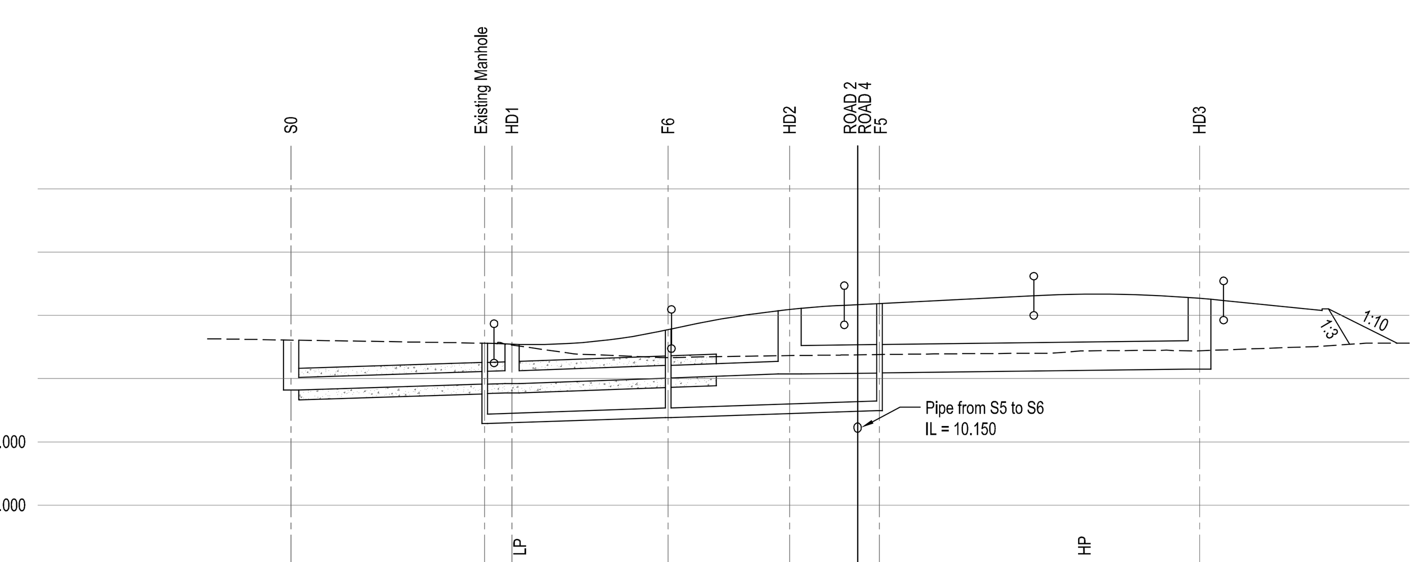
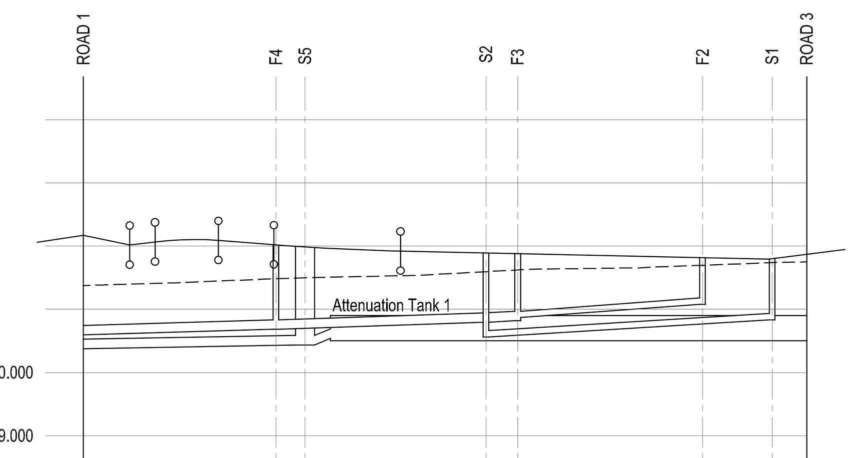


