

Residents Group & Draycott and Wilne Parish Council

Our Ref: 25-110 07/05/2025

Site Allocation Appraisal - South-West of Draycott - Flood Risk & Drainage Review

Michael Evans & Associates Ltd have been instructed on behalf of the residents group and Draycott and Church Wilne Parish Council to review the potential allocation of land 'South-West of Draycott' as part of the Erewash Borough Council Local Plan, with respect of the Flood Risk and Drainage of the proposed site.

The site is located adjacent to the existing western boundary of the village of Draycott, on land which is predominantly undeveloped and used as arable/ horse grazing land. Within the southern part of the site is an existing farm, on land indicated as being retained for future development, with associated and unassociated workshops and caravan storage. The site is located to the north of the River Derwent, which flows in an easterly direction to the south of the Draycott village.

The site is shown on the Environment Agency's Flood Map for Planning to be located predominantly within Flood Zone 1, an area with low risk of Fluvial Flooding (less the 0.1% chance of flooding in any given year). A very small area along the southern boundary of the site is shown to be at medium and high risk of flooding (between 0.1 and 1% chance of flooding and greater than 1% chance of flooding). In Flood Risk terms, Flood Zone 1 areas are suitable for residential development. Flood Zone 3 areas would not be suitable for residential development, and Flood Zone 2 areas would only be suitable for residential development if mitigation measures are put in place. Therefore, from an initial review of the flood maps the majority of the site is likely to be acceptable for resident development, however, the Local Planning Authority any future developer should be aware that parts of the site are unlikely to be suitable for development and the housing allocations should be adjusted accordingly.

Surface water flooding is also shown to affect parts of the site, which mapping suggests is localised ponding within the site, which is mainly confined to the site boundary, but with some offsite connectivity to the south and east of the site. Care will need to be taken within any development layout to ensure that this flooding is mitigated and not exacerbated, particularly to the east of the site where surface water flooding is already shown to impact on the neighbouring properties fronting Lime Grove.

Date 07/05/2025 - Our ref: 25-110 Page 1 of 3

34 Station Road, Draycott, Derbyshire DE72 3QB

Tel: 01332 871840 Fax: 01332 871841 www.mevans.co.uk

Company Registration No: 05968849



Residents have reported that the fields which make up the site, and the fields between the site and the River Derwent have flooded in recent years. Photographs have been provided from 2022 which shows fluvial flooding of the River Derwent. The flood extents are very similar to the mapped Environment Agency 1 in 100 year (Flood Zone 3) mapped extents. Based on this information, it is suggested that the modelled extents would provide a fairly accurate depiction of fluvial flood extents in the area.

We understand that the local residents have some significant concerns regarding the potential impact of any development at the site on the existing drainage infrastructure which serve the local area. It is understood that there have been flooding incidents in the past related to insufficient capacity within the existing public sewer network. This has caused flooding of the manholes/ sewers within Lime Grove, to the west of the site, as well as to other areas downstream of the site. The majority of Draycott is drained via a public combined sewer network, taking both foul and surface water drainage, so during times of heavy or prolonged rainfall the network is sometimes unable to cope with the flows. Severn Trent Water have responded to the Local Planning Authority and to the Parish Council to confirm that there is capacity within the downstream pumping station and the Wastewater Treatment Works to accommodate the flows from any future development at the site, but it is unclear if the existing network between the site and the pumping station would be able to accommodate such flows.

The Severn Trent Water response confirms that the authority has a duty to accommodate foul flows from any new development into the nearest point of connection into the public sewer. Therefore, it is anticipated that a connection would be provided into the sewer network within Derby Road, to the north of the site. Based on the local topography and the depth of the sewers within Derby Road (approximately 1.6m deep), it is likely that flows from the development would need to be pumped to the point of connection. This would, obviously, add cost to any proposed development as well as land take, which would need to be factored into the overall cost of developing the site. Whilst it would be the responsibility of Severn Trent Water to provide upgrades to the network, if required, the timescale for any such required upgrades could not be guaranteed and could affect the deliverability of the site in the short to medium term.

