

SURFACE WATER MANHOLE SCHEDULE							
MH REFERENCE	INVERT LEVELS	COVER LEVELS	DEPTH TO INVERT	TYPE	SIZE	COVER TYPE	COORDINATES
PSW1	3000 - 56.993 3000 - 56.993	59.217	2.224	1	1.200	D400	E300667.885 N510378.859
PSW2	3000 - 57.040 3000 - 57.040	59.873	2.833	CATCHPIT	1.200	D400	E300658.456 N510389.236
PSW3	3000 - 58.200 3000 - 58.200	60.320	2.120	1	1.200	D400	E300654.482 N510400.281

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MH REFERENCE	INVERT LEVELS	COVER LEVELS	DEPTH TO INVERT	TYPE	SIZE	COVER TYPE	COORDINATES
SWIC1	1000 - 61.630	62.430	0.800	PPIC	0.450	D400	E300612.669 N510381.735
SWIC2	1000 - 61.490 1500 - 61.490	62.998	1.508	PPIC	0.450	D400	E300603.237 N510392.081
SWIC3	1000 - 62.443	63.743	1.300	PPIC	0.450	D400	E300588.057 N510393.082
SWIC4	1000 - 62.675	63.375	0.700	PPIC	0.450	D400	E300586.883 N510413.664
SWIC5	1000 - 61.881 1000 - 61.881	62.681	0.800	PPIC	0.450	D400	E300600.185 N510425.791
SWIC6	1000 - 61.616 1000 - 61.616	62.466	0.850	PPIC	0.450	D400	E300610.965 N510413.968
SWIC7	1000 - 61.496 1000 - 61.496 1500 - 61.496	62.984	1.488	PPIC	0.450	D400	E300602.097 N510405.883
SWIC8	1000 - 61.516	62.366	0.850	PPIC	0.450	D400	E300612.656 N510415.823
SWIC9	1000 - 60.298	61.498	1.200	PPIC	0.450	D400	E300638.520 N510439.404
SWIC10	1000 - 60.088 1000 - 60.088 1500 - 60.088	61.875	1.787	PPIC	0.450	D400	E300623.002 N510425.255
SWIC11	1000 - 61.088	62.138	1.050	PPIC	0.450	D400	E300620.204 N510405.095
SWIC12	1000 - 60.335 1500 - 60.335	61.685	1.350	PPIC	0.450	D400	E300627.224 N510411.496
SWIC13	1000 - 60.469	61.369	0.900	PPIC	0.450	D400	E300636.555 N510419.234
SWIC14	1000 - 59.993	60.743	0.750	PPIC	0.450	D400	E300655.040 N510421.223
SWIC15	1000 - 59.540 1000 - 59.540 1500 - 59.540	60.840	1.300	PPIC	0.450	D400	E300643.955 N510411.117
SWIC16	1000 - 59.060	60.560	1.500	PPIC	0.450	D400	E300659.350 N510416.779
SWIC17	1000 - 59.279	60.129	0.850	PPIC	0.450	D400	E300659.389 N510401.702
SWIC18	1000 - 58.910 1000 - 58.910 1500 - 58.910	60.697	1.787	PPIC	0.450	D400	E300648.266 N510406.673
SWIC19	1500 - 57.780	58.613	0.833	PPIC	0.450	D400	E300686.524 N510412.018
SWIC20	1500 - 57.599 1500 - 57.599	59.342	1.743	PPIC	0.450	D400	E300668.050 N510395.175
SWIC21	1500 - 57.491 1500 - 57.491	58.686	1.195	PPIC	0.450	D400	E300678.964 N510363.203
SWIC22	1500 - 57.461 1500 - 57.461	58.651	1.190	PPIC	0.450	D400	E300675.722 N510380.247
SWIC23	1500 - 57.425 1500 - 57.425	59.015	1.590	PPIC	0.450	D400	E300670.538 N510378.910
SWIC24	1000 - 59.830	60.630	0.800	PPIC	0.450	D400	E300635.751 N510378.837
SWIC25	1000 - 59.439 1000 - 59.439	60.339	0.900	PPIC	0.450	D400	E300646.551 N510384.067
SWIC26	1000 - 58.543	59.243	0.700	PPIC	0.450	D400	E300661.338 N510367.119
SWIC27	1000 - 61.518	62.318	0.800	PPIC	0.450	D400	E300612.818 N510379.287
SWIC28	1000 - 60.878 1000 - 60.878	61.778	0.900	PPIC	0.450	D400	E300618.881 N510372.636
SWIC29	1000 - 60.693	61.493	0.800	PPIC	0.450	D400	E300609.953 N510353.334
SWIC30	1000 - 60.194 1000 - 60.194 1000 - 60.194	61.094	0.900	PPIC	0.450	D400	E300621.776 N510364.114
SWIC31	1000 - 59.846 1000 - 59.846	60.946	1.100	PPIC	0.450	D400	E300629.861 N510355.247
SWIC32	1000 - 59.711 1000 - 59.711	60.711	1.000	PPIC	0.450	D400	E300635.781 N510360.642
SWIC33	1000 - 58.441 1000 - 58.441 1500 - 58.441	59.691	1.250	PPIC	0.450	D400	E300655.646 N510374.091


