



HOUSING DEVELOPMENT AT HILLSIDE FARM, DUFFTOWN

Feasibility Study Report

April 2022



Suite 2a, Etive House, Beechwood Business Park, Inverness, IV2 3BW



REPORT CONTROL SHEET:

CLIENT: Communities Housing Trust

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1.0 Introduction & Brief

Caintech were appointed to provide advice in relation to determining a solution for the disposal of foul & surface water, providing a water supply, confirming access arrangements and provision of utilities from a proposed housing development in the burgh of Dufftown. Following a review of all the information provided, we comment as follows: -

2.0 Site Investigation

No formal site investigation works have been carried out to date; however, an initial site visit and walkover was undertaken in March 2022. A detailed and intrusive ground investigation will be required prior to any future planning application being submitted so that a solution for foul and surface water disposal from the development in particular can be assessed fully. The ground investigation will also provide information to assist with the design of the access road, water supply and all building foundations.

For the purposes of this report, we will highlight all the options potentially available for the disposal of foul and surface water from the development based on the information available at present.

3.0 Site Access & Core Path Connections

The Moray Local Development Plan states that the entrance gateway for the development should be on the south side and adjacent to the interface between the existing roads named Conval Crescent and Market Leys. The area which has been identified for the site entrance currently contains a number of mature trees. The largest of these trees are located between the site boundary and Market Leys. Careful consideration of the route into the site and liaison with the council forestry department will be required to ensure that any disruption to these trees is minimal.

The existing interface between Conval Crescent, Market Leys and the B9009 (Conval Street) involves two relatively sharp turns in quick succession if entering Market Leys from the B9009. Given the scale of the proposed development and the volume of traffic which it will generate, it is likely that this arrangement will need to be improved. Early liaison with Moray Council will be essential to determine what alterations can be made to the existing road in and around the proposed entrance gateway.

The change in speed limit from 30mph to 60mph on the B9009 is currently located just beyond the entrance onto Conval Crescent (on the west side of the existing junction). Given the proposal to provide an entrance gateway to the development site is proposed to be close to this point, we would recommend that the 30mph speed limit on the B9009 is extended further west. From looking at this section of road during the site visit, it would appear that a sensible place to extend the speed limit to is to just beyond the access into the Scottish Water storage reservoir which is approximately 180m west of its current position. A traffic regulation order (TRO) will be required to obtain permission for any extension of the existing speed limits. We would recommend liaison with Moray Council at as early a date as is feasible to open discussions regarding any potential extension of the existing speed limits.



3.0 Site Access & Core Path Connections (cont.)

The Moray Local Development Plan also states that road improvements are required for Hill Street, on the north side of the development site. As will be mentioned in more detail in section 4.0, to allow for a new section of sewer to be laid and provide the development with a connection into the public sewer network, a currently un-adopted section of Hill Street (section of road which provides access to Hillside Farm) is an un-surfaced 'track'. Although no vehicle access from the development site onto Hill Street is proposed at present as it would provide a 'rat run' for vehicles looking to avoid a section of the town centre, the local development plan states that the un-adopted section of Hill Street is to be upgraded so that it matches the remainder of Hill Street. Road widening, street lighting, road drainage and a pedestrian footway are all likely to be required. An application to Moray Council for a road construction consent (RCC) is likely to be required to cover this work. Early liaison with Moray Council is advised to clarify their requirements for this element of the development.

Improvements to the junction between Hill Street and Balvenie Street are also listed in the local development plan as being required. At present, any vehicle leaving Hill Street and entering Balvenie Street have to do so by using an existing junction which has limited visibility in both directions due to existing buildings which are located on the west and east sides of the junction (if approaching Balvenie Street via Hill Street). During the site visit, it was noted that there are no simple improvements which could be made to this junction. The only potential option would be to change the junction to a traffic signal controlled junction however, the cost for something such as this may not be feasible. It was also noted during the site visit that vehicles (including farm traffic from Hillside Farm) regularly avoid the aforementioned junction between Hill Street and Balvenie Street by turning onto Old Mart Road and subsequently onto the Dufftown Industrial Estate Road. The junction between Dufftown Industrial Estate Road and Balvenie Road provides vehicles with improved visibility on the east side of the junction (if approaching Balvenie Street via Dufftown Industrial Estate Road).

As mentioned above, at present there is no intention to provide a vehicle link from the development onto Hill Street. This will therefore mean that there would be no increase in vehicular traffic on Hill Street and as such, clarity would need to be sought from Moray Council with regards to any junction improvements between Hill Street and Balvenie Street.

The local development plan states that footpath links will need to be provided from the development to the existing path between Westburn Road & Kinivie Court and the existing path in Hillside Avenue. Pedestrian access onto Hill Street could also be provided and tie in with the proposed extended footpath on the south side of Hill Street itself. All footpath links listed above will need to be considered when the development masterplan is being designed.

It is more than likely (and has been stated in the local development plan) that a transport assessment will need to be carried out to support any future planning application. This assessment and report will need to be carried out by suitably qualified transport engineer and is likely to involve speed analysis surveys of the nearby local access roads.



4.0 Foul Water Disposal

The options available for the disposal of foul water (in accordance with SEPA Regulatory Method WAT-RM-03 & SEPA Regulatory Method WAT-RM-04) from the development are therefore;

- Connection to public sewer
- Infiltration system
- Discharge to a suitable watercourse following treatment

There are a number of public foul and combined (foul and surface water within one pipe) sewers in and around the development site. The majority of these sewers are located to the east/south-east side of the site and within existing housing developments (Kinivie Court and Hillside Avenue). The location of these sewers means that it would be difficult to find a clear route from the site to a point where a connection can be achieved as this would mean having to cross areas of privately owned land and or private gardens.

Therefore, the most feasible point of connection into the public sewer network for the foul sewer which is to serve the development (subject to consent from Scottish Water) is to connect into the existing combined sewer which is located within Hill Street (at its junction with Kinivie Court). To achieve a connection into this sewer, a section of new foul sewer would need to be laid from the junction between Kinivie Court heading in a westerly direction beneath Hill Street for a distance of approximately 250m. A topographical survey of the route of the sewer along with confirmation of the depth of the existing sewer at the point where a connection is proposed would be required to confirm the feasibility of this proposal.

One important factor to consider at this stage is that from looking at the Moray Council 'List of Public Roads' document, the section of Hill Street from its junction with Kinivie Court which heads in a westerly direction is currently *not* under the ownership of Moray Council. It is therefore assumed (subject to confirmation from Moray Council and/or Scottish Water) that this section of road will need to be upgraded to an adoptable standard (asphalt construction) to allow for the section of new sewer to be laid and provide a foul sewer connection from the development to the public sewer.

From looking at the sewer level information provided on the Scottish Water record plans and comparing it with the ground level information obtained from online mapping software, it would appear that the entire development should be able to connect into the public sewer by gravity however, design levels would need to be checked before this can be confirmed, particularly in the north-west corner of the site. The extent of the proposed foul sewer which Scottish Water would be willing to adopt would be confirmed once detailed design work has been finalised and an application for approval has been made to Scottish Water.