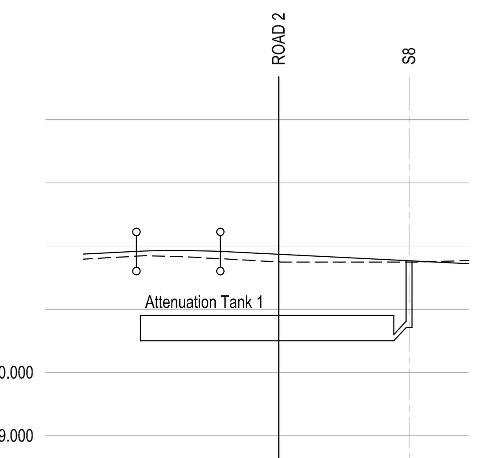
ROAD 1

CHAINAGE	-22.940, 0.000, 2.778 (LP), 5.000, 10.000, 13.757, 15.000, 20.000, 20.069, 25.000, 27.420, 28.470, 30.000, 40.000, 42.398, 45.000, 47.398 (HP), 50.000, 55.000, 57.398, 60.000, 65.180
EXISTING GROUND LEVEL	11.630, 11.585, 11.557, 11.554, 11.357, 11.354, 11.379, 11.397, 11.444, 11.473, 11.512
ALIGNMENT LEVEL	11.557, 11.538, 11.548, 11.645, 11.784, 11.838, 12.015, 12.127, 12.159, 12.185, 12.285, 12.309, 12.328, 12.334, 12.327, 12.276, 12.234, 12.182, 12.078
VERTICAL ALIGNMENT	KF= 2.44803 L= 14.017; L= 13.663 KF= -3.92086; G= 1.000% 1: 100.0; L= 15.000 KF= -5.0; G= -2.000% 1: -50.0
HORIZONTAL ALIGNMENT	
LEFT HAND CHANNEL	11.351, 11.354, 11.459, 11.661, 11.846, 11.848, 11.967, 12.033, 12.092, 12.150, 12.202, 12.210, 12.167, 12.082, 11.990, 11.987
RIGHT HAND CHANNEL	11.430, 11.426, 11.525, 11.721, 11.900, 11.902, 12.015, 12.076, 12.128, 12.181, 12.226, 12.228, 12.180, 12.088, 11.991, 11.987
SURFACE WATER DRAINAGE	10.820; 200 dia Ductile Iron Bed CS 1:170 L=17.51m; 10.925; 200 dia Ductile Iron Bed CS/Bed S 1:170 L=24.95m; 11.045; 450 dia Ductile Iron Bed S 1:415 L=30.55m; 11.120
FOUL WATER DRAINAGE	10.290; 150 dia ESVC Bed S 1:150 to Existing FW Manhole; 10.392; 150 dia ESVC Bed S 1:150 L=16.75m; 10.512