In terms of the surface water flows, these should not be connected to the combined sewer network. Where possible, flows should be discharge to the ground via soakaways. The ground in this area is generally clayey, and largely impermeable. Therefore, it is not anticipated that soakaways would be a viable option for future development on the site. Flows from the site are, therefore, likely to be connected to the watercourse, the River Derwent, to the south of the site. This would require crossing third party land, and any developer would need to allow for negotiations with the landowner to agree any such connection, which cannot be guaranteed at this stage. On the assumption that such an agreement can be reached, flows from the site would

Date 07/05/2025 - Our ref: 25-110 Page 2 of 3

34 Station Road, Draycott, Derbyshire DE72 3QB

Tel: 01332 871840 Fax: 01332 871841 www.mevans.co.uk

Company Registration No: 05968849



need to be restricted to greenfield rate, and attenuation provided within the site boundary. At present attenuation would need to be provided for events up to the 1 in 100 year + 40% climate change event, but the guidance may be updated prior to the site being delivered. Any future developer would need to allow for this within their costing. As well as the construction costs, the loss of developable land and the ongoing management and maintenance costs would need to be figured.

The site may, therefore, not be able to accommodate the housing numbers put forward within the local plan allocation, which may make the site undeliverable and unviable.

Signed for and on behalf of Michael Evans & Associates Ltd,

Sibble

Nicola Dibble Associate Director BSc (Hons) MCIWEM C.WEM C.Env

Date 07/05/2025 - Our ref: 25-110 Page 3 of 3

34 Station Road, Draycott, Derbyshire DE72 3QB

Tel: 01332 871840 Fax: 01332 871841 www.mevans.co.uk

Company Registration No: 05968849



Flood map for planning

Your reference **25-110**

Location (easting/northing) 443570/333377

Created 7 May 2025 13:21

Your selected location is in flood zone 3, an area with a high probability of flooding.

This means:

- you must complete a flood risk assessment for development in this area
- you should follow the Environment Agency's standing advice for carrying out a flood risk assessment (see <u>https://www.gov.uk/guidance/flood-risk-assessment-standing-advice</u>)

Notes

The flood map for planning shows river and sea flooding data only. It doesn't include other sources of flooding. It is for use in development planning and flood risk assessments.

This information relates to the selected location and is not specific to any property within it. The map is updated regularly and is correct at the time of printing.

Flood risk data is covered by the Open Government Licence which sets out the terms and conditions for using government data. <u>https://</u>www.nationalarchives.gov.uk/doc/open-government-licence/version/3

Use of the address and mapping data is subject to Ordnance Survey public viewing terms under Crown copyright and database rights 2025 AC0000807064. https://flood-map-for-planning.service.gov.uk/os-terms



© Environment Agency copyright and/or database rights 2025. All rights reserved. © Crown copyright and database rights 2025 Ordnance Survey licence number AC0000807064.



© Environment Agency copyright and/or database rights 2025. All rights reserved. © Crown copyright and database rights 2025 Ordnance Survey licence number AC0000807064.

Surface Water Flood Maps





GENERAL CONDITIONS AND PRECAUTIONS TO BE TAKEN WHEN CARRYING OUT WORK ADJACENT TO SEVERN TRENT WATER'S APPARATUS Please ensure that a copy of these conditions is passed to your representative and/or your contractor on site. If any damage is caused to Severn Trent Water Limited (STW) apparatus (defined below), the person, contractor or subcontractor responsible must inform STW immediately on: 0800 783 4444 (24 hours)