A PDE (pre-development enquiry) application has been submitted to Scottish Water to determine whether there is capacity within the public sewer network and local wastewater treatment works to accommodate foul water flows from the development. The enquiry has been based on a maximum of 100 domestic dwellings. Scottish Water have confirmed that there is currently insufficient capacity within the local wastewater treatment works to accommodate foul water from the proposed development. The PDE response received from Scottish Water is valid until 19th April 2023.



4.0 Foul Water Disposal (cont.)

Scottish Water have confirmed that they have funding available to invest in existing treatment works for proposed new developments, provided that certain criteria are met. Information (five points of growth) will need to be submitted to Scottish Water to allow them to initiate a growth project which will ultimately provide clarity in terms of if and when they would be in a position to upgrade the local wastewater treatment works to allow the proposed development to be built. Confirmation of site ownership and confirmation that the site has outline or full planning permission are two of the points which need to be clarified to allow Scottish Water to commence with their growth project.

Refer to the Scottish Water sewer record plan and PDE response for further details and information.

5.0 Surface Water Disposal

A Drainage Impact Assessment (DIA) will be required to support any future planning application. This report should detail the proposals for both foul and surface water disposal from the development. The foul and surface water drainage design for the development will need to comply with The SUDS Manual (CIRIA C753) and Sewers for Scotland – 4th Edition, along with satisfying both SEPA and Moray Council Flood Risk Management Team.

The SEPA flood map which can be accessed online shows that the development site is not in an area which is affected by pluvial or fluvial flooding. A Flood Risk Assessment (FRA) may still be required to support any future planning application however, this requirement would need to be confirmed during any pre-app process.

Main Access Road & Footway

It is assumed that the main access road and any footway serving the development (layout to be confirmed) will be formed with an asphalt type construction. We would recommend that surface water run-off from the main section of new access road and any new footway serving the development will be collected by traditional road gullies and discharged into a new uPVC surface water sewer (beneath the access road itself).

The surface water sewer would convey surface water run-off to the north-west side (assumed to be at the lowest ground level or thereabouts) of the development site where it will discharge into a detention basin. The results of the future ground investigation will determine the design of detention basin however, for the purposes of this report, a 'worst case scenario' type approach has been assumed whereby all surface water will need to be collected, retained, and released into a nearby body of water at a controlled rate (rate to be confirmed by the Moray Council flood team).

The basin would be formed with grass side slopes (1 in 4 gradient where achievable) and a grass base. The base of the basin would be as flat as is achievable to allow effective disposal of surface water run-off. A gravel track (and protective fence, if required) would be provided around the perimeter of the basin to allow for maintenance and inspection by Scottish Water. The basin would need to be sized to accommodate surface water flows from up to a 1 in 200 year storm and the size of basin required can be confirmed once a more detailed development layout plan is provided. Early liaison with Scottish Water, SEPA and the Moray Council Flood Team is recommended to determine if the above proposal will be acceptable to them.

The outlet from the detention basin would need to be conveyed into a suitable watercourse. The closest watercourse to the site (Hillside Burn) is located on the north side of Hill Street. It is envisaged that the outfall pipe from the detention basin will be located to the west of Hillside Farm, within an area which is currently populated with a mixture of trees and shrubs.



5.0 Surface Water Disposal (cont.)

Any outfall from the SUDS basin would need to be located within an area of land which is out with the extent of the development site. The appropriate consent from the landowner would therefore be required for this element of the surface water infrastructure.

Similar to achieving a gravity connection into the public sewer, careful positioning of any buildings will be required to ensure that surface water run-off from all areas of the site can be discharged into the proposed detention basin.

Prior to the design of the detention basin being finalised, we would also recommend that detailed site investigation works are carried out within the area where the detention basin would be situated. The detailed site investigation works required would comprise of the installation of boreholes or a number of deeper trial holes across the length of the basin, to check for confirmation of the groundwater level.

The local development plan states that the development shall have no adverse effect on the River Spey SAC (special area of conservation). Using the 'simple index approach' as set out in the CIRIA SUDS Manual 2015, the provision of a basin will be suitable for providing sufficient treatment to meet the pollution hazard index for this part of the development (pollution hazard level = low).

Roof Water Disposal

We would recommend that roof water run-off from all proposed buildings discharges into the new surface water sewer. A disconnecting manhole for each dwelling would be provided at the edge of each plot.

Using the 'simple index approach' as set out in the CIRIA SUDS Manual 2015, the provision of a basin will be suitable for providing sufficient treatment to meet the pollution hazard index for this part of the development (pollution hazard level = low).

6.0 Water Supply

There is an existing 150mm diameter ductile iron water main located within the development site. This pipe crosses the site in a south to north direction and (according to the Scottish Water record plans) is located adjacent to the west boundary of the property named Ben Aigan, at the south side of the development site and exits the site approximately 50 metres to the west of the property named Hawthorn Cottage, on the north side. Given the number of dwellings proposed for this development, the minimum diameter of new water main which will be required (in accordance with Water for Scotland) equals 110mm.

Depending on the configuration of the site layout, the existing water main will need to be diverted to avoid any clashes with new buildings etc. There is potential that the existing main could be diverted through the development site to allow for new connections for the proposed dwellings to be taken from it and thus avoid laying a completely new water main to serve the development site however, this would need to be clarified by Scottish Water.



6.0 Water Supply (cont.)

The response to the PDE application submitted which has been received from Scottish Water has provided clarity on the minimum setback distances from buildings to the existing water main. Scottish Water have also confirmed that there is currently sufficient capacity within the local water treatment works (Badentinan Water Treatment Works) for the proposed development (100 houses). The PDE response received from Scottish Water is valid until 19th April 2023.

Scottish Water have also confirmed that flow and pressure tests will need to be carried out on the existing water supply in and around the site so that they can determine if there will be sufficient flow and pressure to be able to serve the proposed development. These tests will need to be carried out by an approved contractor and the location of the tests will be determined by Scottish Water themselves. We would also recommend early liaison with the fire authority to clarify the requirements for hydrant/firefighting supply.

There are a number of other existing water mains in and around the development site. The majority of these are located to the east/south-east side of the site and within existing housing developments (Kinivie Court and Hillside Avenue). The location of these pipes means that it would be difficult to find a clear route from the site to a point where a connection can be achieved as this would mean having to cross areas of privately owned land and or private gardens.

Refer to the Scottish Water public water supply record plan and PDE response for further details and information.

7.0 Telecoms Connection

There is existing Openreach infrastructure on the north, south and east sides of the development site.

An initial enquiry will need to be sent to Openreach to determine if there are any restrictions with providing new telecom supplies for the proposed development once a development plan has been produced. Refer to the Openreach existing infrastructure plan for the location of the existing cables and other infrastructure.

8.0 Electricity Connection

There are existing low voltage electricity cables on the north, south and east sides of the development site. An 11kV cable is shown to be located on the north side of Hill Street however, this cable appears to terminate at the existing Dufftown Football Club ground.

An initial enquiry was sent to Scottish & Southern Electricity to determine if there are any restrictions with providing new electricity supplies for the proposed development and for them to provide a budget estimate of the likely costs involved in providing electricity to the site. Refer to the letter and preliminary design plan received from SSE regarding the budget estimate. Refer to the Scottish & Southern Energy existing infrastructure plan for the location of the existing cables and other infrastructure.



