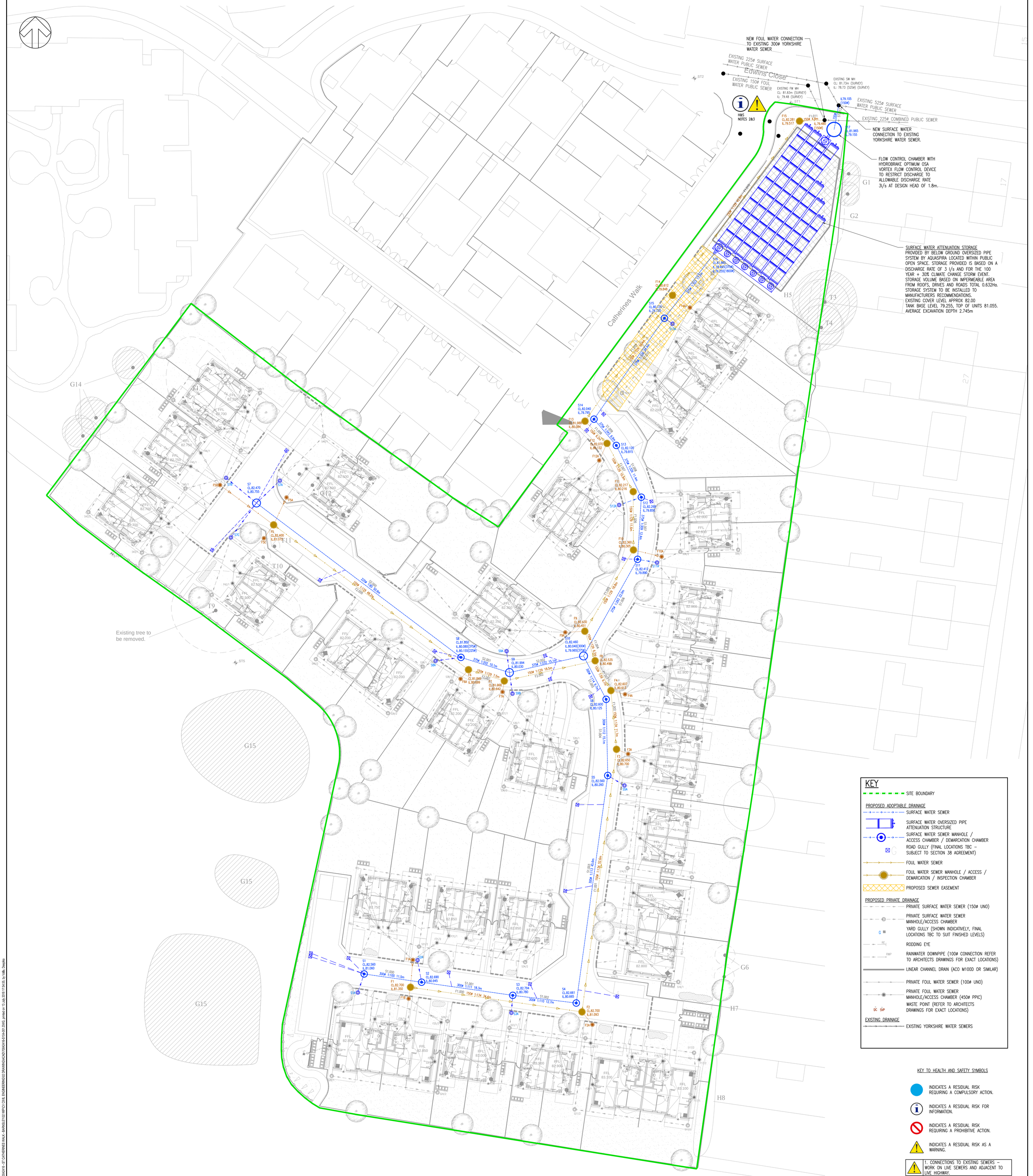
DO NOT SCALE

NOTES

1. ALL DIMENSIONS ARE SHOWN IN MILLIMETRES, ALL LEVELS ARE SHOWN IN METRES.
2. THIS DRAWING IS BASED ON THE TOPOGRAPHIC SURVEY CONDUCTED BY ELLAM LAND SURVEYS DRAWING REFERENCE 6759/1 AND ARCHITECTS PLANNING LAYOUT.
3. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT WSP, ARCHITECTS AND M&E CONSULTANTS DRAWINGS AND PROJECT SPECIFICATIONS.
4. RAINWATER PIPES – ALL CONNECTIONS FROM RWP'S TO BE 110ø 1/60 MIN WITH CLASS Z BEDDING.
5. THRESHOLD DRAINS – WHERE REQUIRED, SLOT DRAIN TO BE PROVIDED ACROSS DOORWAYS IN-LINE WITH ARCHITECTS DETAILS AND CONNECTED WITH 110ø OUTLET TO NEAREST AVAILABLE SURFACE WATER DRAIN WITH JUNCTION OR DIRECT TO MANHOLE/PPIC.
6. WASTE PIPE CONNECTIONS – ALL CONNECTIONS FROM WPC'S TO BE 110ø 1:40 MIN / 1:10 MAX. WHERE PIPE RUNS ARE WITHIN FLOOR VOID CLASS ZX BEDDING SURROUND SHALL BE USED (REFER TO STANDARD DETAILS DRAWINGS) OTHERWISE CLASS S BEDDING TO BE USED.
7. ALL BUILDING DRAINAGE WORKS CARRIED OUT IN ACCORDANCE WITH BS EN:752 DRAINAGE AND SEWER SYSTEMS OUTSIDE BUILDING, THE CURRENT BUILDING REGULATIONS AND THE LOCAL AUTHORITY BUILDING CONTROL SPECIFICATIONS AND REQUIREMENTS.
8. ANY DRAINAGE AS DESIGNATED OUTSIDE OF THE SITE PUT FORWARD FOR ADOPTION CONSTRUCTED TO "SEWERS FOR ADOPTION 6TH EDITION" AND ANY SPECIFIC REQUIREMENTS OF THE ADOPTING AUTHORITY.
9. THE LOCATION, SIZE AND DEPTH OF ALL EXISTING DRAINS/SEWERS AND SERVICES SHALL BE ESTABLISHED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF WORKS ON SITE. ANY DISCREPANCIES FROM THE INFORMATION INDICATED ON THESE DRAWINGS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
10. THE CONTRACTOR SHALL ALLOW FOR THE PROTECTION, TEMPORARY AND PERMANENT SUPPORT AND DIVERSION WORKS AS NECESSARY, TO ALL EXISTING SERVICES TO THE SATISFACTION OF THE PUBLIC UTILITIES.
