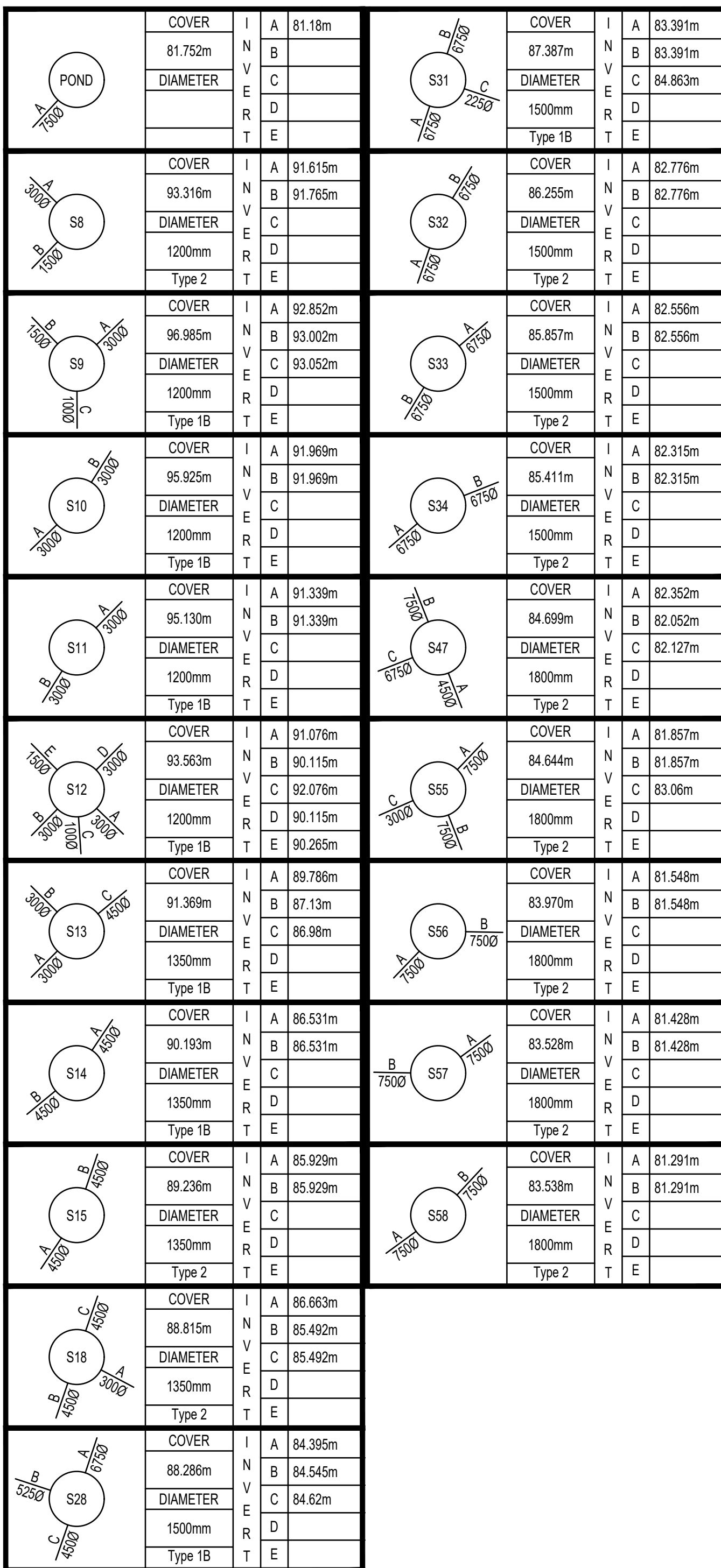


PHASE 1 FOUL & SURFACE WATER MANHOLE SCHEDULE

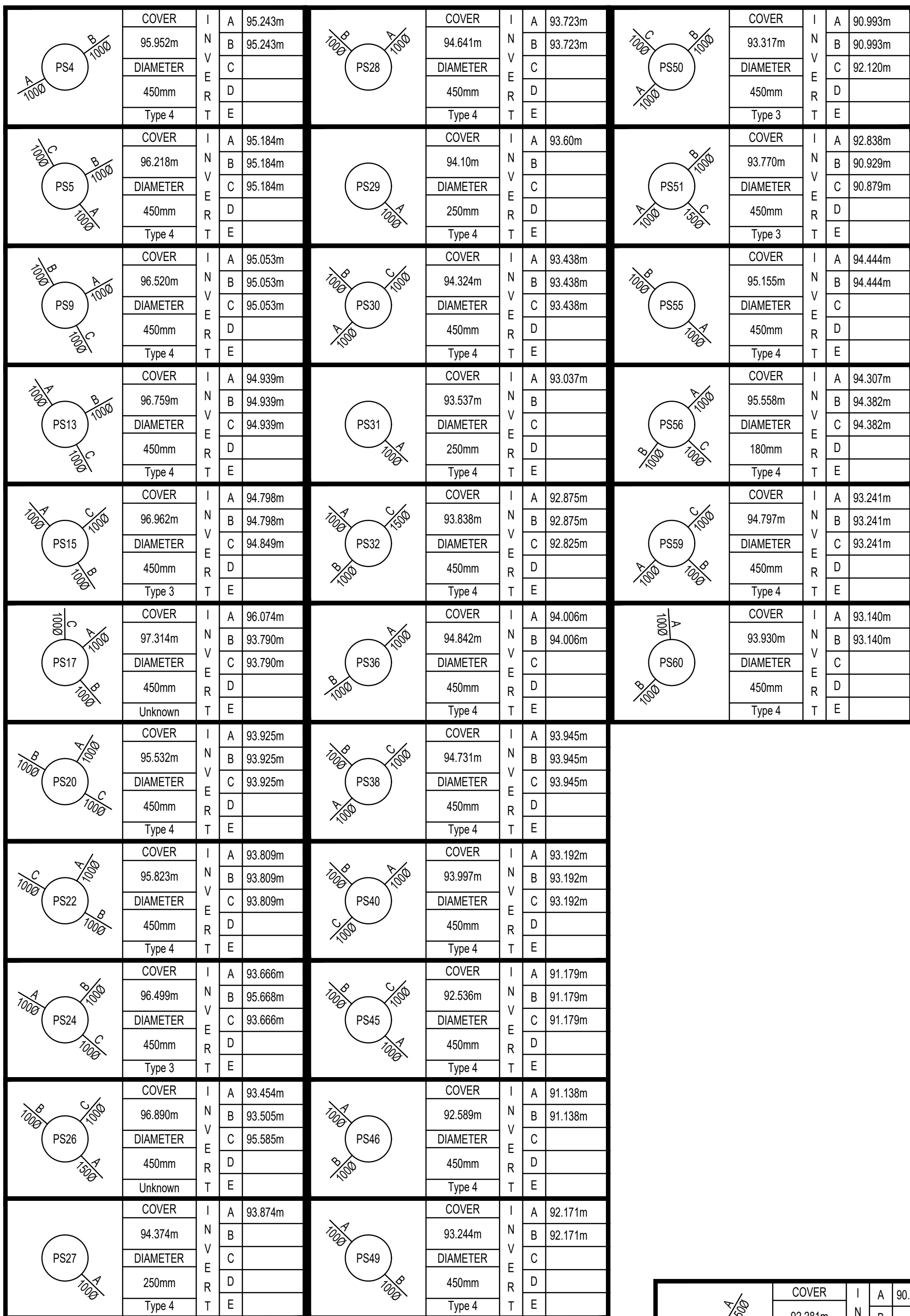
PHASE 1 SURFACE WATER MAIN DRAINAGE (SAB ADAPTABLE)								
MAH NO	MANHOLE DIAMETER (mm)	MANHOLE TYPE	COVER TYPE	COVER LEVEL (m)	INVERT LEVEL (m)	DEPTH TO SOFFIT (m)	EASTING	NORTHING
POND				81.752	81.18		333408.738	352978.264
S8	1200	Type 2	Type 2	93.316	91.615	1.401	333132.171	352506.253
S9	1200	Type 1B	Type 1	96.985	92.852	3.833	333057.037	352506.734
S10	1200	Type 1B	Type 1	95.925	91.969	3.657	333069.074	352518.312
S11	1200	Type 1B	Type 1	95.130	91.339	3.491	333075.417	352528.468
S12	1200	Type 1B	Type 1	93.563	90.115	3.148	333091.740	352545.058
S13	1350	Type 1B	Type 1	91.369	86.998	9.939	333114.867	352568.405
S14	1350	Type 1B	Type 1	90.193	86.531	3.212	333128.425	352579.613
S15	1350	Type 2	Type 2	89.236	85.929	2.857	333141.869	352599.79
S18	1350	Type 2	Type 2	88.815	85.492	2.873	333147.553	352616.532
S28	1500	Type 1B	Type 1	88.286	84.395	3.216	333154.537	352636.91
S31	1500	Type 1B	Type 1	87.387	83.391	3.321	333166.148	352672.213
S32	1500	Type 2	Type 2	86.255	82.776	2.804	333181.07	352716.524
S33	1500	Type 2	Type 2	85.857	82.556	2.626	333189.742	352730.864
S34	1500	Type 2	Type 2	85.411	82.315	2.421	333203.673	352742.738
S47	1800	Type 2	Type 2	84.699	82.052	1.897	333229.98	352753.056
S55	1800	Type 2	Type 2	84.844	81.857	2.037	333201.608	352825.394
S56	1800	Type 2	Type 2	83.970	81.548	1.672	333286.775	352914.512