9.0 Gas Connection

There are existing gas supply pipes on the north, south and east side of the development site. The ownership of these pipes differs between SGN and ESP Utilities Group.

If gas connections are to be sought for the development, an initial enquiry will need to be sent to each provider to determine if there are any restrictions with providing new electricity supplies for the proposed development once a development plan has been produced. Refer to the existing infrastructure plans for the location of the existing gas pipes.

10.0 General Recommendations

Once the development layout plan has been finalised, we would recommend that CBR (California Bearing Ratio) tests are carried out as early as is possible (this could potentially be included when carrying out the ground investigation for the whole development) along the centreline of any proposed access roads to allow for evaluation of the subgrade strength and provide data to assist with the design of the new road. This will provide valuable information regarding the required depth of the sub-base beneath the road itself which will be required when submitting an application to Highland Council for Road Construction Consent.

Prior to submitting an application for full planning permission, we would recommend that pre-application advice is sought from Moray Council as this will provide advice from all relevant governing bodies and also highlight any concerns from each which may have an effect on the extent of the development.



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1 – Extract from Local Development Plan

Developers are referred to page 1 for additional notes on Placemaking, Infrastructure, Transportation, Developer Obligations, Key Design Principles and Landscaping definitions.

HOUSING

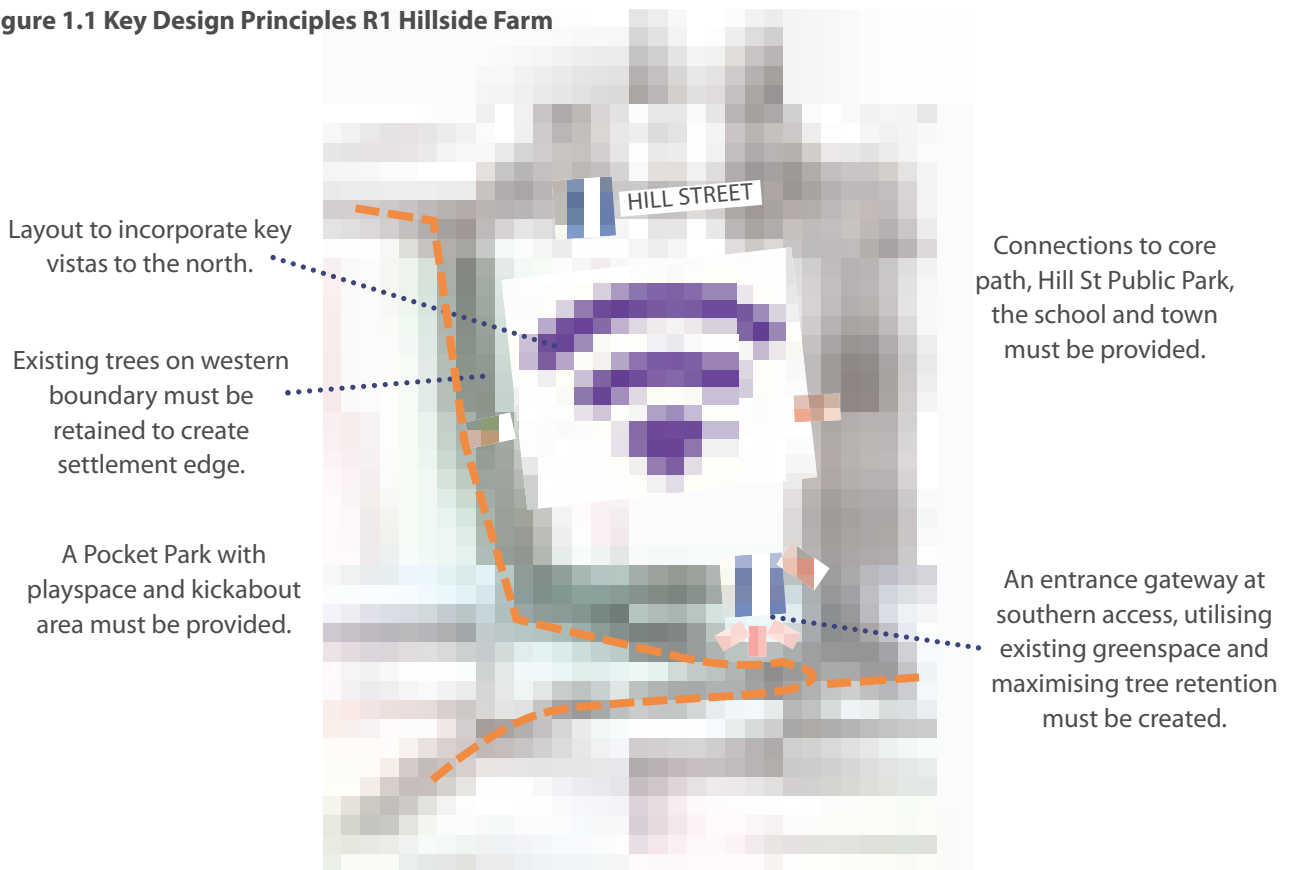
R1 Hillside Farm 4.3ha 100 units



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- Proposals must comply with key design principles set out in Figure 1.1.
- Transport Assessment required.
- Road improvements required to Hill Street to provide access including road widening, surfacing, drainage, footways and lighting.
- Junction improvements to Hill Street/Balvenie Street must be provided.
- Footpaths must be provided from development to existing path between Westburn Road and Kininvie Court and to Hillside Avenue
- Flood Risk Assessment (FRA) required.
- Drainage Impact Assessment (DIA) required.
- Demonstrate that there will be no adverse effect on the integrity of the River Spey Special Area of Conservation (SAC) from development activity causing pollution or sediment to reach the SAC, or changes to water quality and quantity.

Figure 1.1 Key Design Principles R1 Hillside Farm





2 – Photographs between Hill Street and Balvenie Street



Image A – Showing junction between Kininvie Court and Hill Street. Unadopted section of Hill Street extends into the distance



Image B – Showing existing Scottish Water sewer manhole at junction between Kininvie Court and Hill Street

