336-003-RP01

Flood Risk Assessment

Proposed BESS - Spittal, Scotland

DOCUMENT STATUS	DATE	BY	CHECKED	APPROVED
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Contents

1 Introduction

Haydn Evans Consulting Ltd (HEC) has been commissioned by Field (hereafter referred to as the Client) to carry out a Flood Risk Assessment to support a planning application for the construction and operation of a 300 megawatts (MW) Battery Energy Storage System (BESS) with associated infrastructure, access and ancillary works on land adjacent to Spittal Converter Station.

1.1 Site Proposal

The proposed development has a total development footprint of approximately 3.9 hectares (ha) across the 48.6 ha site.

The Proposed Development principally comprises a battery energy storage system (BESS) with a capacity of up to 300 megawatts (MW) which will charge and discharge electricity from the adjacent Spittal 275 kV substation. It includes:

- Battery storage units arranged into rows;
- Medium-voltage (MV) skids and ancillary low-voltage (LV) equipment;
- High-voltage (HV) grid transformers;
- Air insulated switchgear;
- A substation building comprising welfare facilities, a switch room and control room;
- An underground 275 kV grid connection cable; and
- Site-wide supporting infrastructure including cabling, access tracks, fencing, attenuation basins, and landscaping measures.

Whilst the exact specifications are subject to detailed design, the principal components described form the basis of the planning application to allow environmental assessments and mitigation to be appropriately scoped.

2 Location & Existing Conditions

2.1 Site Location

The site is located approximately 1.5 kilometres (km) north-west of the small hamlet of Spittal, centred on approximate Ordnance Survey (OS) grid reference 315694,955029 (see red line boundary on Figure 1).

Figure 1: Site location map

The site is generally surrounded by greenfield land. The A9, Halkirk Road bounds the site to the east and The Burn of Achanarras bounds the site to the west, flowing in a northerly direction. Spittal Substation is located in the north of the proposed site boundary.

The existing site entrance is off the A9, approximately 672m south-east of the main site area.

2.2 Existing Topography

A topographical survey has been produced for the site (see Appendix A). The survey shows ground levels to generally fall from the east, towards the north-west. Ground levels in the east (adjacent to the A9) are circa 113 metres Above Ordnance Datum (mAOD), falling to circa 85 metres (mAOD) in the north-west.

The survey shows vegetation on the western perimeter of the site.

2.3 Existing Sewer Assets

Scottish Water (SW) sewer records for the site have been obtained (see Appendix B). The records show no foul or surface water sewers in the vicinity of the site.

2.4 Existing Drainage Regime

There is a 2 inch PVC potable water pipe running under the Electricity Distribution Site from east to west shown on the SW asset plans. There are no drainage assets recorded within the boundary or in close proximity to the site. Surface water will flow overland or soak into the underlying soils. There are however several ditches/depressions (shown on the topographic survey) along the western boundary and throughout the site running from east to west. This allows for the surface water to convey into/towards The Burn of Achanarras.

2.5 Ground Conditions

British Geological Survey (BGS) mapping confirms the site to have a bedrock geology of Spittal Flagstone Formation (Siltstone, mudstone, and sandstone) (see Figure 2). Superficial deposits of Till, Devensian (Diamiction) are shown to be present across the most-part of the site, with Alluvium (Clay, slit, sand, and gravel) located along the western boundary (see Figure 3). These ground conditions are confirmed in the Phase 2 Ground Investigation undertaken by Curtins (ref: 085447-CUR-XX-XX-T-GE-00002 dated December 2024).

Figure 2: BGS Geology Map of Bedrock geology

Figure 3: BGS Geology Map of Superficial Deposits

Online mapping shows the site to be in an area with a 'low' groundwater vulnerability.

The Phase 2 Ground Investigation states that: "Details on the hydrogeological classification of the Devensian Till are not given by SEPA mapping. The Spittal Flagstone Formation is characterised as a moderately productive aquifer, locally yielding small amounts of groundwater."

3 Planning Policy Context

3.1 National Planning Framework 4 (NPF4 Adopted 2023)

The National Planning Framework 4 (NPF4, 2023) includes government policy for developments and meeting the challenges of climate change and flood risk.

The Policy 22 guidance states *"Development proposals at risk of flooding or in a flood risk area will only be supported if they are for essential infrastructure, water compatible uses, redevelopment of an existing building or site for an equal or less vulnerable use, or redevelopment of previously used sites in built up areas."*

The protection offered by an existing formal flood protection scheme or one under construction can be considered when determining flood risk. All risks of flooding are understood and addressed; there is no reduction in floodplain capacity, increased risk for others, or a need for future flood protection schemes; the development remains safe and operational during floods; flood resistant and resilient materials and construction methods are used; and future adaptations can be made to accommodate the effects of climate change.

Development proposals will not increase the risk of surface water flooding, manage all rain and surface water through sustainable urban drainage systems (SUDS), and seek to minimise the area of impermeable surface. These proposals will be supported if connecting to public water mains; however, if not feasible the applicant will need to demonstrate that water for consumption is sourced from a sustainable source. Proposals which create, expand or enhance opportunities for natural flood risk management, including blue and green infrastructure, will be supported."

3.2 Highland-wide Local Development Plan (HwLDP, Adopted 2023)

On 5 April 2012 the Highland-wide Local Development Plan was adopted by the Council and was constituted as the local development plan in law. The Plan sets out a vision statement and spatial strategy for the area, taking on board the outcomes of consultation undertaken during preparation of the plan. Policy 64 is relevant to this assessment and reads as follows:

Policy 64 Flood Risk

Development proposals should avoid areas susceptible to flooding and promote sustainable flood management.

Development proposals within or bordering medium to high flood risk areas, will need to demonstrate compliance with Scottish Planning Policy (SPP) through the submission of suitable information which may take the form of a Flood Risk Assessment.