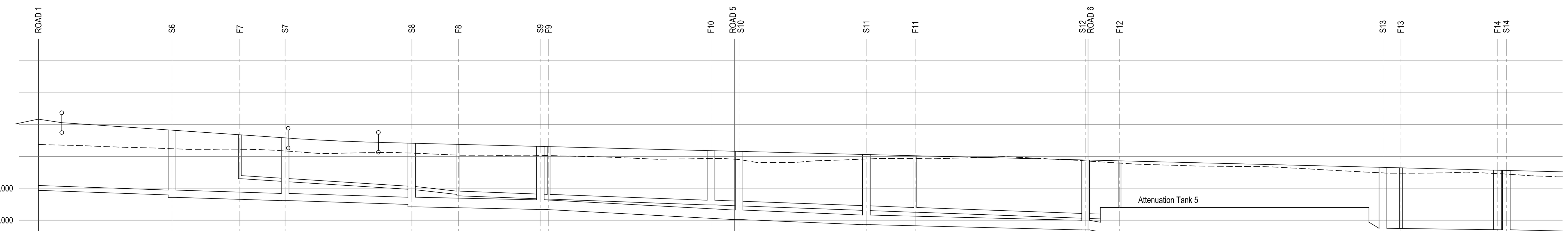
ROAD 2

CHAINAGE	0.000, 3.650, 5.654, 8.738 (HP), 10.654, 14.465, 15.043, 20.000, 25.043, 27.304, 27.904, 30.000, 40.000, 50.000, 52.143, 57.143
EXISTING GROUND LEVEL	11.375, 11.441, 11.512, 11.575, 11.645, 11.704, 11.750
ALIGNMENT LEVEL	12.015, 12.065, 12.104, 12.089, 12.021, 11.958, 11.922, 11.921, 11.900, 11.856, 11.812, 11.794
VERTICAL ALIGNMENT	G= 2.500% 1: 40.0; L= 5.000 KF= -1.23373; G= -1.553% 1: -64.4; KF= 8.98119 L= 10.000; G= -0.439% 1: -227.6
HORIZONTAL ALIGNMENT	
LEFT HAND CHANNEL	11.970, 11.962, 11.898, 11.862, 11.851, 11.834, 11.825, 11.803, 11.781, 11.759, 11.737, 11.727
RIGHT HAND CHANNEL	12.029, 12.015, 11.898, 11.862, 11.851, 11.834, 11.825, 11.803, 11.781, 11.759, 11.737, 11.727
SURFACE WATER DRAINAGE	150 dia PVC-U Bed S 1:60 to S02; 10.435; 10.540; Attenuation Tank 1 Top of tank=10.900 Base of tank=10.500; 10.563; 100 dia PVC-U Bed S 1:100 L=19.45m; 10.832
FOUL WATER DRAINAGE	150 dia ESVC Bed S 1:150 to F5; 10.631; 150 dia PVC-U Bed S 1:150 L=19.06m; 10.819; 10.869; 100 dia PVC-U Bed S 1:80 L=14.59m; 11.078



ROAD 3

CHAINAGE	0.000, 4.167, 7.500 (HP), 10.000, 10.801, 15.404, 20.000, 30.000, 30.404
EXISTING GROUND LEVEL	11.795, 11.809, 11.746, 11.769, 11.771
ALIGNMENT LEVEL	11.872, 11.914, 11.930, 11.921, 11.914, 11.823, 11.724, 11.720
VERTICAL ALIGNMENT	G= 1.000% 1: 100.0; L= 6.635 KF= -3.33333; G= -0.990% 1: -101.0
HORIZONTAL ALIGNMENT	
LEFT HAND CHANNEL	11.947, 11.996, 11.996, 11.948, 11.898, 11.859, 11.823, 11.820
RIGHT HAND CHANNEL	11.797, 11.846, 11.846, 11.798, 11.748, 11.688, 11.625, 11.620
SURFACE WATER DRAINAGE	10.540; Attenuation Tank 1 Top of tank=10.900 Base of tank=10.500; 10.540; 10.710
FOUL WATER DRAINAGE	