a) These general conditions and precautions. Such appert to the subject of an Agreement between a developer agrees to build sewers to an agreement for the self-construction of water mains entered into with STW and the assets described at conditions and precautions. Such appert agrees to build sewers to an agreement for the self-construction of water mains entered into with STW and the assets described at conditions and precautions. Such appert agrees to build sewers to an agreement to sewer agrees to build sewers to an agreement for the self-construction b) of these general conditions and precautions. Such appert agrees to build sewers to an agreement for the self-construction b) of these general conditions and precautions. Such appert agrees to build sewers to an agreement between a developer agrees to build sewers to an agreement for the self-construction of water mains entered into with STW and the assets described at conditions and precautions. Such appert agrees to build sewers to an agreement for the self-construction of water mains entered into with STW and the assets described at conditions and precautions. Such appert agrees to build sewers to an agreement for the self-construction of water mains entered into with STW and the assets described at conditions and precautions. Such appertations and precautions. Such appertations and precautions and precautions. Such appertations and precautions and precautions. Such agreement for the self-construction of water mains entered into with STW and the assets described at conditions and precautions. Such agreement for the self-construction of water mains entered into with self-constructions and precautions. Such agreement for the self-construction of water mains entered into with self-constructions and precautions. Such agreement for the self-constructions and precautions. Such agreement f b) Please be aware that due to The Private Sewers Transfer Regulations June 2011, the number of public sewers has increased, but many of these are not shown on the public sewer record. However, some idea of their positions may be obtained from the position of inspection covers and their existence must be anticipated.

- e) The plan must not be relied upon in the event of excavations or other works in the vicinity of STW Apparatus. It is your responsibility to ascertain the precise location of any STW Apparatus prior to undertaking any development or other works (including but not limited to excavations).
- f) No person or company shall be relieved from liability for loss and/or damage caused to STW Apparatus by reason of the actual position and/or depths of STW Apparatus being different from those shown on the plan.

In order to achieve safe working conditions adjacent to any STW Apparatus the following should be observed:

1. All STW Apparatus should be located by hand digging prior to the use of mechanical excavators.

2. All information set out in any plans received from us, or given by our staff at the site of the works, about the position and depth of the mains, is approximate. Every possible for the cost of repairing any loss and/or damage caused (including without limitation replacement parts). 3. Water mains are normally laid at a depth of 900mm. No records are kept of customer service pipes which are normally laid at a depth of 750mm; but some idea of their positions may be obtained from the position of stop tap covers and their existence must be anticipated. 4. During construction work, where heavy plant will cross the line of STW Apparatus, specific crossing points must be agreed with STW and suitably reinforced where required. These crossing points should be clearly marked and crossing of the line of STW Apparatus at other locations must be prevented. 5. Where it is proposed to carry out piling or boring within 20 metres of any STW Apparatus, STW should be consulted to enable any affected STW Apparatus to be surveyed prior to the works commencing. 6. Where excavation of trenches adjacent to any STW Apparatus affects its support, the STW Apparatus must be supported to the satisfaction of STW. Water mains and some sewers are pressurised and can fail if excavation removes support to thrust blocks to bends and other fittings. 7. Where a trench is excavated crossing or parallel to the line of any STW Apparatus, the backfill should be adequately compacted to prevent any settlement which could subsequently cause damage to the STW Apparatus. In special cases, it may be necessary to provide permanent support to STW Apparatus. In special cases, it may be necessary to provide permanent support to STW Apparatus. 8. No other apparatus should be laid along the line of STW Apparatus irrespective of clearance. Above ground apparatus must not be located within a minimum of 3 metres either side for larger sized pipes and 6 metres either side for larger sized pipes and 8 metres either side for larger sized pipes without prior approval. No manhole or chamber shall be built over or around any STW Apparatus. 9. A minimum radial clearance of 300 millimetres should be allowed between any plant or equipment being installed and existing STW Apparatus. We reserve the right to increase this distance where strategic assets are affected.

10. Where any STW Apparatus coated with a special wrapping is damaged, even to a minor extent, STW must be notified and the trench left open until the damage to any STW Apparatus causing leakage, weakening of the mechanical strength of the pipe or corrosion-protection damage, the necessary remedial work will be recharged to you. 11. It may be necessary to adjust the finished level of any surface boxes. Checks should be made during site investigations to ascertain the level of such STW Apparatus in order to determine any necessary alterations in advance of the works. 12. With regard to any proposed resurfacing works, you are required to contact STW on the number given above to arrange a site inspection to establish the condition of any STW Apparatus in the nature of surface boxes or manhole covers and frames affected by the works. STW will then advise on any measures to be taken, in the event of this a proportionate charge will be made. 13. You are advised that STW will not agree to either the erection of posts, directly over or within 1.0 metre of valves and hydrants,

14. No explosives are to be used in the vicinity of any STW Apparatus without prior consultation with STW.

TREE PLANTING RESTRICTIONS

There are many problems with the location of trees adjacent to sewers, water mains and other STW Apparatus and these can lead to the loss of trees and hence amenity to the area which many people may have become used to. It is best if the problem is not created in the first place. Set out below are the recommendations for tree planting in close proximity to public sewers, water mains and other STW Apparatus. 15. Please ensure that, in relation to STW Apparatus, the mature root systems and canopies of any tree planted do not and will not encroach within the recommended distances specified in the notes below.

