DRAINAGE KEY:

- EXISTING SURFACE WATER DRAINAGE
- EX.MH C.L. I.L. — EXISTING SURFACE WATER MANHOLE
- EX.RWP — EXISTING RAIN WATER PIPE
- EX.G — EXISTING GULLY
- EXISTING FOUL DRAINAGE
- EX.MH C.L. I.L. — EXISTING FOUL MANHOLE
- EXISTING DRAINAGE TO BE GRUBBED UP (OR GROUTED, IF NOTED)
- 150Ø SW 1:150 >> — NEW SURFACE WATER DRAINAGE
- NEW MH SW# 4500 PPIC CL= xx IL= xx — NEW SURFACE WATER MANHOLE MAC / INT / PPIC / PCC WITH 150 CONCRETE SURROUND
- RWP / IRWP — NEW RAIN WATER PIPE / INTERNAL RAIN WATER PIPE. REFER TO ARCHITECT FOR SETTING OUT. ACCESS FOR RODDING OF THE BELOW-GROUND BRANCH DRAIN IS TO BE PROVIDED AT ALL RWP LOCATIONS.
- CH. DRAIN >> I.S. — NEW SURFACE WATER DRAINAGE CHANNEL WITH SUMP (S.) TH. DENOTES ACO M100D THRESHOLD DRAIN
- RG — NEW ROAD GULLY
- RE — NEW RODDING EYE LOCATION
- 110 DIA. PERFORATED COIL DRAIN IN 100mm PEA GRAVEL
- NEW FOUL / SURFACE WATER PUMPED MAIN
- NEW MH.FW# 12000 PCC CL= xx IL= xx — NEW FOUL WATER MANHOLE MAC / INT / PPIC / PCC WITH 150 CONCRETE SURROUND
- 150Ø FW 1:150 >> — NEW FOUL DRAINAGE
- F — NEW FOUL POP-UP (F / SV / SS / SG / FG). REFER TO ARCHITECT/SERVICES CONSULTANT FOR SETTING OUT AND TYPE OF APPLIANCE/FITTING. ACCESS FOR RODDING OF THE BELOW-GROUND DRAIN IS TO BE PROVIDED AT ALL FOUL POP-UP LOCATIONS.
- YG — NEW YARD GULLY

NOTE:
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DRAINAGE LAYOUT AND DETAILS TO BE READ IN CONJUNCTION WITH ARCHITECT AND MECHANICAL ENGINEER'S DRAWINGS WITH RESPECT TO ABOVE GROUND DRAINAGE LAYOUT AND POP-UP POSITIONS

REFER TO ARCHITECT DRAWINGS FOR PROJECT PHASING AND CONTRACTOR FOR CONSTRUCTION PHASE SITE ACCESS REQUIREMENTS.

SITE INVESTIGATION REPORT BY GRANGE GEO. INDICATES HIGH GROUNDWATER LEVELS. CONTRACTOR TO PROVIDE DE-WATERING TEMPORARY WORKS FOR EXCAVATIONS TO BE UNDERTAKEN BELOW REPORTED GROUNDWATER LEVELS.

NOTES

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GENERAL NOTES:

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2. USE ONLY GIVEN DIMENSIONS. DO NOT SCALE.
3. ALL DIMENSIONS ARE TO BE CONFIRMED BY THE CONTRACTOR AND ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE EMPLOYER, PRIOR TO COMMENCEMENT OF THE WORK OR AS SOON AS THE DISCREPANCY IS NOTED.
4. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND DETAILING OF ALL TEMPORARY WORKS ASSOCIATED WITH THE PROJECT.

DRAINAGE NOTES:

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS AND SPECIFICATION.
2. NO DEVIATION FROM THE DETAILS SHOWN ON THIS DRAWING SHALL BE ALLOWED UNLESS PRIOR WRITTEN CONSENT HAS BEEN OBTAINED.
3. FOR TYPICAL DRAINAGE DETAILS REFER TO KIER DRAWING No. 36222-DBS-00-ZZ-DR-C-0003.
4. ALL WORK TO COMPLY WITH THE RELEVANT CLAUSES OF B.S. EN 752 BUILDING DRAINAGE, THE SEWERS FOR ADOPTION CURRENT EDITION & PART H OF THE BUILDING REGULATIONS.
5. PRIOR TO COMMENCEMENT OF THE WORKS THE CONTRACTOR SHALL:-
   A) CONFIRM THE LOCATION AND LEVEL OF THE PROPOSED DRAINAGE OUTFALLS AND REPORT ANY DISCREPANCIES TO THE ENGINEER.
   B) CARRY OUT AN INTERNAL SURVEY OF THE OUTFALL CHAMBERS AND PROVIDE DETAILED DIMENSIONED SKETCHES OF EACH FOR THE ENGINEERS CONSIDERATION.
6. ALL PIPES BUILT INTO THE MANHOLE INVERTS SHALL BE INSTALLED WITH SOFFITS LEVEL UNLESS SHOWN OTHERWISE.
7. CONNECTIONS TO FOUL AND SURFACE WATER TERMINAL FITTINGS SHALL BE IN 100mm NOMINAL BORE PIPE U.N.O.
8. ALL MANHOLES AND CONNECTIONS PASSING THROUGH WALLS TO BE FITTED WITH ROCKER PIPES.
9. WHERE PIPES PASS THROUGH WALLS, REINFORCED CONCRETE LINTELS TO BE PROVIDED ABOVE PIPE TO FULL WIDTH OF WALL PROVIDING MIN. 50mm CLEARANCE ALL ROUND. MIN. BEARING OF LINTEL TO BE 150mm. SEAL WALL WITH RIGID SHEET EITHER SIDE AND INFILL VOID WITH COMPRESSIBLE SEALANT.
10. COVER LEVELS SHOWN ARE APPROXIMATE AND SHALL BE ADJUSTED ON SITE BY THE CONTRACTOR TO SUIT THE FINAL LEVELS. THE CONTRACTOR SHALL PROVIDE WRITTEN CONFIRMATION OF THE FINISHED COVER AND INVERT LEVELS OF ALL MANHOLES.
11. THE CONTRACTOR SHALL CONTROL ACCURATE LINE AND LEVEL OF PIPE LAYING BY USE OF AN OPTICAL LASER.
12. THE CONTRACTOR SHALL PROTECT THE PIPELINE FROM TEMPORARY CONSTRUCTION LOADS WHICH MAY BE IN EXCESS OF THE SERVICE LOADS.
13. PIPEWORK AND PIPE BEDDING SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS EXCEPT WHERE NOTED OTHERWISE:
    PLASTIC PIPES AND FITTINGS:
    SURFACE WATER - POLYPIPE RIDGIDRAIN 100 - 600mm DIA.
    FOUL WATER - POLYPIPE SOLID 100mm DIA. TO BS EN 1401.
    POLYPIPE POLYSEWER 150 - 300mm DIA. TO BS EN 13476.
14. PIPEWORK WITH LESS THAN 600mm COVER FROM FINISHED LEVEL, IN AREAS OF VEHICULAR LOADING, SHALL BE PROTECTED WITH A 150mm GEN3 CONCRETE SURROUND. FLEXIBLE JOINTS SHALL BE MAINTAINED AT EACH PIPE JOINT BY THE USE OF COMPRESSIVE SHEET CUT TO FIT THE PIPE PROFILE.
15. TRENCHES IN AREAS RECEIVING VEHICULAR LOADING SHALL BE BACKFILLED WITH 6F2 GRANULAR FILL.
16. TRENCHES WITHIN 1m OF LOAD BEARING WALLS AND BELOW LEVEL OF FOOTING SHOULD BE FILLED WITH CONCRETE AT LEAST TO THE LEVEL OF THE UNDERSIDE OF THE FOUNDATION. WHERE THE DISTANCE IS MORE THAN 1m FROM THE WALL, THE CONCRETE FILL SHOULD BE TO A LEVEL BELOW THE UNDERSIDE OF THE FOUNDATION EQUAL TO THE DISTANCE FROM THE WALL TO THE NEARSIDE OF THE TRENCH LESS 150mm.
17. SOFT SPOTS IN THE TRENCH FORMATION SHALL BE REMOVED AND REPLACED WITH GRANULAR BEDDING UNLESS INSTRUCTED OTHERWISE.
18. UNLESS NOTED OTHERWISE MANHOLE COVERS, PPIC COVERS, CHANNEL GRATINGS AND ROAD GRATINGS SHALL BE DUCTILE IRON TO BS EN 124 BLACK COATED AS FOLLOWS:
    HIGHWAYS — CLASS D400
    HARD SURFACE AREAS — CLASS C250
    LANDSCAPED AREAS — CLASS B125
19. MANHOLE COVERS TO BE SCREW DOWN COVERS AND SHALL HAVE A BADGE TO INDICATE FOUL OR STORM WATER.
20. THE CONTRACTOR SHALL REGULATE EXISTING COVERS AND FRAMES TO THE PROPOSED LEVELS INDICATED.
21. TWO SETS OF MANHOLE LIFTING KEYS SHALL BE HANDED OVER TO THE CLIENT ON COMPLETION OF THE WORKS.
22. LATERAL CONNECTIONS IN BETWEEN MANHOLE RUNS SHALL BE FORMED BY USING PURPOSE MADE JUNCTION FITTINGS. BEND FITTINGS SHALL BE PROVIDED WHERE APPROPRIATE TO DIRECT THE FLOW INTO MAIN RUNS.
23. THE CONTRACTOR SHALL SERVE ALL STATUTORY NOTICES AND OBTAIN ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AUTHORITY AND STATUTORY UNDERTAKER FOR WORKS IN EXISTING PUBLIC HIGHWAYS AND FOR CONNECTIONS TO PUBLIC SEWERS.
24. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO LIAISE WITH THE HIGHWAY AND SEWERAGE AUTHORITIES FOR APPROVALS, INTERIM INSPECTION, SWADING AND FINAL INSPECTIONS OF THEIR WORK.
25. THE CONTRACTOR SHALL CONFIRM THE LOCATION OF ALL EXISTING STATUTORY UNDERTAKERS APPARATUS AND SERVICE CONNECTIONS ADJACENT TO AND CROSSING THE WORKS BY TRIAL PITS PRIOR TO COMMENCING MACHINE DIG.
26. AT THE CONCLUSION OF THE WORKS THE CONTRACTOR SHALL PROVIDE A MARKED UP DRAWING TO RECORD ANY AS BUILT VARIATIONS NOT SHOWN ON THE DRAWINGS.
27. FOUL DRAINAGE HAS BEEN DESIGNED IN ACCORDANCE WITH PART H OF THE BUILDING REGULATIONS (2010 APPROVED DOCUMENT), SECTION 111 OF THE WATER INDUSTRY ACT 1991 AS AMENDED, PROHIBITS THE DISPOSAL OF CHEMICALS TO THE PUBLIC SEWER. CHEMICAL WASTE ORIGINATING FROM THE BUILDING PROPOSAL (E.G. FROM SCIENCE LABORATORIES) TO BE DISPOSED OF BY OTHER SUITABLE METHOD IN ACCORDANCE WITH CURRENT LEGISLATION AND LOCAL AUTHORITY WASTE DISPOSAL COLLECTION PROCEDURES.

