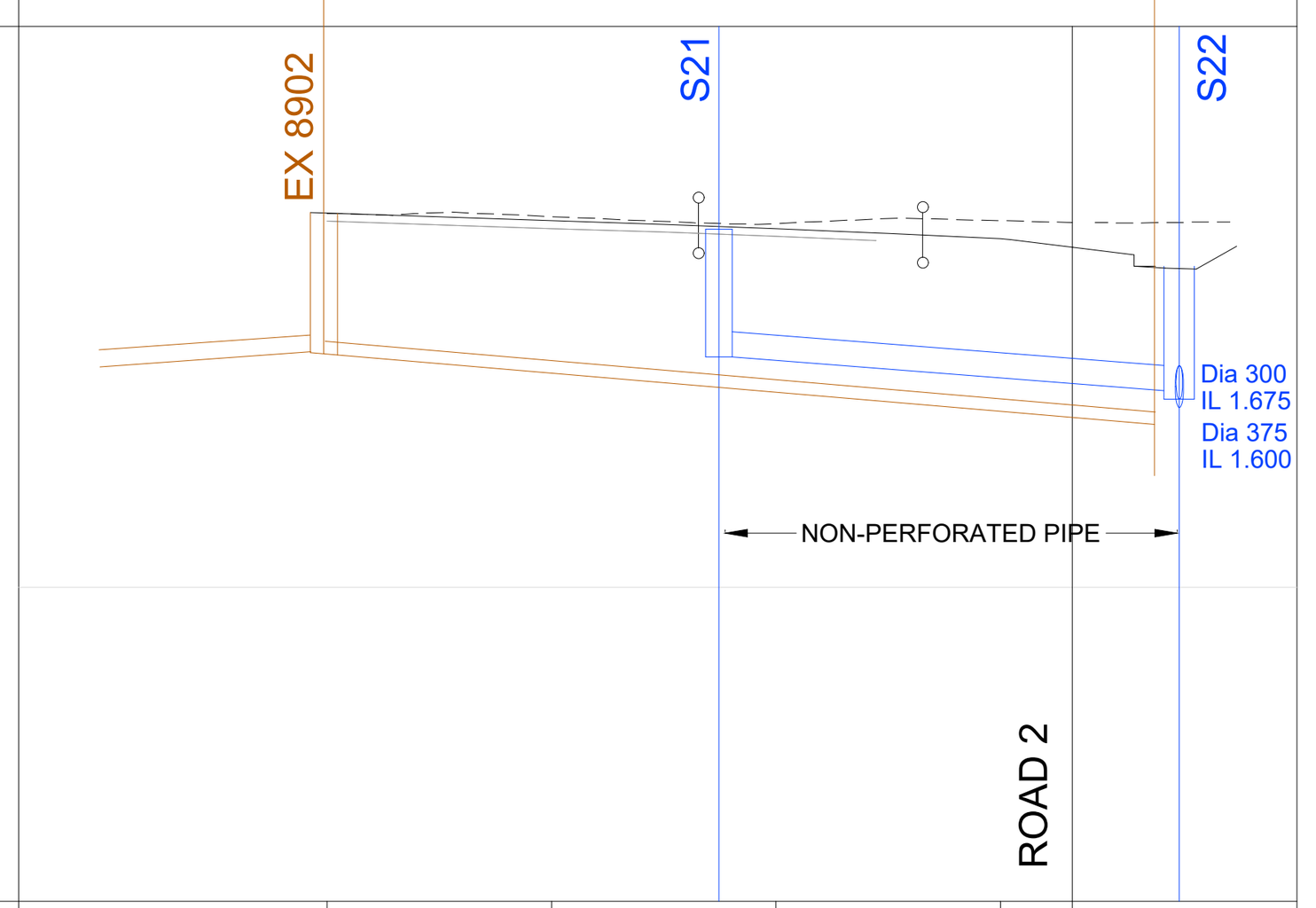
1/500 SCALE BAR 0 10 20 30 40 50 60

ROAD 1