Development proposals outwith indicative medium to high flood risk areas may be acceptable. However, where:

- better local flood risk information is available and suggests a higher risk;
- a sensitive land use (as specified in the risk framework of Scottish Planning Policy) is proposed, and/or;
- the development borders the coast and therefore may be at risk from climate change;

a Flood Risk Assessment or other suitable information which demonstrates compliance with SPP will be required.

Developments may also be possible where they are in accord with the flood prevention or management measures as specified within a local (development) plan allocation or a development brief. Any developments, particularly those on the flood plain, should not compromise the objectives of the EU Water Framework Directive.

Where flood management measures are required, natural methods such as restoration of floodplains, wetlands and water bodies should be incorporated, or adequate justification should be provided as to why they are impracticable.

4 Flood Risk Assessment

4.1 Introduction

The main sources of flooding have been assessed as part of this report, in line with NPF4, as follows:

- Tidal and Fluvial
- Pluvial
- Groundwater;
- Sewers;
- Reservoirs and other artificial sources.

4.2 Tidal and Fluvial

Tidal, or coastal flooding from the sea, is the inundation of land along the coast usually caused by high tides or storm surge. Fluvial, or river flooding, occurs when the water level in a river, lake or stream rises and overflows onto neighbouring land because of the capacity of rivers being exceeded by the river flow.

Due to the location of the site (inland), the site is not at risk of tidal flooding.

The closest watercourse to the site is the 'Burn of Achanarras' which flows along the western boundary of the site, in a northerly direction. Scottish Environment Protection Agency (SEPA) mapping (see Figure 4) shows that there is a likelihood that flooding from this Burn could affect the far north-western corner of the site, adjacent to the Spittal Converter Station. There is no new development proposed in this area and the topography shown on the mapping indicates that any flood water in this location would flow in a northernly direction, away from the site.

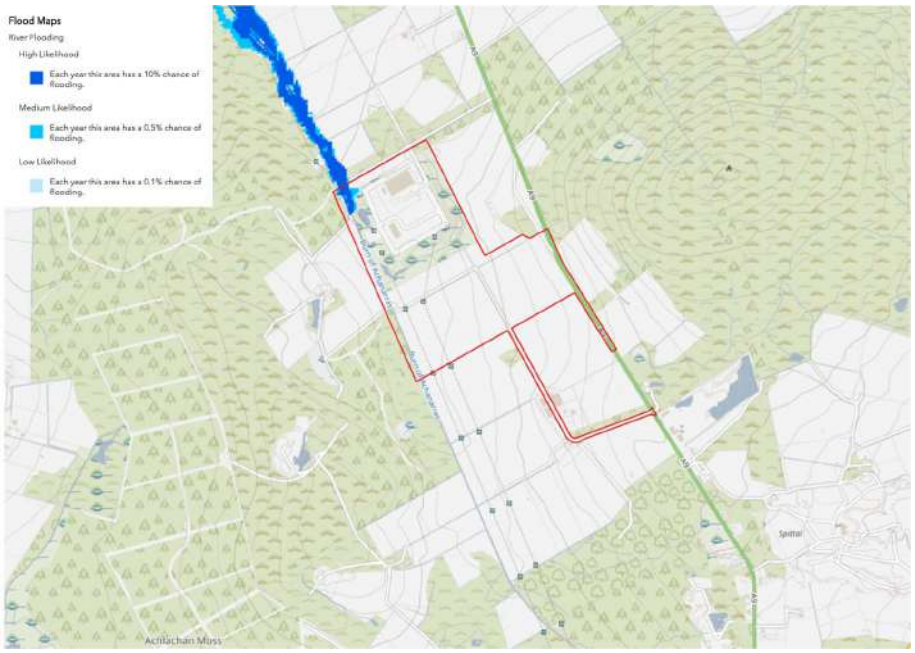


Figure 4: SEPA Flood Map - River Flooding

The site is considered to be at a low risk of flooding from tidal and fluvial sources.

4.3 Pluvial

Pluvial, or surface water flooding, occurs when heavy rainfall creates a flood independent of an overflowing water body. Pluvial flooding can occur in any location and is usually a result of intense rainfall saturating an urban drainage system, rainfall run-off on elevated terrain, where unpaved surfaces are saturated and unable to receive additional rainfall or where natural ground has been paved. Surface water run-off can be channelled either by natural features such as valley lines or by artificial features such as highways, to low points in the topography. If surface water is not able to flow away from topographical low points, then pluvial flooding can occur.

The SEPA Surface Water Flooding map (see Figure 5) shows the site and majority of the surrounding area to be at a very low risk of flooding from surface water.

Figure 5: SEPA Surface Water Flooding map

OS mapping contours show surrounding ground levels to fall from the east, towards the north-west; this means that surface water could be shed towards the site from the east. The upstream catchment from the site comprises greenfield land and the topography does not concentrate flows towards the site, therefore the amount of surface water likely to be shed towards the site from this direction is minimal.

For the proposed surface water drainage strategy for the site, please refer to HE report 336-003-RP2. This report provides information on how the proposals for the site mimic the existing drainage regime for the site and restrict run-off to greenfield run-off rates.

The site is considered to be at a low risk of flooding from this source.

4.4 Groundwater

Groundwater flooding generally occurs when water levels below the ground rise during wet winter months; these levels usually fall again in the summer months as water flows out into rivers.

As discussed in Section 2.5, the site is in a low groundwater vulnerability area and therefore groundwater expression at the surface is unlikely.

In addition to this, the Phase 2 Ground Investigation Report states that *'Five groundwater seepages were encountered during the investigation and strikes are thought to be representative of 'perched groundwater' either between superficial and bedrock strata, or within localised bands/lenses of granular soils within the predominantly cohesive superficial Glacial Till. The return monitoring visits did not record any groundwater within borehole installations and the wells were recorded as dry."*

The site is at low risk of flooding from this source.