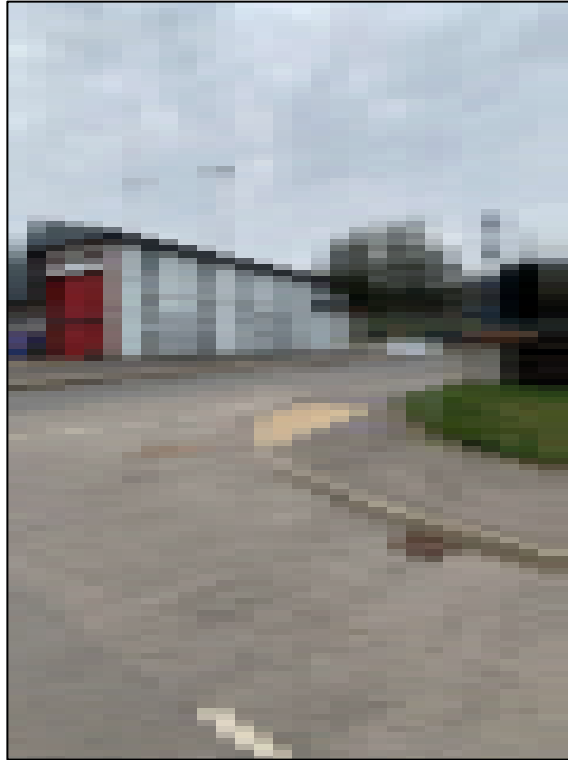


Image C – Showing junction between Hill Street and Old Mart Road



Image D – Looking north along Old Mart Road

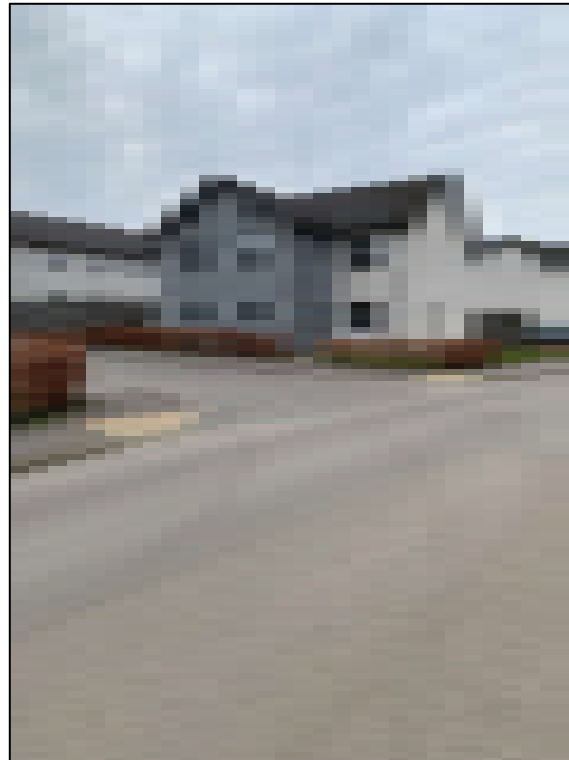


Image E – Showing junction between Old Mart Road and Dufftown Industrial Estate Road



Image F – Showing junction between Dufftown Industrial Estate and Balvenie Street

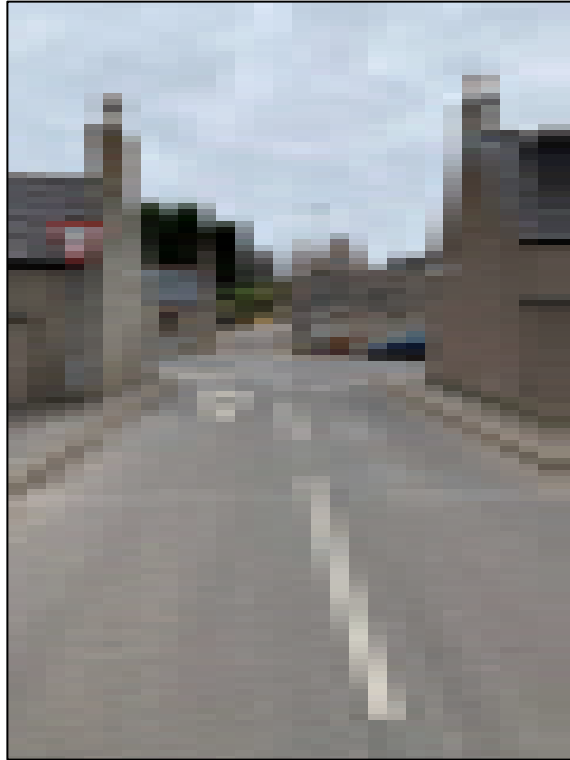


Image G – Showing junction between Hill Street and Balvenie Street (looking east)



Image H – Showing junction between Hill Street and Balvenie Street (looking west)



3 – Photographs at Proposed Site Access/B9009 Road



Image A – Looking towards point of proposed site access (taken from Conval Crescent)



Image B – Showing existing junction between B9009 road, Conval Crescent and Market Leys

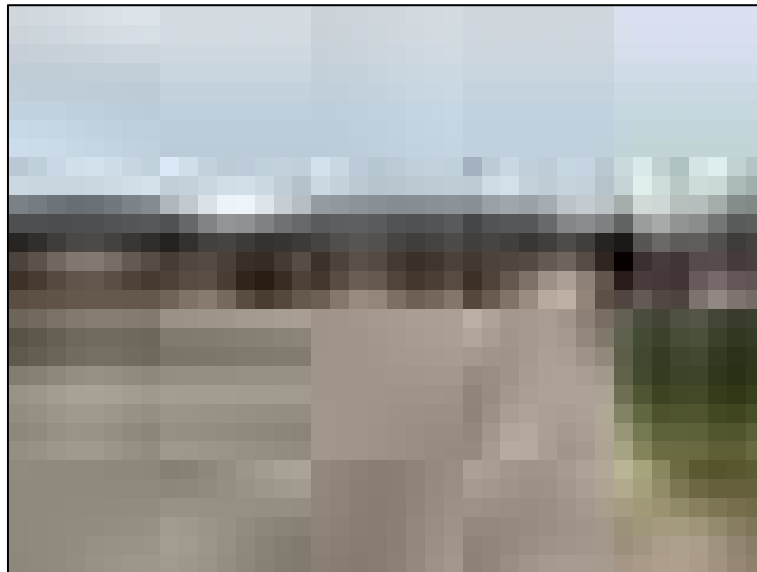


Image C – Showing entrance to Dufftown on B9009 road with position of current speed limit change




Image D – Looking west along B9009 road (towards possible point where speed limit change could moved to)



4 – Scottish Water PDE Response Letter


Tuesday, 19 April 2022

Kevin Tough
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IV1 1SU



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Buchanan Gate Business Park
Cumbernauld Road
Stepps
Glasgow
G33 6FB

Development Operations
Free phone Number - 0800 389 0379
E-Mail - developmentoperations@scottishwater.co.uk
www.scottishwater.co.uk



Dear Kevin Tough,

Hill Street, , Dufftown, AB55 4AF
Pre-Development Enquiry Application – Network Assessment Required
Our Reference: DSCAS-0061415-YZV

Thank you for your recent application regarding the above proposed development. Please note our reference number above, which should be quoted on all future correspondence.

Capacity Assessment

Number of Housing Units reviewed: (100)

Scottish Water has carried out a Capacity review and we can confirm the following:

- ▶ There is currently sufficient capacity in the Badentinan Water Treatment Works to service your development.
- ▶ There is currently insufficient capacity in the Dufftown Waste Water Treatment works to service your development.

Network Assessment

Further studies are required to be carried out to determine if our existing water network can adequately service the demands of your development, or if any mitigation/enhancement work is necessary -

Water: A Flow and Pressure test (F&PT) is required for this development.

You may appoint your preferred consultant to undertake these works, or alternatively, if you wish Scottish Water to obtain a quote on your behalf, we will arrange this via one of our commercial partners who will contact you directly.

Please contact Scottish Water to confirm how you wish to proceed via [our portal](#) or contact Development Operations.