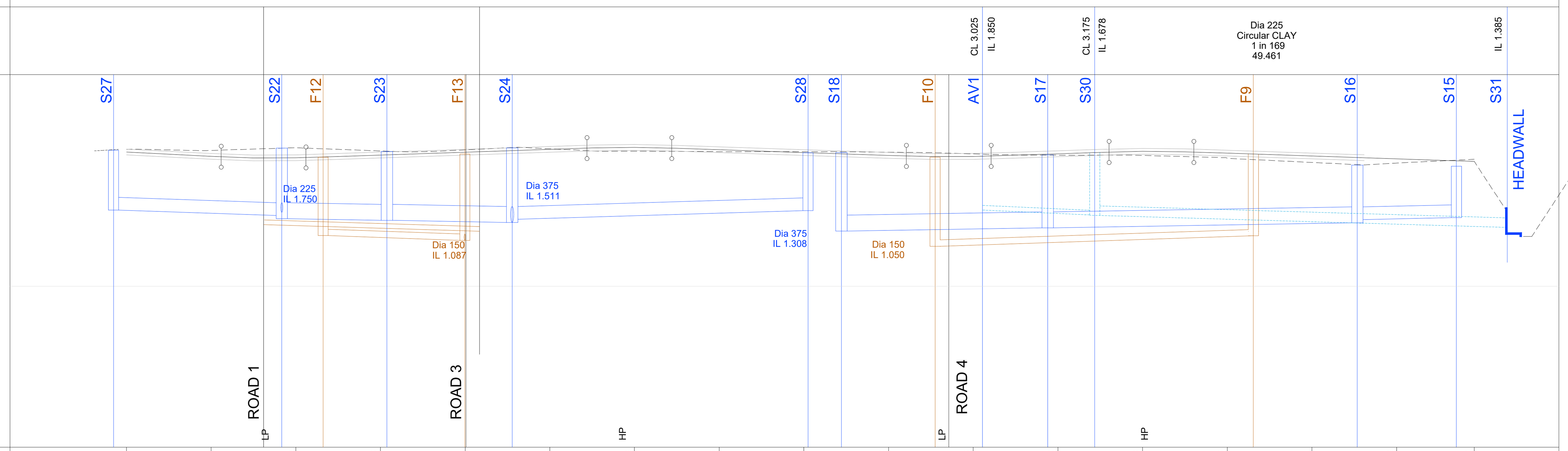
FOUL RISING MAIN	2.08 TFR — 110mm O.D PE EXCELL SDR 17 RISING MAIN — 1.450