4.5 Sewers

SW sewer mapping shows there are no sewers in the vicinity of the site and therefore the risk of flooding from this source is low.

The site is at a low risk of flooding from sewers.

4.6 Reservoirs & Artificial Sources

A review of OS mapping shows that there are no significant water bodies (lakes, large ponds, reservoirs etc.) within the immediate vicinity of the site that appear likely to pose a risk to the site.

The flood risk from the failure of a reservoir has been reviewed, the site not in an area at risk of flooding from reservoirs.

4.7 Cumulative Impact

A review of cumulative impacts has been undertaken considering sites identified as lying within the locality of the proposed Spittal BESS. The cumulative impact on flood risk is considered to be negligible as the site is at low risk of flooding from all sources.

5 Summary and Conclusion

Haydn Evans Consulting Ltd (HEC) has been commissioned by the Client to carry out a Flood Risk Assessment to support a planning application for the construction and operation of a 300MW Battery Energy Storage System (BESS) with associated infrastructure, access and ancillary works on land south of Spittal Converter Station.

The site has been assessed against all sources of flooding in line with the guidance given in the NPF4.

The site is at a low risk of flooding from all sources and meets the requirements of the NPF4 in terms of appropriate development.

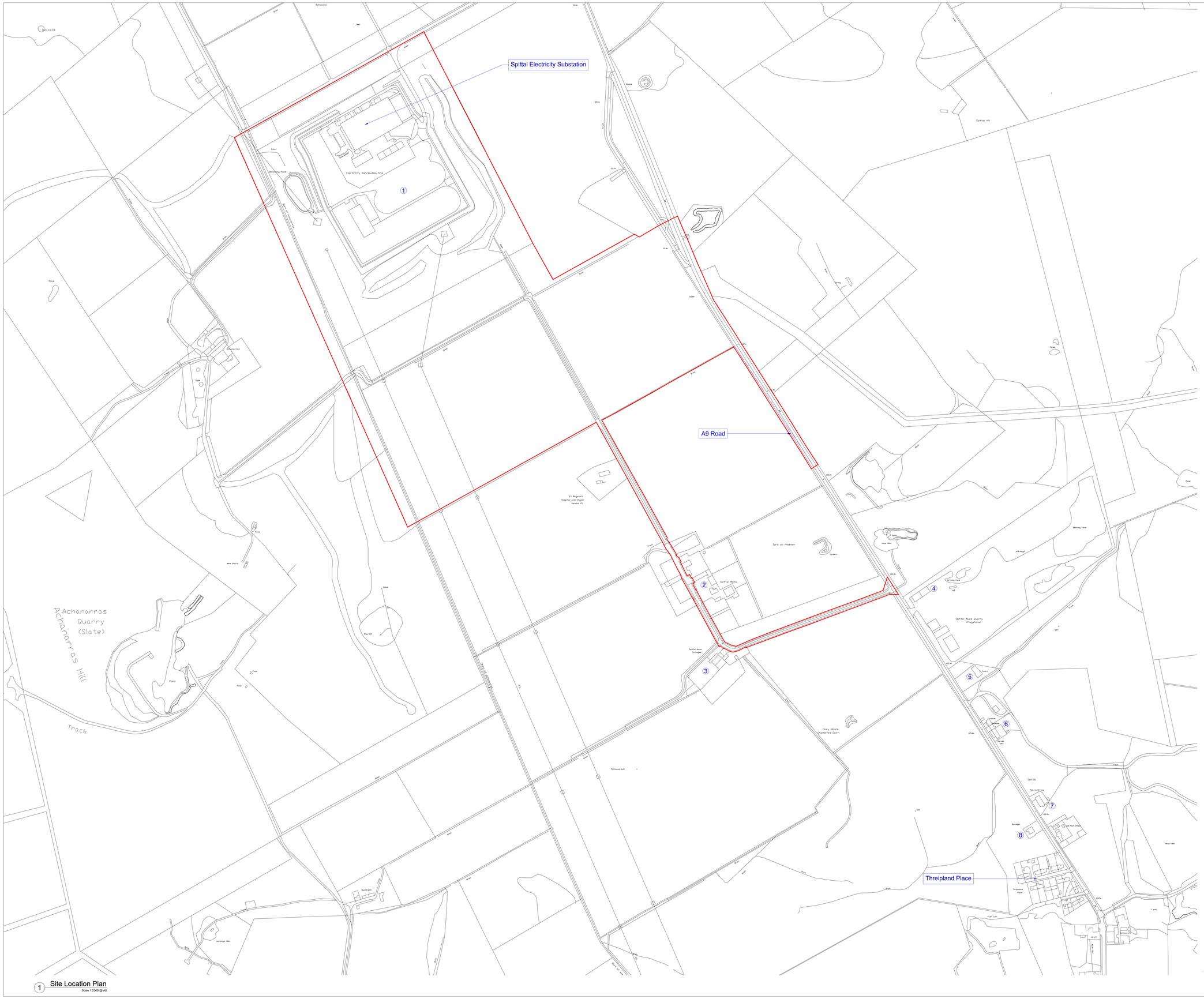
The Proposed Development does not increase on or off-site flood risk and is therefore considered to be acceptable in relation to flood risk.

