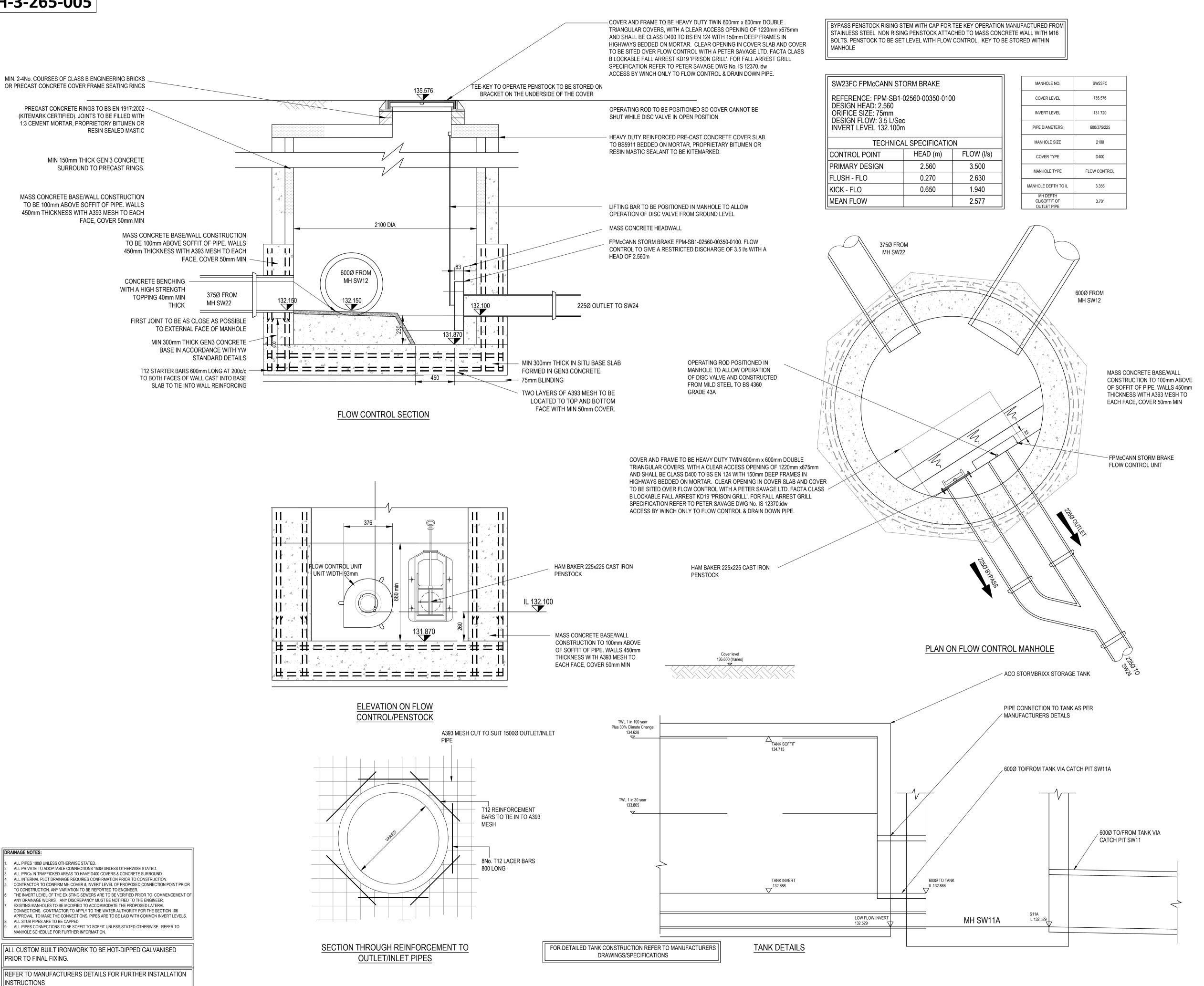
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CONTRACTOR SHOULD BE AWARE OF GENERAL CONSTRUCTION RISKS TO PREVENT SLIPS, TRIPS AND FALLS AND TAKE NECESSARY PRECAUTIONS WITHOUT SPECIAL INSTRUCTION.

