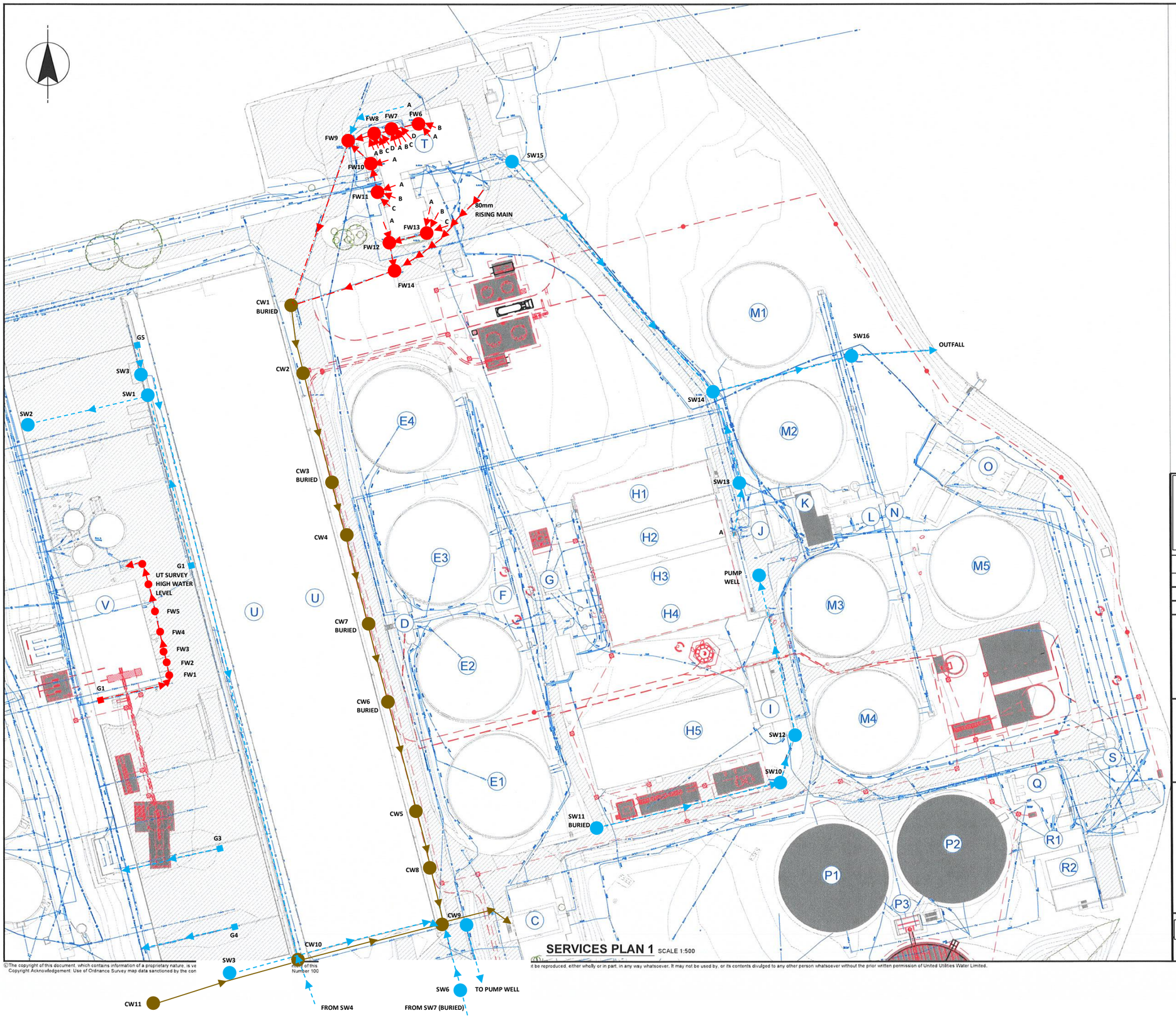

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SERVICES PLAN 1 SCALE 1:500

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LEGEND

- EXISTING STRUCTURES
- EXISTING SERVICES
- PROPOSED WORKS

EXISTING STRUCTURES

STRUCTURE I.D	BUILDING/PLANT
A1	MAIN INLET CHAMBER
A2	INLET WORKS - 5 DWF STORM OVERFLOW
A3	INLET WORKS - SCREENS
A4	INLET WORKS - DETRITORS / RAKE
A5	INLET WORKS - FLUME
B1	3 DWF STORM OVERFLOW CHANNEL
B2	STORM TANKS
C	SLUDGE PUMPING STATION
D	PST DISTRIBUTION CHAMBER
E1-E4	PRIMARY SETTLEMENT TANKS
F	PST COLLECTION CHAMBER
G	ASP DISTRIBUTION CHAMBER
H1-H4	ASP TANKS (LANES 1 - 4)
H5	ASP TANK (LANE 5)
I	SCREW PUMPING STATION
J	FST DISTRIBUTION CHAMBER
K	RAS / SAS RETURN PUMPING STATION
L	RAS / SAS LANES
M1-M5	FINAL SETTLEMENT TANKS
N	FST EFFLUENT CHAMBER
O	EFFLUENT PUMPING STATION
P1-P2	**NITRIFYING TRICKLING FILTERS**
P3	NIT. TRICKLING FILTERS DIST. CHAMBER
Q	NITRIFYING FEED PUMPING STATION
R1	NITRIFYING CONTROL BUILDING
R2	LIME DOSING BUILDING
S	ROAD DRAINAGE PUMPING STATION
T	ADMIN. BUILDING (HV SWITCHGEAR)
U	SLUDGE DRYING BEDS
V	THICKENED SLUDGE BUILDING
X	RETURN LIQUORS TANK

NRC Waste Water, Industrial & Emergency Solutions
0151 643 0800 / www.nrcc.com

VERSION	AUTH	CHKD	REVD	REASON FOR ISSUE	DATE
P01.1	---	---	---	For Information	---