FOUL WATER MANHOLE SCHEDULE							
MH REFERENCE	INVERT LEVELS	COVER LEVELS	DEPTH TO INVERT	TYPE	SIZE	COVER TYPE	COORDINATES
FWIC1	1000 - 60.637	61.687	1.050	PPIC	0.450	D400	E300612.558 N510363.373
FWIC2	1000 - 60.288 1000 - 60.288	61.338	1.050	PPIC	0.450	D400	E300623.273 N510373.142
FWIC3	1000 - 59.488 1000 - 59.488	60.688	1.200	PPIC	0.450	D400	E300635.936 N510359.254
FWIC4	1000 - 60.100 1000 - 60.100	61.150	1.050	PPIC	0.450	D400	E300633.117 N510383.580
FWIC5	1000 - 59.482 1000 - 59.482	60.532	1.050	PPIC	0.450	D400	E300637.362 N510378.925
FWIC6	1000 - 59.315 1000 - 59.315	60.365	1.050	PPIC	0.450	D400	E300646.362 N510363.283
FWIC7	1000 - 58.178 1000 - 58.178 1500 - 58.178	59.678	1.500	PPIC	0.450	D400	E300655.457 N510373.308
FWIC8	1000 - 61.000	62.018	1.018	PPIC	0.450	D400	E300626.152 N510392.780
FWIC9	1000 - 62.888	63.838	0.950	PPIC	0.450	D400	E300682.683 N510389.400
FWIC10	1000 - 61.400 1000 - 61.400	62.500	1.100	PPIC	0.450	D400	E300610.025 N510414.329
FWIC11	1000 - 60.468 1000 - 60.468	61.518	1.050	PPIC	0.450	D400	E300631.396 N510433.814
FWIC12	1000 - 60.289 1000 - 60.289	61.239	0.950	PPIC	0.450	D400	E300640.491 N510423.838
FWIC13	1000 - 60.200 1500 - 60.200	61.360	1.160	PPIC	0.450	D400	E300637.166 N510420.806
FWIC14	1500 - 58.978 1500 - 58.978	60.028	1.050	PPIC	0.450	D400	E300658.187 N510397.750
FWIC15	1500 - 58.652 1500 - 58.652	59.552	0.900	PPIC	0.450	D400	E300668.971 N510407.583
FWIC16	1500 - 58.194 1500 - 58.194	59.094	0.900	PPIC	0.450	D400	E300674.158 N510401.894
FWIC17	1500 - 58.075 1500 - 58.075	58.703	0.628	PPIC	0.450	D400	E300685.949 N510388.962
FWIC18	1500 - 57.608 1500 - 57.608	58.508	0.900	PPIC	0.450	D400	E300672.061 N510376.290