Appendix A – Existing & Proposed Site

Field drawing BTGBSPI01-002.1 – Site Location

Highland Surveyors Ltd drawing 23067_01-05 - Topographical Survey

Field drawing BTGBSPI01 – Proposed Site Plan



Drawing Notes:

1. All dimensions are shown in metres unless noted otherwise.
2. Do not scale from this drawing.
3. Planning boundary area = 48.583ha

List of Addresses	
1	Spittal Converter Substation, Halkirk, KW12 6XA
2	Spittal Mains, Spittal, Wick, KW1 5XR
3	St. Magnus Cottage, Spittal, Wick, KW1 5XR
4	A&D Sutherland Ltd. Spittal Mains Quarry, Spittal, Wick, KW1 5XR
5	Kakers, Roadside, Spittal, Wick, KW1 5XR
6	[3 Addresses] a) Cairnside; b) Roadside Cottage; c) Morven View, Spittal, Wick, KW1 5XR
7	Tigh Na Chreag, Spittal Wick, KW1 5XR
8	Edgemoor Filling Station, Spittal, Wick, KW1 5XR

Legend

Planning Boundary

1:100	1m	2m	3m	4m	5m	6m	7m	8m	9m	10m
1:200	5m	10m	15m	20m
1:250	5m	10m	15m	20m	25m
1:500	10m	20m	30m	40m	50m
1:1000	10m	20m	30m	40m	50m	60m	70m	80m	90m	100m
1:2000	50m	100m	150m	200m
1:2500	50m	100m	150m	200m	250m
1:5000	100m	200m	300m	400m	500m

REV	DATE	DESCRIPTION	BY	CHK'D
6	21.10.2024	Planning boundary amended	JH	AP
5	19.04.2024	Planning boundary adjusted	EW	AP
4	19.04.2024	Option site & wider LO boundaries removed, additional scaling added	EW	AP
3	04.04.2024	Boundaries & option site extents adjusted	EW	JH
2	02.02.2024	Planning boundary amended	JH	AP
1	25.01.2024	Details added to site location plan	JH	AP
0	18.01.2024	Site Location Plan - Original	JH	AP

Field
Fora - Montacute Yards
186 Shoreditch High Street
London
E1 6HU

PROJECT
Spittal

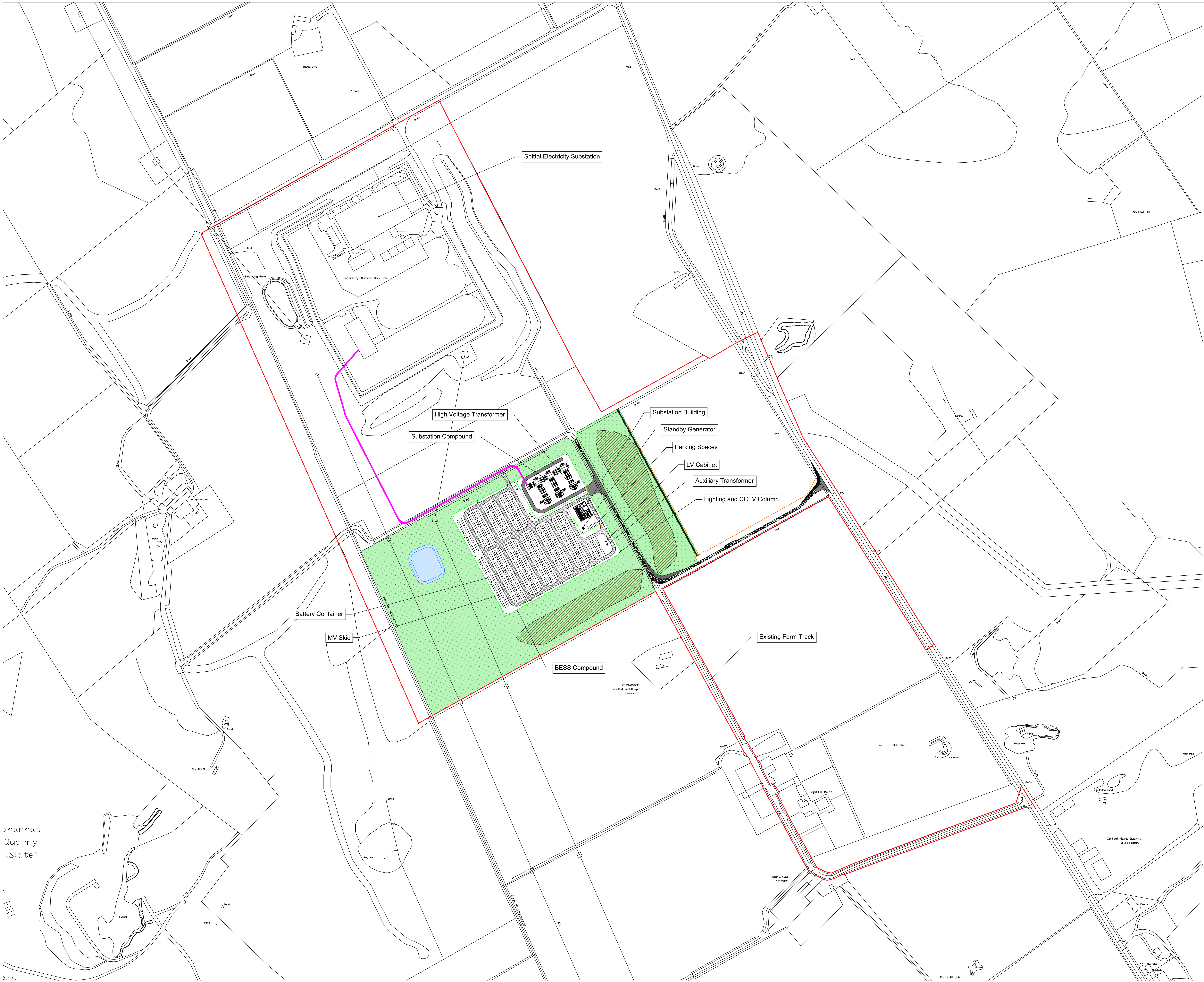
TITLE
Site Location Plan

DISCIPLINE
PLANNING

DRAWING STATUS
FOR PLANNING

SCALE	DATE	DRAWN BY	CHECKED BY	APPROVED BY
1:2500 @ A0	18.01.2024	JH	AP	RS

PROJECT NO.	DRAWING NO.	REV.
BTGBSPI01	002.1	6



1 Indicative Site Layout Plan
Scale 1:2000 @ A0

Drawing Notes:

1. All dimensions are shown in metres unless noted otherwise.
2. Do not scale from this drawing.
3. Planning boundary area = 48.583ha.

