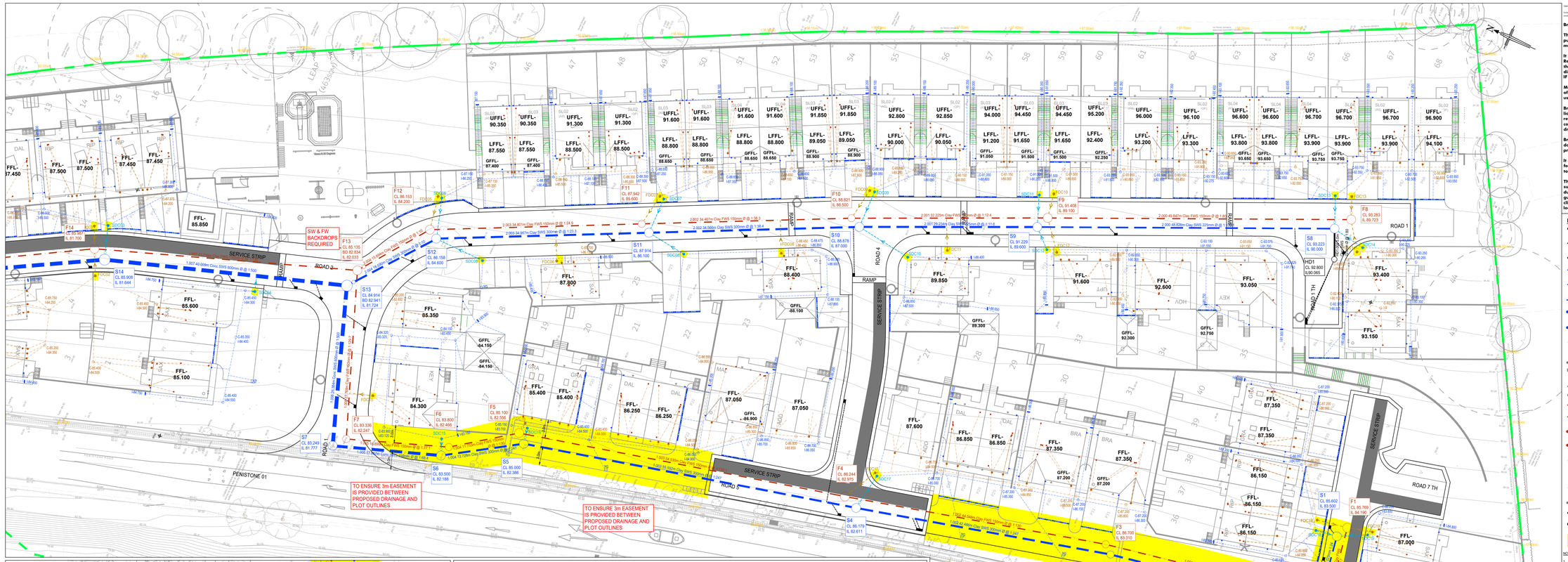
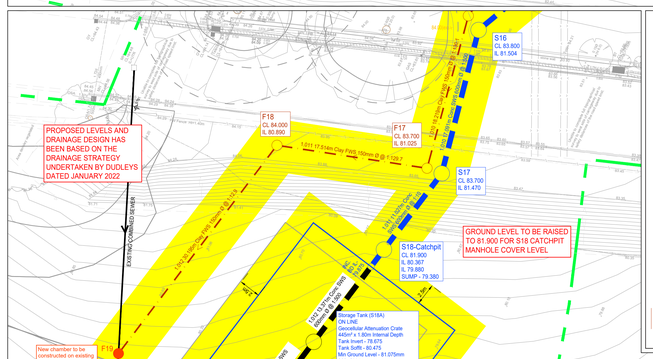
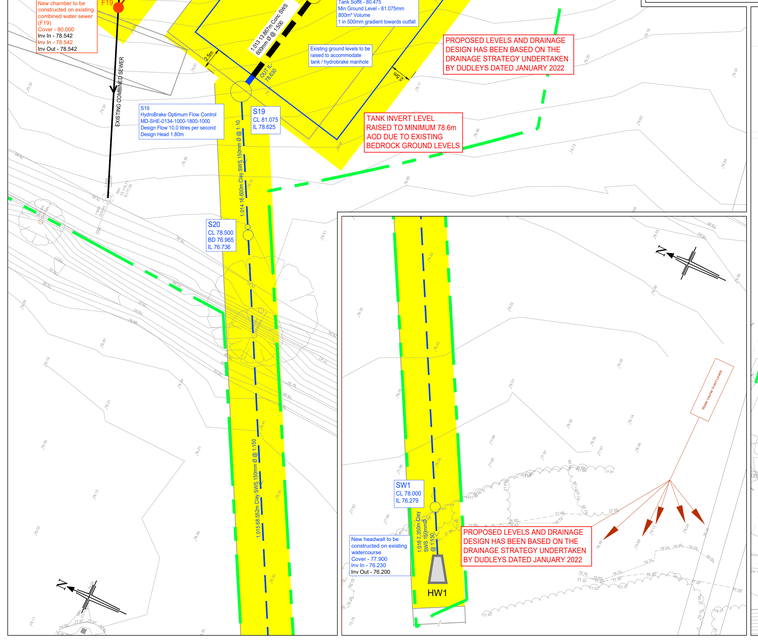