P02	Issued for planning.	NWF 10.03.23	JP 10.03.23	AJ 10.03.23
P01	First Issue	NWF 23.02.23	AJ 23.02.23	AJ 23.02.23
Rev.	Details	Author & Date	Checked & Date	Approv'd & Date

KIER

Issuing Office: LIVERPOOL	Tel. no.: 01522 836560
email: Allan.Jones@Kier.co.uk	
Internal Project Number: 36222	
Client: Lincolnshire County Council	
Project name: William Stukeley Primary School	
Drawing Title: Drainage Layout Sheet 1	
Scale: 1:125	Original Size: A1 — RIBA 2013 Stage: Stage 03
Date of First Issue: 23.02.2023	Author: NWF — Checked: AJ — Approved: AJ
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Project | Originator | Volume | Level | Type | Role | Number

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NEW MH.SW07A 4500 PPIC CL= 3.88 IL= 2.625

EX.FW MH10 C.L. 3.98 I.L. 2.68 — EXISTING MH BASE MODIFIED TO SUIT CHANGE IN OUTLET DIRECTION

EXISTING PIPE TO BE RELAID WITH 150mm DIA

EX.SW MH33 C.L. 3.88 I.L. 3.19

NEW MH.SW07B 4500 PPIC CL= 3.88 IL= 2.405

EXISTING PIPE TO BE RELAID WITH 150mm DIA

EX.FW MH32 C.L. 3.90 I.L. 3.14

NEW MH.SW07 1050Ø CL= 3.85 IL= 2.335

EX.FW MH34 C.L. 4.04 I.L. 3.22

EX.SW MH14 C.L. 3.91 I.L. 3.44

EX.SW MH15 C.L. 3.93 I.L. 3.55

EX.SW MH16 C.L. 3.90 I.L. 3.25

NEW MH.FW01 4500 PPIC CL= 3.93 IL= 3.55

NEW MH.SW01 4500 PPIC CL= 3.90 IL= 3.20

NEW MH.SW02 4500 PPIC CL= 3.77 IL= 3.03

NEW MH.FW02 4500 PPIC CL= 3.84 IL= 3.27

NEW MH.FW03 4500 PPIC CL= 3.84 IL= 2.55

NEW MH.SW03 4500 PPIC CL= 3.80 IL= 2.890

NEW MH.FW04 4500 PPIC CL= 3.88 IL= 3.54

NEW MH.FW05 4500 PPIC CL= 3.84 IL= 2.53

NEW MH.SW04 4500 PPIC CL= 3.90 IL= 2.76

EXISTING TREES TO BE REMOVED

FOR POWER & DATA CONNECTIONS AND CONTROL PANEL LOCATION TO PUMP REFER TO M&E ENGINEER & ARCHITECT

NEW FOUL PUMPING CHAMBER (PHASE 1) CL = 3.84 1.8m Dia 3.5m CASE DEPTH CHAMBER BASE IL = 0.00m

100Ø (IN) IL= 2.50

630 (OUT) IL= 2.80

<< 63Ø PUMPING MAIN SDR17 11.1m (TOTAL LENGTH 34.8m TO EX.FW MH 34)

RISING MAIN TO BE CONNECTED TO EXISTING MAIN WITH SUITABLE MDPE COUPLER OR SIMILAR (LOCATION TO SUIT EXISTING AND NEW FOUNDATION ARRANGEMENT)

NEW FOUL PIPEWORK FROM EXISTING OUTLETS TO BE TAKEN BELOW GROUND BEAMS

EX.FW MH29 C.L. 3.90 I.L. 3.37

EX.FW MH28 C.L. 3.89 I.L. 3.40

EX.FW MH27 C.L. 3.89 I.L. 3.41

EX.FW MH31 C.L. 3.92 I.L. 3.30

EX.FW MH30 C.L. 3.92 I.L. 3.31

NEW MH.FW07 4500 PPIC PUMP MAIN DISCHARGE CHAMBER CL= 3.85 IL= 3.51

NEW MH.SW08 1050Ø CL= 3.75 IL= 2.220

NEW MH.SW09 4500 PPIC CL= 3.88 IL= 2.98

NEW MH.SW10 6000 PPIC CL= 3.70 IL= 2.190

EXISTING FW PIPES AND MANHOLE TO BE REMOVED DURING PHASE 1 CLASSROOM EXTENSION. PROVIDE TEMPORARY FW DRAINAGE RUN FROM EXISTING TOILETS UNTIL PHASE 2 TOILETS ARE ONLINE, THEN TEMPOARY PIPE TO BE CAPPED AND ABANDONED

EXISTING RWP'S TO BE ADJUSTED IN FUTURE TO SUIT PHASE 2 CLASSROOM EXTENSION

EXISTING RWP TO BE REMOVED DURING PHASE 2 CLASSROOM EXTENSION

NEW GULLEYS TO ACCEPT PLAYGROUND SW FLOWS ONCE EXISTING GULLEYS AND SOAKAWAY ARE NO LONGER OPERATIONAL

EXISTING SW STONE FILLED LINEAR SOAKAWAY (INDICATIVE SIZE ONLY) UNDERSTOOD TO BE IN THIS AREA BASED ON DISCUSSIONS WITH ORIGINAL BUILDER. NO RECORD DRAWINGS HELD.

MINIMUM PIPE BEND RADIUS AT CHANGE IN DIRECTION:- 25 TIMES OD OF THE PIPE. MINIMUM DEPTH OF COVER TO CROWN OF PIPE 750mm

AREA OF EXISTING SW STONE FILLED LINEAR SOAKAWAY (INDICATIVE SIZE ONLY). BUILDING FOUNDATION PILE DESIGN TO TAKE DUE CONSIDERATION OF THIS FEATURE.

NEW MH.FW06 4500 PPIC CL= 3.30 IL= 1.90

NEW MH.SW13 4500 PPIC CL= 3.30 IL= 2.55

NEW MH.SW14 4500 PPIC CL= 3.35 IL= 2.40

NEW MH.SW11 1200Ø CL= 3.70 IL= 2.070

NEW MH.SW12 1200Ø CL= 3.56 IL= 2.040

EXISTING TREES TO BE REMOVED

EXTG. CLOCK TOWER

EXTG. SHED

NEW FOUL PUMPING CHAMBER (PHASE 2) CL = 3.25 1.8m Dia 3m CASE DEPTH CHAMBER BASE IL = -0.15m

630 (OUT) IL= 2.15

NEW MH.SW15 1200Ø SILT TRAP CL= 3.24 IL= 1.98

LOCATION OF VENT TO BE AGREED WITH ARCHITECT & SCHOOL

VENT

EXISTING BUILDING

FOR POWER & DATA CONNECTIONS AND CONTROL PANEL LOCATION TO PUMP REFER TO M&E ENGINEER & ARCHITECT

EXISTING FENCE LINE AND PAVED AREA TO BE TEMPORARILY REMOVED TO ALLOW INSTALLATION OF DRAINAGE. FOR REINSTATEMENT DETAILS REFER TO ARCHITECT

SUSPECTED LAND DRAINAGE - TO BE MODIFIED TO SUIT NEW TANK LOCATION

NEW ATTENUATION TANK 1

12.8m x 12.8m x 0.99m DEEP
TOP OF TANK = 2.54m
BOTTOM OF TANK = 1.55m
MIN. COVER TO TANK 0.6m FOR VEHICLE LOADS NOT EXCEEDING 3Te GVW, SUBJECT TO LOAD CHECK BY MANUFACTURER.
LAID AT MINIMUM GRADIENT OF 1:500 TOWARDS OUTFALL.
HYDRO INTERNATIONAL STORMBLOC OPTIMUM TANK (FULL & HALF BLOCK) WITH WITH INSPECT ACCESS CHAMBERS WITH VENTED COVERS AND HORIZONTAL INTERNAL ACCESS CHANNEL FOR MAINTENANCE PURPOSES. TANK TO BE WRAPPED IN 1mm POLYPROPYLENE IMPERMEABLE GEOMEMBRANE 300grms/m² TEXTILE FLEECE AND MIN. 100mm THK. COURSE SAND / GRAVEL SURROUND. REFER TO MANUFACTURER FOR DETAILS.