ROAD 4

CHAINAGE	0.000, 3.650, 9.629, 10.000, 16.584, 18.584, 20.000, 30.000, 38.145, 39.070, 45.000, 50.000, 53.181, 57.087, 60.000, 70.000, 71.532, 80.000, 90.000, 100.000, 108.929, 110.000, 120.000, 130.000, 140.000, 150.000, 160.000, 164.173, 170.000, 180.000, 190.000, 200.000, 207.255, 210.000, 220.000, 224.116, 230.000, 231.860, 238.373
EXISTING GROUND LEVEL	11.375, 11.313, 11.248, 11.229, 11.151, 11.112, 11.092, 11.037, 11.028, 10.971, 10.922, 10.890, 10.840, 10.924, 10.929, 10.987, 10.903, 10.780, 10.708, 10.683, 10.594, 10.487, 10.485, 10.443, 10.360
ALIGNMENT LEVEL	12.059, 11.972, 11.835, 11.698, 11.574, 11.562, 11.504, 11.461, 11.442, 11.408, 11.358, 11.308, 11.258, 11.208, 11.158, 11.108, 11.058, 11.008, 10.958, 10.908, 10.858, 10.808, 10.758, 10.708, 10.658, 10.608, 10.558, 10.516
VERTICAL ALIGNMENT	G= -1.370% 1: -73.0; KF= 16.22456 L= 14.111; G= -0.500% 1: -200.0
HORIZONTAL ALIGNMENT	R= 57.000; R= 49.600; R= 27.000; R= 12.400
LEFT HAND CHANNEL	11.917, 11.917, 11.844, 11.822, 11.795, 11.775, 11.707, 11.638, 11.570, 11.502, 11.444, 11.401, 11.373, 11.348, 11.323, 11.298, 11.273, 11.248, 11.223, 11.198, 11.173, 11.148, 11.133, 11.118, 11.103, 11.088, 11.073, 11.058, 11.043, 11.028, 11.013, 10.998, 10.983, 10.968, 10.943, 10.918, 10.893, 10.868, 10.843, 10.818, 10.793, 10.768, 10.743, 10.718, 10.693, 10.668, 10.643, 10.618, 10.593, 10.576
RIGHT HAND CHANNEL	11.917, 11.912, 11.844, 11.822, 11.795, 11.775, 11.707, 11.638, 11.570, 11.502, 11.444, 11.401, 11.373, 11.348, 11.323, 11.298, 11.273, 11.248, 11.223, 11.198, 11.173, 11.148, 11.123, 11.098, 11.073, 11.048, 11.023, 10.998, 10.973, 10.948, 10.923, 10.898, 10.873, 10.848, 10.823, 10.798, 10.773, 10.748, 10.723, 10.698, 10.673, 10.648, 10.623, 10.598, 10.573, 10.548, 10.523, 10.498, 10.473, 10.456
SURFACE WATER DRAINAGE	150 dia PVC-U Bed S 1:60 to S01; 9.795; 9.720; 225 dia PVC-U Bed S 1:170 L=17.81m; 9.615; 225 dia PVC-U Bed S 1:170 L=19.87m; 9.498; 9.423; 300 dia PVC-U Bed S 1:245 L=19.84m; 9.342; 300 dia PVC-U Bed S 1:96 L=31.14m; 9.019; 300 dia PVC-U Bed S 1:245 L=19.87m; 8.863; 300 dia PVC-U Bed S 1:320 L=34.37m; 8.700; 8.640; Attenuation Tank 5 Top of tank = 9.400 Base of tank = 8.600; 8.640; 8.450; 8.300; 450 dia PVC-U Bed S 1:405 L=19.13m; 8.253; 450 dia PVC-U Bed S 1:405 to S11
FOUL WATER DRAINAGE	10.300; 100 dia ESVC Bed S 1:70 L=34.06m; 9.813; 9.763; 150 dia ESVC Bed S 1:140 L=14.25m; 9.661; 150 dia ESVC Bed S 1:140 L=25.34m; 9.480; 150 dia ESVC Bed S 1:140 L=31.99m; 9.252; 150 dia ESVC Bed S 1:140 L=31.99m; 9.023; 150 dia ESVC Bed S 1:140 L=43.79m; 8.710; 150 dia ESVC Bed S 1:140 L=14.96m; 8.603; 150 dia ESVC Bed S 1:150 to F12

Rev.	Date	Details	Initials
F	05.03.20	Invert levels of manholes HD1 - HD3 updated in line with changes to drainage GA. Design responsibility assumed by Persimmon Homes.	DLS
E	25.04.19	Road 1 long section extended to show banking down to existing ground, manholes HD2 & HD3 relocated, and vertical alignment amended for Road 1, 2 & 4 to suit S38/road safety audit comments	MA
D	05.03.19	Foul water sewer material amended to ESVC to suit adoption requirement	MA
C	22.01.19	Drawing title and status amended.	KAM
B	21.01.19	Amended to suit revised drainage layout	MA
A	14.01.19	Initial issue	MA

Drawing Status
CONSTRUCTION

Project
Castle Avenue, Havant

Client
PERSIMMON

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Drawing Title
Engineering Details
Longitudinal Sections 1 of 2

Drawn	Checked	Scales	Paper Size	Date
MA	KAM	H:100 V:500	A1	01.19

Job No.	Drawing No.	Revision
ES1857	503–01	F

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