S57	1800	Type 2	Type 2	83.528	81.428	1.350	333334.70	352913.798
S58	1800	Type 2	Type 2	83.538	81.291	1.497	333378.804	352945.998

PHASE 1: SURFACE WATER DOMESTIC DRAINAGE (SAB ADOPTABLE)								
MH NO.	MANHOLE DIAMETER (mm)	MANHOLE TYPE	COVER TYPE	COVER LEVEL (m)	INVERT LEVEL (m)	DEPTH TO SOFFIT (m)	EASTING	NORTHING (m)
PS4	450	Type 4	Type 4	95.952	95.243	0.609	333084.159	352466.912
PS5	450	Type 4	Type 4	96.218	95.184	0.934	333080.062	352464.612
PS9	450	Type 4	Type 4	96.520	95.053	1.367	333074.932	352473.752
PS13	450	Type 4	Type 4	96.759	94.939	1.720	333070.470	352481.701
PS15	450	Type 3	Type 3	96.962	94.798	2.063	333064.261	352491.076
PS17	450	Type 3	Type 3	97.314	93.790	3.424	333057.086	352499.357
PS20	450	Type 4	Type 4	95.532	93.925	1.507	333021.850	352533.534
PS22	450	Type 4	Type 4	95.823	93.809	1.914	333029.785	352528.828
PS24	450	Type 3	Type 3	96.499	93.666	2.733	333039.661	352522.970
PS26	450	Type 3	Type 3	96.890	93.454	3.286	333049.473	352514.588
PS27	250	Type 4	Type 4	94.374	93.874	0.40	333095.848	352485.908
PS28	450	Type 4	Type 4	94.641	93.723	0.818	333104.545	352477.540
PS29	250	Type 4	Type 4	94.10	93.60	0.40	333106.123	352497.896
PS30	450	Type 4	Type 4	94.324	93.438	0.787	333115.401	352488.824
PS31	250	Type 4	Type 4	93.537	93.037	0.400	333116.636	352508.815
PS32	450	Type 4	Type 4	93.838	92.825	0.863	333126.055	352499.897
PS36	450	Type 4	Type 4	94.842	94.006	0.736	333074.096	352537.186