DEMARCATION CHAMBERS SCHEDULES

Demarcation Chambers

Surface Water

Ref (SDC)	Cover Level	Invert Level	Depth to Invert (m)	Depth to Soffit (m)	Diameter (mm) Ø	Cover Type	Cover Size	Chamber Type	Lateral Diameter (mm)	Lateral Length (m)	D/Stream Invert	Lateral Gradient (1 in 7)
01	87.100	86.100	1.000	0.850	450	B125	450x450	Type D	150	5.0	85.600Itd	10.0
02	86.450	82.280Itd	4.170	4.020	1200	D400	600x600	Type A	150	4.0	81.880	10.0
03	86.100	84.400	1.700	1.550	450	B125	450x450	Type D	150	4.5	83.950Itd	10.0
04	85.450	82.291Itd	3.159	3.009	1200	D400	600x600	Type A	150	3.0	81.91	10.0
05	86.600	85.430	1.170	1.020	450	D400	450x450	Type D	150	6.8	84.750	10.0
06	86.850	85.580	1.270	1.120	450	D400	450x450	Type D	150	8.3	84.750	10.0
07	88.075	86.750	1.325	1.175	450	B125	450x450	Type D	150	6.0	86.250	12.5
08	89.150	86.550	1.525	1.375	450	D400	450x450	Type D	150	6.7	86.250	22.3
09	89.450	87.780	1.370	1.220	450	B125	450x450	Type D	150	8.3	87.150	10.0
10	89.450	87.300	2.150	2.000	450	B125	450x450	Type D	150	9.0	87.150	60.0
11	91.400	90.270	1.130	0.980	450	B125	450x450	Type D	150	5.2	89.750	10.0
12	91.500	89.800	1.700	1.550	450	D400	450x450	Type D	150	4.0	89.750	80.0
13	93.360	92.200	1.160	1.010	450	D400	450x450	Type D	150	3.3	91.670Itd	10.0
14	93.050	90.140	2.910	2.760	450	B125	450x450	Type D	150	5.0	90.075	76.9
15	84.000	83.000	1.000	0.850	450	B125	450x450	Type D	150	3.0	82.800Itd	15.0
16	85.400	83.650	1.750	1.600	450	D400	450x450	Type D	150	6.0	83.350Itd	10.0
17	86.540	84.850	1.690	1.540	450	B125	450x450	Type D	150	6.2	84.230Itd	10.0
18	85.700	83.925	1.775	1.625	450	B125	450x450	Type D	150	3.5	83.575	10.0
19	85.900	83.640	2.260	2.110	450	B125	450x450	Type D	150	4.7	83.515	72.5

Demarcation Chambers to be WAVIN OSMA ULTRARIB POLYPROPYLENE Inspection Chambers

Demarcation chambers to be constructed as a TYPE A, B or C manhole if depth to soffit exceeds 3.0m

Lateral Drains to be WAVIN OSMA ULTRARIB UPVC Pipes

Demarcation chambers located in non trafficked areas then 150mm granular bed and surround required
Demarcation chambers located in single private drives to receive 150mm Gen3 concrete bed and surround will be required

Access Opening restricted to 350mmØ or 350 x350mm if depth to soffit is greater than 1.0m