- DRAINAGE SPECIFICATIONS**
- ALL ADOPTABLE DRAINAGE WORKS AND MATERIALS TO BE IN ACCORDANCE WITH "SEWERS FOR ADOPTION" 6TH EDITION, THE RELEVANT BRITISH/EUROPEAN AND YORKSHIRE WATERS STANDARDS/REQUIREMENTS/ADDENDUM TO THE MECHANICAL AND ELECTRICAL SPECIFICATION AND KITEMARKED.
 - FILLED GROUND MUST BE FILLED AND CONSOLIDATED UNDER THE SUPERVISION AND TO THE SATISFACTION OF YORKSHIRE WATER BEFORE ANY SEWER WORKS ARE CARRIED OUT.
 - ALL ADOPTABLE SEWERS TO BE KITEMARKED (CERTIFIED TO WIS 4-35-01 AND BS EN13476).
 - PLASTIC CHANNEL SECTIONS IN MANHOLES ARE NOT ACCEPTABLE AND THE WATER AUTHORITY PREFER LAYWARE CHANNEL IN MANHOLES. PLASTIC CHANNELS ARE DIFFICULT TO SET IN CONCRETE BECAUSE THEY FLOAT AND A SATISFACTORY FINISH CANNOT BE OBTAINED ON THE BENCHING.
 - THE WATER AUTHORITY IS NOT OBLIGED TO ACCEPT FILTER DRINKLAND DRAINAGE RUN-OFF INTO THE PUBLIC SEWER NETWORK OR ADOPTABLE DRAINAGE SYSTEM (DIRECTLY OR INDIRECTLY). AN ALTERNATIVE METHOD OF DISPOSAL OF THE LAND DRAINAGE RUN-OFF WILL THEREFORE BE REQUIRED AND YOU WILL HAVE TO LIASE WITH THE LOCAL AUTHORITY. LAND DRAINAGE SECTION WITH REGARD TO THE DISPOSAL OF THE FILTER DRINKLAND DRAINAGE RUN-OFF.
 - SULPHATE RESISTANT CEMENT (C20-DC2) AND PRECAST CONCRETE PRODUCTS MUST BE USED OR A LABORATORY REPORT PROVIDED PROVING THAT SUCH PRECAUTIONS ARE NOT NECESSARY.
 - THE ADOPTABLE SEWERS SHOULD BE A MINIMUM OF 1M AND MANHOLES 0.9M FROM KERB FACES AND SERVICE MARGINS.
 - "SEWERS MUST HAVE 5 METRES CLEARANCE FROM TREES AND HEDGES (PLEASE ALSO REFER TO FIGURE 2) ON PAGE 39 IN "SEWERS FOR ADOPTION" 6TH EDITION FOR RESTRICTIONS ON TREE PLANTING ADJACENT TO SEWERS".
 - SEWERS TO BE LAD IN CLASS "B" 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 NON VEHICULAR ACCESS AREAS) THEN A CONCRETE SLAB SHOULD BE PROVIDED ABOVE GRANULAR BED AND SURROUND.
 - CLASS 2 BEDDING DETAIL SHALL BE PROVIDED WHERE COVER TO THE PIPE BARREL IS LESS THAN 1.2M IN VEHICULAR TRAFFICKED AREAS AND 0.9M ELSEWHERE. TO ALL ROAD GULLY CONNECTIONS AND WITHIN AREAS OF DEEP ROOTING VEGETATION.
 - WHERE CLASS 2 TRENCH BEDDING DETAIL IS USED, THE CONCRETE BED AND SURROUND SHALL BE DISCONTINUED AT EACH PIPE JOINT OVER THE FULL CROSS SECTION BY MEANS OF A SHARED COMPRESSIBLE FILLER.
 - BEDDING AND BACKFILL MATERIAL TO CONFORM TO THE REQUIREMENT OF WATER INDUSTRY SPECIFICATION 4-8-92 (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 2002 EDITION.
 - CONTRACTOR TO ESTABLISH POSITION SIZE AND DEPTH OF ALL EXISTING SEWERS AND SERVICES PRIOR TO COMMENCEMENT ON SITE.
 - THE CONTRACTOR SHALL ALLOW FOR THE PROTECTION, TEMPORARY AND PERMANENT SUPPORT, AND TEMPORARY AND PERMANENT DIVERSION WORKS, AS NECESSARY TO ALL EXISTING SERVICES.
 - THE CONTRACTOR SHALL ALLOW FOR ALL TRAFFIC MANAGEMENT IN CONNECTION WITH ROAD AND SEWER WORKS.
 - THE CONTRACTOR SHALL ALLOW FOR KEEPING SEWER TRENCHES AND EXCAVATIONS AS DRY AS PRACTICABLE BY PUMPING FROM TEMPORARY Sumps AND DE WATERING AS APPROPRIATE. THE POINT AND METHOD OF DISCHARGE TO BE AGREED WITH THE DRAINAGE AUTHORITY.