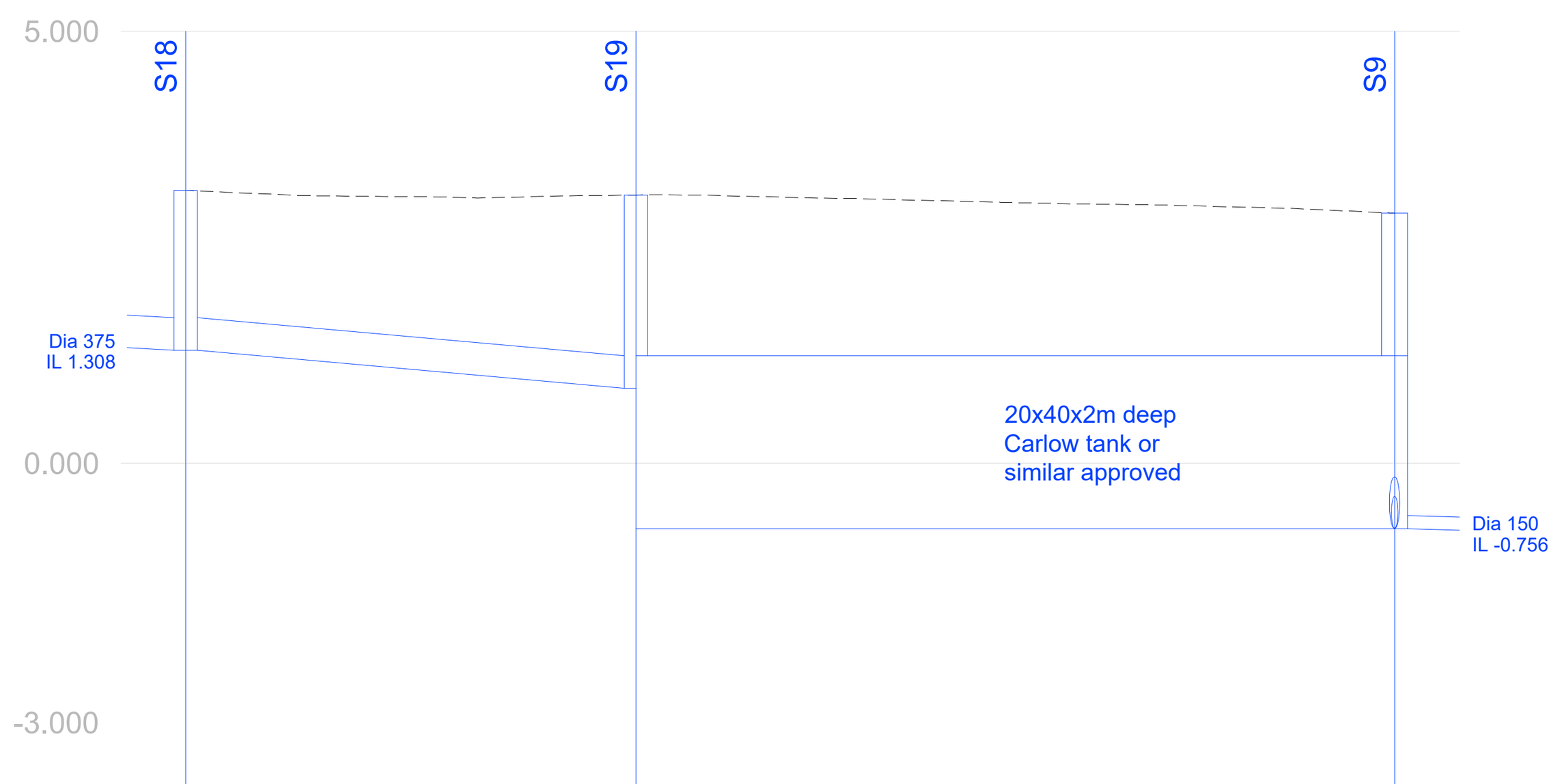
EXISTING GROUND LEVEL	3.332, 3.303, 3.240, 3.266, 3.251
LEFT HAND CHANNEL	3.264, 3.230, 3.197, 3.164, 3.128, 3.090
CENTRE LINE	3.332, 3.299, 3.266, 3.232, 3.197, 3.159, 3.154, 3.104, 3.100
RIGHT HAND CHANNEL	3.264, 3.230, 3.197, 3.164, 3.128, 3.090
ALIGNMENT LEVEL	3.332, 3.299, 3.266, 3.232, 3.222, 3.197, 3.154, 3.139, 3.104, 3.100
HORIZONTAL ALIGNMENT	R= 50.000
VERTICAL ALIGNMENT	G= -0.667% 1: -149.9; L= 10.000 R= -3003.003; G= -1.000% 1: -100.0
CROSSFALLS	LH=-2.50%; RH=-2.50%
CHAINAGE	0.000, 1.941, 3.644, 5.000, 10.000, 15.000, 16.533, 17.454, 20.000, 24.457, 25.000, 26.533, 30.000, 33.207, 37.968
STORMWATER COVER LEVEL	S21 3.191 — NON-PERFORATED PIPE — 2.862 S22
STORMWATER INVERT	2.050 — Pipe 6.000 Dia 225 Circular Twinwall HDPE 1 in 68 20.547 — 1.750
FOULWATER COVER LEVEL	
FOULWATER INVERT	