ROADS & DRAINAGE
2. CONTRACTOR TO PROVIDE TRENCH SUPPORTS AS APPROPRIATE AND ENSURE THAT PLANT REMAINS A SAFE DISTANCE FROM TRENCHES PRIOR TO INSTALLING DRAINAGE

- 3. THE TIME THAT EXCAVATIONS ARE OPEN ON SITE SHOULD BE KEPT TO A MINIMUM AND ALL TRENCHES SHOULD BE SURROUNDED BY A BARRIER
- 4. CONNECTIONS TO EXISTING SEWERS TO BE MADE BY APPROVED CONTRACTOR ONLY. 5. CONTRACTOR TO MAKE OPERATIVES AWARE OF ASSOCIATED DANGERS TO HEALTH SUCH AS
- LEPTOSPIROSIS (WEILS DISEASE) AND RECOMMENDED PRECAUTIONS. ADEQUATE WELFARE FACILITIES AND PROTECTIVE CLOTHING TO BE PROVIDED AS REQUIRED.

6. UNFINISHED MANHOLES MUST BE COVERED WITH LOAD BEARING MATERIALS AND SURROUNDED WITH

PIPES & CABLES

7. CONTRACTOR TO OBTAIN ALL SERVICE RECORDS PRIOR TO WORKS COMMENCING. 8. SERVICE RECORDS TO BE REFERRED TO PRIOR TO WORK COMMENCING. CONTRACTOR TO PROCEED WITH CAUTION AND SERVICES TO BE LOCATED BY HAND DIG AND PROTECTED ACCORDINGLY.

EXCAVATION/FILL 9. CONTRACTOR TO ENSURE RELEVANT MEASURES ARE TAKEN TO KEEP PLANT AND PEOPLE A SAFE

- DISTANCE FROM STEEP SLOPES DURING THE WORKS. 10. CONTRACTOR TO ENSURE THAT PROCEDURES ARE IN PLACE TO KEEP PEOPLE A SAFE DISTANCE FROM
- WORKING PLANT WHERE NECESSARY. 11. CONTRACTOR TO REFER TO GROUND INVESTIGATION REPORT FOR CONTAMINATION TESTS AND TO PROVIDE ADEQUATE WELFARE FACILITIES AND PROTECTIVE CLOTHING AS REQUIRED.

DRAINAGE SPECIFICATIONS FOR YORKSHIRE WATER

- 1. ALL ADOPTABLE SEWER WORKS AND MATERIAL TO BE IN ACCORDANCE WITH DESIGN AND CONSTRUCTION GUIDANCE (CODE FOR ADOPTION). THE RELEVANT BRITISH/EUROPEAN AND YORKSHIRE WATER'S STANDARDS/REQUIREMENTS/ADDENDUM TO THE MECHANICAL AND ELECTRICAL SPECIFICATION AND
- KITEMARKED 2. MANHOLE COVER SHALL/MUST 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 RUN-OFF INTO PUBLIC SEWER NETWORK OR ADOPTABLE DRAINAGE SYSTEM (DIRECTLY OR IN-DIRECTLY). AN ALTERNATIVE
- METHOD OF DISPOSAL OF THE LAND DRAINAGE RUN-OFF 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 RUN-OFF.
- 5. THE ADOPTABLE SEWERS SHOULD BE A MINIMUM OF 1m AND MANHOLES 0.5m FROM KERB FACES AND
- 6. SEWERS MUST HAVE 5 METRES CLEARANCE FROM TREES AND HEDGES OR THE WIDTH OF THE CANOPY AT MATURE HEIGHT 7. 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 CONCRETE SLAB SHOULD BE PROVIDED ABOVE GRANULAR BED AND SURROUND
- 8. THERE MUST BE ENOUGH CLEARANCE AT CROSSOVERS TO ACCOMMODATE BEDDING TO BOTH PIPES, APPROX. 300mm: IF CROSSOVER IS NEAR THE ROCKER THEN THE CLEARANCE NEEDED MAY BE
- 9. BEDDING AND BACKFILL MATERIAL TO CONFORM TO THE REQUIREMENT OF WATER INDUSTRY SPECIFICATION 4-08-02 (TABLE A2)
- 10. ADOPTABLE PLASTIC SEWER PIPES TO BE BSI KITEMARKED (CERTIFIED TO WIS 4-35-01 AND BS/EN13476) ADOPTABLE 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 WOLLD NOT PREFER CLAYWARE CHANNEL IN MANHOLES 11. THE MINIMUM CRUSHING STRENGTH FOR CLAY PIPES SHOULD BE AS FOLLOWS: 100mm dia. 40KN/m, 150mm dia. 40KN/m, 225mm dia. 45KN/m AND 300mm dia. 72KNN/m. THE 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 EN13476

