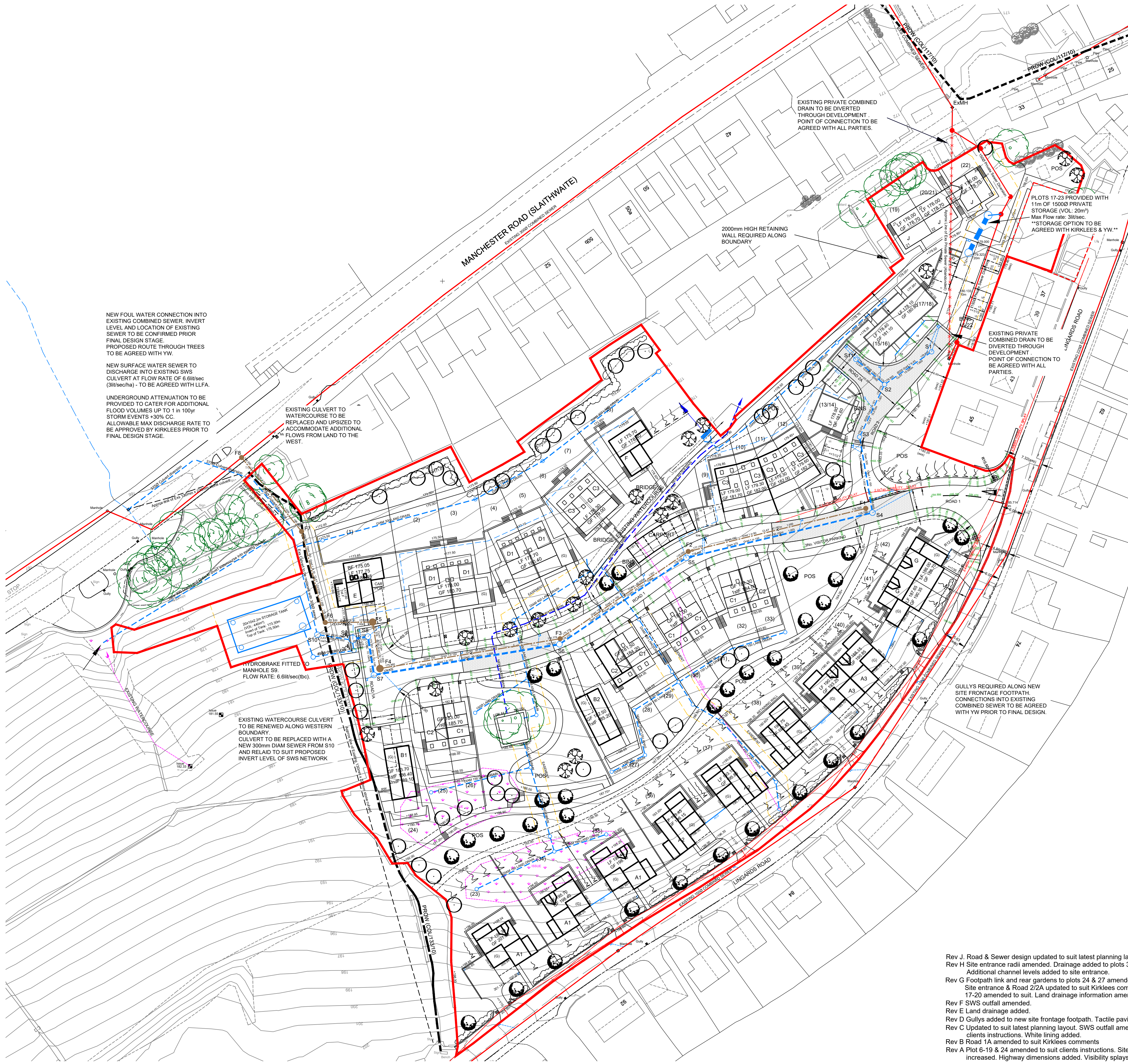




1. ALL ADOPTABLE SEWER WORKS AND MATERIAL TO BE IN ACCORDANCE WITH "CODES FOR ADOPTION", THE RELEVANT BRITISH/EUROPEAN AND YORKSHIRE WATER'S STANDARDS/REQUIREMENTS/ADDENDUM TO THE MECHANICAL AND ELECTRICAL SPECIFICATION AND KITEMARKED.
2. MANHOLE COVERS SHALL HAVE A CLEAR OPENING OF 600mm AND SHALL BE CLASS D400 TO BS EN 124 WITH 150mm DEEP FRAMES IN HIGHWAYS.
3. FILLED GROUND MUST BE FILLED AND CONSOLIDATED UNDER THE SUPERVISION AND TO THE SATISFACTION OF YORKSHIRE WATER BEFORE ANY SEWER WORKS ARE CARRIED OUT.
4. YORKSHIRE WATER 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.
5. COVER SLABS MUST CARRY THE BSI KITEMARK OR WILL BE REJECTED BY YORKSHIRE WATER INSPECTOR. 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 600x600mm FOR THE YORKSHIRE WATER SPECIFIED COVER SIZE. PLEASE REFER TO CONCRETE PIPE SYSTEMS ASSOCIATION (CPSA), 'TECHNICAL BULLETIN' ISSUED AUTUMN 2004 FOR KITEMARKED COVER SLAB OPENING SIZES.
6. SULPHATE RESISTANT CEMENT (C20-DC2) AND PRECAST CONCRETE PRODUCTS MUST BE USED OR A LABORATORY REPORT PROVIDED PROVING THAT SUCH PRECAUTIONS ARE NOT NECESSARY.
7. THE ADOPTABLE SEWERS SHOULD BE A MINIMUM OF 1m AND MANHOLES 0.5m FROM KERB FACES.
8. SEWERS MUST HAVE 5m CLEARANCE FROM TREES AND HEDGES.
9. SEWERS TO BE LAID IN CLASS "S" 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 175mm CONCRETE SLAB OVER SEWER SHALL BE PROVIDED.
10. ALL PIPEWORK 300mm DIAM. OR LESS TO BE VITRIFIED CLAY CONFORMING WITH BS 65. MINIMUM CRUSHING STRENGTHS TO BE AS FOLLOWS: 100mm DIA. 40kN/m, 150mm DIA 40kN/m, 225mm DIA 40kN/m, 300mm DIA 72kN/m.