 - FOR PIPE SPECIFICATION PLEASE REFER TO ADDITIONAL NOTES.
 - VITRIFIED CLAY PIPES AND FITTINGS SHALL COMPLY WITH THE RELEVANT PROVISIONS OF BS EN295 AND BS 65 RESPECTIVELY AND BE KITEMARKED. ALL PIPES SHALL BE EXTRA STRENGTH TO BS 65 OR EQUIVALENT BS EN295 PIPE CRUSHING STRENGTH.
 - STRUCTURED WALL PLASTIC PIPES TO WIS 4-35-01 MAY BE USED FOR FOUL & SURFACE WATER DRAINAGE, SUBJECT TO ADOPTING AUTHORITY APPROVAL.
 - PRECAST CONCRETE PRODUCTS SHALL COMPLY WITH THE RELEVANT PROVISIONS OF BS 5911 AND BE KITEMARKED. CONCRETE PIPES TO BE CLASS 120 UNLESS NOTED OTHERWISE.
 - GULLY GRATES AND FRAMES SHALL COMPLY WITH THE RELEVANT PROVISIONS OF BS EN124 AND BE OF A NON-ROCKING DESIGN WITH CAPTIVE HINGE ACCESS AND BE KITEMARKED. LOAD CLASS D400 FOR ROADS AND SERVICE YARD AREAS, CLASS C200 TO BE USED IN CAR PARKING AREAS.
 - BACKFILLING AND REINSTATEMENT TO TRENCHES IN PUBLIC HIGHWAYS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS AND SPECIFICATIONS OF THE ADOPTING AUTHORITY, OR, IN THE ABSENCE OF SUCH, IN ACCORDANCE WITH THE REQUIREMENTS OF "THE STREET WORKS REGULATIONS 1992" AND RELEVANT PROVISIONS OF H.A.U.C. "SPECIFICATION FOR THE REINSTATEMENT OF OPENINGS IN HIGHWAYS" JUNE 1992, BOTH UNDER SECTION 71 OF THE NEW ROADS AND STREET WORKS ACT 1991.
 - 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 REDUNDANT EXISTING DRAINAGE TO BE GRUBBED UP OR GROUTED. ANY EXISTING LIVE DRAINAGE SHOULD BE REPORTED TO THE ENGINEER AND RECONNECTED.
 - ALL ROAD GULLIES & LEADS TO BE CLEARED OF DEBRIS UPON COMPLETION OF WORKS.
 - THE CONTRACTOR MUST ENSURE THAT ANY OF THE EXISTING DRAINAGE WHICH IS LIVE IS KEPT CLEAR OF DEBRIS AND SHOULD ALLOW FOR JETTING THROUGH THE NEW & EXISTING DRAINAGE UPON COMPLETION.
 - CONTRACTOR TO TAKE MEASURES TO PROTECT HIS OPERATIVES WITH RESPECT TO THE PRESENCE OF GAS IN SEWER TRENCHES AND MANHOLES THROUGH THE USE OF GAS MONITORING EQUIPMENT AND BREATHING APPARATUS AS REQUIRED.
 - CONTRACTOR TO APPLY FOR SEWER PERMITS AND ROAD OPENING PERMITS AS NECESSARY FROM THE APPROPRIATE AUTHORITIES, PRIOR TO COMMENCING WORKS.
 - ADOPTABLE PLASTIC SEWER PIPES TO BE LAD IN MAXIMUM 3m LENGTHS UNLESS THERE IS A SPECIFIC OPERATIONAL NEED TO LAY LONGER LENGTHS.
 - WHERE PLASTIC PIPES ARE INSTALLED PRIOR TO GETTING APPROVAL, THEN A LIGHT LINE CCTV SURVEY AND REPORT ARE REQUIRED PRIOR TO APPROVAL.

NOTE

- CO-ORDINATES RELATE TO THE INTERSECTION OF MAIN INLET & OUTLET RUNS.
- REFER TO PLAN D701 FOR DRAINAGE CONSTRUCTION DETAILS & INFORMATION.

29/04/2020	REVISED TO SUIT LATEST PLOT DRAINAGE.	AE	AE	4
06/04/2020	CATCHPIT DETAIL ADDED.	AE	RWO	3
10/03/2020	REVISED TO SUIT LATEST PLOT DRAINAGE.	AE	AE	2
27/09/2019	FIRST ISSUE	AE	AE	1

Date	Revisions	Drawn	Checked	Rev
Dwg Status	PRELIMINARY			
Client	 NORTH EAST 0191 285632 YORKSHIRE 01748 900486 CONSULTING ENGINEERS WWW.RWOASSOCIATESUK.COM INFO@RWOASSOCIATESUK.COM			
Project	GLEESON HOMES			
Title	FELL VIEW DRIVE, EGREMONT			
DO NOT SCALE	Scale @ A1: 1:250	Drawn KS	Checked AE	Date 27/09/2019
Job No	18184	Dwg No	D205	Rev 4