PS38	450	Type 4	Type 4	94.731	93.945	0.687	333075.471	352538.566
PS40	450	Type 4	Type 4	93.997	93.192	0.705	333083.204	352546.342
PS45	450	Type 4	Type 4	92.536	91.179	1.256	333096.190	352564.198
PS46	450	Type 4	Type 4	92.589	91.138	1.351	333098.592	352561.901
PS49	450	Type 4	Type 4	93.244	92.171	0.973	333078.561	352556.521
PS50	450	Type 3	Type 3	93.317	90.993	2.223	333090.671	352553.651
PS51	450	Type 3	Type 3	93.770	90.879	2.741	333086.838	352549.997
PS55	450	Type 4	Type 4	95.155	94.444	0.611	333082.814	352517.716
PS56	180	Type 4	Type 4	95.558	94.307	1.150	333079.246	352521.141
PS59	450	Type 4	Type 4	94.797	93.241	1.456	333096.750	352528.718
PS60	450	Type 4	Type 4	93.930	93.140	0.690	333092.421	352534.439

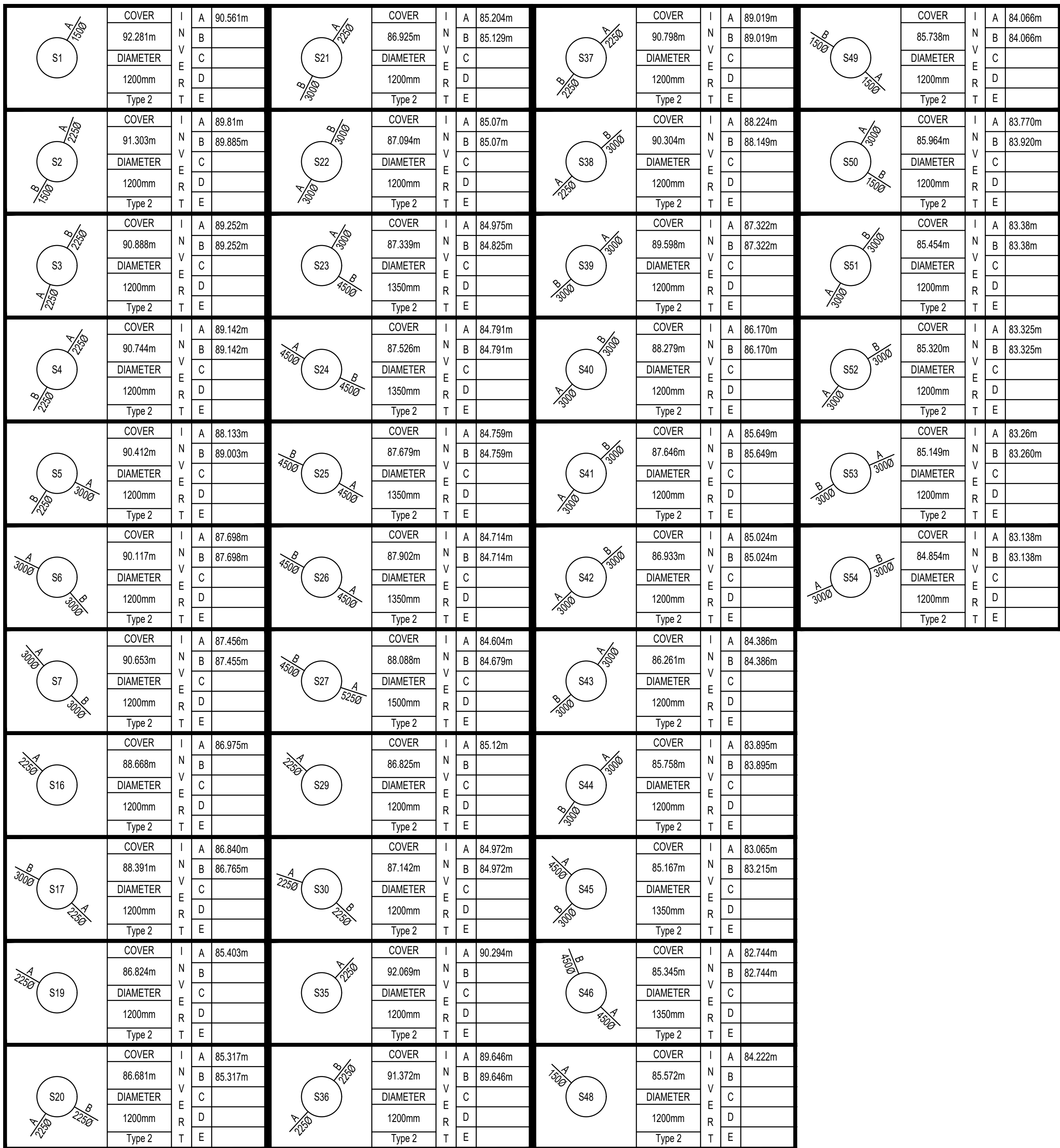
PHASE: 1 SURFACE WATER MAIN DRAINAGE
(SAB ADOPTABLE)



PHASE: 1 SURFACE WATER DOMESTIC DRAINAGE
(SAB ADOPTABLE)



PHASE: 2 SURFACE WATER MAIN DRAINAGE (SAB ADOPTABLE)



PHASE 2 SURFACE WATER MAIN DRAINAGE (SAB ADAPTABLE)							
MH NO.	MANHOLE DIAMETER (mm)	MANHOLE TYPE	COVER LEVEL (m)	INVERT LEVEL (m)	DEPTH TO SOFFIT (m)	EASTING (m)	NORTHING (m)
S1	1200	Type 2	92.281	90.561	1.569	333020.375	352568.47
S2	1200	Type 2	91.303	89.81	1.268	333030.411	352568.108
S3	1200	Type 2	90.888	89.252	1.411	333030.936	352598.542
S4	1200	Type 2	90.744	89.142	1.377	333040.364	352608.057
S5	1200	Type 2	90.412	88.133	1.979	333047.805	352619.889
S6	1200	Type 2	90.117	87.698	2.119	333082.936	352602.613