 12. YORKSHIRE WATER POLICY IS THAT TYPE "C" BRICK MANHOLES AND 1050mm dia. MANHOLE RINGS ARE NOT PREFERRED. INSTEAD IT IS PREFERRED THAT YOU USE A TYPE "B" MANHOLE WITH 1200mm dia OR 1500mm dia RINGS, WITH THE OPENING SITED OVER THE CHANNEL WHERE DEPTH OF COVER TO PIPE
- 13. 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.

OTHER DRAINAGE NOTES

- 14. ALL PRIVATE DRAINAGE WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH BUILDING REGULATIONS
- 15. CONTRACTOR TO ESTABLISH POSITION SIZE AND DEPTH OF ALL EXISTING SEWERS AND SERVICES PRIOR TO COMMENCEMENT ON SITE.
- 16. THE CONTRACTOR SHALL ALLOW FOR THE PROTECTION, TEMPORARY AND PERMANENT SUPPORT, AND TEMPORARY AND PERMANENT DIVERSION WORKS, AS NECESSARY TO ALL EXISTING SERVICES.
- 17. THE CONTRACTOR SHALL ALLOW FOR ALL TRAFFIC MANAGEMENT IN CONNECTION WITH ROAD AND SEWER WORKS.
- 18. THE CONTRACTOR SHALL ALLOW FOR KEEPING SEWER TRENCHES AND EXCAVATIONS AS DRY AS PRACTICABLE BY PUMPING FROM TEMPORARY SUMPS AND DEWATERING AS APPROPRIATE. THE POINT
- AND METHOD OF DISCHARGE TO BE AGREED WITH THE DRAINAGE AUTHORITY. 19. FOR PIPE SPECIFICATION PLEASE REFER TO ADDITIONAL NOTES.
- 20. VITRIFIED CLAY PIPES AND FITTINGS SHALL COMPLY WITH THE RELEVANT PROVISIONS OF BS EN295 AND
- BS 65 RESPECTIVELY AND BE KITEMARKED. ALL PIPES SHALL BE EXTRA STRENGTH TO BS 65 OR EQUIVALENT BS EN295 PIPE CRUSHING STRENGTH.
- 21. PRECAST CONCRETE PRODUCTS SHALL COMPLY WITH THE RELEVANT PROVISIONS OF BS 5911 AND BE KITEMARKED. CONCRETE PIPES TO BE CLASS 120 UNLESS NOTED OTHERWISE.
- 22. GULLY GRATES AND FRAMES SHALL COMPLY WITH THE RELEVANT PROVISIONS OF BS EN124 AND BE OF A NON-ROCKING DESIGN WITH CAPTIVE HINGE ACCESS AND BE KITEMARKED. LOAD CLASS D400 FOR ROADS
- AND SERVICE YARD AREAS. CLASS C250 TO BE USED IN CAR PARKING AREAS. 23. BACKFILLING AND REINSTATEMENT TO TRENCHES IN PUBLIC HIGHWAYS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS AND SPECIFICATIONS OF THE ADOPTING AUTHORITY, OR, IN THE ABSENCE OF SUCH, IN ACCORDANCE WITH THE REQUIREMENTS OF "THE STREET WORKS REGULATIONS 1992" AND RELEVANT
- PROVISIONS OF H.A.U.C. "SPECIFICATION FOR THE REINSTATEMENT OF OPENINGS IN HIGHWAYS" JUNE 1992, BOTH UNDER SECTION 71 OF THE NEW ROADS AND STREET WORKS ACT 1991. 24. ALL TRADITIONAL RAINWATER PIPE DOWN COMERS TO DISCHARGE TO TRAPPED GULLIES 25. ALL SIPHONIC DRAINAGE DOWN COMERS TO MANUFACTURER SPECIFICATION.
- 27. ALL GULLY LEADS TO BE 150mm DIAMETER.