SUITABILITY CODE	SUITABILITY DESCRIPTION
S2	Issued for Information

United Utilities
helping life flow smoothly

LiMA

CREWE WwTW AMP6 IMPROVEMENTS

DRAINAGE INVESTIGATION - KEY TO SYMBOLS

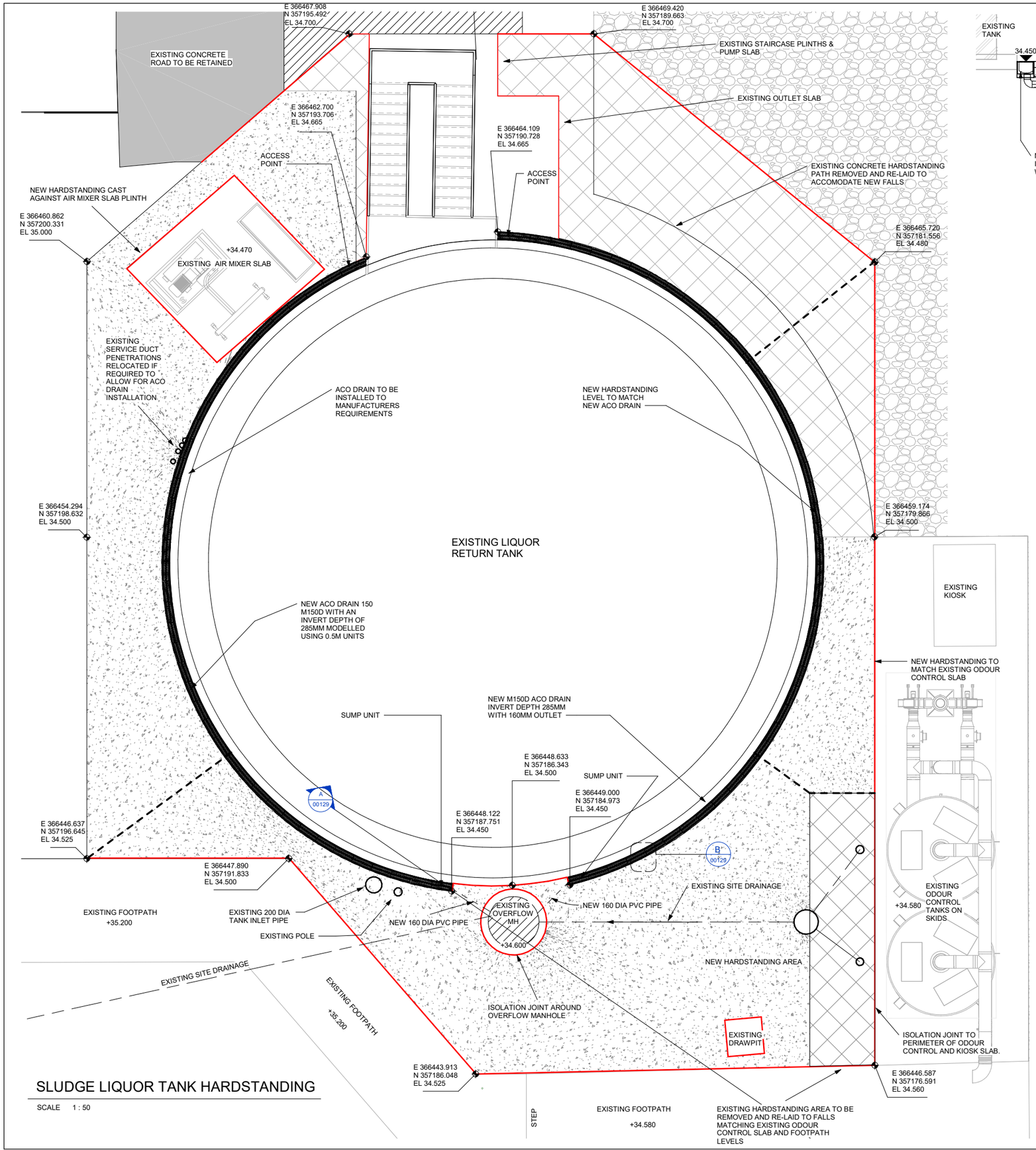
- COMBINED DRAIN — COMBINED MH
- FOUL DRAIN — FOUL MH
- SURFACE DRAIN — SW MH

SCALE: **DO NOT SCALE FROM THIS DRAWING**

SHEET SIZE: A1

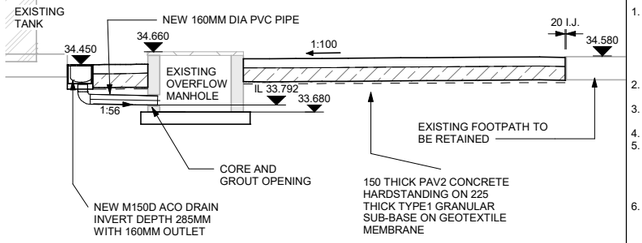
DRAWING NUMBER: 80040368-01-LOR-CREWE-96-DR-C-00006

