KEY

— —	SW DRAIN
— —	FW DRAIN
– – –	LINEAR DRAIN
– – –	PERFORATED PIPE
G ▫	FW GULLY
🟦	PERMEABLE PAVING WITH MINIMUM 300mm TYPE 3 SUB BASE
▨	IMPERMEABLE PAVING WITH MINIMUM 300mm TYPE 3 SUB BASE
🟨	EXISTING PAVING TO BE PLANED AND CORED, PERMEABLE PAVING INSTALLED ATOP RESULTING SURFACE
▩	DIFFUSER UNIT - TO BE INSTALLED WITHIN A TRENCH WRAPPED WITH GEOTEXTILE AND BACKFILLED WITH MINIMUM 200MM THICK SURROUND OF SINGLE SIZED 20MM STONE

ATTENUATION TANK TO BE SIZED FOR THE ATTENUATION OF FLOWS GENERATED BY ALL STORMS UP TO AND INCLUDING THE 1 IN 100 YEAR + 45% CLIMATE CHANGE PEAK STORM EVENT. DESIGN BASED ON A RESTRICTED PEAK DISCHARGE RATE OF 3.7 l/s. RATE BASED ON THE GREENFIELD 1 IN 1 YEAR DISCHARGE RATE FROM 0.751 ha.

TANK INVERT LEVEL: 119.600m AOD
TOP OF TANK LEVEL: 121.200m AOD
STORAGE REQUIRED: 440.8m^3

COPSE OVERFLOW
EXISTING COPSE TO BE UTILISED AS AN OVERFLOW. OVERFLOW UTILISED BEYOND THE 1:100 YEAR + 30% CC PEAK STORM EVENT OR EQUIVALENT UP TO THE 1:100 YEAR + 45% CC PEAK STORM EVENT OR EQUIVALENT. AN INFILTRATION RATE OF 0.02333m/hr HAS BEEN CALCULATED.

SW11FC FLOW CONTROL CHAMBER
CHAMBER TO BE FITTED WITH HYDROBRAKE OPTIMUM FLOW CONTROL DEVICE, RESTRICTING PEAK DISCHAGRE RATE TO 3.7 l/s BASED ON A DESIGN HEAD OF 2.6m.
REF: SHE-0074-3700-2600-3700
OVERFLOW FITTED WITH A 75mm ORIFICE PLATE AT 121.65m AOD.

POLLUTION MITIGATION
THE PERMEABLE SURFACING, SWALES AND THE PERMEABLE SUBBASE STORAGE PROVIDED WILL ALLOW THE INITIAL 5mm RAINFALL TO BE RETAINED ON SITE.
THE COMBINATION OF PERMEABLE SURFACING AND SWALES PROVIDES SUFFICIENT POLLUTION MITIGATION INDICES.

FW18PC FOUL PUMP CHAMBER
1. CHAMBER TO BE DESIGNED BY OTHERS, WITH SUITABLE STORAGE CAPACITY.
2. UNIT TO BE FITTED WITH TELEMETRY AND WARNING BEACON.
3. CONTROL KIOSK AND CABLE DUCTING TO BE LOCATED AND DESIGNED BY OTHERS.
4. CHAMBER SIZE TO BE CONFIRMED BY PUMP STATION DESIGNER.
5. COVER TO BE LOAD CLASS D400 TO BS EN 125.
6. COVER SIZE TO BE CONFIRMED BY PUMP STATION DESIGNER, TO SUIT PUMP SPECIFICATION.

CL = 122.530m
IL = 120.706m (INLET - 150Ø)
IL = 121.53m (OUTLET - SIZE TBC BY PUMP STATION DESIGNER)
SUMP = REQUIREMENT TBC BY PUMP STATION DESIGNER
RISING MAIN LENGTH = 96.3m

PUMP STATION NOTES
1. PUMPING STATION TO BE PACKAGE TYPE PROVIDED WITH;
    1.1. CONTROL PANEL AND KIOSK
    1.2. MONITOR AND VISUAL ALARM
    1.3. REMOTE DIALER/TELEMETRY LINK TO MONITORING STATION
2. ALL PUMP SYSTEMS SHALL HAVE A MINIMUM ORIFICE OPENING OF 80mm AND TO BE A SOLID HANDLING PUMP.
3. RISING MAIN (SIZES TO BE CONFIRMED BY PUMP SUPPLIER) RISING MAIN TO BE POLYETHYLENE AND SHALL COMPLY WITH THE RELEVANT PROVISIONS OF BS EN 13244-2. COLOUR TO BE BLACK.
4. POLYETHYLENE FITTINGS, INCLUDING FUSION JOINTS AND ELECTROFUSION FITTINGS SHALL COMPLY WITH THE RELEVANT PROVISIONS OF BS EN 13244-3.