ROAD 2

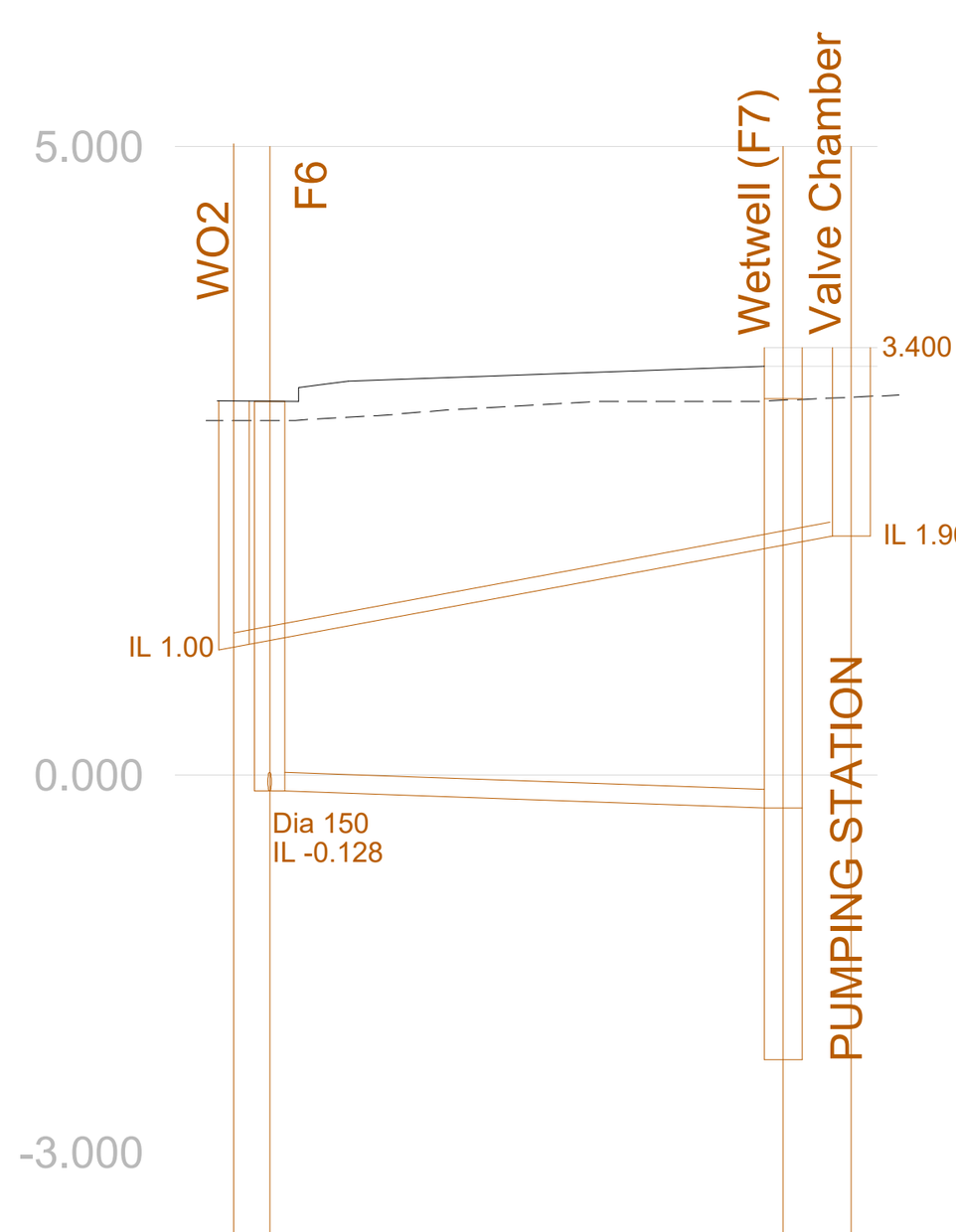
FOUL RISING MAIN	1.450 — 110mm O.D PE EXCELL SDR 17 RISING MAIN — 1.300
STORM RISING MAIN	110mm O.D PE EXCELL SDR 17 RISING MAIN
STORM OUTFALL DETAILS	CL 3.025 IL 1.850; CL 3.175 IL 1.678; Dia 225 Circular CLAY 1 in 169 49.461; IL 1.385



