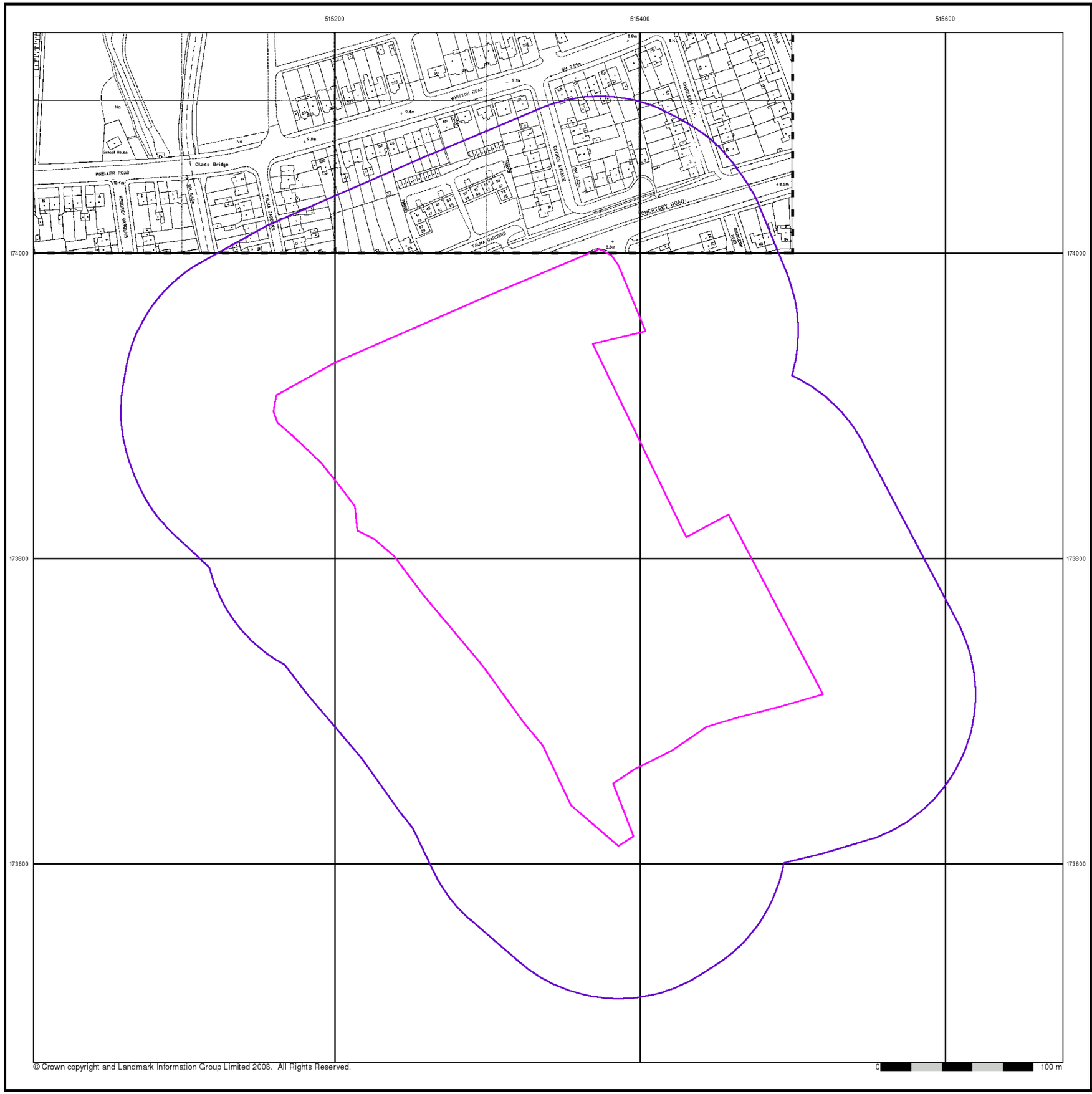

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Large-Scale National Grid Data

Published 1994

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.