3000Ø (IN) IL= 1.00

NEW SURFACE WATER PUMPING CHAMBER (PHASE 1) CL = 3.20 1.00m Dia 2.5m CASE DEPTH

FOR POWER & DATA CONNECTIONS AND CONTROL PANEL LOCATION TO PUMP REFER TO M&E ENGINEER & ARCHITECT

<< 63Ø PUMPING MAIN SDR17 321m

FOR S.W. PUMPED MAIN CONTINUATION SEE DRG. No. 36222-DBS-00-ZZ-0002

FOR CONTINUATION SEE ADJACENT DETAIL

DRAWING LAYOUT SHOWN AS PER:

- TOWER SURVEYS BURIED SERVICES & CCTV SURVEY REF. TSA-21-1327/101-102 DATED NOVEMBER 2021.
- TOWER SURVEYS TOPOGRAPHICAL SURVEY REF. TSA-21-1327_201-202_Issue01, DATED OCTOBER 2021.
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- GRANGE GEO INTERPRETATIVE GROUND INVESTIGATION REPORT REFERENCE:R22126/R001, DATED NOVEMBER 2022.
- BRINDLE & GREEN ARBORICULTURAL IMPACT ASSESSMENT SURVEY & REPORT REF. BG22.327.2, DATED FEBRUARY 2023.
- LINDUM BMS INFILTRATION TESTING TRIAL REPORT & RESULTS, DATED 25th JANUARY 2023.
- ARCHIVE RECORD INFORMATION PROVIDED BY CLIENT.

KIER DO NOT ACCEPT ANY LIABILITY AS TO THE ACCURACY OF THE INFORMATION SHOWN.

CDM NOTE:

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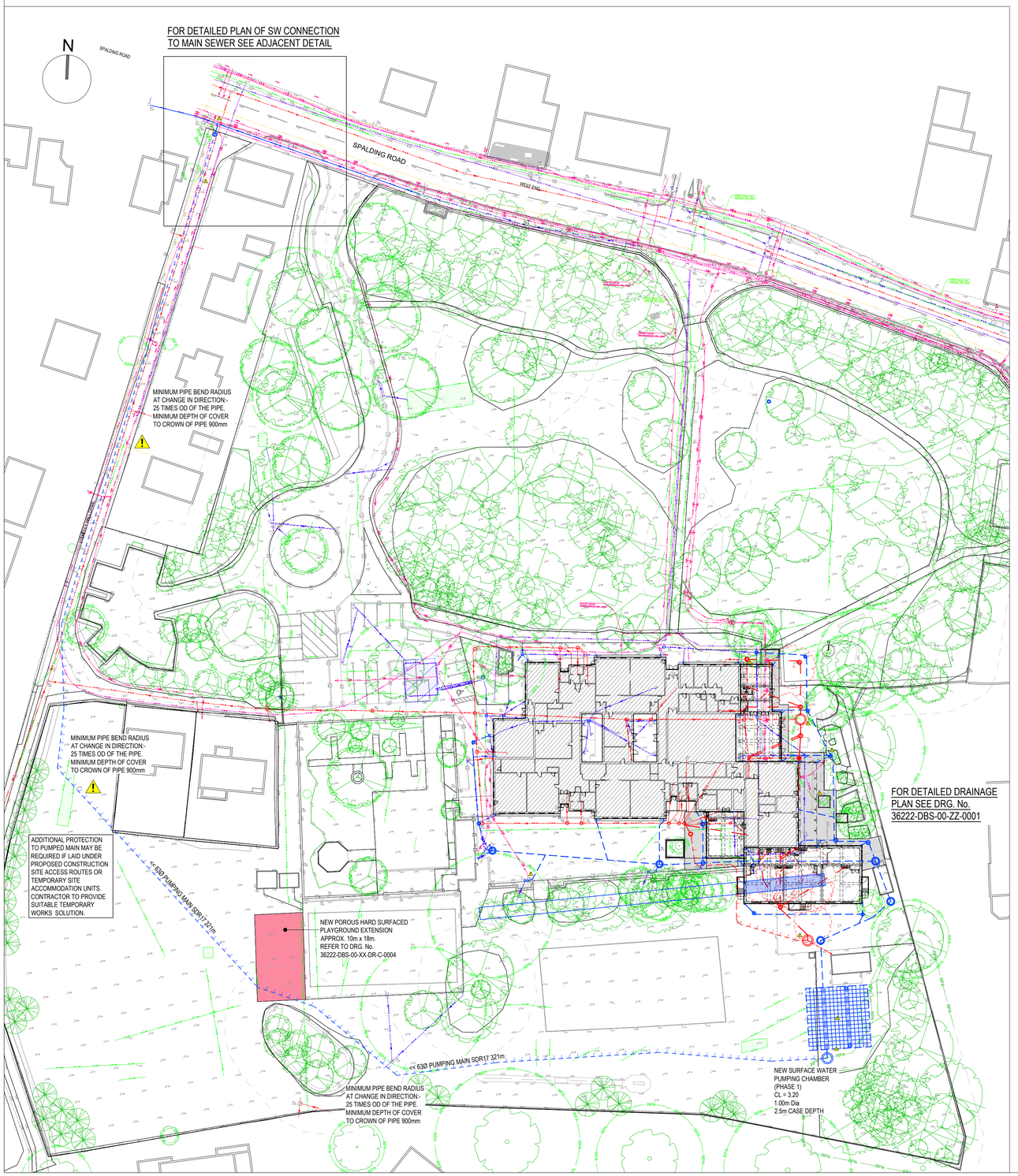
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RE	NEW RODDING EYE LOCATION
	110 DIA. PERFORATED COIL DRAIN IN 100mm PEA GRAVEL
	NEW FOUL / SURFACE WATER PUMPED MAIN
NEW MH.FW# 1200Ø PCC CL= xx IL= xx	NEW FOUL WATER MANHOLE MAC / INT / PPIC / PCC WITH 150 CONCRETE SURROUND
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YG	NEW YARD GULLY

MANHOLE SCHEDULE: FOUL WATER

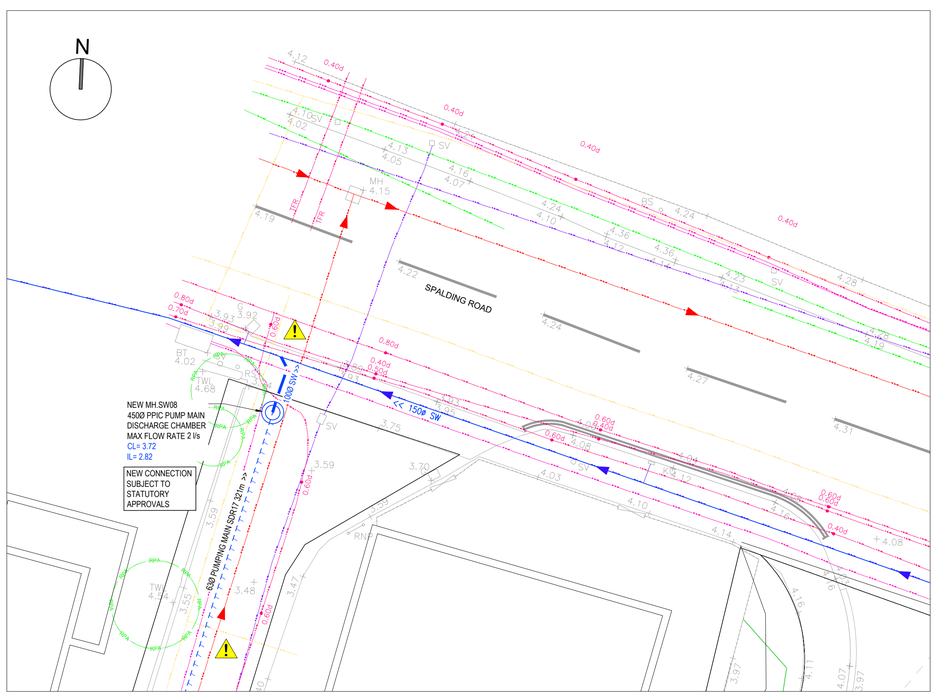
REF.	COVER LEVEL	OUTLET INVERT LEVEL	SUMP INVERT LEVEL	OUTLET PIPE DIA. (mm)	CHAMBER DEPTH (mm)	CHAMBER DIA. (mm)	MANHOLE TYPE	COVER TYPE	SKETCH (PIPE DIA. mm)	NOTES
FW01	3.93	3.55	--	100	380	450	PPIC	C250		
FW02	3.84	3.27	--	100	570	450	PPIC	C250		
FW03	3.84	2.55	--	100	1290	450	PPIC	C250		NON-ENTRY
FW04	3.88	3.54	--	100	340	450	PPIC	C250		
FW05	3.84	2.53	--	100	1310	450	PPIC	C250		NON-ENTRY
FW06	3.30	1.90	--	100	1400	450	PPIC	B125		NON-ENTRY
FW07	3.85	3.51	--	100	340	450	PPIC	C250		PUMP MAIN DISCHARGE CHAMBER

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MANHOLE SCHEDULE: SURFACE WATER

REF.	COVER LEVEL	OUTLET INVERT LEVEL	SUMP INVERT LEVEL	OUTLET PIPE DIA. (mm)	CHAMBER DEPTH (mm)	CHAMBER DIA. (mm)	MANHOLE TYPE	COVER TYPE	SKETCH (PIPE DIA. mm)	NOTES
SW01	3.90	3.20	--	150	700	450	PPIC	C250		
SW02	3.77	3.03	--	150	740	450	PPIC	C250		
SW03	3.80	2.89	--	150	910	450	PPIC	C250		
SW04	3.90	2.76	--	150	1140	450	PPIC	C250		
SW05	3.75	2.392	--	225	1358	600	PPIC	C250		NON-ENTRY
SW06	3.70	2.325	--	150	1375	450	PPIC	C250		NON-ENTRY
SW07A	3.88	2.625	--	150	1255	450	PPIC	C250		NON-ENTRY
SW07B	3.88	2.405	--	150	1475	450	PPIC	C250		NON-ENTRY
SW07	3.85	2.335	--	300	1515	1050	E	C250		
SW08	3.75	2.220	--	300	1530	1050	E	C250		
SW09	3.88	2.98	--	150	900	450	PPIC	C250		
SW10	3.70	2.190	--	300	1510	600	PPIC	C250		NON-ENTRY
SW11	3.70	2.070	--	300	1630	1200	E	C250		
SW12	3.56	2.040	--	300	1520	1200	E	C250		
SW13	3.30	2.550	--	150	750	450	PPIC	C250		
SW14	3.35	2.400	--	150	950	450	PPIC	C250		
SW15 (SLT TRAP)	3.24	1.980	1.60	300	1260	1200	B	C250		450 SUMP
SW16	3.72	2.82	--	100	900	450	PPIC	C250		PUMP MAIN DISCHARGE CHAMBER

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3. ALL DIMENSIONS ARE TO BE CONFIRMED BY THE CONTRACTOR AND ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE EMPLOYER, PRIOR TO COMMENCEMENT OF THE WORK OR AS SOON AS THE DISCREPANCY IS NOTED.
4. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND DETAILING OF ALL TEMPORARY WORKS ASSOCIATED WITH THE PROJECT.