PERMEABLE PAVING
1. FORMATION OF PAVING TO HAVE MINIMUM 1:300 FALL TO NEAREST LAND DRAIN.
2. GEOTEXTILE TO BE PROVIDED TO UNDERSIDE OF TYPE 3 AND TO LINE LAND DRAIN TRENCHES.
3. LAND DRAINS TO BE LAID IN 20mm SINGLE SIZED GRAVEL.
4. STONE TO BE USED WITHIN PERMEABLE SURFACING TO BE KEPT CLEAN AND FREE OF FINES/DEBRIS PRIOR TO INSTALLATION.
5. FINISHED SUB BASE SURFACE NOT TO BE TRAFFICKED BY PLANT PRIOR TO INSTALLATION OF FINAL SURFACING.

THIS DRAWING SHOULD NOT BE SCALED. DIMENSIONS TO BE VERIFIED ON SITE. ANY DISCREPANCIES SHOULD BE REFERRED TO THE ENGINEER PRIOR TO WORK COMMENCING.

NOTES

DRAINAGE

1. DRAINAGE DRAWINGS SHOULD BE READ IN CONJUNCTION WITH HJCE SPECIFICATION FOR DRAINAGE WORKS AND ANY OTHER SUBSEQUENT ADDITIONS TO THIS LIST. ADOPTABLE DRAINAGE AND WORKS ON PUBLIC SEWERS WILL BE GOVERNED BY THE REQUIREMENTS OF THE LOCAL WATER AUTHORITY. WORKS AFFECTING WATERCOURSES WILL BE GOVERNED BY THE REQUIREMENTS OF ANY OR ALL OF THE ENVIRONMENT AGENCY, THE LOCAL DRAINAGE BOARD AND THE LEAD LOCAL FLOOD AUTHORITY.
2. ALL BUILDING DRAINAGE WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE CURRENT BRITISH/EUROPEAN STANDARDS BSEN752, THE CURRENT BUILDING REGULATIONS AND THE LOCAL AUTHORITY BUILDING CONTROL OR NHBC SPECIFICATIONS AND REQUIREMENTS.
3. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH HJCE DRAWINGS AND SPECIFICATIONS AND GENERALLY IN ACCORDANCE WITH THE LATEST VERSION OF THE PUBLISHED DOCUMENT "SEWERAGE SECTOR GUIDANCE".
4. MANHOLE COVER LEVELS MAY BE SUBJECT TO REVISION TO SUIT PROPOSED LEVELS. SCHEDULED COVER LEVELS GIVEN ON DRAINAGE DRAWINGS CANNOT BE USED TO SET THE EXTERNAL WORKS OR FLOOR LEVELS.
5. ALL PRIVATE FOUL DRAINAGE TO BE 100Ø LAID AT A MINIMUM GRADIENT OF 1 IN 40, ALL PRIVATE SURFACE WATER DRAINAGE TO BE 100Ø LAID AT A MINIMUM GRADIENT OF 1 IN 60 UNLESS OTHERWISE NOTED. PIPEWORK TO BE LAID TO INVERTS SHOWN ON MANHOLE SCHEDULES, WITH SOFFITS COINCIDING AT CHANGES IN PIPE SIZE.
6. ALL JUNCTIONS ARE TO BE DONE USING A 'Y' JUNCTION TO DIRECT THE FLOW IN LINE WITH THE MAIN PIPE.
7. EXACT LOCATION OF BUILDING RAINWATER DOWNPIPES AND ALL INTERNAL DRAINAGE POINTS (POP UPS) TO BE CONFIRMED BY ARCHITECT. RAINWATER PIPE OUTLETS TO BE RODABLE. INTERNAL GULLIES AND MANHOLE COVERS SHALL BE TO ARCHITECT'S SPECIFICATION.
8. SETTING OUT INFORMATION FOR MANHOLES MAY BE PROVIDED ON THE DRAWINGS, ESPECIALLY WHERE CHAMBERS ARE REMOTE FROM A BUILDING. OTHERWISE CHAMBERS ARE SHOWN IN RELATION TO FEATURES SET OUT ON OTHER DRAWINGS AND CAN BE ADJUSTED IN LOCATION TO SUIT THE GIVEN GRADIENTS. HOWEVER IT IS CRITICAL THAT EXTERNAL MANHOLES HAVE COVER LEVELS LOWER THAN FFL TO MINIMISE FLOODING ISSUES SHOULD DRAINS SURCHARGE OR BLOCK.