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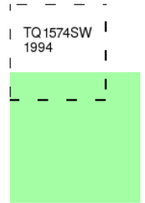

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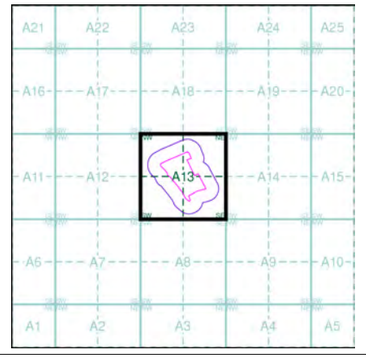

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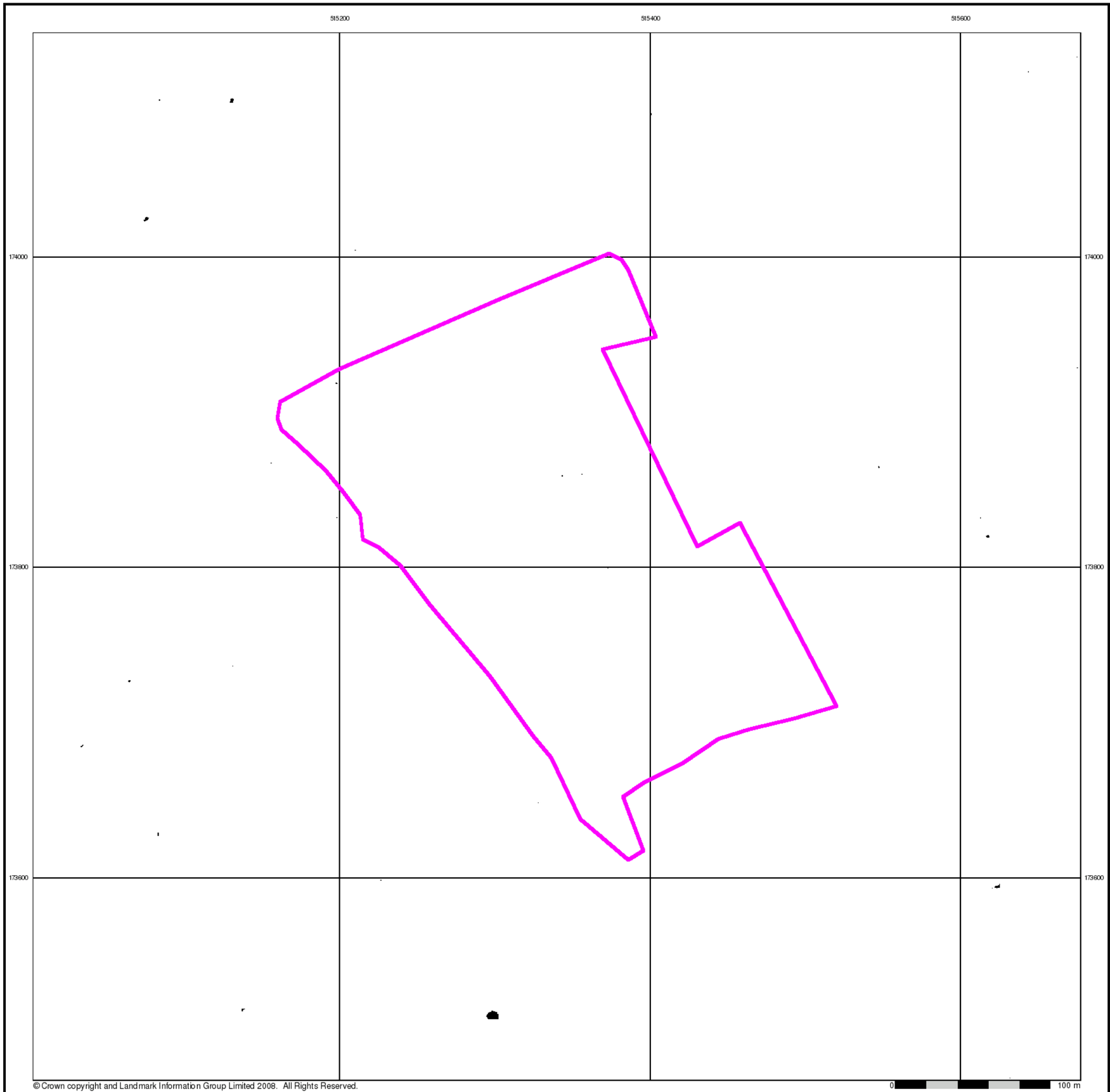