DEMARCATION CHAMBERS AND LATERAL DRAINS TO BE ADOPTED

Demarcation Chambers

Foul Water

Ref (FOC)	Cover Level	Invert Level	Depth to Invert (m)	Depth to Soffit (m)	Diameter (mm) Ø	Cover Type	Cover Size	Chamber Type	Lateral Diameter (mm)	Lateral Length (m)	D/Stream Invert	Lateral Gradient (1 in 7)
01	87.100	85.700	1.400	1.250	450	B125	450x450	Type D	150	5.1	85.190Itd	10.0
02	85.900	84.000	1.900	1.750	450	B125	450x450	Type D	150	4.3	83.570Itd	10.0
03	86.125	83.900	2.225	2.075	450	D400	450x450	Type D	150	3.7	83.530Itd	10.0
04 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
05	86.600	84.600	2.000	1.850	450	D400	450x450	Type D	150	5.0	84.200	12.5
06	87.800	85.650	2.150	2.000	450	B125	450x450	Type D	150	5.9	85.080	10.0
07	88.075	86.050	2.025	1.875	450	D400	450x450	Type D	150	4.8	85.600	10.7
08	88.000	86.300	1.700	1.550	450	B125	450x450	Type D	150	5.6	86.185	48.7
09	89.125	86.980	2.145	1.995	450	B125	450x450	Type D	150	4.8	86.500	10.0
10	91.600	89.200	2.400	2.250	450	B125	450x450	Type D	150	3.3	89.100	10.0
11	90.000	87.030	2.970	2.820	450	B125	450x450	Type D	150	5.3	86.960	75.7
12	91.650	89.300	2.350	2.200	450	B125	450x450	Type D	150	5.1	89.100	25.5
13	93.400	91.700	1.700	1.550	450	B125	450x450	Type D	150	3.8	91.320Itd	10.0
14	93.050	89.780	3.350	3.200	1200	B125	600x600	Type A	150	5.1	89.723	80.0
15	83.730	81.700	2.050	1.900	450	B125	450x450	Type D	150	5.8	81.140	10.0
16	85.400	83.00	2.400	2.250	450	B125	450x450	Type D	150	3.0	82.750Itd	10.0
17	85.500	84.350	1.150	1.000	450	B125	450x450	Type D	150	5.5	83.800Itd	10.0
18	85.700	84.500	1.200	1.050	450	B125	450x450	Type D	150	4.3	84.190	13.8
19	85.900	84.250	1.650	1.500	450	B125	450x450	Type D	150	3.1	84.190	51.6

Demarcation Chambers to be WAVIN OSMA ULTRARIB POLYPROPYLENE Inspection Chambers

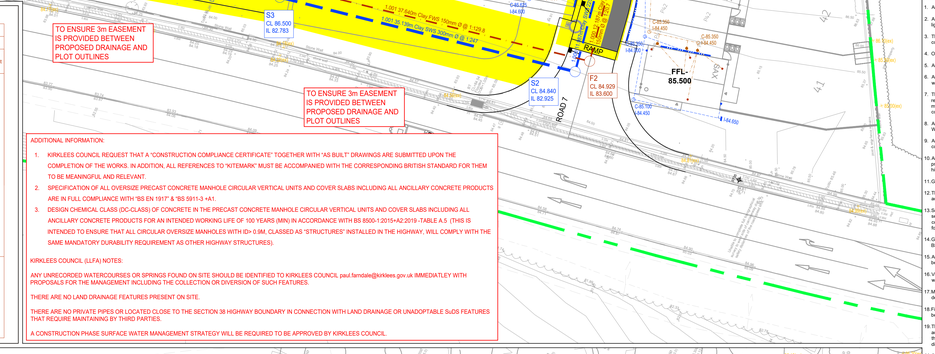
Demarcation chambers to be constructed as a TYPE A, B or C manhole if depth to soffit exceeds 3.0m

Lateral Drains to be WAVIN OSMA ULTRARIB UPVC Pipes

Demarcation chambers located in non trafficked areas then 150mm granular bed and surround required
Demarcation chambers located in single private drives to receive 150mm Gen3 concrete bed and surround will be required

Access Opening restricted to 350mmØ or 350 x350mm if depth to soffit is greater than 1.0m

DEMARCATION CHAMBERS AND LATERAL DRAINS TO BE ADOPTED



ADDITIONAL INFORMATION:

1. KIRKLEES COUNCIL REQUEST THAT A "CONSTRUCTION COMPLIANCE CERTIFICATE" TOGETHER WITH "AS BUILT" DRAWINGS ARE SUBMITTED UPON THE COMPLETION OF THE WORKS. IN ADDITION, ALL REFERENCES TO "KITEMARK" MUST BE ACCOMPANIED WITH THE CORRESPONDING BRITISH STANDARD FOR THEM TO BE MEANINGFUL AND RELEVANT.
2. SPECIFICATION OF ALL OVERSIZE PRECAST CONCRETE MANHOLE CIRCULAR VERTICAL UNITS AND COVER SLABS INCLUDING ALL ANCILLARY CONCRETE PRODUCTS ARE IN FULL COMPLIANCE WITH "BS EN 19117 & "BS 5911-3 +A1.
3. DESIGN CHEMICAL CLASS (DC-CLASS) OF CONCRETE IN THE PRECAST CONCRETE MANHOLE CIRCULAR VERTICAL UNITS AND COVER SLABS INCLUDING ALL ANCILLARY CONCRETE PRODUCTS FOR AN INTENDED WORKING LIFE OF 100 YEARS (MIN) IN ACCORDANCE WITH BS 8500-1:2015+A2:2019 -TABLE A.5 (THIS IS INTENDED TO ENSURE THAT ALL CIRCULAR OVERSIZE MANHOLES WITH ID> 0.9M, CLASSED AS "STRUCTURES" INSTALLED IN THE HIGHWAY, WILL COMPLY WITH THE SAME MANDATORY DURABILITY REQUIREMENT AS OTHER HIGHWAY STRUCTURES).

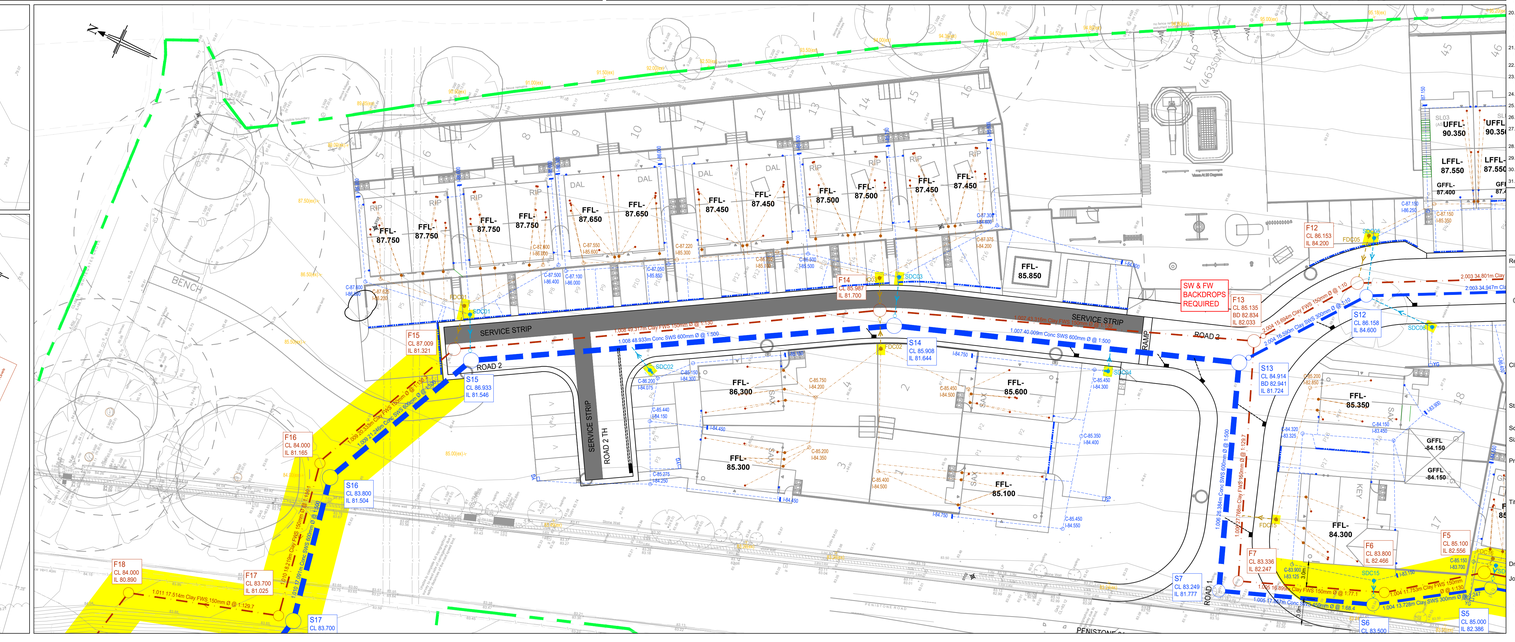
KIRKLEES COUNCIL (LLFA) NOTES:

ANY UNRECORDED WATERCOURSES OR SPRINGS FOUND ON SITE SHOULD BE IDENTIFIED TO KIRKLEES COUNCIL paul.farndale@kirklees.gov.uk IMMEDIATELY WITH PROPOSALS FOR THE MANAGEMENT INCLUDING THE COLLECTION OR DIVERSION OF SUCH FEATURES.