11. ALL PIPEWORK 375mm DIAM. OR GREATER TO BE CONCRETE CLASS 120 TO EN 1916/ BS 5911-1: 2002.
12. THE CHAMBER SIZE OF MANHOLES WITH MORE THAN ONE CONNECTION IN THEM MAY NEED TO BE INCREASED AN INCREMENT TO ACCOMMODATE THE CONNECTIONS AND BENDS.
13. YORKSHIRE WATER POLICY IS NOT TO ACCEPT TYPE "C" BRICK MANHOLES AND 1050mm DIAM. MANHOLE RINGS. INSTEAD IT IS PREFERRED THAT YOU USE A TYPE "B" MANHOLE WITH 1200mm DIAM. OR 1500mm DIAM. RINGS, WITH THE OPENING SIGHTED OVER THE CHANNEL WHERE DEPTH OF COVER TO PIPE SOFFIT IS 1-1.5m.
14. ALL HIGHWAY WORKS AND MATERIAL TO CONFORM WITH KIRKLEES COUNCIL DESIGN GUIDANCE AND SPECIFICATION.
15. GULLY COVER AND FRAMES SHALL BE D400 DUCTILE IRON AND COMPLY WITH EUROPEAN STANDARD BS EN 124. THOSE SIGHTED IN ACCESSWAYS AND MEWS COURTS MUST BE SUITABLE FOR USE IN PEDESTRIAN AREAS.
16. BEDDING AND BACKFILL MATERIAL TO CONFORM TO THE REQUIREMENT OF WATER INDUSTRY SPECIFICATION 4-08-2 (TABLE A2).
17. PLASTIC CHANNEL SECTIONS IN MANHOLES ARE NOT ACCEPTABLE AND YORKSHIRE WATER WOULD PREFER CLAYWARE CHANNELS IN MANHOLES. YORKSHIRE WATER HAVE FOUND THAT PLASTIC CHANNELS ARE DIFFICULT TO SET IN CONCRETE AS THEY FLOAT AND A SATISFACTORY FINISH CANNOT BE OBTAINED ON BENCHING.
18. WHERE A 6125 COVER AND FRAME HAS BEEN APPROVED, THIS **MUST NOT** BE COATED IN PLASTIC AND MUST HAVE LIFTING EYES SUITABLY SIZED TO ACCOMMODATE STANDARD LIFTING KEYS. SCREW DOWN COVERS ARE **NOT** ACCEPTABLE.
19. THERE SHOULD BE ENOUGH CLEARANCE TO ACCOMMODATE THE BEDDING FOR BOTH PIPES, APPROX 300mm : IF CROSSOVER IS NEAR THE ROCKER THEN THE CLEARANCE NEEDED MAY BE INCREASED.