EXISTING GROUND LEVEL	3.235, 3.211, 3.275, 3.199, 3.224, 3.250, 3.193, 3.183, 3.181, 3.169, 3.129, 3.099, 3.093, 3.029, 2.927, 2.913, 3.002
LEFT HAND CHANNEL	3.241, 3.191, 3.141, 3.103, 3.105, 3.138, 3.171, 3.204, 3.238, 3.271, 3.304, 3.337, 3.350, 3.329, 3.296, 3.263, 3.229, 3.196, 3.163, 3.135, 3.138, 3.168, 3.201, 3.235, 3.257, 3.248, 3.215, 3.182, 3.148, 3.115, 3.107
CENTRE LINE	3.172, 3.122, 3.072, 3.034, 3.037, 3.069, 3.102, 3.135, 3.169, 3.202, 3.236, 3.269, 3.281, 3.261, 3.227, 3.194, 3.161, 3.127, 3.094, 3.066, 3.069, 3.099, 3.133, 3.166, 3.189, 3.179, 3.146, 3.113, 3.080, 3.046, 3.039, 3.013, 2.980, 2.952
RIGHT HAND CHANNEL	3.103, 3.053, 3.003, 2.965, 2.968, 3.000, 3.033, 3.067, 3.100, 3.133, 3.167, 3.200, 3.212, 3.192, 3.159, 3.125, 3.092, 3.058, 3.025, 2.997, 3.000, 3.030, 3.064, 3.097, 3.120, 3.110, 3.078, 3.044, 3.011, 2.978, 2.970
ALIGNMENT LEVEL	3.172, 3.122, 3.072, 3.060, 3.034, 3.030, 3.037, 3.043, 3.069, 3.102, 3.135, 3.169, 3.202, 3.236, 3.265, 3.269, 3.281, 3.281, 3.265, 3.261, 3.227, 3.194, 3.161, 3.127, 3.094, 3.080, 3.066, 3.063, 3.069, 3.080, 3.099, 3.133, 3.166, 3.173, 3.189, 3.189, 3.179, 3.173, 3.146, 3.113, 3.080, 3.046, 3.013, 2.980, 2.952
HORIZONTAL ALIGNMENT	R= 60.550; R= 100.740
VERTICAL ALIGNMENT	G= -1.000% 1: -100.0; R= 599.880 L= 10.000; G= 0.667% 1: 149.9; L= 10.000 R= -749.625; G= -0.667% 1: -149.9; R= 749.625 L= 10.000; G= 0.667% 1: 149.9; L= 10.000 R= -749.625; G= -0.667% 1: -149.9
CROSSFALLS	LH=+2.50%; RH=-2.50%
CHAINAGE	-1.524, 0.000, 5.000, 10.000, 11.192, 15.000, 16.192, 17.190, 18.347, 20.000, 21.192, 23.225, 25.000, 30.000, 30.762, 31.034, 35.000, 38.044, 39.964, 40.097, 45.000, 45.548, 50.000, 54.384, 55.000, 59.384, 60.000, 64.384, 65.000, 70.000, 75.000, 80.000, 80.493, 84.429, 85.000, 90.000, 92.105, 95.000, 95.497, 97.105, 100.000, 101.754, 102.105, 105.000, 108.798, 110.000, 115.000, 116.038, 120.000, 121.038, 125.000, 126.038, 130.000, 133.079, 135.000, 140.000, 145.000, 145.357, 150.000, 155.000, 157.059, 159.162
STORMWATER COVER LEVEL	3.003 S27 — PERFORATED PIPE — 2.862 S22; 2.933 S23 — NON-PERFORATED PIPE — 2.970 S24 — PERFORATED PIPE — 2.992 S28; 2.965 S18 — NON-PERFORATED PIPE — 2.957 S17 — PERFORATED PIPE — 2.878 S16 — NON-PERFORATED PIPE — 2.837 S15
STORMWATER INVERT	1.800 Pipe 7.000 Dia 300 Circular Twinwall HDPE 1 in 159 19.871 1.675; 1.600 Pipe 6.001 Dia 375 Circular Twinwall HDPE 1 in 311 12.427 1.560; 1.560 Pipe 6.002 Dia 375 Circular Twinwall HDPE 1 in 313 15.325 1.511; 1.586 Pipe 8.000 Dia 300 Circular Twinwall HDPE 1 in 174 34.948 1.787; 1.308 Pipe 5.002 Dia 375 Circular Twinwall HDPE 1 in 313 23.795 1.384; 1.384 Pipe 5.001 Dia 375 Circular Twinwall HDPE 1 in 312 36.560 1.501; 1.576 Pipe 5.000 Dia 300 Circular Twinwall HDPE 1 in 239 11.710 1.625
FOULWATER COVER LEVEL	3.048, 3.126, 3.052, 3.100
FOULWATER INVERT	1.200 Pipe 4.000 Dia 150 Circular PVC-U 1 in 150 16.922 1.087; 0.944 Pipe 3.000 Dia 150 Circular PVC-U 1 in 150 37.548 1.194