11. THE CONTRACTOR SHALL ALLOW FOR DEALING WITH SURFACE WATER RUN-OFF INTO EXCAVATIONS AND FROM GROUNDWATER BY MEANS OF SUMPS, PUMPING AND DE-WATERING AS APPROPRIATE, IN ORDER TO KEEP THE EXCAVATION AS REASONABLY DRY AS POSSIBLE DURING THE CONSTRUCTION OF THE WORKS.
12. ALL LEVELS AND DIMENSIONS SHALL BE VERIFIED ON SITE PRIOR TO THE COMMENCEMENT OF ANY WORKS. ANY DISCREPANCIES SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
13. THE CONTRACTOR SHALL TAKE ALL NECESSARY SAFETY PRECAUTIONS IN LINE WITH CURRENT LEGISLATION WHEN WORKING IN/NEAR CONFINED SPACES, DEEP EXCAVATIONS AND MACHINERY.
14. THE CONTRACTOR SHALL ALLOW FOR OBTAINING ALL APPROVALS FROM THE RELEVANT AUTHORITIES WHEN WORKING IN THE PUBLIC HIGHWAY AND ON THE SEWERAGE SYSTEM.
15. THE CONTRACTOR SHALL SUITABLY PROTECT PEDESTRIANS AND VEHICLES FROM THE WORKING AREAS.
16. ALL PIPES LAID WITH SOFFITS LEVEL AND ALL MANHOLE/INSPECTION CHAMBER INVERT LEVELS SHOWN ARE FOR THE OUTLET PIPE (UNLESS OTHERWISE SHOWN). PIPE RUNS LAID TO THE LEVELS INDICATED, AND ALL PIPE GRADIENTS INDICATED ARE APPROXIMATE.
17. ALL RAINWATER PIPES/INTERNAL FOUL DRAIN CONNECTIONS ARE TO BE AS SHOWN, WITH ADAPTORS AT FINISHED FLOOR LEVEL TO SUIT CONNECTION DETAILS BY OTHERS. FOR EXACT LOCATIONS REFER TO ARCHITECT'S DETAILS.
18. UPON COMPLETION OF THE WORKS THE CONTRACTOR SHALL CLEAN ALL DRAINAGE BY JETTING, REMOVING ALL DEBRIS FROM SITE. NO DEBRIS SHALL BE PERMITTED TO ENTER THE PUBLIC SEWER OR WATERCOURSE SYSTEM. ALL THE DRAINS CCTV SURVEYED WITH THE VIDEO TAPE/CD PASSED TO THE ENGINEER FOR REVIEW.
19. PRIVATE DRAINAGE ACCESS CHAMBERS (NOT SHOWN ON MANHOLE SCHEDULE) TO BE 475DIA PPIC WITH 450DIA GRADE B125 COVER WITH 350DIA REDUCER.
20. SETTING OUT COORDINATES ARE PROVIDED TO THE CENTRE LINE OF THE OUTGOING PIPE. CONTRACTOR TO OFF-SET CHAMBER TO ACHIEVE BENCHING REQUIREMENTS.