Legend

- Planning Boundary
- Indicative Underground Grid Connection Cable
- Landscaping Area
- Native Hedgerow
- Attenuation Basin
- 2.4m Palisade Fence with 0.6m Electric Topper
- Stock Proof Fencing
- Access Track - Unbound Finish
- Access Track - Asphalt Finish
- AIL Run-over Area - Unbound Finish
- Landscaping Bund

REV	DATE	DESCRIPTION	BY	CHK'D
11	17.12.2024	Landscaping notation amended	EW	JH
10	12.11.2024	Bund shape & aux transformer detail adjusted	EW	AP
9	21.10.2024	Access road, drainage and planning boundary amended. Stock proof fencing added.	JH	AP
8	10.09.2024	Bunds amended	EW	JH
7	30.08.2024	Site layout amended	JH	RS
6	10.06.2024	Planning boundary adjusted	EW	AP
5	07.06.2024	HV compound detail, attenuation pond detail & indicative cable route updated. Fenced channel for farm access between field gates added to western edge.	EW	JH
4	09.04.2024	BESS duration and layout adjusted	EW	JH
3	04.04.2024	Now showing Envision system, TO sub station detail updated with PSUK drgs, layout adjusted. Capacity & duration amended. Option site boundary adjusted. Site grading details added.	EW	JH
2	02.02.2024	Planning boundary amended	JH	AP
1	25.01.2024	Site layout amended	JH	AP
0	31.08.2023	Site layout plan - for information	WL	RS

Field
Fora - Montacute Yards
186 Shoreditch High Street
London
E1 6HU

PROJECT: Spittal

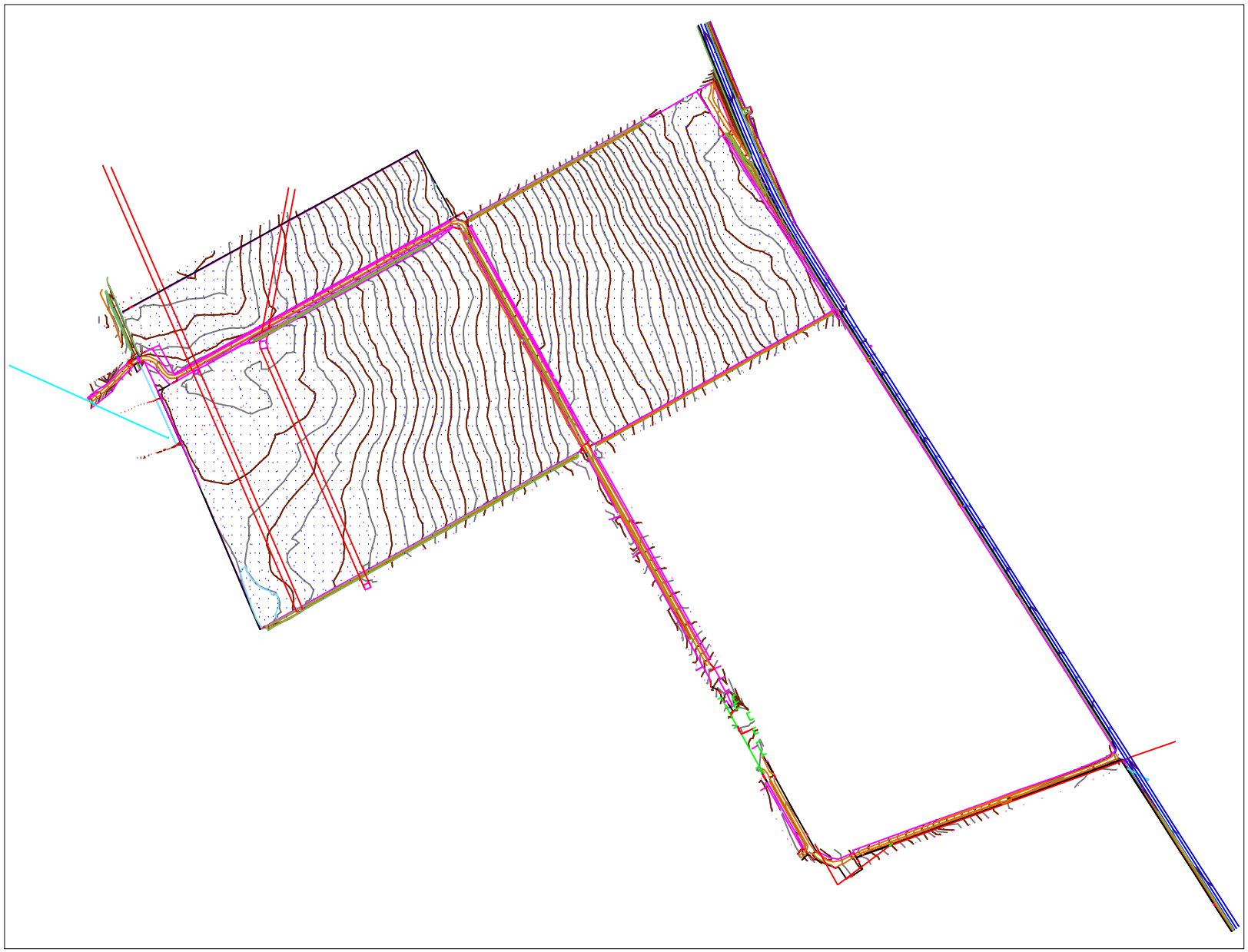
TITLE: Indicative Site Layout Plan

DISCIPLINE: PLANNING

DRAWING STATUS: FOR PLANNING

SCALE	DATE	DRAWN BY	CHECKED BY	APPROVED BY
1:2000 @ A0	31.08.2023	WL	RS	RS

PROJECT NO.	DRAWING NO.	REV.
BTGBSPI01	001.1	11



Appendix B – Scottish Water

Cornerstone Projects Ltd - Utilities Search Report - Water and Sewer - Page 49-56