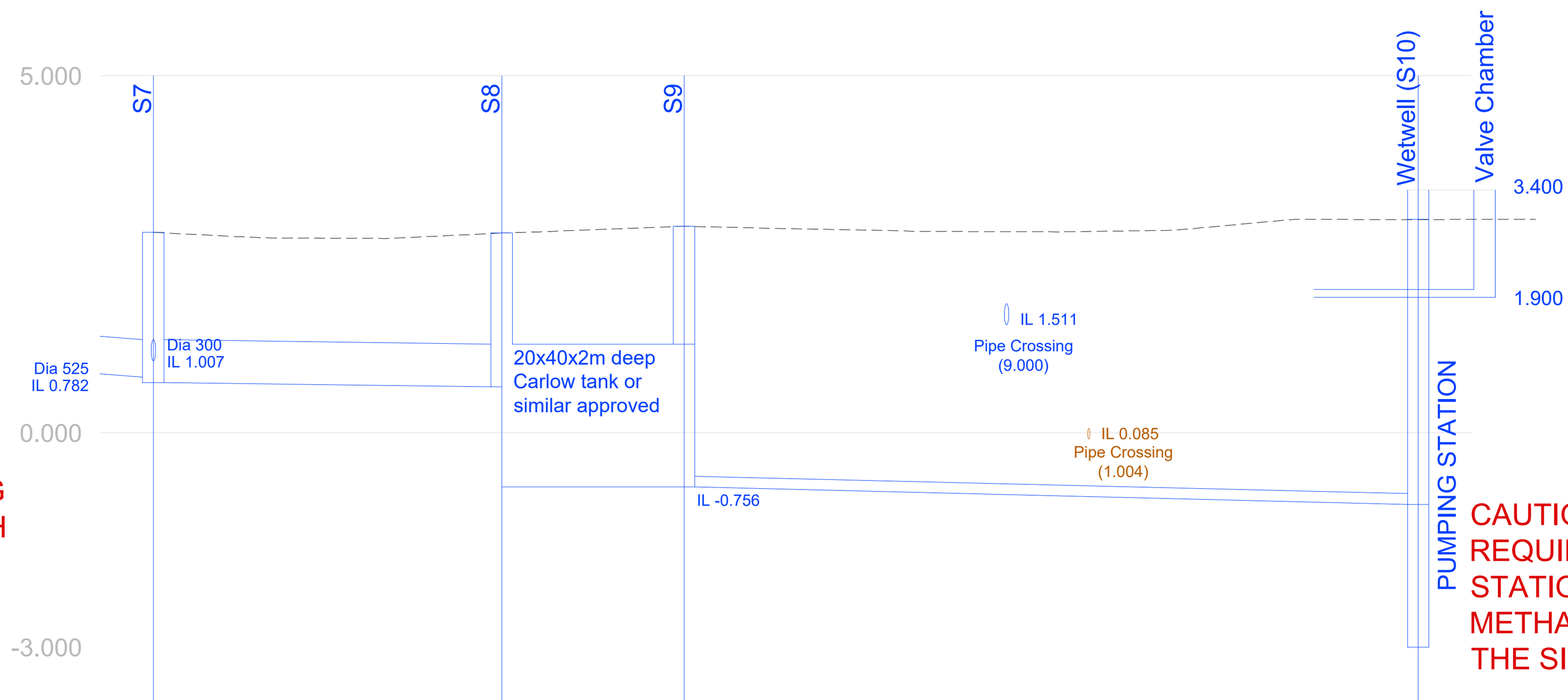


GROUND LEVEL	3.158, 3.090, 3.084, 3.102, 3.056, 3.008, 2.970
STORMWATER COVER LEVEL	3.158 — NON-PERFORATED PIPE — 3.104, 2.894
STORMWATER INVERT	1.308 Pipe 5.003 Dia 375 Circular Twinwall HDPE 1 in 59 26.056 0.869; 0.869 Pipe 5.004 Dia 375 Circular Twinwall HDPE 1 in 27 43.895 -0.756
FOULWATER COVER LEVEL	
FOULWATER INVERT	



CAUTION - SPECIALIST MEASURES MAY BE REQUIRED IF TARGET BASE OF PUMPING STATION EXCAVATION PENETRATES THE METHANE GENERATING PEAT LAYERS BENEATH THE SITE. SPECIALIST ADVICE REQUIRED

GROUND LEVEL	2.821, 2.936, 2.985
STORMWATER COVER LEVEL	
STORMWATER INVERT	
FOULWATER COVER LEVEL	2.972, 2.994
FOULWATER INVERT	-0.128 Pipe 1.005 Dia 150 Circular PVC-U 1 in 150 20.418 -0.264



CAUTION - SPECIALIST MEASURES MAY BE REQUIRED IF TARGET BASE OF PUMPING STATION EXCAVATION PENETRATES THE METHANE GENERATING PEAT LAYERS BENEATH THE SITE. SPECIALIST ADVICE REQUIRED

GROUND LEVEL	2.808, 2.728, 2.756, 2.838, 2.880, 2.839, 2.817, 2.832, 2.990
STORMWATER COVER LEVEL	2.808 — NON-PERFORATED PIPE — 2.798, 2.894, 2.992
STORMWATER INVERT	0.707 Pipe 1.006 Dia 600 Circular Twinwall HDPE 1 in 387 24.383 0.644; 0.644 Pipe 1.007 Dia 600 Circular Twinwall HDPE 1 in 9 12.756 -0.756; -0.756 Pipe 1.008 Dia 150 Circular Twinwall HDPE 1 in 211 51.377 -1.000
FOULWATER COVER LEVEL	
FOULWATER INVERT	

RISK ASSESSMENT

EXISTING SERVICES:

NO DETAILS RECEIVED FROM CLIENT.SITE BELIVED TO BE FREE FROM SERVICES OTHER THAN IN THE FOOTWAYS AND CARRIAGEWAYS AT THE SITE ENTRANCE. THE POTENTIAL AREA FOR CONFLICT IS THEREFORE THE CONSTRUCTION OF THE ROAD ACCESS AND OUTFALL SEWERS WHICH MAY INTERFERE WITH UTILITY PIPES- RISK OF ELECTROCUTION, RISK OF EXPLOSION, RISK OF FLOOD.