S7	1200	Type 2	90.653	87.455	2.898	333097.138	352586.063
S16	1200	Type 2	88.668	86.975	1.468	333185.398	352589.547
S17	1200	Type 2	88.391	86.765	1.326	333169.095	352605.144
S19	1200	Type 2	86.824	85.403	1.196	333123.714	352712.305
S20	1200	Type 2	86.681	85.317	1.139	333111.389	352719.437
S21	1200	Type 2	86.925	85.129	1.496	333100.87	352703.784
S22	1200	Type 2	87.094	85.07	1.724	333094.684	352691.413
S23	1350	Type 2	87.339	84.825	2.064	333083.449	352671.93
S24	1350	Type 2	87.526	84.791	2.285	333094.642	352664.903
S25	1350	Type 2	87.679	84.759	2.470	333106.045	352659.77
S26	1350	Type 2	87.902	84.714	2.738	333121.404	352651.101
S27	1500	Type 2	88.088	84.604	2.959	333133.156	352643.942
S29	1200	Type 2	86.825	85.12	1.480	333021.426	352649.573
S30	1200	Type 2	87.142	84.972	1.945	333183.406	352666.417
S35	1200	Type 2	92.069	90.294	1.550	333155.261	352521.324
S36	1200	Type 2	91.372	89.646	1.501	333163.998	352530.886
S37	1200	Type 2	90.798	89.019	1.554	333171.693	352540.784
S38	1200	Type 2	90.304	88.149	1.855	333182.868	352552.086
S39	1200	Type 2	89.598	87.322	1.976	333196.31	352564.123
S40	1200	Type 2	88.279	86.170	1.809	333222.297	352591.53
S41	1200	Type 2	87.646	85.649	1.697	333232.539	352605.172
S42	1200	Type 2	86.933	85.024	1.609	333247.285	352619.408
S43	1200	Type 2	86.261	84.386	1.575	333263.009	352633.177
S44	1200	Type 2	85.758	83.895	1.563	333272.273	352646.351
S45	1350	Type 2	85.167	83.065	1.652	333287.822	352662.348