REQUIRED PRIOR TO APPROVAL AT THE DEVELOPERS EXPENSE.

PROSPECTIVELY ADOPTABLE SEWERS.

- 28. ALL REDUNDANT EXISTING DRAINAGE TO BE GRUBBED UP OR GROUTED, ANY EXISTING LIVE DRAINAGE
- SHOULD BE REPORTED TO THE ENGINEER AND RECONNECTED. 29. ALL ROAD GULLIES & LEADS TO BE CLEARED OF DEBRIS UPON COMPLETION OF WORKS 30. THE CONTRACTOR MUST ENSURE THAT ANY OF THE EXISTING DRAINAGE WHICH IS LIVE IS KEPT CLEAR OF
- DEBRIS AND SHOULD ALLOW FOR JETTING THROUGH THE NEW & EXISTING DRAINAGE UPON COMPLETION. 31. CONTRACTOR TO TAKE MEASURES TO PROTECT HIS OPERATIVES WITH RESPECT TO THE PRESENCE OF GAS IN SEWER TRENCHES AND MANHOLES THROUGH THE USE OF GAS MONITORING EQUIPMENT AND BREATHING APPARATUS AS REQUIRED.
- 32. CONTRACTOR TO APPLY FOR SEWER PERMITS AND ROAD OPENING PERMITS AS NECESSARY FROM THE APPROPRIATE AUTHORITIES, PRIOR TO COMMENCING WORKS.
- 33. WHERE PLASTIC PIPES ARE INSTALLED PRIOR TO GETTING APPROVAL THEN A LIGHT LINE CCTV SURVEY AND REPORT (ELECTRONIC DEFLECTION TESTING) OF THE PROSPECTIVELY ADOPTABLE SEWERS ARE

YORKSHIRE WATER NOTES

ALL ADOPTABLE SEWERS TO BE BSI KITEMARK (CERTIFIED TO WIS 4-35-01) ADOPTABLE 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. PLASTIC CHANNELS ARE DIFFICULT TO SET

IN CONCRETE BECAUSE THEY FLOAT AND A SATISFACTORY FINISH CANNOT BE OBTAINED ON THE WHERE PLASTIC PIPES ARE INSTALLED INTO THE GROUND PRIOR TO APPROVAL, THE DEVELOPER WILL HAVE TO PROVIDE A LIGHT-LINE CCTV SURVEY AND REPORT OF THE

SUBJECT TO LOCAL AUTHORITY & WATER AUTHORITY APPROVAL

Date	Revisions	Drawn	Checked	Re
17.11.2022	FIRST ISSUE	P.A.S.	R.P.B.	·
28.07.2023	AMENDED TO SUIT 3.5L/Sec DISCHARGE RATE AS PER YORKSHIRE REQUIREMENTS	P.A.S.	A.E.	- 1
19.09.2023	UPDATED TO SUIT YW S104 COMMENTS 08.09.2023	P.A.S.	A.E.	3

Dwg Status

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PRELIMINARY

YORKSHIRE 0113 5323500 **CONSULTING ENGINEERS** WWW.RWO.GROUP INFO@RWO.GROUP

YELCON LIMITED

WOODWALK, BARNSLEY

FLOW CONTROL UNIT AND ATTENUATION TANK

DO NOT SCALE | Scale @ A1: 1:20 | Drawn P.A.S. | Checked R.P.B. | Date 17.11.2022