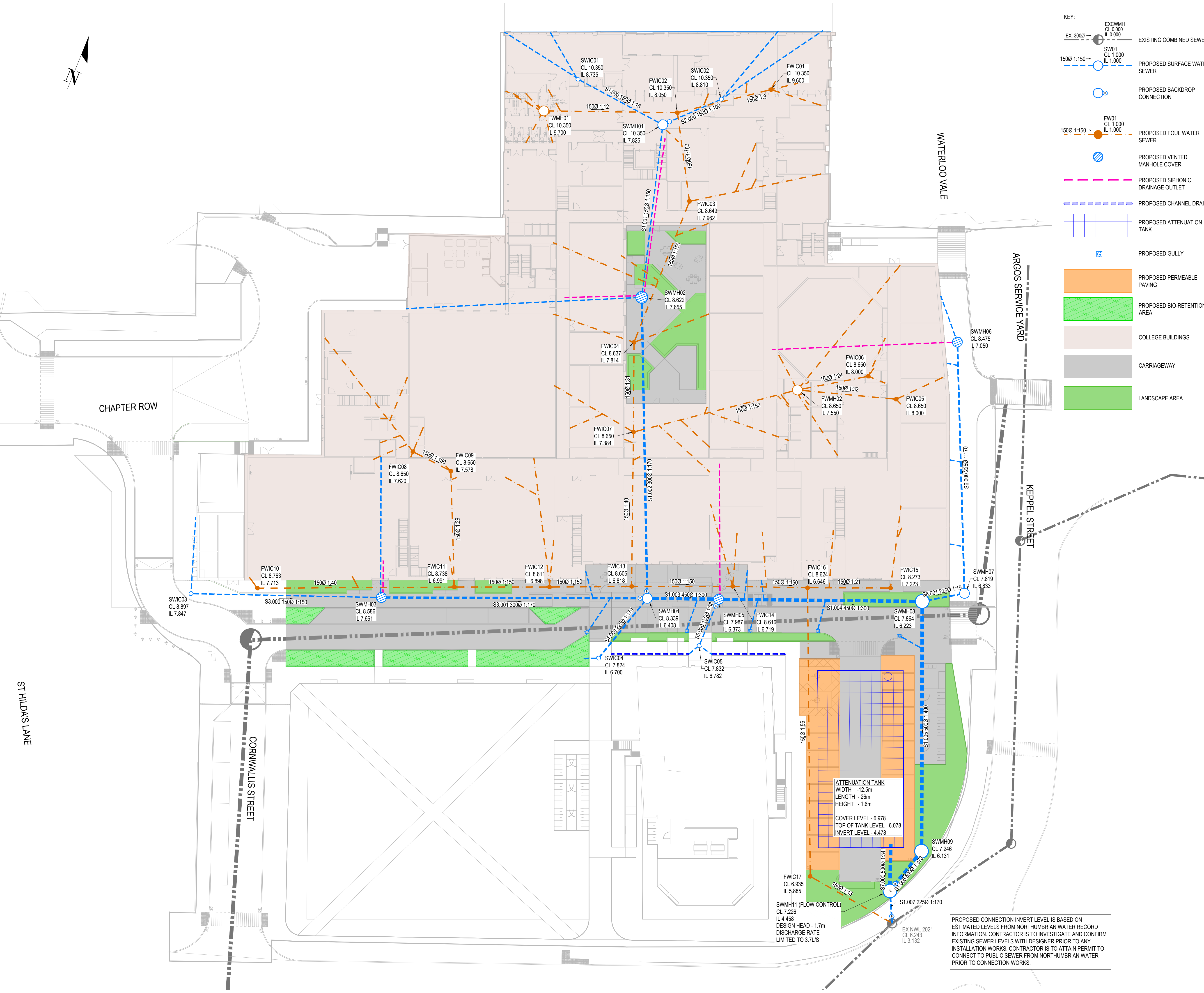




KEY:

- EX. 3000 → EXCWMH CL 0.000 IL 0.000 → EXISTING COMBINED SEWER
- 1500 1:150 → SW01 CL 1.000 IL 1.000 → PROPOSED SURFACE WATER SEWER
- 1500 1:150 → FW01 CL 1.000 IL 1.000 → PROPOSED FOUL WATER SEWER
- 1500 1:150 → PROPOSED VENTED MANHOLE COVER
- 1500 1:150 → PROPOSED SIPHONIC DRAINAGE OUTLET
- 1500 1:150 → PROPOSED CHANNEL DRAIN
- 1500 1:150 → PROPOSED ATTENUATION TANK
- 1500 1:150 → PROPOSED GULLY
- 1500 1:150 → PROPOSED PERMEABLE PAVING
- 1500 1:150 → PROPOSED BIO-RETENTION AREA
- 1500 1:150 → COLLEGE BUILDINGS
- 1500 1:150 → CARRIAGEWAY
- 1500 1:150 → LANDSCAPE AREA