Scottish Water is committed to assisting development in Scotland and has funding under our current investment period to upgrade our water and waste water treatment works however our regulations from the Scottish Executive for our current investment programme state that should your development require Scottish Water networks to be upgraded this cost will have to be met by the developer; Scottish Water may contribute towards the cost of these works, including the required study, via Reasonable Cost Contribution regulations.

Growth Project

After careful review of the development proposals submitted, we would advise that the Dufftown Waste Water treatment works does not currently have sufficient capacity to service your proposed development at this time.

Scottish Water is committed to supporting development through our investment programme and will work with you to allow your community to grow.

We have funding to invest in treatment works where there is proposed new development provided that certain criteria are met. In order to initiate a growth project, we require developers to submit information to show that a project is needed to expand the local treatment works. I would be grateful if you could confirm the following 5 points below in writing, in relation to your proposed development.

5 Points of Growth

1. Please confirm land ownership or control through a solicitor's letter showing confirmation and/or control.
2. Please confirm that the development is supported by the local plan and has outline or full planning permission by way of planning reference. If planning permission has been refused because of water and/or wastewater issues only, you should confirm this in writing.
3. Please confirm time remaining on the current planning permission.
4. Please confirm plans are in place to mitigate any network constraints that will be created by the development through a minute of agreement with Scottish Water. Alternatively, a letter showing commitment to mitigate network impact through Part 3 investment will confirm this position.
5. Please demonstrate your reasonable proposals in terms of annual build rate within the approved development.

Please provide Scottish Water with the above information via [our portal](#) or contact Development Operations

Please Note

- ▶ This response is valid for **12 months** from the date above and may be subject to further review

- ▶ **Surface Water:** This capacity response has been issued on the basis that surface water from this development will be drained to a watercourse. All drainage should be designed in accordance with the most recent version of Sewers for Scotland.
- ▶ **Infrastructure within the Site Boundary:** The above project has come for review to the Asset Impact/Service Relocation Team due to existing Scottish Water apparatus within the site boundary. The attached GIS records indicate Scottish water apparatus within the site that could be in potential conflict with the new development.

Please note that Scottish Water records are indicative only and your attention is drawn to the disclaimer at the bottom of this email. It is your responsibility to accurately locate the position of the pipe on site to ensure that it is not damaged during these works. All due care must be taken when working in the vicinity of Scottish Water assets, you should seek our support accordingly prior to any excavation works.

WATER

The GIS indicates that there is a 150mm DI Strategic water distribution main within the site boundary. There are two critical issues relating to how close you can build to the above water main

1. Access Distance

The Access Distance is the legally supported distance, required to facilitate future SW access to allow repair, maintenance or renewal of the water main in every direction (e.g. at the end of a water main or at changes of direction). The Access Distance will be measured from the extreme edge of the pipe.

No development that will restrict our access or put at risk the integrity of our assets is permitted within the Access Distance.

The Access Distance for the 150mm Strategic distribution water pipe is 3 metres either side from the outside edge for the pipe.

2. Stand-off Distance

a. This is the recommended distance to minimise the risk of damage to adjacent properties and structures in the event of a water main failure.

b. It is suggested that this distance may include garden areas but should not include inhabited structures.

No buildings, structures, suds ponds or other obstruction should be located within the Access Distance. With respect to the Stand-off distance as described above Scottish Water requires developers to seriously consider the consequences of a possible mains failure. The Stand-off distance is calculated using WSSC guidelines and is dependent on the water pressure in the main which. A flow and pressure test will give the exact pressure within the pipes.

General Note

Scottish Water's current minimum level of service for water pressure is 1.0 bar or 10m head in the public main. Any property which cannot be adequately serviced using this pressure may require private pumping arrangements installed, subject to compliance with the current water byelaws.

Scottish Water is unable to reserve capacity and connections to the water & wastewater networks can only be granted on a first come first served basis. For this reason, we may have to review our ability to serve the development on receipt of an application to connect.

I trust the above is acceptable however if you require any further information regarding this matter please contact me on **0800 389 0379** or via the e-mail address below.

Yours sincerely

David Craig

Development Operations Analyst

Tel: 0800 389 0379

developmentoperations@scottishwater.co.uk

Scottish Water Disclaimer:

"It is important to note that the information on any such plan provided on Scottish Water's infrastructure, is for indicative purposes only and its accuracy cannot be relied upon. When the exact location and the nature of the infrastructure on the plan is a material requirement then you should undertake an appropriate site investigation to confirm its actual position in the ground and to determine if it is suitable for its intended purpose. By using the plan you agree that Scottish Water will not be liable for any loss, damage or costs caused by relying upon it or from carrying out any such site investigation."



5 – Scottish Water Public Sewer Network Plan



Warning! Damaging a large diameter storm 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 British Water to arrange a pre-work **FREE TRENCH SURVEY BY ADVANCE OF THE WORK**.

J4471 - Sewer

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 Date Printed: 24/03/2012

SCALE: 1:661

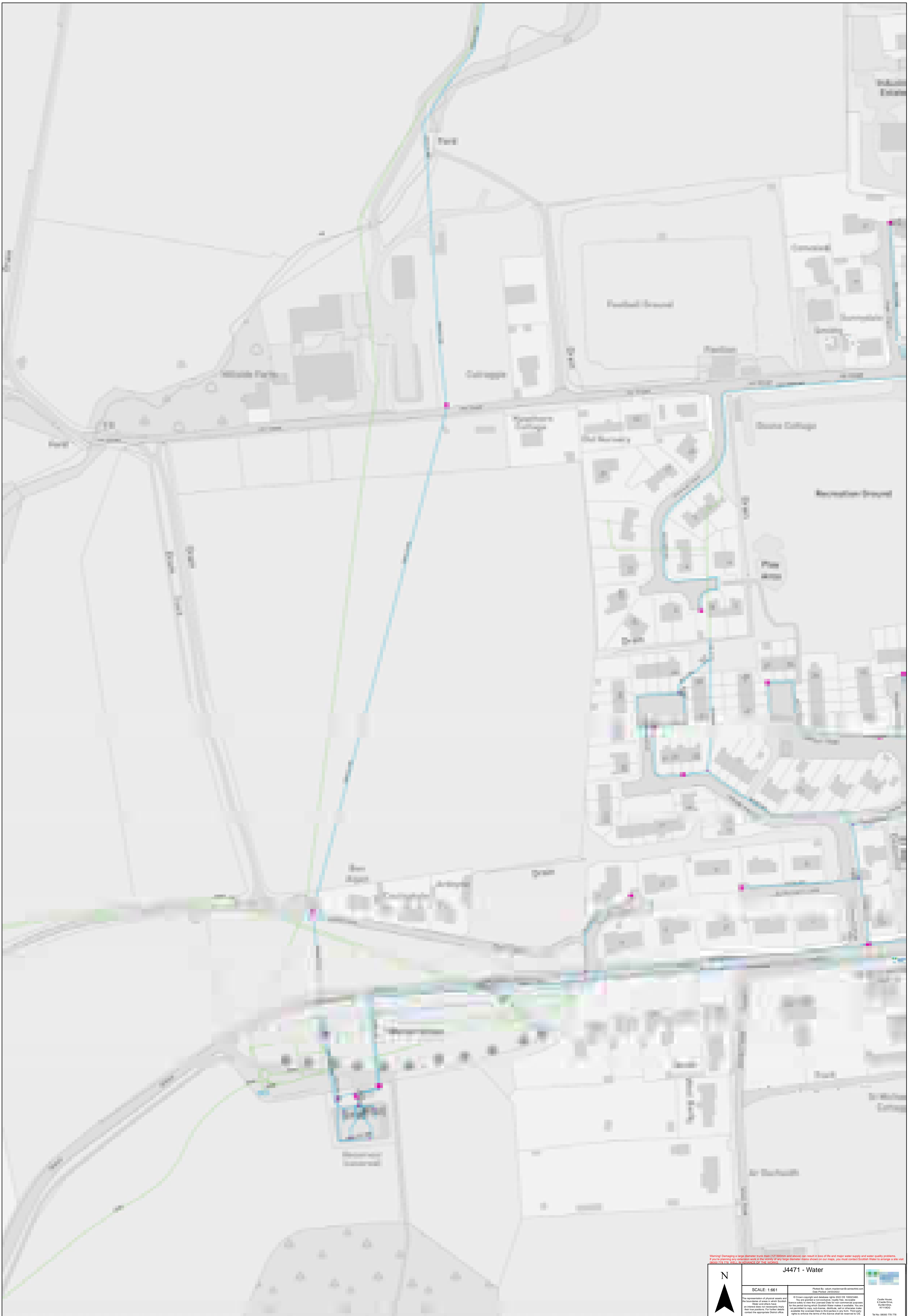
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6 – Scottish Water Public Water Supply Network Plan