EXISTING GROUND CONDITIONS:

In general, the exploratory holes at the site encountered topsoil overlying clayey sand, silty sand or sandy clay. These were recorded to be overlying medium dense silty sand or soft silty/sandy clay or soft sandy clayey silt. A band of peat was encountered as well between 7m and 9.30m begl. Peat in turn is underlain by stiff to very stiff clay

Groundwater / perched groundwater levels at the site are likely to be subject to seasonal variations associated with rainfall etc. Based on the above, it is considered unlikely that dewatering or other forms of water management will be required for shallow short-term excavations across the majority of the site.

GASSING -Methane present in the deep peat becoming less obvious in higher horizons

TRENCH STABILITY - Variabke to poor subject to water ingress

CONTAMINATION - No specific precautions identified

SITE WIDE ELEMENTS

THE WORKS ARE NOT WITHIN THE IMMEDIATE PROXIMITY OF SHOPS SCHOOLS OTHER COMMUNITY FACILITIES BUT ARE IN PROXIMITY TO OTHER OCCUPIED DWELLINGS ON THE SURROUNDING ROADS>

SEWERS / DRAINS - PUBLIC SEWERS EXIST IN THE ROAD NETWORK SURROUNDING THE SITE

HIGHWAYS - THE SITE GAINS ACCESS ONLY FROM YORK GARDENS

TOPOGRAPHY - THE SITE IS FLAT. A LARGE DEEP DITCH IS PRESENT ALONG THE SITES NORTHERN BOUNDARY AND REPRESENTS A FALL FROM HEIGHT RISK

RISK TO EXISTING STRUCTURES - NO STRUCTURES AT RISK OF UNDER CUTTING FROM ROAD AND SEWER WORKS

ADDITIONAL RISKS -
THE SITE HAS MANY LARGE MATURE TREES WHICH COULD FORM POTENTIAL FALL HAZARDS IF THEIR ROOT SYSTEMS ARE INTERFERED WITH OR EXCAVATIONS REMOVE GROUND SUPPORT.

IDENTIFIED UNAVOIDABLE HAZARDS OR WORK SEQUENCES:

CONTACT WITH LIVE UTILITY SERVICES DURING ACCESS CONSTRUCTION AND OUTFALL SEWER CONSTRUCTION.

PLANT AND DELIVERY MOVEMENTS ON SITE AND WITHIN CONSTRAINED SITE ACCESS AREA.

THE GENERAL TRAFFIC LEVEL ON THE ADJACENT ROADS, AND THE EXTENT TO WHICH TURNING CONSTRUCTION PLANT MAY CAUSE INCREASED ACCIDENT POTENTIAL.

ADVERSE TOPOGRAPHY- RISKS TO PLANT AND MATERIAL STABILITY.

WATER INGRESS INTO EXCAVATIONS FROM PERCHED LENSES.

TRENCH SUPPORT ADEQUATE TO DEAL WITH EXCAVATIONS THROUGH MADE GROUND AND VARIABLE SOIL PROFILES.

TRENCH CONTROL REQUIRED TO DEAL WITH WATER BEARING STRATA.

GASSING RISK

WORKING IN CONFINED SPACES. SPECIFIC RISKS IN ALL TRENCHES , AND ESPECIALLY WITHIN DEEP ON SITE SEWERS AND CONNECTIONS TO EXISTING SEWERS. RISK OF ELEVATED $C0_2$ RISK OF SUDDEN WATER OR FLOWING SOLIDS OR GASEOUS INGRESS. KNOWN METHANE PRESENCE

DISEASE AND CONTAMINATION RISK ASSOCIATED WITH CONTACT WITH EXISTING SEWERAGE.

DISEASE RISK ASSOCIATED WITH WORKS ADJACENT TO WATERCOURSES (LEPTOSPIROSIS).