16. Both Poplar and Willow trees have extensive root systems and should not be planted within 12 metres of a sewer, water main or other STW Apparatus.

18. STW personnel require a clear path to conduct surveys etc. No shrubs or bushes should be planted within 2 metre of the centre line of a sewer, water main or other STW Apparatus. 19. In certain circumstances, both STW and landowners may wish to plant shrubs/bushes in close proximity to a sewer, water main of other STW Apparatus for screening purposes. The following are shallow rooting and are suitable for this purpose. The following are shallow rooting and are suitable for this purpose.

c) On request, STW will issue a copy of the plan showing the approximate locations of STW Apparatus although in certain instances a charge will be made. The position of private sewers and water service pipes to properties are not normally shown but their presence must be anticipated. This plan and the information supplied with it is furnished as a general guide only and STW does not guarantee its accuracy. d) STW does not update these plans on a regular basis. Therefore the position and depth of STW Apparatus may change and this plan is issued subject to any such change. Before any works are carried out, you should confirm whether any changes to the plan have been made since it was issued.

17. The following trees and those of similar size, be they deciduous or evergreen, should not be planted within 6 metres of a sewer, water main or other STW Apparatus. E.g. Ash, Beech, Birch, most Conifers, Elm, Horse Chestnut, Lime, Oak, Sycamore, Apple and Pear. Asset Protection Statements Updated May 2014