Warning: Damaging a large diameter 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 British Water to arrange a pre-work **0800 776 776** **IN ADVISANCE OF THE WORK**.

J4471 - Water

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 Date Printed: 24/03/2012

SCALE: 1:661

The representation of pipework sizes and the location of valves and other features shown on this map are for information only. For the latest information on any changes to the network, please contact British Water on 0800 776 776. The map is not to be used for any other purpose without the approval of British Water.

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British Water
 0800 776 776



7 – Openreach Network Plan





8 – SSE Budget Estimate & Existing Network Plans



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www.ssen.co.uk

Our reference: EWG796

Your reference: n/a

25th April 2022


PROPOSED ELECTRICITY CONNECTION TO:

Housing Development at Hillside Farm, Dufftown, Kieth, Banffshire, AB55 4AF

Dear Mr Kevin Tough,

Thank you for your recent enquiry. We have carried out a preliminary assessment of the works required to make connection to the distribution network in the area and we are pleased to provide you with our findings along with an estimate of the costs for the option identified. Please note that we have not carried out any detailed design work or network impact analysis. This budget estimate is provided as a result of a preliminary assessment only and possibly without any site specific considerations being taken into account. A budget estimate is not a formal offer for connection and cannot be accepted by you. The initial proposals will be subject to obtaining all necessary legal consents to carry out the work, including any consent required from third parties.

The estimate we provide at this stage may vary considerably from any further budget estimate or the price in any formal connection offer, particularly in regards to the cost of reinforcement works. This is explained further in this budget estimate.

Budget estimate in the region of:  **365,000.00**

This budget estimate has been calculated exclusive of VAT and does not constitute an offer of terms.

The budget estimate has been calculated based on a high level assessment, the information you have provided and the assumptions listed within this letter. It is my best estimate of the costs you would incur for this proposal and is intended for budgetary purposes only. This estimate cannot be guaranteed.



This estimate does not include any assessment for temporary diversion or traffic management requirements. Any necessary reinforcements, temporary diversions or traffic management requirements would be confirmed in a formal connection offer, and part or all of the cost of these reinforcements would be included in the connection charge.

Any documents, drawings or figures provided as part of this budget estimate are indicative only.

There are Independent Connection Providers (ICPs) and Independent Distribution Network Operators (IDNOs) who may be able to provide you with an alternative quotation to carry out some of this work. Please refer to www.lloydsregister.co.uk for further details.

Description of proposed works and assumptions

Extend HV network network and install LV infrastructure to supply 100no. domestic new build properties. A total load of 2,750kVA (27.5kVA per plot) has been requested by the developer.

This estimate is based on the customer carrying out all excavation and reinstatement works and providing all internal containments for cables. I have included in this estimate a cost for the diversion of our existing cables and equipment that may be affected by your proposed development.

The initial proposal includes the installation of 3no. new Distribution Substation on up to a 5m x 5m plot each. The land for this will be provided by the customer at no cost to us. All associated legal costs shall be borne by the customer.

Our budget cost is based on the following:

- A suitable Point of Connection (POC) will be available at the location illustrated in the attached Design Document.
- The extension from the existing 11kV network will be afforded by 2no. HV cables which will 'loop' into 3no. Substation to be located within the development.
- From the new substations suitably sized LV distributor cables will be installed within the footpaths of the new development.
- All properties are assumed to be low rise. 100no. three phase services will be installed to each domestic property from an adjacent main. The developer is to provide suitable accommodation in all 100no. plots for SSE's incoming electrical services terminations at ground level.
- Its has been assumed that the land is not contaminated. No allowance has been made for specialist civils works e.g bridge crossings.

The initial proposal includes installing cable on third party land. Should you request a formal offer, consent from third parties may be required prior to commencement of works. This may affect the charge for the proposed connection.

We have not carried out detailed design work or network studies to confirm that the network can accommodate the requested capacity of demand import. There is therefore no guarantee that this level of





capacity will be available without completing further studies. As we have only carried out preliminary off-site investigations, physical, technical and wayleave assessments may mean that the proposals are not practical.

Any network assessment carried out as part of a formal connection offer, will take into account these works and you may be required to pay an apportioned part of network investment. Further information can be found on our Network Capacity maps:

<https://www.ssen.co.uk/ContractedDemand/>

Please also be aware that any formal connection offer will be made under our current Connection Charging Methodology Statement. If you do progress with a connection then there may also be charges applied for the use of the distribution network, as set out in our Use of System Charging Statements. Copies of our charging statements can be found on our website at:

<https://www.ssen.co.uk/Library/ChargingStatements>

If you would like to discuss any aspect of this budget estimate please feel free to contact me at the details provided at the top of this letter. Otherwise if you'd like to progress towards a formal connection offer, please contact connections@sse.com quoting your reference number which can be found at the top of this letter. You can find further information regarding our process for new connections by visiting:

www.ssen.co.uk/Connections/UsefulDocuments.

We look forward to hearing how you wish to progress with your project. Alternatively, you can find answers to any questions you may have on our web site www.ssen.co.uk.