REVISION: P01.1



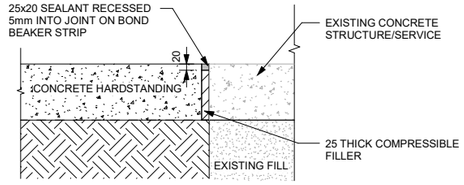
SLUDGE LIQUOR TANK HARDSTANDING

SCALE 1 : 50



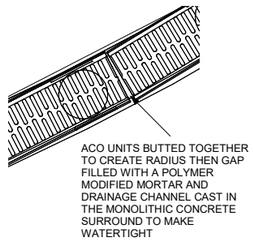
SECTION A-A

SCALE 1 : 50



ISOLATION JOINT DETAIL

SCALE 1 : 10



DETAIL B

SCALE 1 : 10

NOTES

1. THIS DRAWING IS FOR CIVIL & STRUCTURAL CONSTRUCTION ONLY AND SHOULD BE READ IN CONJUNCTION WITH ALL RELEVANT SPECIFICATIONS INCLUDING THE UNITED UTILITIES EMPLOYERS WORK INFORMATION. FOR DETAILS OF MECHANICAL AND ELECTRICAL ENGINEERING INSTALLATIONS REFER TO RELEVANT DISCIPLINE DRAWINGS.
2. ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH CESWI 7& UU AMENDED CESWI 7 (ISSUE 5).
3. ALL DIMENSIONS IN mm AND ALL LEVELS IN m AOD UNLESS NOTED OTHERWISE.
4. ALL CO-ORDINATES ARE TO NATIONAL GRID
5. THE CONTRACTOR SHALL UNDERTAKE AN ASSET SURVEY PRIOR TO COMMENCEMENT OF WORK TO CONFIRM DETAILS AND CONDITION OF EXISTING ASSETS AND SHALL BE RESPONSIBLE FOR CHECKING ALL SETTING OUT DIMENSIONS FOR THE WORK.
6. THE CONTRACTOR SHALL CHECK & INFORM THE ENGINEER OF THE EXACT LOCATION OF ALL EXISTING UNDER GROUND SERVICES PRIOR TO CARRYING OUT EXCAVATION WORKS, AND SHALL TAKE ADEQUATE MEASURES TO PREVENT DAMAGE TO EXISTING LIVE SERVICES.
7. ALL ELEMENTS OF THE STRUCTURE DESIGNED BY THE CONTRACTOR SHALL BE SUBMITTED TO THE ENGINEER FOR COMMENT.
8. THE LOCATION, TYPE AND ORIENTATION OF EXISTING SERVICES ARE SHOWN AS APPROXIMATE ONLY. THE CONTRACTOR SHALL CHECK & INFORM THE ENGINEER OF THE EXACT LOCATION OF ALL EXISTING UNDERGROUND SERVICES PRIOR TO CARRYING OUT EXCAVATION AND SHALL TAKE ADEQUATE MEASURES TO PREVENT DAMAGE TO EXISTING LIVE SERVICES. ANY EXCAVATION IN THE VICINITY OF SERVICES MUST BE CARRIED OUT MANUALLY.
9. HARDSTANDING TO INCLUDE CONTROL JOINTS EVERY 2-4m TO SUIT SITE CONDITIONS.
10. WHERE NOT INDICATED, HARDSTANDING TO HAVE A MINIMUM 1:100 FALL TO NEW GULLY
11. ALL SERVICE PENETRATIONS THROUGH NEW HARDSTANDINGS TO HAVE ISOLATION JOINTS AROUND PERIMETER
12. EXISTING MANHOLES COVERS, DRAWPIT COVERS, AND OTHER SURFACE FEATURES TO BE ADJUSTED TO SUIT CONCRETE HARDSTANDING LEVELS AND FALLS ON SITE
13. MINIMUM OF 1:100 FALL TOWARDS GULLY ON THE NEW HARDSTANDING AREA

CONCRETE NOTES

1. ALL CONCRETE WORK AND MATERIALS TO BE IN ACCORDANCE WITH BS 85000-2
CONCRETE SPECIFICATION: PAV 2

2.ALL EXTERNAL CORNERS HAVE 25x25 CHAMFERS, EXCEPT FOR EDGES CONTAINING FLOORING.