DRAINAGE NOTES:

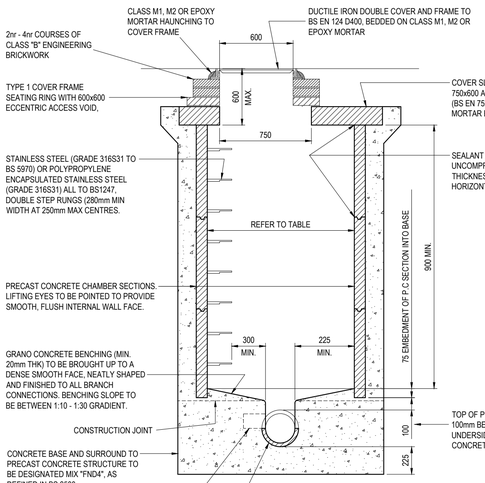
1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS AND SPECIFICATION.
2. NO DEVIATION FROM THE DETAILS SHOWN ON THIS DRAWING SHALL BE ALLOWED UNLESS PRIOR WRITTEN CONSENT HAS BEEN OBTAINED.
3. FOR TYPICAL DRAINAGE DETAILS REFER TO KIER DRAWING No. 36222-DBS-00-ZZ-DR-C-0003.
4. ALL WORK TO COMPLY WITH THE RELEVANT CLAUSES OF B.S. EN 752 BUILDING DRAINAGE, THE SEWERS FOR ADOPTION CURRENT EDITION & PART H OF THE BUILDING REGULATIONS.
5. PRIOR TO COMMENCEMENT OF THE WORKS THE CONTRACTOR SHALL:-
   A) CONFIRM THE LOCATION AND LEVEL OF THE PROPOSED DRAINAGE OUTFALLS AND REPORT ANY DISCREPANCIES TO THE ENGINEER.
   B) CARRY OUT AN INTERNAL SURVEY OF THE OUTFALL CHAMBERS AND PROVIDE DETAILED DIMENSIONED SKETCHES OF EACH FOR THE ENGINEERS CONSIDERATION.
6. ALL PIPES BUILT INTO THE MANHOLE INVERTS SHALL BE INSTALLED WITH SOFFITS LEVEL UNLESS SHOWN OTHERWISE.
7. CONNECTIONS TO FOUL AND SURFACE WATER TERMINAL FITTINGS SHALL BE IN 100mm NOMINAL BORE PIPE U.N.O.
8. ALL MANHOLES AND CONNECTIONS PASSING THROUGH WALLS TO BE FITTED WITH ROCKER PIPES.
9. WHERE PIPES PASS THROUGH WALLS, REINFORCED CONCRETE LINTELS TO BE PROVIDED ABOVE PIPE TO FULL WIDTH OF WALL PROVIDING MIN. 50mm CLEARANCE ALL ROUND. MIN. BEARING OF LINTEL TO BE 150mm. SEAL WALL WITH RIGID SHEET EITHER SIDE AND INFILL VOIDS WITH COMPRESSIBLE SEALANT.
10. COVER LEVELS SHOWN ARE APPROXIMATE AND SHALL BE ADJUSTED ON SITE BY THE CONTRACTOR TO SUIT THE FINAL LEVELS. THE CONTRACTOR SHALL PROVIDE WRITTEN CONFIRMATION OF THE FINISHED COVER AND INVERT LEVELS OF ALL MANHOLES.
11. THE CONTRACTOR SHALL CONTROL ACCURATE LINE AND LEVEL OF PIPE LAYING BY USE OF AN OPTICAL LASER.
12. THE CONTRACTOR SHALL PROTECT THE PIPELINE FROM TEMPORARY CONSTRUCTION LOADS WHICH MAY BE IN EXCESS OF THE SERVICE LOADS.
13. PIPEWORK AND PIPE BEDDING SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS EXCEPT WHERE NOTED OTHERWISE:
    PLASTIC PIPES AND FITTINGS:
    SURFACE WATER - POLYPIPE RIDGIDRAIN 100 - 600mm DIA.
    FOUL WATER - POLYPIPE SOLID 100mm DIA. TO BS EN 1401.
    POLYPIPE POLYSEWER 150 - 300mm DIA. TO BS EN 13476.
14. PIPEWORK WITH LESS THAN 600mm COVER FROM FINISHED LEVEL, IN AREAS OF VEHICULAR LOADING, SHALL BE PROTECTED WITH A 150mm GEN3 CONCRETE SURROUND. FLEXIBLE JOINTS SHALL BE MAINTAINED AT EACH PIPE JOINT BY THE USE OF COMPRESSIVE SHEET CUT TO FIT THE PIPE PROFILE.
15. TRENCHES IN AREAS RECEIVING VEHICULAR LOADING SHALL BE BACKFILLED WITH 6F2 GRANULAR FILL.
16. TRENCHES WITHIN 1m OF LOAD BEARING WALLS AND BELOW LEVEL OF FOOTING SHOULD BE FILLED WITH CONCRETE AT LEAST TO THE LEVEL OF THE UNDERSIDE OF THE FOUNDATION. WHERE THE DISTANCE IS MORE THAN 1m FROM THE WALL, THE CONCRETE FILL SHOULD BE TO A LEVEL BELOW THE UNDERSIDE OF THE FOUNDATION EQUAL TO THE DISTANCE FROM THE WALL TO THE NEARSIDE OF THE TRENCH LESS 150mm.
17. SOFT SPOTS IN THE TRENCH FORMATION SHALL BE REMOVED AND REPLACED WITH GRANULAR BEDDING UNLESS INSTRUCTED OTHERWISE.
18. UNLESS NOTED OTHERWISE MANHOLE COVERS, PPIC COVERS, CHANNEL GRATINGS AND ROAD GRATINGS SHALL BE DUCTILE IRON TO BS EN 124 BLACK COATED AS FOLLOWS:
    HIGHWAYS CLASS D400
    HARD SURFACE AREAS CLASS C250
    LANDSCAPED AREAS CLASS B125
19. MANHOLE COVERS TO BE SCREW DOWN COVERS AND SHALL HAVE A BADGE TO INDICATE FOUL OR STORM WATER.
20. THE CONTRACTOR SHALL REGULATE EXISTING COVERS AND FRAMES TO THE PROPOSED LEVELS INDICATED.
21. TWO SETS OF MANHOLE LIFTING KEYS SHALL BE HANDED OVER TO THE CLIENT ON COMPLETION OF THE WORKS.
22. LATERAL CONNECTIONS IN BETWEEN MANHOLE RUNS SHALL BE FORMED BY USING PURPOSE MADE JUNCTION FITTINGS. BEND FITTINGS SHALL BE PROVIDED WHERE APPROPRIATE TO DIRECT THE FLOW INTO MAIN RUNS.
23. THE CONTRACTOR SHALL SERVE ALL STATUTORY NOTICES AND OBTAIN ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AUTHORITY AND STATUTORY UNDERTAKER FOR WORKS IN EXISTING PUBLIC HIGHWAYS AND FOR CONNECTIONS TO PUBLIC SEWERS.
24. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO LIAISE WITH THE HIGHWAY AND SEWERAGE AUTHORITIES FOR APPROVALS, INTERIM INSPECTION, SNAGGING AND FINAL INSPECTIONS OF THEIR WORK.
25. THE CONTRACTOR SHALL CONFIRM THE LOCATION OF ALL EXISTING STATUTORY UNDERTAKERS APPARATUS AND SERVICE CONNECTIONS ADJACENT TO AND CROSSING THE WORKS BY TRIAL PITS PRIOR TO COMMENCING MACHINE DIG.
26. AT THE CONCLUSION OF THE WORKS THE CONTRACTOR SHALL PROVIDE A MARKED UP DRAWING TO RECORD ANY AS BUILT VARIATIONS NOT SHOWN ON THE DRAWINGS.
27. FOUL DRAINAGE HAS BEEN DESIGNED IN ACCORDANCE WITH PART H OF THE BUILDING REGULATIONS (2010 APPROVED DOCUMENT), SECTION 111 OF THE WATER INDUSTRY ACT 1991 AS AMENDED, PROHIBITS THE DISPOSAL OF CHEMICALS TO THE PUBLIC SEWER. CHEMICAL WASTE ORIGINATING FROM THE BUILDING PROPOSAL (E.G. FROM SCIENCE LABORATORIES) TO BE DISPOSED OF BY OTHER SUITABLE METHOD IN ACCORDANCE WITH CURRENT LEGISLATION AND LOCAL AUTHORITY WASTE DISPOSAL COLLECTION PROCEDURES.