WATER & SEWER

91 Market Street Hoylake Wirral CH47 5AA
Tel. 0151 632 5142
enquiries@cornerstoneprojects.co.uk
www.cornerstoneprojects.co.uk
VAT Reg. No. 851 4941 19
Company No. 5132353

Drain
Drain
Achalone
Well
Drain
A9
355mm HPPE 2000
99.0m
A9
A9
Mound
2in PVC 1975
109.1m
Track
355mm HPPE 2000
2in PVC 1975
111.7m
Drain
Balancing Pond
Electricity Distribution Site
2in PVC 1975
Burn of Achanarras
2in PVC 1975
Track
Drain
Drain
Drain
Pond
Drain
Drain
Achanarras
Track
Pond
Pond
St Magnus's
Hospital and Chapel
(remains of)
Pond
Mine Shaft
Sinks
Bog Well
Track
Pond
Pond
Burn of Achanarras
ETL

Warning! Damaging a large diameter trunk main (12"/300mm and above) can result in loss of life and major water supply and water quality problems.
If you're planning any extension work in the vicinity of any large diameter mains shown on our maps, you must contact Scottish Water to arrange a site visit (0800 778 778. WELL IN ADVANCE OF THE WORKS.

N

Spittal - Water Only

SCALE: 1:1,323

Plotted By: duncan@cornerstoneprojects.co.uk
Date Plotted: 21/03/2024

The representation of physical assets and the boundaries of areas in which Scottish Water and others have an interest does not necessarily imply their true positions. For further details contact the appropriate District office.

Scottish Water
Trusted to serve Scotland

The Bridge
6 Buchanan Gate
Stepps
Glasgow
G33 6FB

Tel No: 08000 778 778


Well
Drain
Drain
Drain
A9
355mm HPPE 2000
9in CI 1956
Mound
2in PVC 1975
2in PVC 1975
109.1m
Track
111.7m
9in CI 1956
355mm HPPE 2000
111.9m
Spittal Hill
Drain
Spring
112.0m
113.7m
116.3m
315mm HPPE 2000
120.3m
9in CI 1956
315mm HPPE 2000
1 1/2in AC 1960
Ponds
Settling Pond
Pond
Heap (dis)
Torr an fhidhlier
Cistern
1 1/2in AC 1960
Workings
Track
124.3m
9in SI 1956
Settling Pond
WB
Spittal Mains
Spittal Mains Quarry (flagstone)
Ponds
Well
Spittal Mains Cottages
125.9m
Kakers
Track
Fairy Hillock Chambered Cairn
125.6m
St Magnus's Hospital and Chapel (remains of)
Warning! Damaging a large diameter trunk main (12"/300mm and above) can result in loss of life and major water supply and water quality problems. If you're planning any extension work in the vicinity of any large diameter mains shown on our maps, you must contact Scottish Water to arrange a site visit 08000 778 778 WELL IN ADVANCE OF THE WORKS.
N
Spittal - Water.2 Only
SCALE: 1:1,323
Plotted By: duncan@cornerstoneprojects.co.uk
Date Plotted: 21/03/2024
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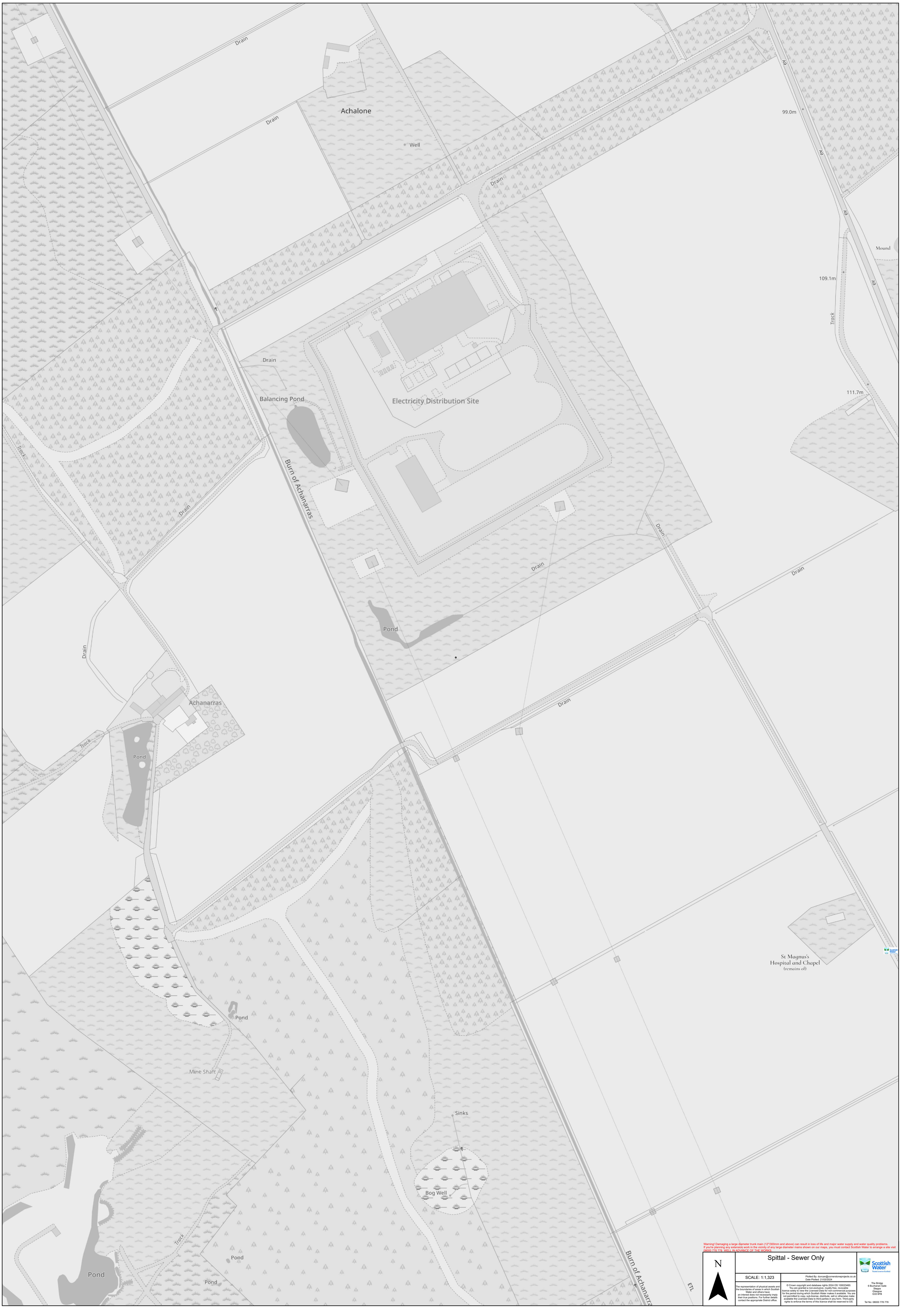
Tel No: 08000 778 778