S46	1350	Type 2	85.345	82.744	1.251	333252.071	352696.732
S48	1200	Type 2	85.572	84.222	1.200	333168.992	352756.514
S49	1200	Type 2	85.738	84.066	1.522	333157.657	352767.256
S50	1200	Type 2	85.964	83.770	1.894	333145.361	352775.117
S51	1200	Type 2	85.544	83.38	1.774	333160.856	352801.628
S52	1200	Type 2	85.320	83.325	1.695	333165.868	352808.244
S53	1200	Type 2	85.149	83.26	1.589	333174.065	352813.381
S54	1200	Type 2	84.854	83.138	1.416	333190.836	352820.896

- NOTES**
1. DRAINAGE DESIGN AND CONSTRUCTION IS IN ACCORDANCE WITH SEWERS FOR ADOPTION 7TH EDITION, WELSH MINISTERS STANDARDS AND THE REQUIREMENTS OF THE STATUTORY INSTRUMENTS.
 2. ALL SPV RWP AND BIG CONNECTIONS ARE INDICATIVE AND MUST BE CONFIRMED BY ARCHITECT.
 3. PIPE GRADIENTS OUT OF BUILDING TO CONNECTING MANHOLE TO BE LAID AN 1:40 IN ACCORDANCE WITH PART H OF THE 2002 BUILDING REGULATIONS, TABLE 6. ALL INVERTS TO SPV WITHIN 3 STOREY BUILDINGS MUST BE 750mm IN ACCORDANCE WITH BUILDING REGULATIONS.
 4. TOLERANCES IN PIPE LAYING TO BE IN ACCORDANCE WITH SEWERS FOR ADOPTION 7TH EDITION CLAUSE 4.5.9
 5. FOR PIPES 150-450mm DIA. ALL ROCKER PIPES TO BE IN ACCORDANCE WITH "SEWERS FOR ADOPTION" 7TH EDITION.
 6. ENGINEERING BRICKS SHALL NOT CONTAIN FROGS OR HOLES.
 7. BRICKWORK TO MANHOLES TO BE ENGLISH BOND.
 8. WHERE PIPES SURROUNDED IN CONCRETE, FLEXIBILITY TO BE MAINTAINED AT PIPE JOINTS. ALL JOINTS TO BE SITUATED IN COMPRESSIBLE MATERIAL E.G. "FLEXCEL" OR "TIREBORDAR".