P02	Issued for planning.	NWF 10.03.23	JP 10.03.23	AJ 10.03.23
P01	First Issue	NWF 23.02.23	AJ 23.02.23	AJ 23.02.23
Rev.	Details	Author & Date	Checked & Date	Approv'd & Date

KIER

Issuing Office: LIVERPOOL	Tel. no.: 01522 836560
email: Allan.Jones@Kier.co.uk	
Internal Project Number: 36222	
Client: Lincolnshire County Council	
Project name: William Stukeley Primary School	
Drawing Title: Drainage Layout Sheet 2	
Scale: 1:125 1:500 / Original Size: A1 / RIBA 2013 Stage: Stage 03	
Date of First Issue: 23.02.2023 / Author: NWF / Checked: AJ / Approved: AJ	
Drawing Number: 36222-DBS-00-XX-DR-C-0002	Status: S4 / Rev.: P02
Project | Originator | Volume | Level | Type | Role | Number	

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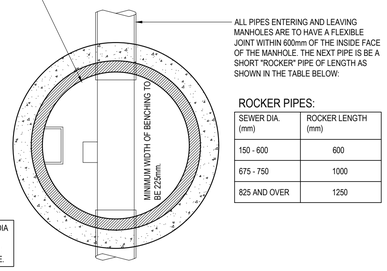


CROSS-SECTION

SHAFT DIAMETERS:

DIA. OF LARGEST PIPE IN CHAMBER (mm)	INTERNAL DIA. OF MANHOLE(mm)
LESS THAN 375	1200
375 - 700	1500
750 - 900	1800
ABOVE 900	CONSULT UNDERTAKER

CHAMBERS WITH OUTGOING PIPES 600mm DIA OR GREATER ARE TO BE FITTED WITH REMOVABLE STAINLESS STEEL (GRADE 316) SAFETY CHAINS, OR POLYPROPYLENE ROPE.



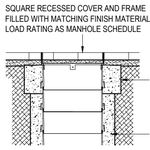
PLAN VIEW

ROCKER PIPES:

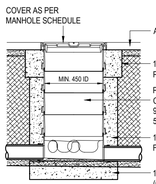
SEWER DIA. (mm)	ROCKER LENGTH (mm)
150 - 600	600
675 - 750	1000
825 AND OVER	1250

TYPICAL PRECAST CONCRETE MANHOLE - TYPE B

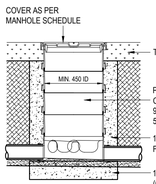
(DEPTH TO SOFFIT LESS THAN 3m)



SITED IN BLOCK PAVED HARD LANDSCAPED AREAS WITH RECESSED COVER



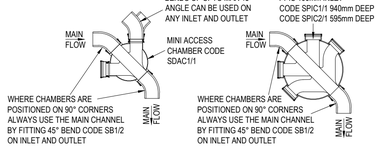
SITED IN HARD LANDSCAPED AREAS WITH STANDARD ROUND COVER

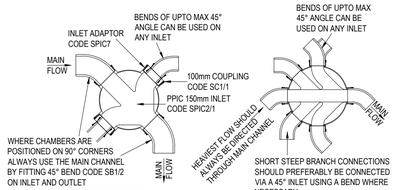


SITED IN SOFT LANDSCAPING AREAS WITH STANDARD ROUND COVER

POLYPROPYLENE INSPECTION CHAMBER (PPIC) INSTALLATION DETAILS

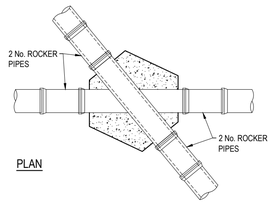
DETAILS ABOVE ARE FOR CHAMBERS UPTO 1m DEEP. WHERE DEPTH EXCEEDS 1m, USE WAVIN 450 IC RANGE WITH BED AND SURROUND AS DETAILS ABOVE



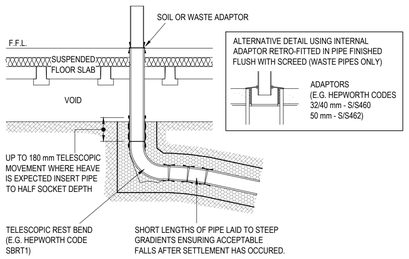


5No 1000 INLET OR
3No 1500 INLET PIPES
BLANK OFF INLETS NOT REQUIRED

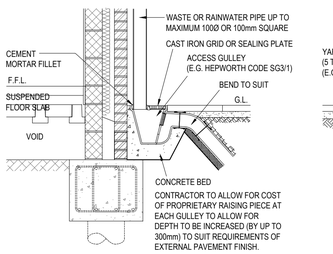
MINI ACCESS CHAMBER/ PPIC INSTALLATION DETAIL



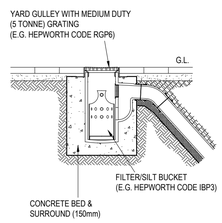
TYPICAL PIPE CROSSOVER DETAIL - CLEARANCE LESS THAN 300mm



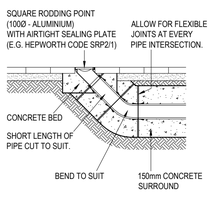
TELESCOPIC REST BEND CONNECTION DETAIL



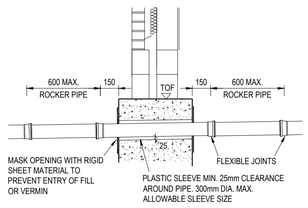
ACCESS GULLEY WITH SOIL OR RWP CONNECTION DETAIL



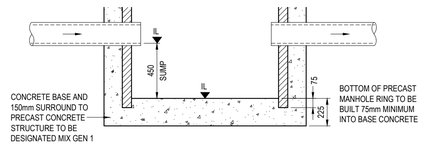
YARD GULLEY CONNECTION DETAIL



RODDING EYE DETAIL

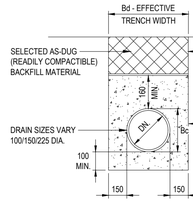


PIPE PASSING THROUGH GROUND BEAM

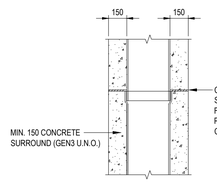


SUMP TO PRECAST CONCRETE MANHOLE

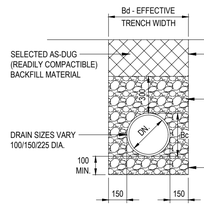
(CHAMBER FORMING SILT TRAP OR HOUSING FLOW CONTROL SYSTEM)



CLASS Z BEDDING SECTIONAL DETAIL

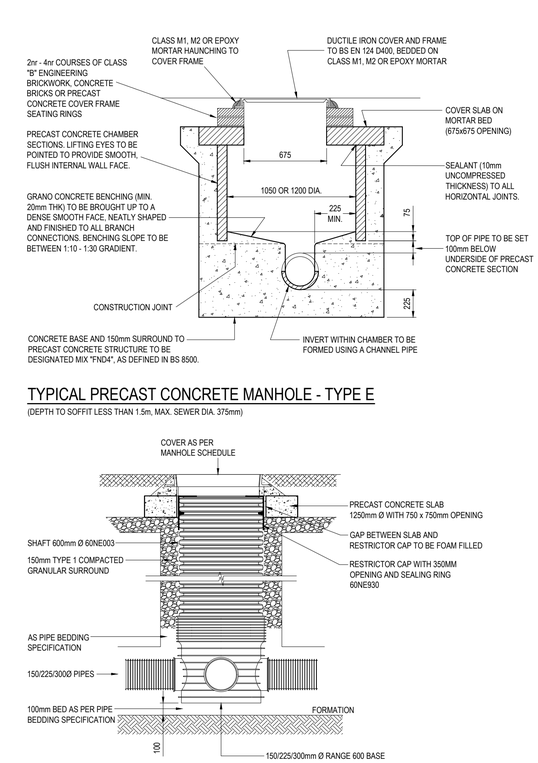


CLASS Z BEDDING PLAN DETAIL



CLASS S BEDDING SECTIONAL DETAIL

CONTRACTOR TO REFER TO LOCAL AUTHORITY FOR ADDITIONAL PIPE BEDDING REQUIREMENTS.
PROCESSED GRANULAR AND "AS-DUG" PIPE BEDDING AND SURROUND MATERIAL SHALL COMPLY WITH BE EN 1610 AND WIS 4-08-02. PROCESSED RECYCLED GRANULAR BED AND SURROUND MATERIAL SHALL COMPLY WITH BS EN 13242 & BS 8500-2.

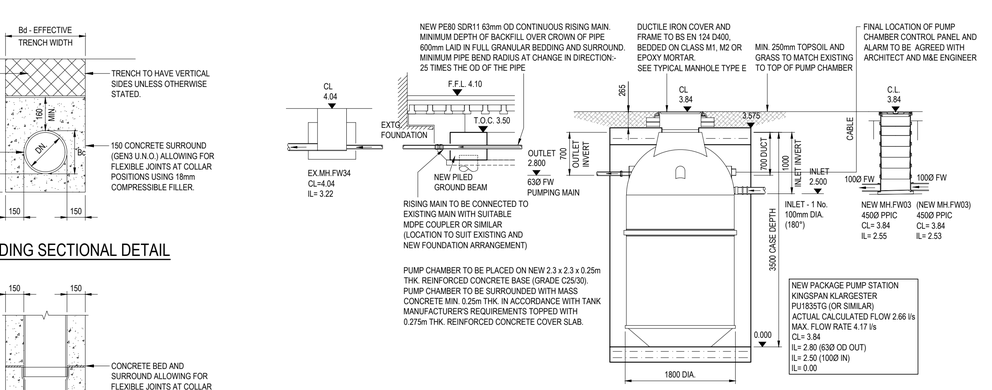


TYPICAL PRECAST CONCRETE MANHOLE - TYPE E

(DEPTH TO SOFFIT LESS THAN 1.5m, MAX. SEWER DIA. 375mm)