9. INVERT LEVELS OF ALL OUTFALL POINTS TO BE CONFIRMED PRIOR TO COMMENCING DRAINAGE WORKS. POSITION SIZE AND DEPTH OF ALL EXISTING DRAINS AND SERVICES SHALL BE ESTABLISHED PRIOR TO COMMENCEMENT ON SITE AND ANY DISCREPANCIES RESOLVED BY THE DESIGN TEAM AHEAD OF CONSTRUCTION.
10. THE CONTRACTOR SHALL PROVIDE PROTECTION, TEMPORARY AND PERMANENT SUPPORT, AND TEMPORARY AND PERMANENT DIVERSION WORKS, NECESSARY TO ALL EXISTING SERVICES SUFFICIENT TO ENABLE CONSTRUCTION OF THE DRAINAGE SYSTEM INDICATED ON THE DRAWINGS.
11. WORK WITHIN THE HIGHWAY WILL REQUIRE TRAFFIC MANAGEMENT IN ACCORDANCE WITH CHAPTER 8 AND AGREEMENT FROM THE LOCAL HIGHWAY AUTHORITY (SECTION 50 HIGHWAYS ACT AGREEMENT OR SIMILAR) AHEAD OF WORK COMMENCING.
12. TEMPORARY WATER MANAGEMENT DISCHARGES CANNOT ENTER THE PUBLIC SEWER SYSTEM WITHOUT CONSENT FROM THE WATER AUTHORITY. THEY CANNOT ENTER A WATERCOURSE WITHOUT CONSENT FROM EITHER THE LLFA OR THE EA. IN BOTH CASES WHERE CONSENT IS GRANTED SOME TREATMENT OF THE WATER MAY BE REQUIRED AHEAD OF IT ENTERING EITHER SEWER OR WATERCOURSE.
13. LAND DRAINAGE SHOULD NOT BE DISCHARGED TO EITHER FOUL OR SURFACE WATER DRAINS THAT ARE CONNECTED INTO A PROPOSED OR EXISTING PUBLIC SEWER SYSTEM.
14. CONNECTIONS TO THE PUBLIC SEWER NETWORK REQUIRE S106 AGREEMENTS. THESE GENERALLY COVER WORKMANSHIP AND PROOF OF SUITABILITY FOR THE WORK AND ARE THEREFORE BEST COMPLETED BY THE RELEVANT SUB-CONTRACTOR. HJCE DRAWINGS AND CALCULATIONS CAN BE SUBMITTED ALONGSIDE AND IN SUPPORT OF SUCH APPLICATIONS.
15. WHEREVER POSSIBLE, DRAINAGE WORKS ARE:
    - TO COMMENCE AT OUTFALL
    - TO WORK UPSTREAM
16. TREES SHOULD NOT BE PLANTED WITHIN 5M OF ADOPTABLE SEWERS, WHERE THIS IS NOT POSSIBLE DUE TO PLANNING CONDITIONS A SUITABLE ROOT BARRIER NEEDS TO BE INSTALLED AROUND ANY TREE TYPES THAT ARE WITHIN THE PRESCRIBED RESTRICTIONS AS SET OUT IN THE WATER AUTHORITIES' CODE FOR ADOPTION. WHERE THE MATURE TREE CANOPY WILL OVERHANG THE ADOPTABLE HIGHWAY A SUITABLE ROOT BARRIER WILL BE REQUIRED TO PREVENT DAMAGE TO ANY STATUTORY UNDERTAKERS EQUIPMENT AND THE INTEGRITY OF THE HIGHWAY CONSTRUCTION.