SOILTECHNICS

London

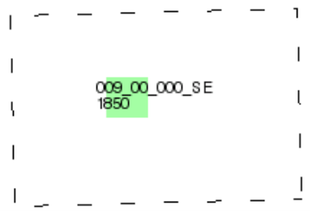
Published 1850

Source map scale - 1:5,280

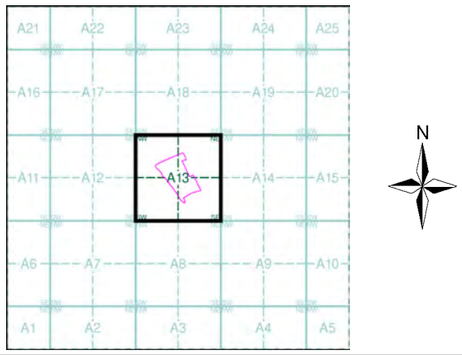
The historical town plans shown derive from Ordnance Survey mapping from the early to mid 1850s. The 1:2640 scale was introduced in the early 1850s, to survey districts covered by the Local Boards of Health and for a map of the Osborne Estate of Queen Victoria. The general style is similar to that of the early 1:2500s published shortly afterwards.
1:5280 scale was surveyed shortly afterwards in the mid 1850s as general purpose mapping with a standard of content similar to the more contemporary 1:10.560 mapping. The scale was also used for a reduction of the 1:1056 'skeleton survey' of London that was undertaken between 1848 and 1850.

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.

Map Name(s) and Date(s)



Historical Town Plan - Segment A13



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SOILTECHNICS

London

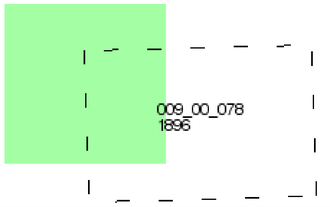
Published 1896

Source map scale - 1:1,056

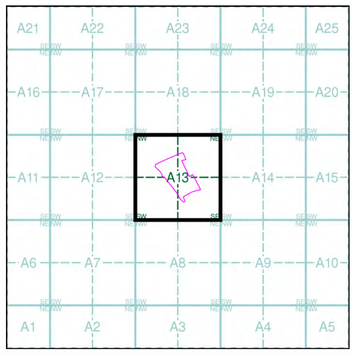
The 1:1056 scale of Ordnance Survey mapping was adopted from Ireland in 1848 and was used to survey towns with a population of over 4000, plus county towns of lesser population, in those counties mapped at the six-inch scale in 1841-55. The scale was the largest scale at which London was mapped by the 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.

Map Name(s) and Date(s)



Historical Town Plan - Segment A13



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Appendix 6.7: Guidance on Protection of Controlled Waters

Protection of Controlled Waters

Contents

1. Definitions

England
Controlled Water Resources*:* includes all watercourses (e.g. ditches, brooks, dykes, streams, rivers and estuaries), canals, coastal waters and water contained in underground strata (groundwater).

Groundwater Protection Zones*:* A Groundwater Protection Zone (GPZ) is an area of land surrounding a groundwater abstraction source, designated by the Environment Agency as requiring necessary protection. GPZs include Zone I (Inner Source Protection), Zone II (Outer Source Protection) and Zone III (Source Catchments).

Scotland
Water Environment*:* includes wetlands, rivers, burns, lochs, estuaries, coastal waters and groundwater.

Oil*:* products derived from oil, including but not limited to mineral oil, lubricating oil, heating oil, petrol, diesel and waste oil.

2. Legislation

England
Water Resources Act 1974
Food and Environmental Protection Act 1985
Water Industry Act 1991
Land Drainage Act 1991
Water Resources Act 1991
Water Resources Act 1991 (Amendment) (England and Wales) Regulations 2009
Environment Act 1995
The Surface Water (Dangerous Substances) Regulations 1998
Groundwater Regulations 1998
Anti-Pollution Works Regulations 1999
Control of Pollution (Oil Storage) (England) Regulations 2001
Water Act 2003
Groundwater Authorisation (England and Wales) Regulations 2009
Marine and Coastal Access Act 2009
The Environmental Permitting Regulations (England and Wales) 2010

