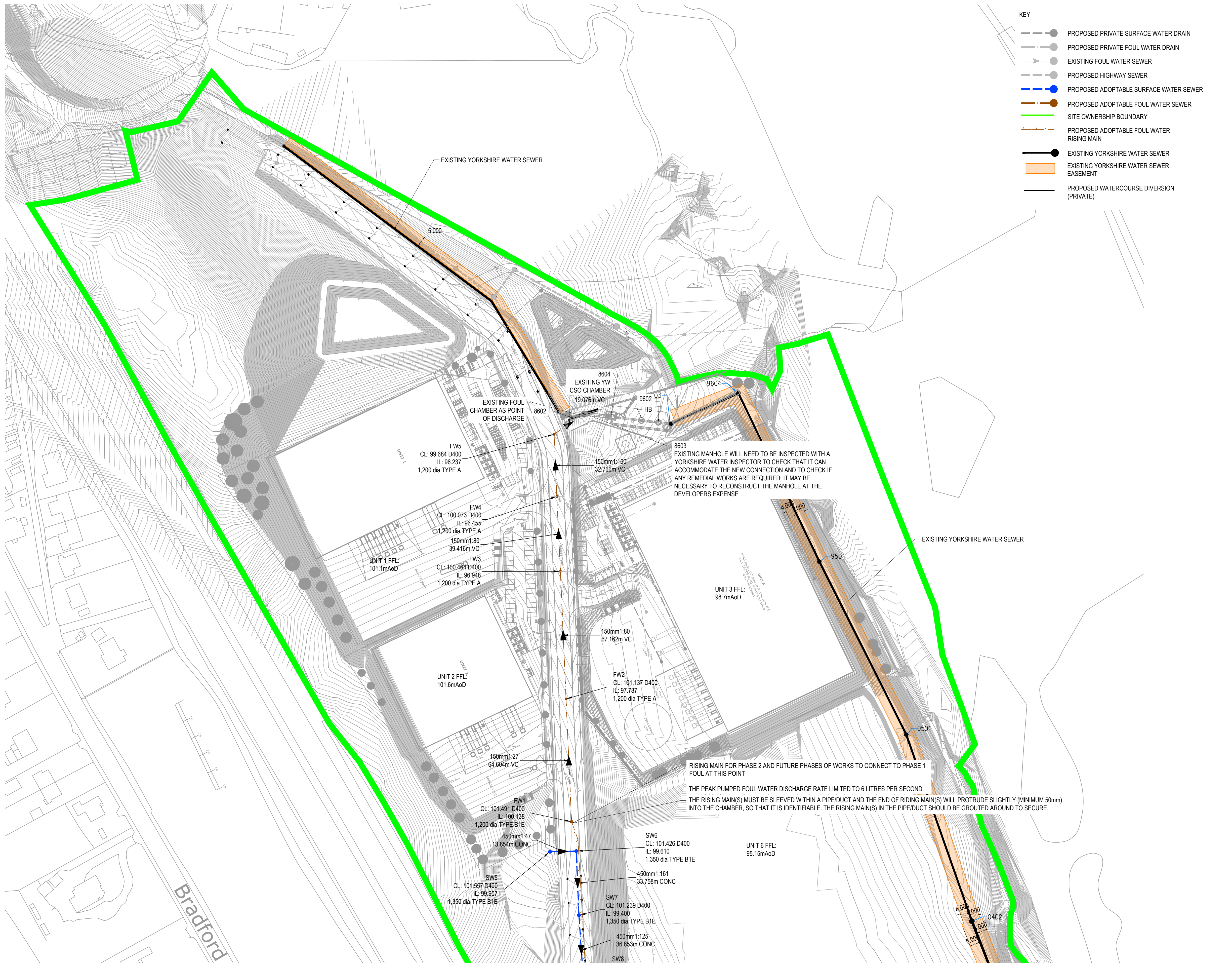


YORKSHIRE WATER NOTES

1. ALL ADAPTABLE SEWER WORKS AND MATERIAL TO BE IN ACCORDANCE WITH "CODE FOR ADOPTION". THE RELEVANT BRITISH/EUROPEAN AND YORKSHIRE WORKS' STANDARDS/REQUIREMENTS/ADDENDUM TO THE MECHANICAL AND ELECTRICAL SPECIFICATION AND KITEMARKED
2. MANHOLE COVERS SHALL/MUST HAVE A CLEAR OPENINGS 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 DRAINLAND DRAINAGE RUN-OFF INTO THE PUBLIC SEWER NETWORK OR ADAPTABLE DRAINAGE SYSTEM (DIRECTLY OR IN-DIRECTLY). AN ALTERNATIVE METHOD OF DISPOSAL OF FLOOD DRAINAGE RUN-OFF WILL, HOWEVER, BE REQUIRED AND YOU WILL HAVE TO LAISE WITH THE LOCAL AUTHORITY LAND DRAINAGE SECTION WITH REGARDS TO THE DISPOSAL OF FILTER DRAINLAND DRAIN RUN-OFF.
5. COVER SLABS MUST CARRY THE BS1 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 LOAD 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-DCE) AND PRECAST CONCRETE PRODUCTS MUST BE USED OR A LABORATORY REPORT PROVIDED PROVING THAT SUCH PRECAUTIONS ARE NOT NECESSARY.
7. THE ADAPTABLE SEWERS SHOULD BE A MINIMUM OF 1m AND MANHOLES 0.5m FROM KERB FACES AND SERVICE MARGINS.
8. SEWERS MUST HAVE 5 METRES CLEARANCE FROM TREES AND HEDGES (PLEASE ALSO REFER TO FIGURE 2.3 ON PAGE 33 IN "SEWERS FOR ADOPTION" 6TH EDITION FOR RESTRICTIONS ON TREE PLANTING ADJACENT TO SEWERS)
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 NON-VEHICULAR ACCESS AREAS AND THE CONCRETE SLAB SHOULD BE PROVIDED ABOVE GRANULAR BED AND SURROUND.
10. BEDDING AND BACKFILL TO CONFORM TO THE REQUIREMENT OF THE WATER INDUSTRY SPECIFICATION 4-08-02 (TABLE A2)
11. THE CHAMBER SIZE OF MANHOLES WITH MORE THAN ONE CONNECTION IN THEM MAY BE OF INCREASED AN INCREMENT TO ACCOMMODATE THE CONNECTIONS AND BENDS
12. YORKSHIRE WATER POLICY IS NOT TO ACCEPT TYPE "C" BRICK MANHOLES AND 1500mm DIA MANHOLE RINGS. INSTEAD IT IS PREFERRED THAT YOU USE A TYPE "B" MANHOLE WITH 1200mm DIA OR 1500mm DIA RINGS, WITH OPENING SITED OVER THE CHANNEL WHERE DEPTH OF COVER TO PIPE SOFFIT IS 1 - 1.5m.
13. SEWERS MUST HAVE 5 METRES CLEARANCE FROM TREES AND HEDGES OR WIDTH OF CANOPY A MATURE HEIGHT