ADOPTABLE SEWER WORKS NOTES

1. ALL ADOPTABLE SEWER WORKS AND MATERIALS IN ACCORDANCE WITH 'SEWERS FOR ADOPTIONS' 7TH EDITION, RELEVANT BRITISH/EUROPEAN STANDARDS AND YORKSHIRE WATER'S STANDARDS / REQUIREMENTS / ADDENDUM TO MECHANICAL AND ELECTRICAL SPECIFICATION AND KITEMARKED.
2. MANHOLE COVERS SHALL/ MUST HAVE A CLEAR OPENING OF 600mm UNLESS SPECIFIED OTHERWISE AND CLASS D400 TO BS EN 124 WITH 150mm DEEP FRAMES IN HIGHWAYS.
3. WHERE B125 COVER AND FRAME HAS BEEN APPROVED, THIS MUST NOT BE COASTED IN PLASTIC AND MUST HAVE LIFTING EYES SIZED TO ACCOMMODATE STANDARD LIFTING KEYS. SCREW DOWN COVERS ARE NOT ACCEPTABLE.
4. FILLED GROUND MUST BE FILLED AND CONSOLIDATED UNDER THE SUPERVISION AND TO THE SATISFACTION OF THE YORKSHIRE WATER BEFORE ANY SEWER WORKS CARRIED OUT.
7. YORKSHIRE WATER IS NOT OBLIGED TO ACCEPT FILTER DRAIN / LAND DRAINAGE RUN-OFF INTO THE PUBLIC SEWER OR ADOPTABLE DRAINAGE SYSTEM (DIRECTLY OR INDIRECTLY). AN ALTERNATIVE METHOD OF DISPOSAL OF THE LAND DRAINAGE RUN-OFF WILL THEREFORE BE REQUIRED THROUGH LIAISON WITH THE LOCAL AUTHORITY / LAND DRAINAGE SECTION WITH REGARD TO THE DISPOSAL OF FILTER DRAIN / LAND DRAINAGE RUN-OFF.
8. COVER SLABS MUST BE BSI KITEMARKED OR WILL BE REJECTED BY THE YORKSHIRE WATER INSPECTOR. WHERE THE CLEAR OPENING OF THE KITEMARKED PRODUCT IS DIFFERENT TO THAT OF THE COVER FRAME, A LOAD BEARING SLAB SHOULD BE FITTED ABOVE THE COVER SLAB TO BRING DOWN THE SIZE TO 600 x 600mm 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.
9. SULPHATE RESISTANT CEMENT (C20-DC2) AND PRE-CAST CONCRETE PRODUCTS MUST BE USED OR A LABORATORY REPORT PROVIDED PROVING THAT SUCH PRECAUTIONS ARE NOT NECESSARY.
10. ADOPTABLE SEWERS MUST BE A MINIMUM OF 1.0m AND MANHOLES A MINIMUM OF 0.5m FROM KERB FACES AND SERVICE MARGINS.
11. SEWERS MUST HAVE 5.0m CLEARANCE FROM TREES AND HEDGES (PLEASE REFER TO FIGURE 2.3 IN SEWERS FOR ADOPTION 6TH EDITION FOR RESTRICTIONS ON TREE PLANTING ADJACENT TO SEWERS'
12. SEWERS LAID IN CLASS S BEDDING (150mm GRANULAR BED AND SURROUND). WHERE DEPTH TO TOP OF SEWER IS LESS THAN 1.2m IN HIGHWAYS AND VERGES (OR LESS THAN 0.9m IN NONE VEHICULAR ACCESS AREAS) THEN A CONCRETE SLAB SHOULD BE PROVIDED ABOVE GRANULAR BED AND SURROUND.
13. BEDDING AND BACKFILL MATERIAL TO CONFORM TO THE REQUIREMENT OF WATER INDUSTRY SPECIFICATION 4-08-02 (TABLE A2)
14. 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.
15. YORKSHIRE WATER POLICY IS TO NOT ACCEPT TYPE C BRICK MANHOLES OR 1050mm RINGS. TYPE B MANHOLES WITH 1200 OR 1500mm RINGS ADOPTED WITH OPENING SITED OVER CHANNEL WHERE DEPTH OF COVER TO PIPE SOFFIT IS 1.0 – 1.5m.