Manhole Ref	erence Liquid Type	Cover Level	Invert Level	Depth to Invert
	C C		0	0
	C		0	0
	С		0	0
	C		0	0
	C		0	0
	C		0	0
	C		0	0
	C		0	0
	C		0	0
	C		0	0
	C		0	0
	C		0	0
	С		0	0
	C		0	0
	С		0	0
	C		0	0
	С		0	0
	C		0	0
	С		0	0
	C		0	0
	C		0	0
	C		0	0
	C		0	0
	C		0	0
0001	C	36.91	35.42	1.49
0102	C	37.45	36.35	1.34
0105	C	37.56	36.86	0.7
0201	C	37.56	36.12	1.44
0202	C	37.69 37.64	35.94 36.10	1.75 1 45
0301	C	37.92	35.82	2.1
0401 0402	C	38.36 38.28	36.41 36.18	1.95 2 1
0404	C	00.20	0	0
1001	C	36.42	34.34	2.08
1101	C	37.53	36.83	0.7
1102	C	37.66 37.44	36.64 35.87	1.02
1108	C	37.47	36.22	1.25
1201 1301	C	37.81 37.62	36.51 35.47	1.3
1302	C	37.42	35.47	1.95
1303	C	38.01	35.66	2.35
1304 1305	C	37.04 37.32	35.81	1.51
1401	C	38.14	35.94	2.2
1402 2000	C	37.83	36.57 17.89	0
2001	C	35.19	33.54	1.65
2002	C	35.41 35.55	33.67	1.74
2004	C	37.24	36.31	0.93
2100	C	35.64	33.89	1.74
2102	C	35.83	34.58	1.25
2103 2104	C	37.24	0 35.56	0
2105	С		5.86	0
2106 2107	C	35.84	0	0
2201	C	36.44	34.48	1.96
2202 2204	C	36.59 35.82	34.91 0	1.68 0
2206	C		0	0
2301 2302	C	36.67 37.22	35.24 35.6	1.43
2303	C	37.57	35.83	1.74
2901 2902	C C	34.85 34.51	33.15 33.01	1.7
2903	С	34.44	0	0
2905 3001	C C	34.38 36.76	32.01 35.24	2.37
3100	C		0	0
3101 3102	C	37.57 38.17	36.27 36.34	1.3
3103	C		0	0
3201 3202	C	37.68 38.05	36.21 35.6	1.47 2.45
3204	C	36.51	34.62	1.89
3206 3208	C C	36.51 36.5	34.43 34.3	2.08 2.2
3303	C	38.21	35.94	2.27
3305 3401	C	38.39 38.33	36.28 36.58	2.11
3402	C	36.53	35.51	1.02
3901 4001	C C	34.05 36.4	32.75 34.78	1.3 1.62
4002	C	35.8	34.06	1.74
4003 4101	C C	37.48 35.84	35.64 35	1.84 0.84
4102	C	36.28	34.27	2.01
4103 4104	C	37.18 37.58	34.08 35.98	3.1 1.6
4105	C	36.62	35.35	1.27
4201 4202	C	37.78 37.64	36.63 36.39	1.15
4302	C	36.54	34.89	1.65
4401 4902	C	36.49 33.63	35.71 31.57	0.78
4903	C	33.7	32.57	1.13
5001 5103	C	34.02	31.91 33.84	2.11
5104	C	36.74	33.64	3.1
5105 5106	C	36.79	33.68 0	3.1
5201	C	37.32	35.82	1.5
5202 5203	C	36.64	34.25	2.39
5601	C	41.42	38.15	3.27
5901 6001	C	33.49	31.31	2.18
6003	C	33.92	31.37 31.87	2.5 2.05
6005	C	33.66	0	0
ouu o 6007	C C	33.59 33.84	31.22 31.13	2.37 2.71
6008	C	33.65	31.01	2.64
ა იიგ 6102	C C	34.94	0 32.64	0 2.3
6103	C	34.02	32.04	1.98
6201	C	35.83	33.41	2.42
6202	C	35.25	32.78	2.47
o203 6301	C	35.34 37.07	34.36 35.24	0.98 1.83
6302	С	36.87	35.54	1.33
6303	C C	36.27 0	34.9 0	1.37 0
6311	-	37.37	35.68	1.69
6311 6401	C	00.07	07.00	A = -
6311 6401 6501 6901	C C C	39.25 33.36	37.68 31.03	1.57 2.33
6311 6401 6501 6901 7104	C C C C C	39.25 33.36	37.68 31.03 0	1.57 2.33 0
6311 6401 6501 6901 7104 7201 7211	C C C C C C C	39.25 33.36 38.05	37.68 31.03 0 36.7 0	1.57 2.33 0 1.35 0