14. THERE SHOULD BE ENOUGH CLEARANCE TO ACCOMMODATE THE BEDDING FOR BOTH PIPE. APPROX 300mm IF CROSSOVER IS NEAR THE ROCKER THEN THE CLEARANCE MAY BE INCREASED.
15. ADAPTABLE / PLASTIC SEWER PIPES TO BE BS1 KITEMARKED (**CERTIFIED TO WIS 4-35-01 AND BS EN1347**). ADAPTABLE / PLASTIC SEWER PIPES TO BE LAID IN MAXIMUM 3 METRE LENGTHS UNLESS THERE IS A SPECIFIC OPERATIONAL NEED TO LAY LONGER LENGTHS. PLASTIC CHANNEL SECTIONS IN MANHOLES ARE NOT ACCEPTABLE AND YORKSHIRE WATER WOULD PREFER CLAYWARE CHANNEL IN MANHOLES. WE HAVE FOUND THAT PLASTIC CHANNELS ARE DIFFICULT TO SET IN CONCRETE BECAUSE THEY FLOAT AND A SATISFACTORY FINISH CANNOT BE OBTAINED ON THE BENCHING.
16. THE MINIMUM CRUSHING STRENGTH FOR CLAY PIPES SHOULD BE AS FOLLOWS: 100mm DIA 40kNm, 150mm DIA 40kNm, 225mm DIA 45 kNm AND 300mm DIA 70kNm. MINIMUM CRUSHING STRENGTH FOR CONCRETE PIPES SHOULD BE - (**CLASS 120 TO EN 1916/BS5911-1: 2002**). PLASTIC PIPES SHOULD CONFORM TO WIS 4-35-01 AND BS EN1347.
17. WHERE A B125 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.

P05	REVISED TO AMENDED PUMP STATION POSITION	06/04/22	EF	ACS
P04	REVISED TO YW COMMENTS	14/03/22	EF	ACS
P03	REVISED TO SUIT YW COMMENTS	26/01/22	EF	ACS
P03	REVISED TO SUIT HIGHWAYS REQUIREMENTS	13/03/21	OT	OT
P02	REVISED TO SUIT HIGHWAYS UPDATES	23/10/21	OT	OT
P01	FIRST ISSUE	13/03/21	OT	NT
Rev:	Description:	Date:	By:	Chkd:



Rose Wharf Ground Floor, 78-80 East Street, Leeds, LS9 8EE
0113 274 8509
leeds@curtins.com
www.curtins.com

Civils & Structures • Transport Planning • Environmental • Infrastructure • Geotechnical • Conservation & Heritage • Principal Designer
Birmingham • Bristol • Cambridge • Cardiff • Douglas • Dublin • Edinburgh • Glasgow • Kendal • Leeds • Liverpool • London • Manchester • Nottingham

Status	
--------	--

SUITABLE FOR INFORMATION

S2

Project

INTERCHANGE 26

Drug Title

S104 DRAINAGE
LAYOUT
NORTH

Size:	Date:	Drawn By:	Designed By:	Checked By:
A1	13/03/21	OT	OT	OT
Scale: 1:1000				

Project No:	Originator:	Volume:	Level:	Type:	Role:	Category / Number:	Rev:
065646	- CUR	- 00	- ZZ	- DR	- C	- 92501	- P06