KEY

- SITE BOUNDARY

PROPOSED ADOPTABLE DRAINAGE
- SURFACE WATER SEWER
- SURFACE WATER OVERSIZED PIPE ATTENUATION STRUCTURE
- SURFACE WATER SEWER MANHOLE / ACCESS CHAMBER / DEMARCATION CHAMBER
- ROAD GULLY (FINAL LOCATIONS TBC – SUBJECT TO SECTION 38 AGREEMENT)
- FOUL WATER SEWER
- FOUL WATER SEWER MANHOLE / ACCESS / DEMARCATION / INSPECTION CHAMBER
- PROPOSED SEWER EASEMENT

PROPOSED PRIVATE DRAINAGE
- PRIVATE SURFACE WATER SEWER (150ø UNO)
- PRIVATE SURFACE WATER SEWER MANHOLE/ACCESS CHAMBER
- YARD GULLY (SHOWN INDICATIVELY, FINAL LOCATIONS TBC TO SUIT FINISHED LEVELS)
- RODDING EYE
- RAINWATER DOWNPIPE (100ø CONNECTION REFER TO ARCHITECTS DRAWINGS FOR EXACT LOCATIONS)
- LINEAR CHANNEL DRAIN (ACO M100D OR SIMILAR)
- PRIVATE FOUL WATER SEWER (100ø UNO)
- PRIVATE FOUL WATER SEWER MANHOLE/ACCESS CHAMBER (450ø PPIC)
- WASTE POINT (REFER TO ARCHITECTS DRAWINGS FOR EXACT LOCATIONS)

EXISTING DRAINAGE
- EXISTING YORKSHIRE WATER SEWERS

KEY TO HEALTH AND SAFETY SYMBOLS

- INDICATES A RESIDUAL RISK REQUIRING A COMPULSORY ACTION.
- INDICATES A RESIDUAL RISK FOR INFORMATION.
- INDICATES A RESIDUAL RISK REQUIRING A PROHIBITIVE ACTION.
- INDICATES A RESIDUAL RISK AS A WARNING.
- 1. CONNECTIONS TO EXISTING SEWERS – WORK ON LIVE SEWERS AND ADJACENT TO LIVE HIGHWAY.
- 2. DEEP EXCAVATIONS FOR ATTENUATION STORAGE TANK.

DRAWING ISSUED FOR INFORMATION ONLY AND IS SUBJECT TO THE APPROVAL OF YORKSHIRE WATER AND BARNSLEY METROPOLITAN BOROUGH COUNCIL

REV	DATE	BY	DESCRIPTION	CHK	APP
P01	13.07.2018	MW	ISSUED TO YW FOR S104 TECHNICAL APPROVAL	DV	NS

DRAWING STATUS: S3 - FOR REVIEW

wsp
Three White Rose Office Park
Millshaw Park Lane
Leeds
LS11 0DL, UK
T+ 44 (0) 113 395 6200
F+ 44 (0) 113 395 6201
wsp.com

CLIENT: ENGIE REGENERATION

ARCHITECT: ACANTHUS WSM ARCHITECTS

PROJECT: ST CATHERINES WALK, BARNSLEY RESIDENTIAL DEVELOPMENT

TITLE: SECTION 104 DRAINAGE AGREEMENT PLAN

SCALE @ A0:	CHECKED:	APPROVED:
1:250	DV	NS

PROJECT No:	DESIGNED:	DRAWN:	DATE:
70042416	MW/DV	MW	July 18

DRAWING No: 70042416-S104-001 REV: P01

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