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert
7401	C	38.75	36.9	1.85
7501	C	39.2 38.92	37.3	1.9
7901	C	33.35	30.46	2.89
8301	C	38.12	36.62	1.5
8303	С	38.69	36.59	2.1
8304	С		0	0
8401	C	38.48	36.66	1.82
8402	C C	38.41	30.52 37.62	1.89
8502	C	38.47	37.55	0.92
8503	С	38.77	37.57	1.2
9201	С	37.78	36.59	1.19
9301	C	38.2	36.12	2.08
9401	C	38.25	36.38	1.87
9402	C C	38.19	36.38	1.88
9404	C	0	0	0
9405	С	0	0	0
9407	С		0	0
9501	C	38.38	37.22	1.16
9502	C C	0	0	0
9507	C	0	0	0
9508	С	0	0	0
	F		0	0
	F		0	0
	F		0	0
	F		0	0
	F		0	0
	F		0	0
	F		0	0
	F		0	0
	F		0	0
	F		0	0
	F		0	0
	F		0	0
	F		0	0
	F		0	0
	F		0	0
	F		0	0
	F		0	0
	F		0	0
	F		0	0
	F		0	0
	F		0	0
	F		0	0
	F		0	0
	F		0	0
	F		0	0
	F		0	0
	F		0	0
	F		0	0
0003	F	37.08	35.67	1.41
0004	F	37.05	35.6	1.45
0310	F		0	0
0400	F		0	0
0403	F		0	0
0503	F		0	0
4310	F		0	0
4311	F		0	0
4406	F		0	0
5200	F		0	0
5204 5205	F		0	0
5206	F		0	0
5207	F		0	0
5210	F		0	0
5211	F		0	0
5213	F		0	0
5307	F		0	0
5308	F		0	0
5310	F		0	0
5312	F		0	0
5313	F		0	0
5402	F		0	0
6000	, F		0	0
6110	F		0	0
6112	F		0	0
6113 6210	F		0	0
o∠1U 6211	F		0	0
6310	F		0	0
6312	F		- 35.16	0
6410	F		0	0
7011	F		0	0
7202	F	37.73	36.13	1.6
7315 7500	F		0	0
7503	F		0	0
8202	F	37.45	35.61	1.84
8204	F	37.12	35.17	1.95
8205	F	37.29	35.53	1.76
8200	F	31.4	35.32 0	2.08 0
8509	F		0	0
8510	F		0	0
9102	F	36.9	34.7	2.2
9103	F	36.92	34.47	2.45
9105	F	37.52	36.37	1.15
9203	F	37.22	35.08	2.14
9406	r F		0	0
9500	F		0	0
9503	F		0	0
9504	F		0	0
9505	F	07.1	0	0
0002 0103	S	37.1 37.44	36.02 36.42	1.08
0104	S	37.39	36	1.39
0107	S	37.31	0	0
1104	•	37 44	36.07	1.37
1105	S	01111	00.07	1.36
1107	S S	37.26	35.9	0
L LLIM	S S S	37.26 37.3	35.9 0	0
2006	S S S S S	37.26 37.3	35.9 0 0 0	0 0 0
2006 2108	S S S S S	37.26 37.3	35.9 0 0 0 0	0 0 0 0
2006 2108 3203	S S S S S S S	37.26 37.3 36.49	35.9 0 0 0 0 35.1	0 0 0 0 1.39
2006 2108 3203 3205	S S S S S S S S S	37.26 37.3 36.49 36.46	35.9 0 0 0 0 35.1 34.94	0 0 0 0 1.39 1.52
2006 2108 3203 3205 3207 3201	S S S S S S S S S S S S S S S	37.26 37.3 36.49 36.46 36.5 28.27	35.9 0 0 0 0 35.1 34.94 34.74	0 0 0 1.39 1.52 1.76
2006 2108 3203 3205 3207 3301 3302	S S S S S S S S S S S S S S S S S S	37.26 37.3 36.49 36.46 36.5 38.37 38.22	35.9 0 0 0 0 35.1 34.94 34.74 36.83 36.61	0 0 0 1.39 1.52 1.76 1.54 1.61
2006 2108 3203 3205 3207 3301 3302 3304	S S S S S S S S S S S S S S S S S	37.26 37.3 36.49 36.46 36.5 38.37 38.22 38.42	35.9 0 0 0 0 35.1 34.94 34.74 36.83 36.61 36.76	0 0 0 1.39 1.52 1.76 1.54 1.61 1.66
2006 2108 3203 3205 3207 3301 3302 3304 3306	S S S S S S S S S S S S S S S S S S S	37.26 37.3 36.49 36.46 36.5 38.37 38.22 38.42 36.54	35.9 0 0 0 35.1 34.94 34.74 36.83 36.61 36.76 35.16	0 0 0 1.39 1.52 1.76 1.54 1.61 1.66 1.38