KIRKLEES PAVEMENT DESIGN

ROAD LAYER	ALTERNATIVE MATERIAL	SHARED SURFACE/ HOME ZONE	LOCAL RESIDENTIAL STREET	CONNECTOR STREET	INDUSTRIAL ROAD
SURFACE COURSE	10mm stone mastic asphalt surface course SMA 14 surf 40/60			50	50
	0/8mm dense surface course AC 6 dense surf 100/150	30	30		
	Concrete block paving on 30mm sand bed red or brindle or similar approved. (Tegula / Yorkstone in conservation area)	80	N/A	N/A	N/A
BINDER COURSE	0/20 dense binder course AC 20 dense bin 100/150	55	55	55	55
BASE COURSE	0/32 dense / binder course AC 32 dense base / bin 100/50	85	85	85	150

KIRKLEES PAVEMENT FOUNDATION DESIGN

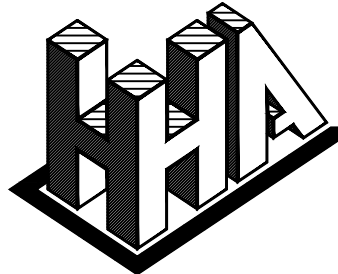
	SUBBASE ON CAPPING			SUBBASE ONLY
CBR %	CAPPING(mm)	+ SUB BASE(mm)		SUB BASE(mm)
<2.5	Ground improvement will need to be considered to improve the subgrade CBR			
2.5	430	250	OR	420
3	380	230		370
4	320	220		320
5-15	260 -160	200		280 - 210
Greater than 15	150	200*		200*

*Minimum required type 1 subbase thickness to achieve 450mm (from the designed final surface) of non-frost susceptible material

- *Recommended minimum: 150mm sub-base + 600mm capping with layer 1 geogrid
1. Where <2m of made ground is present full excavation and replacement with engineered fill is required (usually without geogrids).
 2. Where 2m to 5m of made ground is present a minimum 2m depth of excavation is required and replacement with geogrid (minimum 2 no. layers) reinforced engineered fill (proposal requires approval).
 3. Where >5m of made ground is present specific ground improvement (proposal requires approval) is required.

KIRKLEES FOOTWAY AND CYCLEWAY PAVEMENT DESIGN

TYPE	CBR	SUB-BASE(mm)	BASE (mm) AC 32 dense base 100 / 150	BINDER COURSE (mm) AC 20 dense base 100 / 150	SURFACE COURSE(mm) AC 6 dense base 100 / 150
Pedestrian only Footway / Cycleway or Footpath	≥ 2.5%	100	0	50	20
Vehicular Footway Crossing or Light-Vehicle footways / cycleways	≥ 2.5%	225	0	50	20
Heavy-Vehicle footways/ Cycleways	≥ 2.5%	320	90	0	25
	≥ 2.5% & ≤ 4%	210	90	0	25



Haigh Huddleston & Associates

Civil Structural Engineering Consultants

Firth Buildings, 99 - 101 Leeds Rd, Dewsbury, WF12 7BU t 01924 464342 f 01924 450662

e trevor.haigh@haighhuddleston.co.uk

Client

SB HOMES

Project

LINGARD ROAD, SLAITHWAITE

Detail

MAIN ROAD AND SEWER PLAN

Dwn

HH

Chkd

Date

JUN-22

Scale

1:500@A1

Dwg No.

E19/7567/004J

- Rev J. Road & Sewer design updated to suit latest planning layout Rev N. 23.01.23 HH
Rev H Site entrance radii amended. Drainage added to plots 34-43. 05.12.22 HH
Additional channel levels added to site entrance. 23.11.22 HH
Rev G Footpath link and rear gardens to plots 24 & 27 amended. 23.11.22 HH
Site entrance & Road 2/2A updated to suit Kirklees comments. FFL's to plots 17-20 amended to suit. Land drainage information amended to suit LLFA comments. 19.10.22 HH
Rev F SWS outfall amended. 13.10.22 HH
Rev E Land drainage added. 12.10.22 HH
Rev D Gullies added to new site frontage footpath. Tactile paving added. 11.10.22 HH
Rev C Updated to suit latest planning layout. SWS outfall amended to suit clients instructions. White lining added. 21.07.22 HH
Rev B Road 1A amended to suit Kirklees comments 21.07.22 HH
Rev A Plot 6-19 & 24 amended to suit clients instructions. Site entrance radii increased. Highway dimensions added. Visibility plays added to plots 36-41.