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Scottish Water
Trusted to serve Scotland

The Bridge
6 Buchanan Gate
Stepps
Glasgow
G33 6FB

Tel No: 08000 778 778


Well
Drain
Drain
Drain
A9
A9
A9
A9
A9
A9
A9
A9
A9
A9
A9
A9
Mound
109.1m
Track
111.7m
111.9m
112.8m
113.7m
116.3m
120.3m
124.3m
125.9m
125.6m
Spittal Hill
Spring
Drain
Drain
Drain
Drain
Drain
Drain
Drain
Ponds
Pond
Heap (dis)
Settling Pond
Workings
Settling Pond
WB
Track
Track
Track
Spittal Mains Quarry
(flagstone)
Ponds
Well
Kakers
Torr an fhidhlier
Cistern
Spittal Mains
Spittal Mains
Cottages
Fairy Hillock
Chambered Cairn
Warning! Damaging a large diameter trunk main (12"/300mm and above) can result in loss of life and major water supply and water quality problems.
If you're planning any excavation work in the vicinity of any large diameter mains shown on our maps, you must contact Scottish Water to arrange a site visit
08000 778 778 WELL IN ADVANCE OF THE WORKS.
N
Spittal - Sewer.2 Only
SCALE: 1:1,323
Plotted By: duncan@cornerstoneprojects.co.uk
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Scottish Water
The Bridge
6 Buchanan Gate
Stepps
Glasgow
G33 6FB
Tel No: 08000 778 778

Scottish Water Asset Data

Water Network

Fittings

Valve

- Valve - Abandoned
- Valve

Pressure Management Valve

- Abandoned
- Adopted
- Isolated
- Pressure Reducing
- Pressure Relief
- Pressure Sustaining
- Proposed
- Removed
- Unknown

Hydrant

- Abandoned
- Adopted
- Ball
- Fire
- Isolated
- Proposed
- Removed
- Shipping
- Unknown
- Washout

Stop Cock

- Abandoned
- Adopted
- In Use
- Isolated
- Proposed
- Removed
- Unknown

Boundary Box

End Cap

- Abandoned
- Adopted
- In Use
- Isolated
- Proposed
- Removed
- Unknown

Air Shaft

- Abandoned
- Adopted
- Isolated
- Pipe
- Proposed
- Removed
- Shaft
- Unknown

Air Valve

- AV
- Abandoned
- Adopted
- Air Cock
- DAV
- HAV
- Isolated
- Proposed
- Removed
- SAV
- TAV
- Unknown

Blank Tee

- Abandoned
- Adopted
- Flanged Plate
- Isolated
- Other
- Other_
- Proposed
- Removed
- Unknown

Chamber Box

- Abandoned
- Access Chamber
- Adopted
- Danelaw Box
- General
- Isolated
- Lucy Box
- Other
- Proposed
- Removed
- Swabbing
- Unknown

Collecting Chamber

Discharge Point

- Buchan Trap
- Isolated
- New Subtype
- Other
- Proposed
- Proudfoot Box
- Removed
- Undefined Scour Point
- Unknown
- Unknown End

Pressure Monitoring Point

Swab Chamber

- Abandoned
- Adopted
- Hatch Box
- Isolated
- Joint
- Proposed
- Removed
- T and Blank Plate
- Unknown

Wet Chamber

Pipes

Main - Water Distribution Public

- Abandoned, Public
- Adopted, Public
- Bypass, Public
- Distribution, Public
- Drain, Public
- Fire, Public
- Isolated, Public
- Overflow, Public
- Proposed, Public
- Removed, Public
- Sludge, Public
- Trunk, Public
- Washout, Public
- Main - Water Distribution

Main - Water Distribution Private

- Abandoned, Private
- Abandoned, Private (Operated by Scottish Water)
- Adopted, Private
- Bypass, Private
- Distribution, Private
- Distribution, Private (Operated by Scottish Water)
- Drain, Private
- Fire, Private
- Fire, Private (Operated by Scottish Water)
- Isolated, Private
- Overflow, Private
- Overflow, Private (Operated by Scottish Water)
- Proposed, Private
- Proposed, Private (Operated by Scottish Water)
- Removed, Private
- Sludge, Private
- Sludge, Private (Operated by Scottish Water)
- Trunk, Private
- Washout, Private
- Washout, Private (Operated by Scottish Water)