Yours sincerely,

Aileen Bebbington

Connections Designer

Please note:

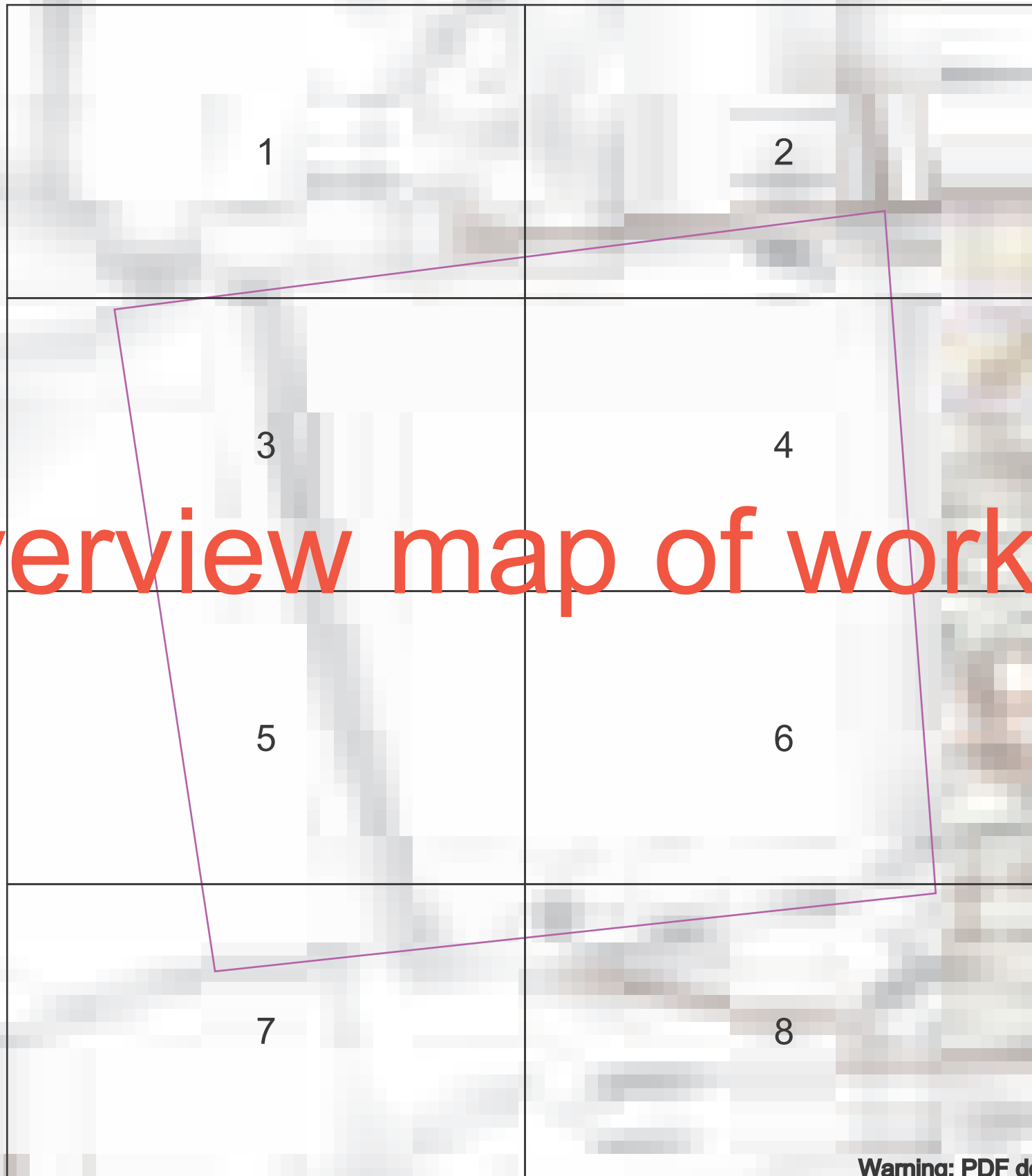
- All HV / LV electric cables and mains will be installed on a lay only basis. All excavation, backfilling and reinstatement will be by others at no cost to SSE.
- SSE to install 3no. Ground Mounted Substations housed in SSE standard GRP Enclosures.
- Concrete plinths for substations by Developer.

Extension of the HV network will be afforded by 2no. 11kV HV cables which will loop into 3 no. new substations.

Assumed POC
2 x Straight Joints onto existing 11kV HV cable

EWG796

Overview map of worksite



Warning: PDF designed for A3 colour print only with no page scaling

Dig Sites Area: Line:

Date Requested: 24/03/2022
 Job Reference: 25134040
 Site Location: 331805 840078
 Requested by:
 Mr Calum MacLennan
 Your Scheme/Reference:
 Dufftown

WARNING
 There may have been subsequent alteration to the surface levels. Trial holes must be undertaken to determine position and depths of cables. HS (G) 47 Booklet from the Health and Safety Executive – Avoiding Danger from Buried Cables – should be consulted before commencing excavation work.

WHEN WORKING IN THE VICINITY OF OVERHEAD LINES THE HEALTH AND SAFETY GUIDANCE NOTES GS6 SHOULD BE CONSULTED (AVAILABLE FROM THE HSE WEBSITE)

Scale: 1:2050 (When plotted at A3)

Voltages (V)	
LV (Low Voltage) and Services	Up to 1,000V
HV (High Voltage)	Over 1,000V to 11,000V
EHV (Extra High Voltage)	22,000V to 132,000V
Transmission	275,000V and 400,000V

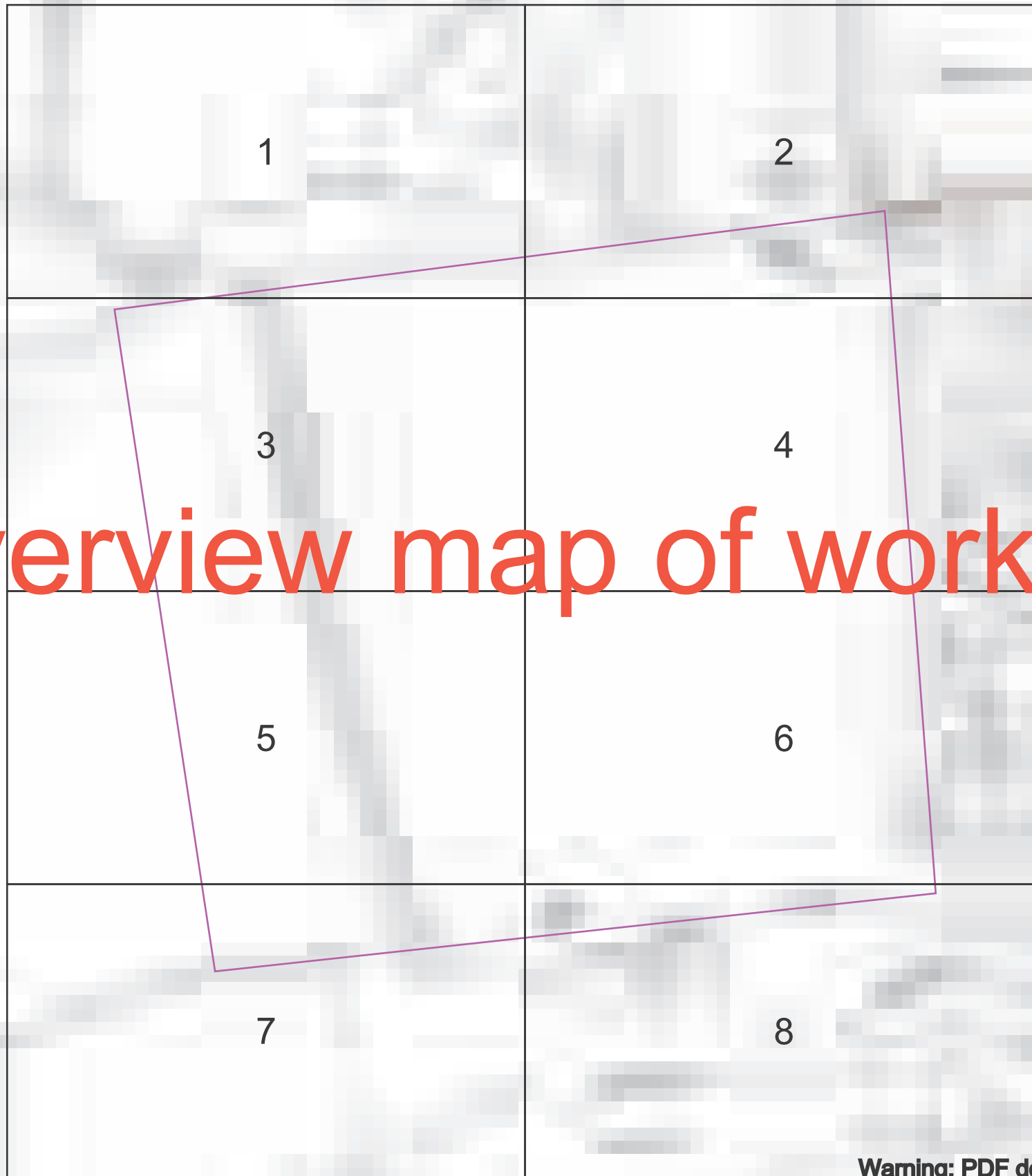
NORMAL DEPTH TO THE TOP OF THE CABLE WHEN LAID				
Services	LV	HV	EHV	
Footpath/Unmade	0.45m	0.45m	0.6m	0.8m
Road Crossing	0.6m	0.6m	0.75m	0.9m
Agricultural	1m	1m	1m	1.1m