3.ALL CONCRETE WORK AND MATERIALS IS IN ACCORDANCE WITH BS EN 1992-1-1:2004, BS EN 1992-3:2006 AND BS8500:2006PT'S 1 & 2, BS EN206-1:2000 & CESWI EDITION 7 & UU AMENDED CESWI 7

REFERENCES

80040368-01-ATK-CREWE-96-DR-00128 PPC SITE LAYOUT
6448/90017403/01/18/20016 ODOUR CONTROL BASE SLAB UNIT No 2 (AMP 4)
6448/90017403/01/04/20021 RETURN LIQUOR TANK BASE (AMP 4)
6448/90017403/01/06/50260 RETURN LIQUOR TANK GENERAL ARRANGEMENT (AMP 4)

LEGEND

- EXISTING CONCRETE HARDSTANDING TO BE REMOVED AND RE-LAID TO REQUIRED FALLS
- NEW 150 (MINIMUM) THICK TAMPED PAV2 CONCRETE WITH BRUSH FINISH
- FALL DIRECTION
- ISOLATION JOINT
- SAW CUT JOINT ON CONCRETE HARDSTANDING

3D / BIM Models used to produce this drawing
80040368-01-ATK-CREWE-NA-M3-C-00064

80040368-01-LOR-CREWE-99-RP-W-00012 FORMS THE BASIS OF DESIGN OF THE LIQUOR TANK HARDSTANDING

LEVELS AND SETTING OUT INFORMATION BASED ON TOPOGRAPHICAL SURVEY

REV	DATE	DESCRIPTION	DRN	CHK	APP
C02	14.10.19	FOR INTERNAL REVIEW	DB	RC	SB
C01	11.10.19	FOR INTERNAL REVIEW	PN	LC	SB

Drawing Status: **FOR INTERNAL REVIEW**

Suitability: **S3**

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

In addition to the hazards/risks normally associated with the types of work detailed on this drawing, note the following:

CONSTRUCTION

KNOWN AND UNKNOWN SERVICES IN VICINITY OF WORKS.

MAINTENANCE/CLEANING

N/A

DECOMMISSIONING/DEMOLITION

N/A

It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved method statement

WARNING NOTICE (CDM 2015)

A 'DESIGNER' IS ANYONE WHO SPECIFIES, MODIFIES OR CHANGES DESIGNS; OR INSTRUCTS OTHERS UNDER THEIR CONTROL TO DO SO.

PLEASE ENSURE ANY CHANGES ARE APPROVED AND RECORDED BY THE 'APPOINTED DESIGNER', PRIOR TO IMPLEMENTATION.