 9. ALL MANHOLE COVERS AND FRAMES MUST COMPLY WITH BS EN124. COVERS IN ROADS TO BE GRADE D400 AND BE 150mm DEEP. MANHOLE CHAMBERS IN CAR PARKING AREAS AND DRIVES TO BE GRADE D150. STREET LANDSCAPED AREAS MAY BE GRADE A15. ALL TO BE SIZED IN ACCORDANCE WITH PART H OF BUILDING REGULATIONS, 2002, TABLES 11 & 12.
 10. PIPEWORK MATERIALS AS SPECIFIED WITHIN SEWERS FOR ADOPTION 7th.
10a. CLAY PIPES SEE E2 18 SFA 7th.
10c. PLASTIC PIPES SEE E2 21 SFA 7th.
10c. CONCRETE PIPES SEE E2 21 SFA 7th.
 11. GRANULITIC BENCHING TO MANHOLES TO BE 40mm THICKNESS MINIMUM.
 12. PRECAST CONCRETE CHAMBER RINGS TO BE REINFORCED.
 13. THE SLOPE OF BENCHING IN ALL CASES SHOULD BE 1 IN 30.
 14. MANHOLES SHALL NOT INCORPORATE DOUBLE SQUARE OR DOUBLE OBLIQUE CHANNEL JUNCTIONS IN THEIR INVERTS.
 15. ALL INCOMING PIPES SHALL BE SURROUNDED WITH 150mm OF CONCRETE TO THE FACE OF THE COLLAR OF THE FIRST FLEXIBLE JOINT AND THE OUTGOING PIPE SHALL ALSO BE SURROUNDED TO THE FACE OF THE FIRST FLEXIBLE JOINT AND A COMPRESSIBLE FILLER USED AS A FORMER BETWEEN THE CONCRETE SURROUND AND DOWNSTREAM PIPE COLLAR.
 16. ALL UNDERGROUND SERVICES TO BE CONFIRMED BY CONTRACTOR PRIOR TO CONSTRUCTION ON SITE. ANY DISCREPANCIES TO BE REPORTED TO ENGINEER.
 17. THE MINIMUM DEPTH OF COVER TO THE CROWN OF GRAVITY PIPES WITHOUT PROTECTION SHOULD BE AS FOLLOWS:
a) DOMESTIC GARDENS AND PATHWAYS WITHOUT ANY POSSIBILITY OF OVERHEAD CABLES 0.3m;
b) DOMESTIC DRIVEWAYS, PARKING AREAS AND YARDS WITH HEIGHT RESTRICTIONS TO PREVENT ENTRY BY VEHICLES WITH A GROSS VEHICLE WEIGHT IN EXCESS OF 7.5 TONNES 0.9m;
c) DOMESTIC DRIVEWAYS, PARKING AREAS AND NARROW STREETS WITHOUT FOOTPATHS (e.g. MEWS DEVELOPMENTS) WITH LIMITED ACCESS FOR VEHICLES WITH A GROSS VEHICLE WEIGHT IN EXCESS OF 7.5 TONNES 0.9m;
d) AGRICULTURAL LAND AND PUBLIC OPEN SPACE 0.9m;
e) DOMESTIC DRIVEWAYS, PARKING AREAS WITH UNRESTRICTED ACCESS TO VEHICLES WITH A GROSS VEHICLE WEIGHT IN EXCESS OF 7.5 TONNES 1.2m;
 18. ROAD GULLIES TO BE TRAPPED FOR CONNECTION TO PROPOSED COMBINED SEWER.
 19. NO DEEP OR WIDE ROUTED TREES TO BE PLANTED WITHIN CLOSE PROXIMITY OF THE PROPOSED AND EXISTING PUBLIC SEWER SYSTEM.

The developer must self-vet and certify that the design criteria, material standards and workmanship specifications for the proposed adoptable sewers are in accordance with those set out in "Sewers for Adoption" 7th Edition (SFA 7th), The Welsh Ministers Standards and the requirement of DCWW as the Statutory

Subject to a Section 104 Adoption Agreement being complete, a Section 106 application to connect must be made to DCWW the developer shall give 21 days' notice prior to connection. The works may only be undertaken by an SSIP Health & Safety approved contractor.