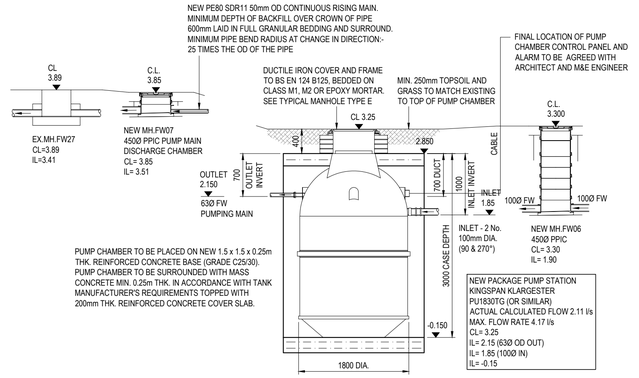
POLYPROPYLENE INSPECTION CHAMBER (PPIC) INSTALLATION DETAILS

UP TO 3m DEEP FOR USE WITH PIPE DIAMETERS 150, 225 & 300 (CLAY OR ULTRARIB)
NON-MAN ENTRY



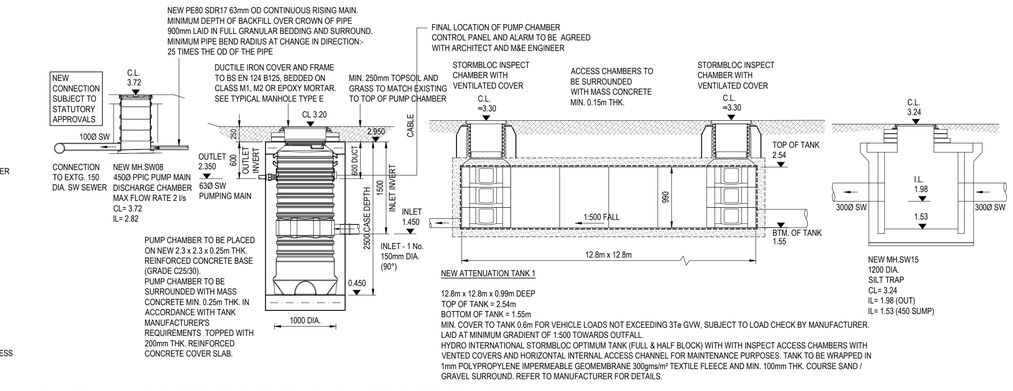
PHASE 1 - INDICATIVE SECTION THROUGH PUMPED FOUL MAIN

SCALE 1:50



PHASE 2 - INDICATIVE SECTION THROUGH PUMPED FOUL MAIN

SCALE 1:50



PHASE 1 - INDICATIVE SECTION THROUGH PUMPED SURFACE WATER MAIN

SCALE 1:50

NOTES

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DRAINAGE BEDDING NOTES

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2. NO DEVIATION FROM THE DETAILS SHOWN ON THIS DRAWING SHALL BE ALLOWED UNLESS PRIOR WRITTEN CONSENT HAS BEEN OBTAINED.
3. ALL PIPES WITH MORE THAN 600mm CROWN COVER SHALL HAVE:
   CLAY & PLASTIC PIPES - CLASS S BEDDING AND SURROUND
4. ALL PIPES WITH LESS THAN 600mm CROWN COVER SHALL BE GIVEN CLASS Z CONCRETE SURROUND.
5. ALL PIPES LOCATED UNDER GROUND BEARING CONCRETE FLOOR SLABS WITH LESS THAN 300mm CROWN COVER SHALL BE GIVEN CLASS Y CONCRETE SURROUND.
6. ALL PIPES LOCATED UNDER SUSPENDED FLOORS SHALL BE GIVEN CLASS Z CONCRETE SURROUND.
7. BEDDING MATERIALS SHALL COMPLY WITH BS EN 752 AND COMPLY WITH ONE OF THE FOLLOWING:
   A) NOMINAL SINGLE SIZED AGGREGATE TO TABLE B.15 OF BS EN 1610 AS FOLLOWS:

DN 100	10mm
DN 150 TO DN 500	10mm, 14mm or 20mm
GREATER THAN DN 500	14mm, 20mm or 40mm

   B) GRADED AGGREGATE TO TABLE B.15 OF BS EN 1610 AS FOLLOWS:

ALL PIPE SIZES	GRADED 14mm to 5mm or 20mm to 5mm
GREATER THAN DN 500	GRADED 40mm to 5mm

8. MOT TYPE 1 AND GRANULAR MATERIAL TYPE 6F2 ARE AS MANUAL OF CONTRACT DOCUMENTS FOR HIGHWAY WORKS: VOLUME 1 SPECIFICATION FOR HIGHWAY WORKS PUBLISHED BY THE HIGHWAYS AGENCY.
9. IN WATERLOGGED GROUND AND WHERE LAYING PIPES WITHIN FINE GRAINED SOILS PROVIDE A GRANULAR BASE COURSE BENEATH CRADLE AND A TEMPORARY DRAIN IF NECESSARY. GEOTEXTILES MAY BE USED TO CONTAIN BEDDING MATERIAL WHERE APPROPRIATE.
10. ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH THE SPECIFICATION, CURRENT BRITISH STANDARDS AND BUILDING REGULATIONS AND TO THE SATISFACTION OF THE LOCAL AUTHORITY BUILDING INSPECTOR. ALL DRAINAGE WORKS AND MATERIALS SHALL COMPLY WITH THE WATER AUTHORITY'S 'SEWERS FOR ADOPTION' CURRENT EDITION.
11. CONSTRUCTION AND TESTING OF DRAINS TO BE IN ACCORDANCE WITH BS EN 1610 1998.
12. ALL BRICKWORK CONSTRUCTION IS TO COMPRISE CLASS B ENGINEERING BRICKWORK LAID IN ENGLISH BOND, WITH MORTAR FORMED WITH SULPHATE RESISTING CEMENT.
13. ALL PRECAST MANHOLES TO BE PROVIDED WITH A 150mm INSITU CONCRETE SURROUND (OR GREATER IF REQUIRED BY THE MANUFACTURER) WITH A MIX DESIGN SUITABLE FOR THE GROUND CONDITIONS.
14. ALL MANHOLES TO BE WATERTIGHT.
15. ALL STEPS IN MANHOLES MUST BE CONSTRUCTED IN STAINLESS STEEL TO BS EN 13101.
16. PIPEWORK AND PIPE BEDDING SHALL COMPLY WITH THE FOLLOWING REQUIREMENTS EXCEPT WHERE NOTED OTHERWISE.

    CLAY PIPES AND FITTINGS (UP TO AND INCLUDING 300mm DIA.)- TO BE HIGH STRENGTH (MIN. CRUSHING STRENGTH 40kN/m) VITRIFIED CLAY TO BS EN 295 - HEPWORTH SUPERSLEEVE, OR APPROVED EQUIVALENT - UNLESS NOTED OTHERWISE.

    PLASTIC PIPES AND FITTINGS -
    SURFACE WATER - POLYPIPE RIDGIDRAIN 100 - 600mm DIA.
    FOUL WATER - POLYPIPE SOLID 100mm DIA. TO BS EN 1401.
    - POLYPIPE POLYSEWER 150 - 300mm DIA. TO BS EN 13476.

Rev.	Details	Author & Date	Checked & Date	Approv'd & Date
P02	Issued for planning.	NWF 10.03.23	JP 10.03.23	AJ 10.03.23
P01	Stage 3 Issue	NWF 23.02.23	AJ 23.02.23	AJ 23.02.23

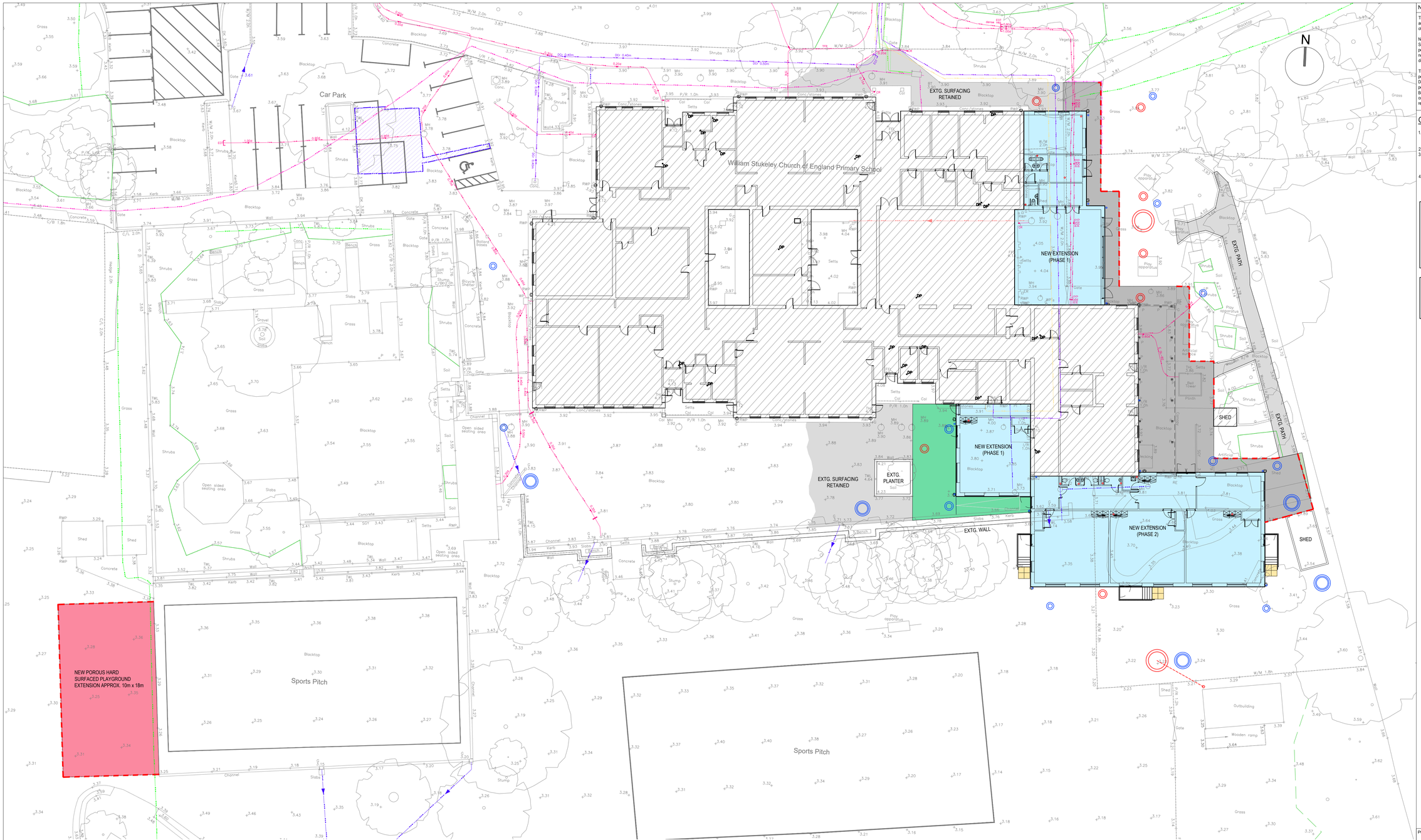
KIER

Issuing Office: LIVERPOOL	Tel. no.: 01522 836560
email: Allan.Jones@Kier.co.uk	
Internal Project Number: 36222	
Client: Lincolnshire County Council	
Project name: William Stukeley Primary School	
Drawing Title: Drainage Details	

Scale	Original Size	RIBA 2013 Stage	
1:25	A1	Stage 03	
Date of First Issue	Author	Checked	Approved
23.02.23	NWF	AJ	AJ

Drawing Number: 36222-DBS-00-XX-DR-C-0003
Status: S4
Rev.: P02
Project | Originator | Volume | Level | Type | Role | Number

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GENERAL NOTES:

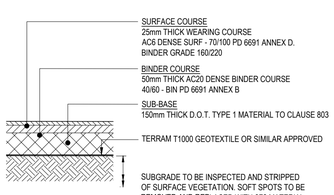
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4. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND DETAILING OF ALL TEMPORARY WORKS ASSOCIATED WITH THE PROJECT.