Scotland:
Water Environment and Water Services (Scotland) Act 2003 (WEWS)
Water Environment (Controlled Activities) (Scotland) Act 2005 (CAR)
Water Environment (Controlled Activities) (Scotland) Amendment Regulations 2007
Water Environment (Diffuse Pollution) (Scotland) Regulations 2008
Water Environment (Oil Storage) (Scotland) Regulations 2006

3. Guidance on Compliance

Pre-start

As early as possible identify all potential consent requirements, review tender/contract documents for work liable to require consent to:

- Work in, on or under a river channel, remembering a flood plane is part of a river channel and may also require consent.
- Discharges to watercourses, this includes streams, ditches, brooks, lakes etc.
- Abstraction requirements.
- Diversion or work liable to affect any water course.

Once details have been gained contact the Environment Agency, SEPA or Water Company and discuss requirements with them and obtain relevant consent application forms for completion.
Early contact is imperative as some consent applications may take 4 months to be processed (Usually due to statutory consultation process).
Informal consent must be followed up by written confirmation (fax or letter) from the EA, SEPA or water company to prove consent, informal or otherwise, has been granted.
When consented activities are complete consents must be closed out with the relevant authority.

On site

Controls

Many construction activities have the potential to cause pollution to controlled waters unless effectively controlled. Annex A sets out a generic list of those activities that have a high risk to pollute, the associated environmental effect and the generic controls/best practice measures that may be adopted. It should be noted that each site is different and therefore controls often need to be adapted to address individual site needs. A list of best practice references is given in the reference section.

Notwithstanding the control measures adopted, each site must develop a plan for controlling environmental emergencies, see standard 'Environmental Emergency Control' (SE STD1), and Environmental Incident Process (SH PRO2b) for reference.

ANNEX A - Potentially polluting activities

Activities that can give rise to pollution	Potential Aspects and Impacts	Controls
Site runoff	**Uncontrolled runoff with high suspended solid load.**	• Keep areas of hard standing clean through regular sweeping. • Minimise the area stripped of vegetation and topsoil. Vegetation stops silt build up by protecting the soil and acting as a filter. • Construct silt traps, fences, straw bales or grips to control the flows of surface run-off and settle out suspended solids. • Ensure all works adjacent to, or flows of water into watercourses have a suitable buffer strip of vegetation. • Undertake regular inspections of the controls to ensure they are working effectively. • Ensure sufficient areas are provided for the containment of firewaters
Site drainage	**Pollution of surface water watercourses and uncontrolled discharges to foul sewer**	• Liaise with EA or SEPA on drainage system to a surface watercourse or soakaway if necessary; • In Scotland any discharging to a surface water must do so via a SUDS system; • Any discharge to foul sewers must be licensed by local sewerage operator. • If required install oil interceptors on drainage systems from areas of hard standing and for refuelling. Always maintain oil interceptors in accordance with

Activities that can give rise to pollution	Potential Aspects and Impacts	Controls
		manufacturers requirements; • Keep hard standing areas clean of silt and oils; • Ensure that equipment and materials which would be liable to float away are not stored within areas at risk from foreseeable flooding nor within 10 metres of any surface watercourse; • In laying out the site, ensure that all storage facilities and equipment are located as far away as reasonably practicable from any watercourse or drain. • Monitor against consent conditions where applicable • Ensure that any site drainage that may be affected by firewater runoff has the potential to be isolated to prevent pollution.
Site setup	**Pollution of watercourses and groundwater during periods of flooding**	• Set up stores on the highest ground within a site and away from watercourses, typically at least 10 metres; • Ensure any existing flood defences are maintained. Any works must be approved by the EA in England and Wales and by the Planning Authorities in Scotland
Works above, in or near watercourses.	**Changes to flow, volume and quality.** **Increased flood risk to surrounding land.** **Loss of ecological resources and fishery potential**	• Works above, in or near watercourses may require Land Drainage Consent (England and Wales) or Controlled Activities Regulations (CAR) authorisations (Scotland) - see G S1 021. • Refuel at least 10metres from any watercourse; • Only discharge direct to a watercourse if permitted EA / SEPA; • Prevent plant and equipment entering a watercourse; • Retain strips of vegetation adjacent to surface watercourses; • Site spoil heaps, temporary stockpiles, haul roads at least 10 m from a watercourse and away from drainage systems • Visually monitor the watercourse on a regular basis for colour changes, oils, flow changes, suspended solids; • Ensure consent parameters are monitored if applicable; • Where necessary and practicable use booms downstream of works to prevent the spread of accidental pollution; • Control the use of potentially polluting materials in and around watercourses; • Seek EA or SEPA approval for your proposed method of works.
Pumping out of excavations	**Changes in ground water levels.** **Discharges with high suspended solid load.**	• Where practicable ensure localised pumping out of excavations is discharged to vegetated areas at least 10 metres away from a watercourse; • Only discharge direct to a watercourse if permitted by the EA or SEPA; • If direct to a watercourse or road gulley use settlement systems or filtering devices to reduce suspended solid loading.