THERE ARE NO LAND DRAINAGE FEATURES PRESENT ON SITE.

THERE ARE NO PRIVATE PIPES OR LOCATED CLOSE TO THE SECTION 38 HIGHWAY BOUNDARY IN CONNECTION WITH LAND DRAINAGE OR UNADOPTABLE SuDS FEATURES THAT REQUIRE MAINTAINING BY THIRD PARTIES.

A CONSTRUCTION PHASE SURFACE WATER MANAGEMENT STRATEGY WILL BE REQUIRED TO BE APPROVED BY KIRKLEES COUNCIL.



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It is the contractors responsibility to ensure full compliance with the Building Regulations. Do not scale from this drawing, use figured dimensions only. It is the contractors responsibility to check and verify all dimensions on site. Any discrepancies to be reported immediately.
IF IN DOUBT ASK.

Materials not in conformity with relevant British or European Standards/Codes of practice or materials known to be deleterious to health & safety must not be used or specified on this project.

Bryan G Hall Limited has not checked or verified, and shall therefore not be liable for any inaccuracies which may be attributable to any base plan(s) reports, data or information provided by the client, or purchased by the consultant on the client's behalf, that may have been utilised within this drawing.

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It remains the client's and/or its appointed contractor's responsibility to check for any discrepancies. Any anomalies discovered must be reported immediately to Bryan G Hall Limited for verification.

The locations of utilities apparatus, if shown, have been reproduced from plans supplied to Bryan G Hall Limited. Although care has been taken when duplicating this information, these locations are approximate only. No guarantee can be given by Bryan G Hall Limited for their accuracy. It is the client's or its appointed agent/contractor's responsibility to verify the exact locations on site by appropriate means prior to mechanical excavation.

KEY:

- Existing Surface Water Sewer and Manhole
- Existing Foul Water Sewer and Manhole
- Existing Combined Sewer and Manhole
- Proposed Surface Water Sewer and Manhole
- Proposed Surface Water Sewer and Manhole and Backdrop
- Proposed Surface Water Flow Control Manhole
- Proposed Surface Water Lateral Drain and Demarcation Chamber (Greater than 3.0m deep)
- Proposed Surface Water Lateral Drain and Demarcation Chamber with Backdrop
- Proposed Private Surface Water Drain and Inspection Chamber (100mm Ø at 1 in 80 unless specified otherwise)
- Rainwater Down Pipe
- Rodding Eye
- Yard Gully
- ACO drainage Channel or Similar
- Concrete Dished Channel and gully
- Proposed Foul Water Sewer and Manhole
- Proposed Foul Water Sewer and Manhole and Backdrop
- Proposed Foul Water Lateral Drain and Demarcation Chamber (Greater than 3.0m deep)
- Proposed Foul Water Lateral Drain and Demarcation Chamber with Backdrop
- Proposed Private Foul Water Drain and Inspection Chamber (100mm Ø at 1 in 40m at top of run and 1 in 80 minimum elsewhere unless specified otherwise)
- Proposed Private Foul Water Mini Inspection Chamber
- Soil Vent Pipe or Foul Direct Connection
- Proposed Highway Drain and Manhole
- Proposed Highway Gully and 150mm Ø Connection
- Proposed Easement

NOTES:

1. All statutory undertakers equipment in footway and carriageway to be located and diverted before work commences.
2. A pedestrian route through the works shall be maintained at all times and clearly defined by suitable barriers and lights where necessary.
3. The contractor is obliged to obtain necessary road opening and/or sewer connection licence's prior to commencement of the works.
4. One vertical joint per course of brick work shall be left open to allow drainage during construction.
5. All statutory undertakers covers and frames to be adjusted to suit new carriageway levels prior to surfacing.
6. All existing gullies and drain runs to be cleaned of detritus and high pressure water jetted prior to commencement of works.
7. The existing sewers and culverts shown on this drawing are taken from various archives, drainage plans and sewer records. Some of this information is contradictory and the locations shown are interpreted using existing features and manhole locations shown on the survey. The exact depth and location should be verified on-site prior to commencing construction.
8. All adoptable sewer works and material to be in accordance with Sewer Sector Guidance (SSG) / DCG, and the Water Authorities requirements and Kitemarked.
9. All drainage works that shall be adopted by the Water Authority to be subject to their approval prior to commencement on site.
10. All hard standing and impermeable areas outside the adopted highway boundary to be drained and collected in private drainage systems and discharged into the surface water sewer before water encroaches onto the public highway.
11. Gullies should not be located in the area of dropped crossings.
12. The chamber size of manholes with more than one connection in them may need to be increased and increased to accommodate the connections and bends.
13. Sewers to be laid in Class "B" bedding (150mm granular bed and surround). Where depth of cover to top of the sewer is less than 1.2m in highways and verges (or less than 900mm in none vehicular access areas) then a concrete slab should be provided above granular bed and surround. Refer to Sewer Sector Guidance (SSG) / DCG for protection measures.
14. Granular bedding for pipes shall consist of aggregates from natural sources complying with the relevant provisions of BS 882 sized in accordance with the table across.
15. All pipes with a diameter larger or equal to 375mm shall be concrete. Pipes with a diameter less than 375mm shall be clay or ductile iron.
16. Vitrified clay pipes and fittings for sewers shall have flexible mechanical joints. Pipes for foul Sewers and surface water Sewers shall comply with relevant requirements of BS EN295 and BS 65 (surface water pipes only).
17. Manhole covers shallmust have a clear opening of 675mm and shall be Class D400 to BS EN 124 with 150mm deep frames in highways.
18. Filled ground must be filled and consolidated under the supervision and to the satisfaction of the Water Authority before any sewer works are carried out.
19. The Water Authority is not obliged to accept filter drain/land drainage runoff into the public sewer network or adoptable drainage system (directly or indirectly). An alternative method of disposal of the land drainage runoff will therefore be required and you will have to liaise with the Local Authority, Land Drainage Section with regard to the disposal of the filter drain/land drainage runoff.
20. Cover slabs must carry the BSI Kitemark or will be rejected by the Water Authority Inspectors. Where the clear opening of the Kitemarked product is different to that of the cover and frame, a loading bearing slab should be fitted above the cover slab to bring the size down to 675mm x 675mm for the the Water Authorities specified cover size. Please refer to Concrete Pipe Systems Association (CPSA) "Technical Bulletin' issued Autumn 2004 for Kitemarked cover slab opening sizes.
21. Sulphate Resistant cement (CZ0-DC2) and precast concrete products must be used or a laboratory report provided proving that such precautions are not necessary.
22. The adoptable sewers should be a minimum of 1m and manholes 0.5m from kerb faces and service margins.
23. Sewers must have 5.0m clearance from trees and hedges. (refer to Sewer Sector Guidance (SSG) / DCG for restrictions on tree planting adjacent to sewers).
24. All private work to be in accordance with current building regulations.
25. Drains passing through buildings to be protected with lintel cover.
26. No building to take place within 3.0m of an adoptable sewer.
27. Where adoptable pipes have 150mm concrete bed and surround protection, all joints to be provided with 18mm thick flexible filler.
28. No services to be sited over or within 1.0m of an adoptable sewer.
29. Private drainage connections not direct to manholes are to be made via a 45 degree junction and not saddles.
30. Bedding and backfill material to conform to the requirement of Water Industry Specification 4-08-02 (Table A2).
31. Any proposed sewers located within 5 meters of the public sewer shall be ductile iron pipe work.

Rev:	Date:	Amendment:	DRN	CHK	APR
K	28.05.25	New site layout Rev S received 28.05.25 and associated details updated.	NB	IE	
J	20.05.25	Updated following Kirklees comments dated 17.04.25	NB	IE	
I	16.04.25	Updated following Kirklees comments dated 02.04.25	JI	NB	IE
H	03.03.25	Private drainage cover levels updated at plots 5-16	NB	IE	
G	10.01.25	Details updated following Kirklees comments dated 10.01.25.	NB	IE	

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Client: Newett Homes

Status:

Scale: 1:250 Drawn: NB Chkd: IE Appvd:

Size: A0 - 1189 x 841

Project: Residential Development
Penistone Road, Fenay Bridge

Title: Drainage

Drawing No: 22/491/500/001 Revision: K

Job No: 22-491 Date: 06.02.23

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