CDM NOTE:

1. BURIED SERVICES INDICATED ON TOPO SURVEY. REFER TO M&E ENGINEER FOR DETAILS - ALLOW FOR HAND DIG ONLY IN THESE AREAS.
2. UNIDENTIFIED SERVICES SHOWN ON SURVEY DRAWING.

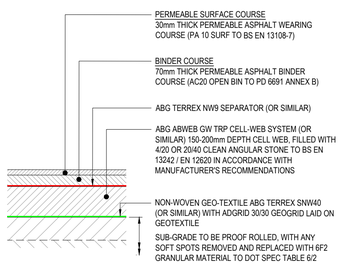
REFER TO ARCHITECT DRAWINGS FOR PROJECT PHASING AND CONTRACTOR FOR CONSTRUCTION PHASE SITE ACCESS REQUIREMENTS.

NOTE:
ALL CONSTRUCTION BUILD-UPS ARE BASED ON A CBR VALUE >3%.
SOFT SPOTS REVEALED IN THE FORMATION (I.E. "SOFT" BEING MATERIAL THAT HAS AN UN-DRAINED SHEAR STRENGTH, MEASURED WITH A HAND SHEAR VANE, OF LESS THAN 40kPa, OR A CBR VALUE, MEASURED WITH A MEXE PROBE OR TRL DYNAMIC CONE PENETROMETER, OF LESS THAN 2.5%) ARE TO BE REMOVED TO A DEPTH OF 600mm BELOW THE FORMATION LEVEL AND THE RESULTANT VOIDS BACKFILLED AND COMPACTED WITH GRANULAR MATERIAL COMPLYING WITH SHW CLASSES 6F 1, 6F2 OR TYPE 1, PLACED AND COMPACTED IN ACCORDANCE WITH THE SPECIFICATION FOR HIGHWAY THE FORMATION IS THEN TO BE PROOF-ROLLED WITH 4no. PASSES OF A VIBRATING ROLLER THAT HAS A MINIMUM MASS / METRE WIDTH OF 1100kg/m.



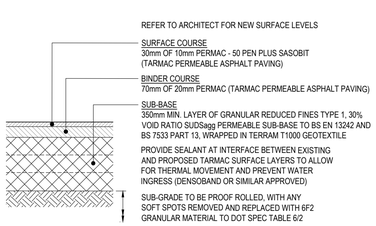
DETAIL 1 : NEW NON-POROUS PLAYGROUND SURFACING

SCALE 1:20



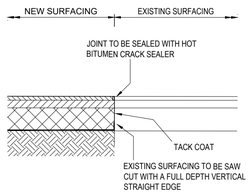
DETAIL 2 : NEW POROUS PEDESTRIAN PAVING

SCALE 1:20



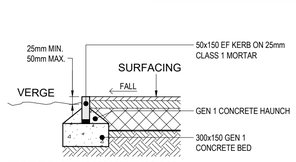
DETAIL 3 : NEW POROUS SURFACING TO PLAYGROUND EXTENSION

SCALE 1:20



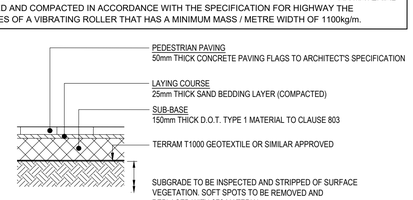
DETAIL 4 : NEW SURFACING TIE-IN

(ABUTTING EXISTING SURFACING)
SCALE 1:20



DETAIL 5

EDGING KERB
SCALE 1:20



DETAIL 6 : P.C.C. SLAB PEDESTRIAN PAVING

SCALE 1:20

P02	Issued for planning.	NWF 10.03.23	JP 10.03.23	AJ 10.03.23
P01	First Issue	NWF 23.02.23	AJ 23.02.23	AJ 23.02.23
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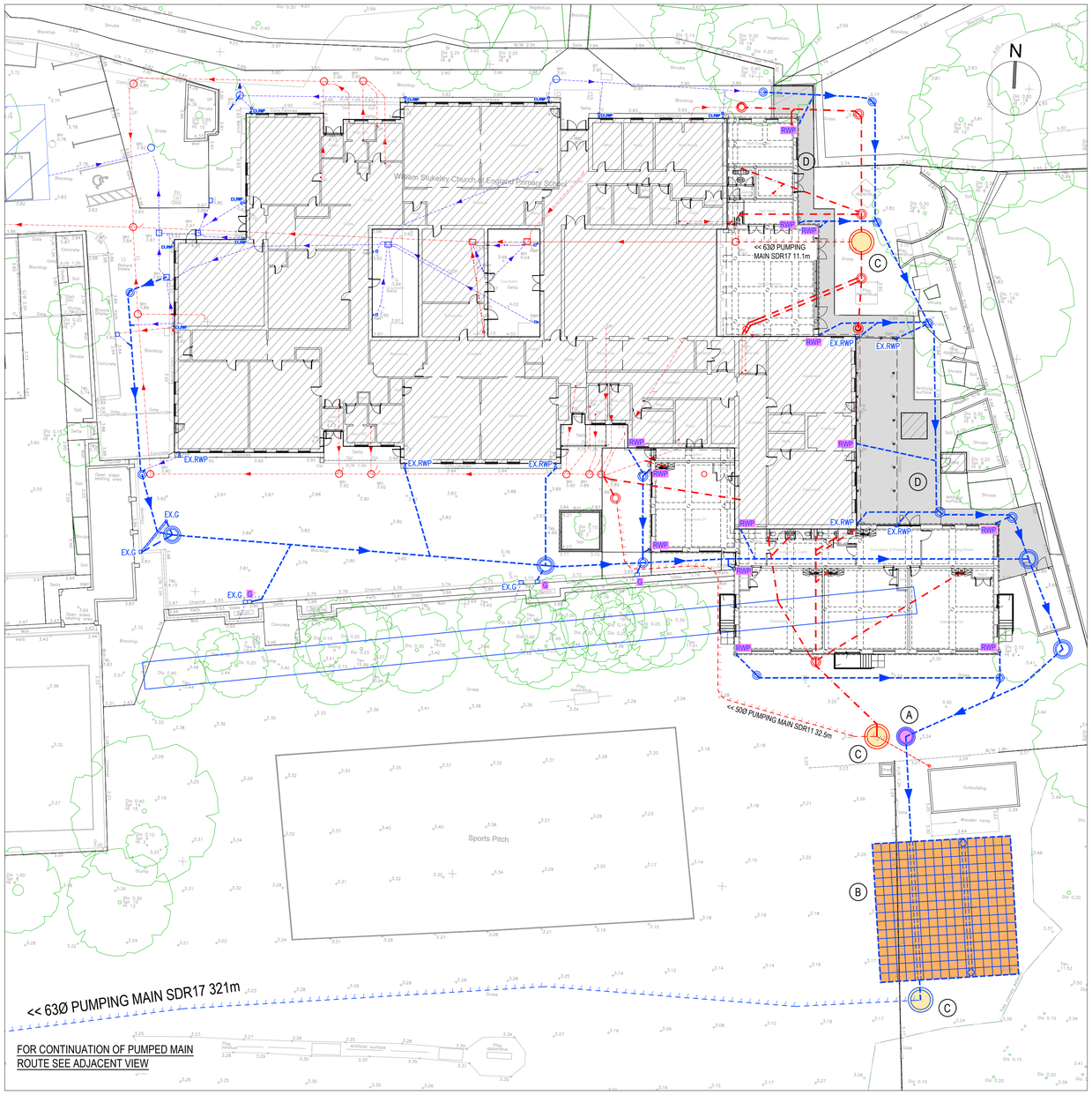
KIER

Issuing Office: LIVERPOOL	Tel. no.: 01522 836560
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Project name: William Stukeley Primary School	
Drawing Title: Proposed External Works General Arrangement	

Scale: 1:200	Original Size: A1	RIBA 2013 Stage: Stage 03	
Date of First Issue: 23.02.2023	Author: NWF	Checked: AJ	Approved: AJ
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A - SILT TRAP