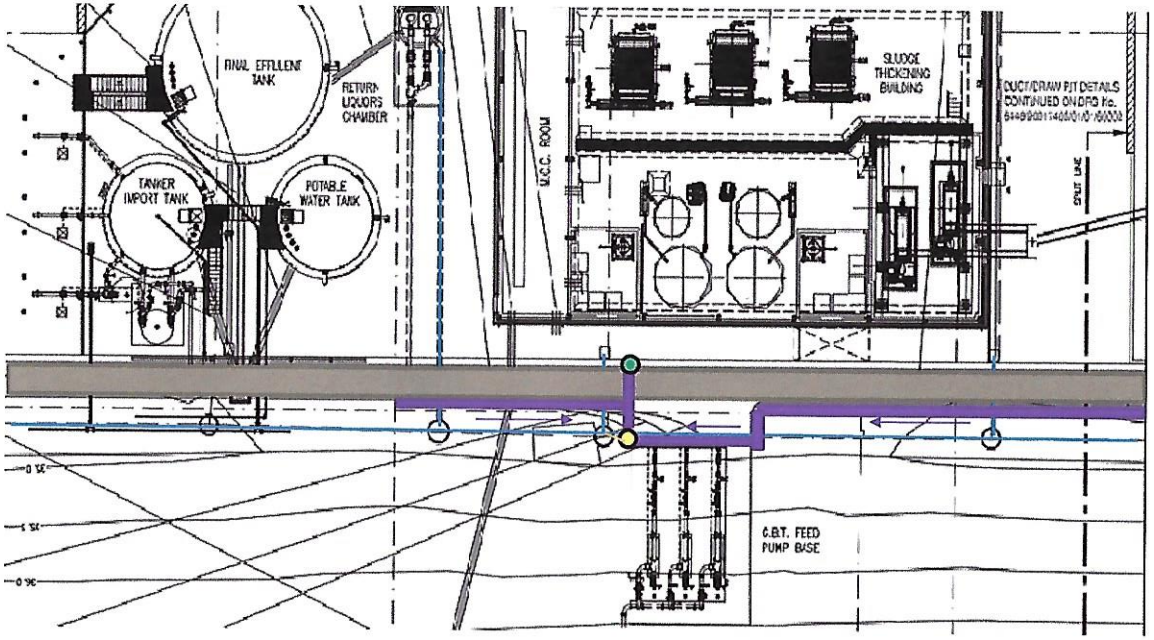
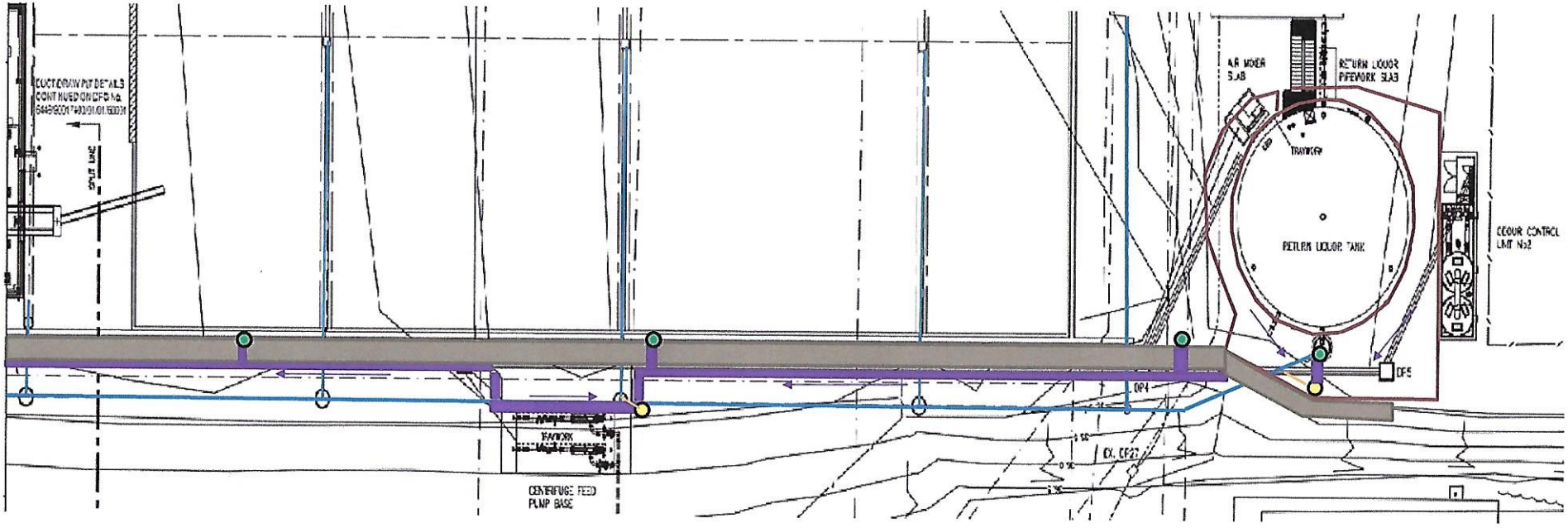
Client: United Utilities — helping life flow smoothly

LiMA
Third Floor
Rutherford House
Warrington Road
Birchwood Science Park
Birchwood
Warrington
WA3 6ZH
01925 838398

Drawing Title

UNITED UTILITIES PLC
CREWE WwTW AMP 6 IMPROVEMENTS
RETURN LIQUOR TANK
PLAN OF NEW PPC CATCHMENT AREA

Scale	Original Size
As indicated	A1

Drawing Number	Revision
80040368-01-ATK-CREWE-ST-DR-C-00129	P01

Element	Notation/ Symbol
Existing path	
Existing drainage	
New drainage channel	
New drainage outlet	
New drainage pipe	
New concrete hardstandings	
Flow direction	
New DN 25 Drain