Guidance

Activities that can give rise to pollution	Potential Aspects and Impacts	Controls
Directional drilling and Bentonite use and storage	**Pollution of surface water watercourses. Discharges with high suspended solid load**	• Ensure only approved directional drillers are used; • Ensure launch pits are not likely to cause damage to associated watercourses or pollution via leakage; • Contain spent drilling fluids in a designated tank or lined settlement lagoon; • Monitor for breakout during drilling operations; • Ensure drilling fluids are stored away from watercourses in suitable containers; • Ensure any localised pumping out of excavations is discharged via vegetated areas at least 10 metres away from a watercourse; • Ensure static plant and equipment have integral drip trays or are placed over suitable drip trays; • Maintain a suitable spill kit on site.
Refuelling	**Direct pollution of watercourses / groundwater by spillages**	• Refuel in designated areas on hardstanding, where possible; • Supervise fuel deliveries and ensure only trained personnel undertake refuelling; • If refuelling using a mobile bowser ensure that a spillage kit is close by and do not refuel with 10m of a watercourse or drain; • Ensure that fuel delivery systems have automatic shut-off 'pistol grip' type nozzles; • Ensure that all valves, flaps and delivery devices are shut off/closed prior to movement of mobile bowsers.

Oil and chemical storage	**Direct pollution of watercourses / groundwater**	• All oil storage facilities, including mobile bowsers, drums and fixed tanks must meet the following requirements:
		  • be double skinned or bunded (to 110% or 25% of largest container),
		  • all pipework and storage containers must be stored well within the bund (such that leaks cannot "project" beyond the bund walls);
		  • be located at least 10m away from watercourses or road gulley's and away from drainage systems
		  • be lockable to prevent vandalism/theft
		  • all mobile bowsers should be moved out of any GPZ1 at the end of the working day
		  • oils and fuels should never be stored in GPZ's 1 or 2 unless previously authorised by the Environment Agency.

Vehicle washing and maintenance (including wheelwashes)	**Direct pollution of watercourses / groundwater discharges with high suspended solid load.**	• Wash down plant and equipment in designated areas; • Ensure that they are appropriately drained (see above) or contain the wash down effluent and dispose of appropriately.
Works to sewerage pipelines	**Potential for spillages of raw sewage leading to contamination of ground; pollution of watercourses pollution of groundwater, pollution of existing drinking water supply**	• Contain foul water and contaminated land in a dedicated area prior to disposal; • Ensure that only personnel qualified to work on foul water systems are employed and used, • Ensure that blank flange(s) are employed as (temporary) stoppers on pipelines under pressure.