MAINTENANCE SCHEDULE	REQUIRED ACTION	TYPICAL FREQUENCY
MONITORING	INITIAL INSPECTION	MONTHLY FOR THREE MONTHS AFTER INSTALLATION
	INSPECT FOR EXCESS SILT - IF REQUIRED, TAKE REMEDIAL ACTION	GENERALLY EVERY SIX MONTHS, HOWEVER CHECK 48 HOURS AFTER LARGE STORMS
	INSPECT FOR BLOCKAGES (LARGE DEBRIS SUCH AS LEAVES AND DEBRIS)	IF SURFACE PONDING OCCURS AFTER 48 HOUR PERIOD
REGULAR MAINTENANCE	SILT TRAP MANHOLES HAVE A SUMP, WHICH COLLECTS SILTS OVER TIME. THE SUMP WILL NEED EMPTYING OF SILTS USING A PROPRIETARY GULLY SUCKER. THE WATER AND DEBRIS REMOVED FROM THE SILT TRAP WILL NEED TO BE DISPOSED OF AT A LICENSED WASTE DISPOSAL SITE. THE GULLY SUCKER CAN ACCESS SITE USING THE ACCESS ROAD AND THE HOSE FROM THE UNIT WILL NEED TO BE SIZED TO REACH THE SILT TRAP FROM THE ACCESS ROAD.	AS REQUIRED BY THE INSPECTION REGIME ABOVE, HOWEVER ANNUALLY AS A MINIMUM
REMEDIAL ACTIONS	REMOVAL OF SILT AND WATER-JET CLEANED	AS REQUIRED
	REMOVAL OF LARGE BLOCKAGES SUCH AS LEAVES AND DEBRIS	AS REQUIRED

B - BELOW GROUND STORAGE TANK

MAINTENANCE SCHEDULE	REQUIRED ACTION	TYPICAL FREQUENCY
MONITORING	INSPECT SILT TRAPS AND NOTE RATE OF SEDIMENT ACCUMULATION	MONTHLY IN THE FIRST YEAR AND THEN ANNUALLY
	CHECK STORAGE STRUCTURE TO ENSURE EMPTYING IS OCCURRING	ANNUALLY
REGULAR MAINTENANCE	INSPECT FOR SEDIMENT AND DEBRIS IN PRE-TREATMENT COMPONENTS AND FLOOR OF INSPECTION CHAMBER	ANNUALLY
	UNDERTAKE CCTV SURVEY OF STORAGE STRUCTURE TRENCH USING INSPECTION CHAMBER AND INSPECTION CELLS AT BASE OF STORAGE STRUCTURE. JET AND ROD AS REQUIRED TO REMOVE ANY BLOCKAGES	EVERY 10 YEARS OR IF INSPECTIONS DICTATE OTHERWISE
OCCASIONAL MAINTENANCE	REMOVE SEDIMENT AND DEBRIS FROM PRE-TREATMENT COMPONENTS AND FLOOR OF INSPECTION PIPE AND CHAMBER	AS REQUIRED, BASED ON INSPECTIONS
REMEDIAL ACTIONS	UNDERTAKE CCTV SURVEY OF STORAGE STRUCTURE USING INSPECTION CHAMBER AND INSPECTION CELLS AT BASE OF STORAGE STRUCTURE. JET AND ROD AS REQUIRED TO REMOVE ANY BLOCKAGES	AS REQUIRED, BASED ON INSPECTIONS

C - SEWERAGE / SURFACE WATER PUMPING CHAMBER

MAINTENANCE SCHEDULE
THE END USER IS ADVISED TO ENTER INTO A PLANNED MAINTENANCE SERVICE AGREEMENT WITH A SPECIALIST PUMP STATION SERVICE CONTRACTOR.
OPERATIONAL AND MAINTENANCE ACTIVITIES SHALL BE CARRIED OUT IN ACCORDANCE WITH BS EN 752, BS EN 16932-1 AND THE MANUFACTURER'S RECOMMENDATIONS.

D - POROUS HARD SURFACING (SEE SURFACING KEY)

MAINTENANCE SCHEDULE	REQUIRED ACTION	TYPICAL FREQUENCY
MONITORING	INITIAL INSPECTION	MONTHLY FOR THREE MONTHS AFTER INSTALLATION
	INSPECT FOR EVIDENCE OF POOR OPERATION AND/OR WEED GROWTH - IF REQUIRED, TAKE REMEDIAL ACTION	THREE-MONTHLY, 48h AFTER LARGE STORMS IN FIRST SIX MONTHS
	INSPECT SILT ACCUMULATION RATES AND ESTABLISH APPROPRIATE BRUSHING FREQUENCIES	ANNUALLY
	MONITOR INSPECTION CHAMBERS	ANNUALLY
REGULAR MAINTENANCE	BRUSHING AND VACUUMING (STANDARD COSMETIC SWEEP OVER WHOLE SURFACE) USING A BRUSH AND SUCTION CLEANER, SUCH AS A PRECINCT SWEEPER. IT IS ALSO POSSIBLE TO CLEAN THE SURFACE USING LIGHTWEIGHT ROTATING BRUSH CLEANERS COMBED WITH POWER SPRAYING USING HOT WATER. CLEANING CHEMICALS SHOULD NOT BE USED.	ONCE A YEAR, AFTER AUTUMN LEAF FALL, OR REDUCED FREQUENCY AS REQUIRED, BASED ON SITE-SPECIFIC OBSERVATIONS OF CLOGGING. PAY PARTICULAR ATTENTION TO AREAS WHERE WATER RUNS ONTO PERVIOUS SURFACE FROM ADJACENT IMPERMEABLE AREAS AS THIS AREA IS MOST LIKELY TO COLLECT SEDIMENT.
OCCASIONAL MAINTENANCE	STABILISE AND MOW CONTRIBUTING AND ADJACENT AREAS OF PLANTING.	AS REQUIRED
	REMOVAL OF WEEDS	AS REQUIRED
REMEDIAL ACTIONS	REMEDIATE ANY LANDSCAPING WHICH, THROUGH VEGETATION MAINTENANCE OR SOIL SLIP, HAS BEEN RAISED TO WITHIN 50mm OF THE LEVEL OF THE PAVING.	AS REQUIRED
	REHABILITATION OF SURFACE AND UPPER SUBSTRUCTURE BY REMEDIAL SWEEPING	EVERY 10 TO 15 YEARS OR AS REQUIRED (IF INFILTRATION PERFORMANCE IS REDUCED DUE TO SIGNIFICANT CLOGGING)

MAINTENANCE ITEMS - SEE TABLE

- (A) SILT TRAP
- (B) BELOW GROUND STORAGE TANKS
- (C) SEWERAGE / SURFACE WATER PUMPING CHAMBER
- (D) POROUS HARD SURFACING - PERMEABLE ASHALT

SURFACING KEY

- POROUS PEDESTRIAN PAVING
- POROUS SURFACING TO PLAYGROUND EXTENSION

DRAINAGE KEY:

- EXISTING SURFACE WATER DRAINAGE
- EXISTING SURFACE WATER MANHOLE
- EX.RWP EXISTING RAIN WATER PIPE
- EX.G EXISTING GULLY
- EXISTING FOUL DRAINAGE
- EXISTING FOUL MANHOLE
- NEW SURFACE WATER DRAINAGE
- NEW SURFACE WATER MAC / PPIC / PCC CHAMBER WITH 150 CONCRETE SURROUND
- RWP / IRWP NEW RAIN WATER PIPE / INTERNAL RAIN WATER PIPE. ACCESS FOR RODDING OF THE BELOW-GROUND BRANCH DRAIN IS TO BE PROVIDED AT ALL RWP LOCATIONS.
- NEW SURFACE WATER PUMPED MAIN
- NEW FOUL WATER DRAINAGE
- NEW FOUL WATER MAC / PPIC / PCC CHAMBER WITH 150 CONCRETE SURROUND
- NEW FOUL WATER PUMPED MAIN

NOTES

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GENERAL NOTES:

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DRAWINGS (ENGINEERING AND ARCHITECTURAL) AND THE SPECIFICATION.
2. USE ONLY GIVEN DIMENSIONS. DO NOT SCALE.
3. ALL DIMENSIONS ARE TO BE CONFIRMED BY THE CONTRACTOR AND ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE EMPLOYER; PRIOR TO COMMENCEMENT OF THE WORK OR AS SOON AS THE DISCREPANCY IS NOTED.
4. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND DETAILING OF ALL TEMPORARY WORKS ASSOCIATED WITH THE PROJECT.

GENERAL NOTES:

1. NEW TREES AND LAY SHRUBS ARE NOT TO BE PLANTED OVER OR ADJACENT TO THE LINE OF ANY EXISTING DRAINAGE.
2. MANHOLE COVERS SHALL NOT BE LIFTED WITHOUT APPROPRIATE LIFTING EQUIPMENT.
3. CARE SHALL BE TAKEN TO ENSURE THAT PERSONNEL UNDERTAKING MANHOLE COVER LIFTING OPERATIONS DO NOT DO SO IN CONTRAVENTION OF CURRENT HEALTH AND SAFETY WEIGHT RESTRICTIONS.
4. IN ALL INSTANCES, INSPECTION AND CLEANING SHOULD BE CARRIED OUT ONLY BY A SPECIALIST CONTRACTOR AND IN ACCORDANCE WITH THE GUIDELINES GIVEN IN "SAFE WORKING IN SEWERS AND AT SEWAGE WORKS" PUBLISHED BY NATIONAL JOINT HEALTH AND SAFETY COMMITTEE FOR THE WATER SERVICES.
5. PERSONNEL SHOULD NOT ENTER MANHOLES OR ANY OTHER PART OF THE DRAINAGE SYSTEM WITHOUT FIRST RECEIVING THE APPROPRIATE TRAINING IN WORKING IN CONFINED SPACES AND SHOULD BE IN POSSESSION OF ALL APPROPRIATE PROTECTIVE AND SAFETY EQUIPMENT AND WHERE NECESSARY BREATHING APPARATUS.
6. UNDER NO CIRCUMSTANCES SHOULD UNPROTECTED PERSONNEL ENTER THE FOUL OR STORM WATER DRAINAGE SYSTEMS.

THIS DRAWING IS TO BEAD IN CONJUNCTION WITH THE FOLLOWING DOCUMENTS:
36222-DBS-00-XX-DR-C-0001 & 0002 - DRAINAGE PLAN (SHEET 1 & 2)
36222-00-XX-DR-C-0003 - DRAINAGE DETAILS
36222-DBS-00-XX-DR-C-0004 - PROPOSED EXTERNAL WORKS GA

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