COSHH CONTROL MEASURES REQUIRED FOR ROAD AND SEWERAGE CONSTRUCTION.RISK OF BURN, CHEMICAL BURN, CONTAMINATION, DISEASE, ASPHYXIATION, POISONING

GENERAL NOTES

1. THE CONTRACTOR SHALL CHECK ALL TIE INS FOR LINE AND LEVEL WITH EXISTING BEFORE COMMENCING ANY WORKS SHOULD ANY ERRORS BE FOUND, THE ENGINEER IS TO BE NOTIFIED IMMEDIATELY IN WRITING. IT IS ESSENTIAL THAT ALL PIPE CONNECTIONS ARE CHECKED FOR LINE, LEVEL AND DIAMETER PRIOR TO COMMENCING WORKS, AS DATA ON THESE PIPELINES HAS BEEN OBTAINED FROM A VARIETY OF SOURCES WHICH MAY NOT BE NECESSARILY ACCURATE OR COMPLETE.
2. THE DEPICTION OF ANY SERVICE APPARATUS ON THIS DRAWING HAS BEEN OBTAINED FROM THIRD PARTY SOURCES, AND IS NOT NECESSARILY ACCURATE OR COMPLETE. AT NO TIME DOES THE INFERRED POSITION ON THE DRAWING ABSOLVE THE CONTRACTOR FROM TAKING ALL NECESSARY STEPS TO LOCATE SERVICE PLANT IN ACCORDANCE WITH THE METHODS SUGGESTED BY THE RELEVANT AUTHORITY. STEPHEN DAYKIN CONSULTING LTD WILL ACCEPT NO CLAIMS WHATSOEVER IN RESPECT OF ANY LOSSES OR DAMAGE CAUSED IN-RESPECT OF SUCH APPARATUS, HOWEVER CAUSED.
3. SEWERS TO BE CONSTRUCTED IN ACCORDANCE WITH THE W.S.A PUBLICATION "SEWERS FOR ADOPTION", 6TH EDITION AND COMMON WATER COMPANY ADDENDUM AND STW SPECIFIC ADDENDUM.
4. ALL LATERAL DRAINAGE CONNECTIONS TO THE PUBLIC SEWER SHALL BE 150MM DIAMETER UNLESS OTHERWISE SPECIFIED .
5. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO EXECUTE THE WORKS AT ALL TIMES IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF THE 1974 HEALTH AND SAFETY AT WORK ACT, AND THE 2015 CDM REGULATIONS. THE CONTRACTOR WILL BE DEEMED TO HAVE ALLOWED FOR FULL COMPLIANCE WITH THE SAME WITHIN HIS RATES, INCLUDING FULL LIAISON WITH THE PRINCIPAL DESIGNER.
6. FOR DETAILS OF CARRIAGEWAY CONSTRUCTION REFER TO THE 30 SERIES PROJECT DRAWINGS.
7. FOR DETAILS OF SEWER CONSTRUCTION REFER TO THE 40 SERIES PROJECT DRAWINGS.

PIPE MATERIAL NOTES

1. ALL ADOPTABLE SEWERS 300MM DIAMETER AND LESS SHALL BE VITRIFIED CLAY PIPE TO BSEN 295 STRENGTHS SHALL BE AS FOLLOWS:

150Ø	40KN/M	UPVC
225Ø	45KN/M	CLASS 240
300Ø	72KN/M	CLASS 240

2. ALL CONCRETE PIPES SHALL BE CLASS 120 - TO EN 1916/BS 5911-1 : 2002. ALL CONCRETE MANHOLES SHALL BE TO BSEN 1917 AND BS5911-3.
3. ALL PIPE BEDIING SHALL BE CLASS S COMPLETE GRANULAR SURROUND UNLESS OTHERWISE SPECIFIED. REFER TO SEWER STANDARD CONSTRUCTION DETAILS FOR CONFIRMATION OF ACCEPTABLE AGGREGATE SIZES
4. ADOPTABLE PLASTIC SEWER PIPES SHOULD BE TO BSI KITEMARKED (CERTIFIED TO WIS 4-35-01).

rev	description	date	initial
A	Amended in line with client mark-ups (26.08.22)	05.09.22	EN

Stephen Daykin Consulting Ltd
A design consultancy for the development industry
33 Beaumaris Drive
Gedling
Nottingham
NG4 2RA

Tel 0115 9404321
mobile 07968 765381
steve@sdccivils.com

Managing Director
Stephen W Daykin I.Eng AMICE MCIHT

client: gleeson

project: Proposed residential development at York Gardens, Gosberton

title:

ROAD AND SEWER LONG SECTONS

drawn: SD	date: 14.10.21	
scale: H=1/500 V=1/100	size: A1	
purpose of issue: Preliminary		
dwg no.: E827-20	rev.: A	