NOTES

- ALL DRAINAGE WORKS AND MATERIALS TO BE IN ACCORDANCE WITH "CODE FOR ADOPTION", THE RELEVANT BRITISH/EUROPEAN AND NORTHUMBRIAN WATERS STANDARDS/REQUIREMENTS/ADDENDUM TO THE MECHANICAL AND ELECTRICAL SPECIFICATION AND KITEMARKED.
- MANHOLE COVERS SHALL HAVE A CLEAR OPENING OF 600MM AND SHALL BE CLASS D400 TO BS EN 124 WITH 150MM DEEP FRAMES IN HIGHWAYS.
- 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 CLASS "Z" BEDDING (CONCRETE SURROUND) SHOULD BE PROVIDED.
- BEDDING AND BACKFILL MATERIAL TO CONFORM TO THE REQUIREMENT OF WATER INDUSTRY SPECIFICATION 4-08-02 (TABLE A2).
- 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.
- ALL PRIVATE DRAINAGE WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH BUILDING REGULATIONS 2010 EDITION.
- ALL TRADITIONAL RAINWATER PIPE DOWN COMERS TO DISCHARGE TO TRAPPED GULLIES.
- ALL ROAD GULLIES ARE TO BE TRAPPED GULLIES.
- ALL GULLY LEADS TO BE 150mm DIAMETER.
- ALL ABOVE GROUND FOUL AND SURFACE WATER CONNECTIONS TO BE INSTALLED WITH ACCESS POINTS.

DRAINAGE STRATEGY SUMMARY -

- IMPERMEABLE AREA: 0.70Ha
- PERMEABLE AREA: 0.08Ha
- DISCHARGE RATE: 3.7L/S

SURFACE WATER DESIGN CRITERIA

- THE SURFACE WATER NETWORK HAS BEEN ASSESSED AGAINST THE 1IN100 YR STORM EVENT WITH AN ADDITIONAL 40% CLIMATE CHANGE ALLOWANCE.

QUANTITY

- THE PROPOSED SURFACE WATER DISCHARGE RATE OF FROM THE DEVELOPMENT IS TO BE LIMITED TO 3.7L/S AS AGREED WITHIN ST/0534/23/FUL
- TO ACHIEVE THIS A FLOW CONTROL DEVICE AND ATTENUATION HAS BEEN PROVIDED ONSITE THROUGH A SERIES OF SUDS FEATURES INCLUDING -
 - BIORETENTION AREA
 - PERMEABLE PAVING
 - ATTENUATION TANK

QUALITY

- THE MAJORITY OF THE CATCHMENT OF THE DEVELOPMENT IS ROOF DRAINAGE FROM THE PROPOSED CAMPUS FACILITIES. THE REMAINING RUNOFF IS CAPTURED THROUGH A SERIES OF BIORETENTION AREAS, TRAPPED GULLIES OR PERMEABLE PAVING WHICH IS CONSIDERED AS SUITABLE TREATMENT.

FOUL WATER

- PROPOSED FOUL WATER TO DISCHARGE INTO THE EXISTING COMBINED PUBLIC SEWER ON THE WESTERN BOUNDARY OF THE SITE.

- KEY NOTES:**
- THE DRAINAGE LAYOUT SHOWN IS SUITABLE FOR PLANNING PURPOSES ONLY AND SHOULD NOT BE COSTED AGAINST.
 - THE DRAINAGE LAYOUT, INCLUDING NUMBER OF ACCESS CHAMBERS AND LENGTH OF PIPEWORK IS SUBJECT TO CHANGE UPON CONFIRMATION OF THE ABOVE GROUND DRAINAGE CONNECTION POINTS AND THE FOUNDATION SOLUTION FOR THE STRUCTURE.

ATTENUATION TANK
WIDTH - 12.5m
LENGTH - 26m
HEIGHT - 1.6m
COVER LEVEL - 6.978
TOP OF TANK LEVEL - 6.078
INVERT LEVEL - 4.478

SWMH11 (FLOW CONTROL)
CL 7.225
IL 4.458
DESIGN HEAD - 1.7m
DISCHARGE RATE LIMITED TO 3.7L/S

PROPOSED CONNECTION INVERT LEVEL IS BASED ON ESTIMATED LEVELS FROM NORTHUMBRIAN WATER RECORD INFORMATION. CONTRACTOR IS TO INVESTIGATE AND CONFIRM EXISTING SEWER LEVELS WITH DESIGNER PRIOR TO ANY INSTALLATION WORKS. CONTRACTOR IS TO OBTAIN PERMIT TO CONNECT TO PUBLIC SEWER FROM NORTHUMBRIAN WATER PRIOR TO CONNECTION WORKS.

28.03.2025	FOR ISSUE	TA	RO	P01
DATE	DESCRIPTION	DR	CHK	REV

FOR APPROVAL

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CLIENT: **CASTLE**
INNOVATION | EFFICIENCY | HONESTY | PRIDE

PROJECT: **SOUTH TYNESIDE COLLEGE**

TITLE: **DRAINAGE STRATEGY PLAN**

PROJECT No:	DISCIPLINE:	SCALE:
24185	CIVIL	@:A1 250

DRAWING No: 24185-RWO-XX-XX-DR-C-0200

Project - Originator - Functional Breakdown - Spatial Breakdown - Form - Discipline - Number

P01