1109 2006 2108 3203 3205 3207 3301 3302 3304 3306 4301	S S S S S S S S S S S S S S S S S S	37.26 37.3 36.49 36.46 36.5 38.37 38.22 38.42 36.54 36.53	35.9 0 0 0 0 35.1 34.94 34.74 36.83 36.61 36.61 36.76 35.16 35.36	0 0 0 1.39 1.52 1.76 1.54 1.61 1.66 1.38 1.17
1109 2006 2108 3203 3205 3207 3301 3302 3304 3306 4301 4303	S S S S S S S S S S S S S S S S S S S	37.26 37.3 36.49 36.46 36.5 38.37 38.22 38.42 36.54 36.53	35.9 0 0 0 0 35.1 34.94 34.74 36.83 36.61 36.76 35.16 35.36 0 2	0 0 0 1.39 1.52 1.76 1.54 1.61 1.66 1.38 1.17 0
1109 2006 2108 3203 3205 3207 3301 3302 3304 3306 4301 4303 4304 4305	S S S S S S S S S S S S S S S S S S S	37.26 37.3 36.49 36.46 36.5 38.37 38.22 38.42 36.54 36.53	35.9 0 0 0 35.1 34.94 34.74 36.83 36.61 36.76 35.16 35.36 0 0 0	0 0 0 1.39 1.52 1.76 1.54 1.61 1.66 1.38 1.17 0 0 0
1109 2006 2108 3203 3205 3207 3301 3302 3304 3306 4301 4303 4304 4305 4306	S S S S S S S S S S S S S S S S S S S	37.26 37.3 36.49 36.46 36.5 38.37 38.22 38.42 36.54 36.53	35.9 0 0 0 0 35.1 34.94 34.74 36.83 36.61 36.61 36.76 35.16 35.36 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 1.39 1.52 1.76 1.54 1.61 1.66 1.38 1.17 0 0 0 0 0 0
1109 2006 2108 3203 3205 3207 3301 3302 3304 3306 4301 4303 4304 4305 4306 4307	S S S S S S S S S S S S S S S S S S S	37.26 37.3 36.49 36.46 36.5 38.37 38.22 38.42 36.54 36.53	35.9 0 0 0 0 35.1 34.94 34.74 36.83 36.61 36.76 35.16 35.36 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 1.39 1.52 1.76 1.54 1.61 1.66 1.38 1.17 0 0 0 0 0 0 0 0
1109 2006 2108 3203 3205 3207 3301 3302 3304 3306 4301 4303 4304 4305 4306 4307 4402	S S S S S S S S S S S S S S S S S S S	37.26 37.3 36.49 36.46 36.5 38.37 38.22 38.42 36.54 36.53 36.53 36.45	35.9 0 0 0 35.1 34.94 34.74 36.83 36.61 35.16 35.36 0 0 0 0 0 0 35.36 0 0 0 0 0 0 0 35.75	0 0 0 1.39 1.52 1.76 1.54 1.61 1.66 1.38 1.17 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
1109 2006 2108 3203 3205 3207 3301 3302 3304 3306 4301 4303 4304 4305 4307 4402 4403	S S S S S S S S S S S S S S S S S S S	37.26 37.3 36.49 36.46 36.5 38.37 38.22 38.42 36.54 36.53 36.53	35.9 0 0 0 35.1 34.94 34.74 36.83 36.61 36.61 35.16 35.36 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 1.39 1.52 1.76 1.54 1.61 1.66 1.38 1.17 0 0 0 0 0 0 0 0 0 0 0 0 0
1109 2006 2108 3203 3205 3207 3301 3302 3304 3306 4301 4303 4304 4305 4306 4307 4402 4403 4404	S S S S S S S S S S S S S S S S S S S	37.26 37.3 36.49 36.46 36.5 38.37 38.22 38.42 36.54 36.54 36.53 36.45	35.9 0 0 0 0 35.1 34.94 34.74 36.83 36.61 35.16 35.36 0	0 0 0 1.39 1.52 1.76 1.54 1.61 1.66 1.38 1.17 0 0 0 0 0 0 0 0 0 0 0 0 0
1109 2006 2108 3203 3205 3207 3301 3302 3304 3306 4301 4303 4304 4305 4306 4307 4402 4403 4404 5101 5102	S S S S S S S S S S S S S S S S S S S	37.26 37.3 36.49 36.46 36.5 38.37 38.22 38.42 36.54 36.54 36.53 36.45 36.45	35.9 0 0 0 0 35.1 34.94 34.74 36.83 36.61 35.16 35.36 0 0 0 0 0 0 0 0 0 0 0 0 0 35.75 0 0 34.3 33.67	0 0 0 1.39 1.52 1.76 1.54 1.61 1.66 1.38 1.17 0 0 0 0 0 0 0 0 0 0 0 0 0