Scottish Hydro Electric Power Distribution plc
 Registered Office: Inveralmond House
 200 Dunkeld Road Perth PH1 3AQ
 Registered in Scotland No. SC213460

If you're unsure & need to seek advice before commencing excavations please contact:
 General Enquiries: 0800 048 3516

Subject to revision – Master held by SSEN Asset Data Team:
Asset.Data@sse.com
 01256 337 294

Overview map of worksite



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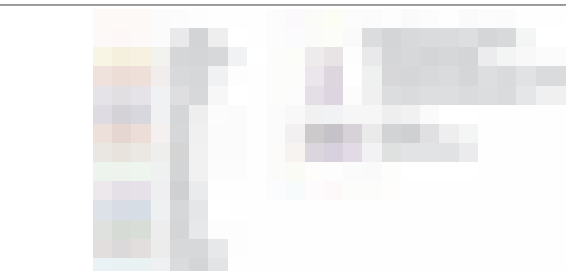
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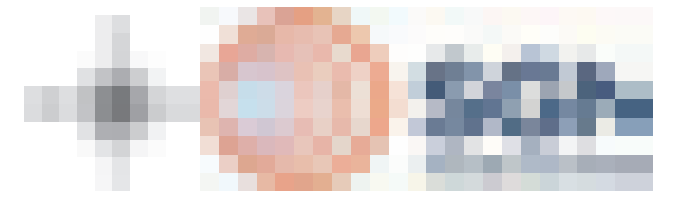
BASED UPON THE ORDNANCE SURVEY MAP WITH THE SANCTION OF THE CONTROLLER OF H.M STATIONERY OFFICE CROWN COPYRIGHT RESERVED.

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9 – SGN & ESP Utilities Group Network Plans

Overview



Contact Us

Mapping Enquiries:
All areas

General Enquiries:
All areas

Date Requested: 24/03/2022
Job Reference: 25134040
Site Location: 331801 840082
Requested by:
Mr Calum MacLennan
Your Scheme/Reference:
Dufftown

This plan shows the location of those pipes owned by Scotia Gas Networks (SGN) by virtue of being a licensed Gas Transporter (GT). Gas pipes owned by other GTs or third parties may also be present in this area but are not shown on this plan. Information with regard to such pipes should be obtained from the relevant owners. No warranties are given with regard to the accuracy of the information shown on this plan. Service pipes, valves, siphons, sub-connections etc. are not shown but their presence should be anticipated. You should be aware that a small percentage of our pipes/assets may be undergoing review and will temporarily be highlighted in yellow. If your proposed works are close to one of these pipes, you should contact the SGN Safety Admin Team on 0800 912 1722 for advice. No liability of any kind whatsoever is accepted by SGN or its agents, servants or sub-contractors for any error or omission contained herein. Safe digging practices, in accordance with HS (G)47, must be used to verify and establish the actual position of mains, pipes, services and other apparatus on site before any mechanical plant is used. It is your responsibility to ensure that plant location information is provided to all persons (whether direct labour or sub-contractors) working for you on or near gas apparatus. Information included on this plan should not be referred to beyond a period of 28 days from the date of issue.

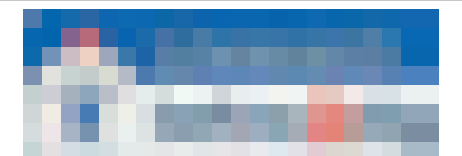
Report damage immediately – KEEP EVERYONE AWAY FROM THE AREA
0800 111 999

Low Pressure Mains 
Medium Pressure Mains 
Intermediate Pressure Mains 
High Pressure Mains 

LAs 
GTs  SSSIs

Some Examples Of Plant Items
Valve  Syphon  Depth of Cover  Diameter Change  Material Change 

Digsite: Line:  Area: 



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Overview

1

2

Date Requested: 24/03/2022




Requested by: Calum MacLennan

Job Reference: 25134040

Company: CAINTECH LTD

Your Scheme/Reference: Dufftown

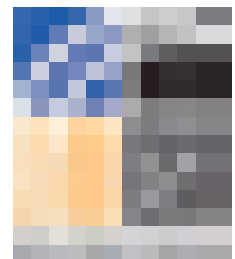
Key for Mains & Service Pipework

	Existing LP mains or services operating up to 75 millibar gauge
	Existing MP mains or services operating between 75 millibar and 2 bar gauge
	Existing IP mains or services operating between 2 bar and 7 bar gauge

Whilst ESP Utilities Group Ltd (ESP) try to ensure the asset information we provide is accurate, the information is provided Without Prejudice and ESP accept no liability for claims arising from any inaccuracy, omissions or errors contained in this response. The actual position of underground services must be verified and established on site before any mechanical plant is used. Authorities and contractors will be held liable for the full cost of repairs to ESP apparatus and all claims made against them by Third parties as a result of any interference or damage.

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ESP Utilities Group Ltd
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Mole Business Park
Leatherhead
Surrey
KT22 7BA
Phone: 01372 587500
Email: PlantResponses@espug.com

Dig Sites:

Area  Line 

Approx scale on A4 paper: 1:1000
(excluding Overview map)