Service Pipe

- Abandoned
- Communication
- Communication - Fire Connection
- Isolated
- Proposed
- Removed
- Service
- Supply - Common
- Supply - Fire Main
- Supply - Single
- Service Pipe General

Main - Raw Water

- Abandoned
- Isolated
- Overflow
- Proposed
- Raw Supply
- Removed
- Syphon
- Washout
- Main - Raw Water General

Aqueduct

- Abandoned
- Aqueduct
- Tunnel - Aqueduct
- Viaduct
- Aquaduct General

Scottish Water Asset

Waste Water Network

Fittings

Access (Lateral)
- Abandoned
- Combined (C)
- Foul (F)
- Proposed
- Surface Water (S)

Chamber
- Abandoned
- CSO
- Combined
- Foul
- Dual Manhole - Foul
- Dual Manhole - Surface
- Isolated
- Natural Water
- Not Applicable
- Other
- Planned
- Proposed
- Surface Water
- Trade Effluent
- Treated Effluent
- Unknown
- Unknown_

Combined Sewer Overflow
- CSO-COMB SEW O/FL

Balancing Pond

Basin

Bifurcation Chamber
- Abandoned
- Combined (C)
- Foul (F)
- Isolated
- Planned
- Proposed
- Surface Water (S)
- Unknown

Sewerage Air Valve
- Combined (C)
- Isolated
- Abandoned
- CSO (O)
- Foul (F)
- Other
- Proposed
- Surface Water (S)
- Trade Effluent (T)
- Treated Effluent (E)
- Unknown

Buchan Trap
- Abandoned
- CSO (O)
- Combined (C)
- Foul (F)
- Isolated
- Natural Water (W)
- Other
- Proposed
- Surface Water (S)
- Treated Effluent (E)
- Unknown(Z)

Capped End
- Abandoned
- Accepted
- Adopted
- In Use
- Isolated
- Not Applicable
- Planned
- Proposed
- Removed
- Unknown

Hatchbox
- Abandoned
- CSO (O)
- Combined (C)
- Foul (F)
- Isolated
- Natural Water (W)
- Other
- Proposed
- Surface Water (S)
- Trade Effluent (T)
- Treated Effluent (E)
- Unknown

Hydraulic Control Chamber
- Abandoned
- CSO (O)
- Combined (C)
- Foul (F)
- Natural Water (W)
- Planned
- Proposed
- Surface Water (S)
- Trade Effluent (T)
- Treated Effluent (E)
- Unknown

Inlet
- Abandoned
- CSO (O)
- Combined (C)
- Foul (F)
- Natural Water (W)
- Other
- Proposed
- Surface Water (S)
- Treated Effluent (E)
- Unknown

Rodding Eye
- Abandoned
- CSO (O)
- Combined (C)
- Foul (F)
- Isolated
- Natural Water (W)
- Other
- Proposed
- Surface Water (S)
- Trade Effluent (T)
- Treated Effluent (E)
- Unknown
- Unknown(Z)

Non-return Valve
- Abandoned
- CSO (O)
- Combined (C)
- Foul (F)
- Natural Water (W)
- Proposed
- Surface Water (S)
- Treated Effluent (E)
- Unknown

Lamphole
- Abandoned
- CSO (O)
- Combined (C)
- Foul (F)
- Natural Water (W)
- Proposed
- Surface Water (S)
- Treated Effluent (E)
- Unknown

Outfall
- Planned
- Abandoned
- CSO (O)
- Combined (C)
- Foul (F)
- Isolated
- Natural Water (W)
- Proposed
- Surface Water (S)
- Trade Effluent (T)
- Treated Effluent (E)
- Unknown
- Unknown_

Pond

Trench

Sluice Valve
- Abandoned
- CSO (O)
- Combined (C)
- Foul (F)
- Isolated
- Natural Water (W)
- Other
- Proposed
- Surface Water (S)
- Trade Effluent (T)
- Treated Effluent (E)

Unknown End
- Abandoned
- Unknown End

Washout
- Abandoned
- CSO (O)
- Combined (C)
- Foul (F)
- Natural Water (W)
- Other
- Proposed
- Surface Water (S)
- Trade Effluent (T)
- Treated Effluent (E)
- Unknown

Wetland

Vent Column

Pipes

Gravity Pipe
- Abandoned
- CSO (O)
- Combined (C)
- Foul (F)
- Natural Water (W)
- Proposed
- Surface Water (S)
- Trade Effluent (T)
- Treated Effluent (E)
- Gravity Pipe General

Gravity Pipe
- Abandoned
- CSO (O)
- Combined (C)
- Foul (F)
- Natural Water (W)
- Proposed
- Surface Water (S)
- Trade Effluent (T)
- Treated Effluent (E)
- Gravity Pipe General

Connection (Lateral)
- Abandoned
- Combined (C)
- Foul (F)
- Proposed
- Surface Water (S)
- Trade Effluent (T)
- Treated Effluent (E)
- Connection (Lateral) General

Rising Main
- Abandoned
- CSO (O)
- Combined (C)
- Foul (F)
- Proposed
- Surface Water (S)
- Trade Effluent (T)
- Treated Effluent (E)
- Rising Main General

Rising Main
- Abandoned
- CSO (O)
- Combined (C)
- Foul (F)
- Proposed
- Surface Water (S)
- Trade Effluent (T)
- Treated Effluent (E)
- Rising Main General

Syphon
- Abandoned
- CSO (O)
- Combined (C)
- Foul (F)
- Natural Water (W)
- Surface Water (S)
- Treated Effluent (E)

Please note the plans provided by Scottish Water Horizons (SWH) or Scottish Water (SW) are subject to the following conditions:

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