1109 2006 2108 3203 3205 3207 3301 3302 3304 3306 4301 4303 4304 4305 4306 4307 4402 4403 4404 5101 5300	S S S S S S S S S S S S S S S S S S S	37.26 37.3 36.49 36.46 36.5 38.37 38.22 38.42 36.54 36.53 36.53 36.45 36.65 36.65	35.9 0 0 0 35.1 34.94 34.74 36.83 36.61 36.76 35.16 35.36 0 0 0 0 0 0 0 0 0 0 0 0 35.75 0 0 34.3 33.67 0	0 0 0 1.39 1.52 1.76 1.54 1.61 1.66 1.38 1.17 0 0 0 0 0 0 0 0 0 0 0 0 0
1109 2006 2108 3203 3205 3207 3301 3302 3304 3306 4301 4303 4304 4305 4306 4307 4402 4403 5101 5102 5300 5301	S S S S S S S S S S S S S S S S S S S	37.26 37.3 36.49 36.46 36.5 38.37 38.22 38.42 36.54 36.54 36.53 36.45 36.65 36.65	35.9 0 0 0 0 35.1 34.94 34.74 36.83 36.61 35.16 35.36 0 0 0 0 0 0 0 0 0 0 35.75 0 34.3 33.67 0 0	0 0 0 1.39 1.52 1.76 1.54 1.61 1.66 1.38 1.17 0 0 0 0 0 0 0 0 0 0 0 0 0
1109 2006 2108 3203 3205 3207 3301 3302 3304 3306 4301 4303 4304 4305 4306 4307 4402 4403 4404 5101 5102 5300 5301 5302	S S S S S S S S S S S S S S S S S S S	37.26 37.3 36.49 36.46 36.5 38.37 38.22 38.42 36.54 36.54 36.53 36.45 36.45	35.9 0 0 0 0 35.1 34.94 34.74 36.83 36.61 35.16 35.36 0 0 0 0 0 0 0 0 0 0 35.75 0 0 34.3 33.67 0 0 0 0 0 0 0 0 0 0 33.67 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 1.39 1.52 1.76 1.54 1.61 1.66 1.38 1.17 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
1109 2006 2108 3203 3205 3207 3301 3302 3304 3306 4301 4303 4304 4305 4306 4307 4402 4403 5101 5102 5300 5301 5302 5303	S S S S S S S S S S S S S S S S S S S	37.26 37.3 36.49 36.46 36.5 38.37 38.22 38.42 36.54 36.53 36.53 36.45 36.65 36.65	35.9 0 0 0 0 35.1 34.94 34.74 36.83 36.61 36.76 35.16 35.36 0 0 0 0 0 0 0 0 0 0 0 35.75 0 0 0 34.3 33.67 0 0 0 1 34.3 33.67 0 0 0 0 0 1 3 3 3 3 3 3 3 3 3 3 3 3 3	0 0 0 0 1.39 1.52 1.76 1.52 1.76 1.54 1.61 1.66 1.38 1.17 0
1109 2006 2108 3203 3205 3207 3301 3302 3304 3306 4301 4303 4304 4305 4306 4402 4403 4404 5101 5300 5301 5302 5303 5304	S S S S S S S S S S S S S S S S S S S	37.26 37.3 36.49 36.46 36.5 38.37 38.22 38.42 36.54 36.53 36.53 36.45 36.65 36.65	35.9 0 0 0 0 35.1 34.94 34.74 36.83 36.61 35.16 35.36 0 0 0 0 0 0 0 0 0 0 35.75 0 0 34.3 33.67 0	0 0 0 0 1.39 1.52 1.76 1.54 1.61 1.66 1.38 1.17 0
1109 2006 2108 3203 3205 3207 3301 3302 3304 3306 4301 4303 4304 4305 4306 4307 4402 4403 5101 5102 5300 5301 5302 5303 5304 5305 5309	S S S S S S S S S S S S S S S S S S S	37.26 37.3 36.49 36.46 36.5 38.37 38.22 38.42 36.54 36.54 36.53 36.45 36.65 36.65 36.61	35.9 0 0 0 0 35.1 34.94 34.74 36.83 36.61 35.16 35.36 0 0 0 0 0 0 0 0 0 0 0 0 35.75 0 0 34.3 33.67 0	0 0 0 0 1.39 1.52 1.76 1.54 1.61 1.66 1.38 1.17 0

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert

		Depth to Inver

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert
	-	-		