Guidance

Activities that can give rise to pollution	Potential Aspects and Impacts	Controls
Wastewater disposal – offices and other facilities	**Direct pollution of watercourses / groundwater. Discharges with high suspended solid load. Emissions of dust and other polluting materials**	• Where possible dispose to foul sewer. If unavailable use septic tanks or use cess tanks. Note that discharge from septic tanks will need to be consented by the EA or SEPA (SE GUID6). • Ensure tanks are emptied frequently and maintained.
Demolition	**Direct pollution of watercourses / groundwater. Discharges with high suspended solid load. Emissions of dust and other polluting materials**	• Prior to decommissioning (above or below ground tanks) ensure that the contents have been determined and appropriately disposed of. **Do not** discharge contents down a drain or into a watercourse; • Ensure demolition activities are controlled to prevent emissions of dust or solid debris from affecting watercourses.
Landscaping / maintenance	**Use of pesticides/herbicides causing pollution of watercourse and associated habitat**	• Use appropriately qualified personnel to apply pesticides/herbicides; • Obtain approval from EA/SEPA for use of any pesticides/herbicides within 10 metres of a watercourse.
Storage of contaminated material	**Uncontrolled runoff with high suspended solid load and/or contaminated.**	• Contain contaminated material in a dedicated area prior to disposal. • Ensure that if contamination is leachable and discharge of effluent is to a drain or sewer that this is compliant with any conditions for discharge as previously agreed with the agencies or relevant Water Company.
Storage of spoil	**Uncontrolled runoff with high suspended solid load.**	• Ensure storage is in an area where surface runoff cannot pollute surface waters. • If stores on a hard standing ensure that the area is appropriately drained in accordance with any consent – typically the area will require a sediment trap or settlement lagoon to be constructed.
Concreting	**Direct pollution of watercourses/groundwater.**	• Place concrete carefully to avoid direct contamination of watercourses. • Wash out concrete wagons in designated areas away from watercourses and drainage systems.
Abstraction	**Changes to flow or level of water in controlled waters and water levels in surrounding land.**	• Obtain relevant approvals. • Monitor abstraction to ensure compliance with approvals.
De-chlorination of pipe work	**Excess chlorous or sodium thiosulphate causing pollution of watercourses and associated habitat/fisheries.**	• Dispose of to foul sewer with approval from the relevant Water Company. • If disposal to surface watercourse is necessary ensure relevant approvals are obtained from EA/SEPA. • Monitor discharges to ensure chlorous level is acceptable.
Disposal of road sweepings	**Direct pollution of watercourses/groundwork. Discharged with high suspended solid load.**	• Discharge road sweepings in a designated area away from watercourses or drains. • If material is unsuitable for re-use then dispose of appropriately. • If discharge to lagoons ensure that they are suitably maintained.

4. Monitoring

A suitable and sufficient monitoring regime must be in place to ensure that consented activities conform to any parameters laid down in consents. A monitoring strategy must be developed prior to activity and a responsible person nominated under the Environmental Management Plan to undertake monitoring.

- Frequency of monitoring must be determined on a risk basis and should be appropriate to the potential for pollution.
- Parameters laid down in the consent must be checked during monitoring and where parameters do not exist a qualitative parameter schedule will be formulated by the Environmental Adviser (bases on relevant guidelines and/or quality of receiving water body).
- Monitoring will be undertaken by a competent person and where required training will be provided by the Environmental Adviser on a request basis.
- A suitable record of monitoring must be created this can take the form of a site diary entry, use of a form or book but must include an assessment of the discharge and detail any remedial actions taken should they be required.

5. Further information

Environment Agency (www.environment-agency.gov.uk)
Scottish Environment Protection Agency (SEPA) (www.sepa.org.uk)
Northern Ireland Environment Agency (www.doeni.gov.uk)
Marine Management Organisation (www.marinemanagement.org.uk)
NetRegs (www.netregs.gov.uk)

Pollution Prevention Guidelines
PPG01 – General guide to the prevention of pollution
PPG02 – Above ground oil storage tanks
PPG03 – The use and design of oil separators in surface water drainage systems
PPG04 – Treatment and disposal of sewage where no foul sewer is available
PPG05 – Works and maintenance in or near water
PPG06 – Working at construction and demolition sites
PPG07 – Refuelling facilities
PPG08 – Safe storage and disposal of used oils
PPG13 – Vehicle washing and cleaning
PPG18 – Managing fire water and major spillages
PPG20 – Dewatering underground ducts and chambers
PPG21 – Pollution incident response planning
PPG22 – Dealing with spillages on highways
PPG26 – Storage and handling of drums and intermediate bulk containers

CIRIA - Environmental good practice on-site (C502)
CIRIA / Environment Agency Joint Guidelines ‘Concrete Bunds for Oil Storage Tanks’
CIRIA / Environment Agency Joint Guidelines ‘Masonry Bunds for Oil Storage Tanks’

SEPA Scottish Oil Storage Regulations Advice
SEPA CAR – A Practical Guide v5 2008