17. FOUL DRAINAGE PUMP INSTALLATIONS ARE DESIGNED TO HANDLE NORMAL DOMESTIC WASTE. OTHER ITEMS FLUSHED AWAY OR OTHERWISE ENTERING THE DRAINAGE SYSTEM FOR DISPOSAL WILL DETRIMENTALLY AFFECT THE PERFORMANCE OF THE PUMPS. IN PARTICULAR FABRIC ITEMS FOR USE AS WIPES AND SANITARY ITEMS WILL, IF DISPOSED OF INTO THE FOUL DRAINAGE PIPEWORK, QUICKLY AND COMPLETELY BLOCK THE PUMPS PREVENTING THEIR OPERATION UNTIL REMOVED FROM THE WET WELL AND CLEANED. IF THE CLIENT DEEMS IT IS NOT POSSIBLE TO CONTROL THE DISPOSAL OF UNSUITABLE MATERIAL INTO THE DRAINS SPECIALIST SCREENS AND GRINDING EQUIPMENT CAN BE CONSIDERED FOR INTRODUCTION BY THE SPECIALIST PUMP DESIGNER INTO THE FOUL DRAINAGE SYSTEM TO MINIMISE THE RISK OF INTERRUPTED PUMP OPERATION BUT THESE ITEMS WILL THEMSELVES REQUIRE REGULAR CLEANING AND MAINTENANCE.
18. FOUL DRAINAGE MINI-TREATMENT PLANTS ARE DESIGNED TO HANDLE NORMAL DOMESTIC WASTE. OTHER ITEMS FLUSHED AWAY OR OTHERWISE ENTERING THE DRAINAGE SYSTEM WILL DETRIMENTALLY AFFECT THE PERFORMANCE OF THE TREATMENT PLANT AND THE LEVEL OF TREATMENT ACHIEVED. THIS CAN LEAD TO SERIOUS POLLUTION TO DOWNSTREAM WATER FEATURES AND/OR FAILURE OF THE SYSTEM. BOTH WOULD REQUIRE SUBSTANTIAL MAINTENANCE OF THE PLANT TO REMEDY. IF THE CLIENT DEEMS IT IS NOT POSSIBLE TO CONTROL THE DISPOSAL OF UNSUITABLE MATERIAL INTO THE DRAINS SPECIALIST SCREENS AND GRINDING EQUIPMENT CAN BE CONSIDERED FOR INTRODUCTION BY THE SPECIALIST PLANT DESIGNER INTO THE FOUL DRAINAGE SYSTEM TO MINIMISE THE RISK OF FAILURE OF TREATMENT EQUIPMENT BUT THESE ITEMS WILL THEMSELVES REQUIRE REGULAR CLEANING AND MAINTENANCE
19. FATS,OILS AND GREASE TREATMENT IS A SPECIALIST DESIGN ITEM. THE REQUIRED TREATMENT METHODOLOGY WILL COME FROM CONSIDERATION OF THE LEVELS OF INCOMING FOGS REQUIRING TREATMENT, THE FREQUENCY OF EMPTYING AND OTHER MAINTENANCE, AND THE PRESENCE OF OTHER SENSITIVE KIT FURTHER DOWNSTREAM (I.E.PUMPS AND TREATMENT PLANT).
20. SPRINKLER SYSTEMS REQUIRE TESTING AT REGULAR INTERVALS BOTH AT THE PUMPS THEMSELVES AND VIA THE MANIFOLD THROUGH THE BUILDING WALL. EITHER UNDER PUMP PRESSURE OR BY DRAINING DOWN PARTS OF THE SYSTEM BY GRAVITY. THE RESULTING DISCHARGE MUST CONNECT TO THE SITE FOUL DRAINAGE NETWORK AND MAY REQUIRE LICENSING BY THE RELEVANT SEWER AUTHORITY AS AN INDUSTRIAL EFFLUENT. IT SHOULD NOT BE CONNECTED TO THE SITE SURFACE WATER SYSTEM, DISCHARGE ONTO THE SURFACE (WHETHER LANDSCAPING OR PAVEMENT) OR INTO ANY WATERCOURSE OR SIMILAR FEATURE.

C04	18.11.24	TANK RESIZED, COPSE ADDED, FLOW CONTROL ADJUSTED, DRAWING SHEET UPDATED	DM
C03	30.05.24	PERMEABLE PAVING EXTENDED	DM
C02	30.05.24	LINEAR DRAINS ADJACENT CLUB HOUSE REMOVED, SUBSTITUTED FOR LAND DRAINS	DM
C01	15.05.24	CONSTRUCTION ISSUE	DM
P07	28.03.24	ADDITIONAL DRAINAGE TO PADEL COURT CANOPY	GI
P06	28.03.24	GYM EXTENSION AND PADEL COURTS ADDED	GI
P05	26.02.24	FINAL FW DRAIN SECTION REVISED TO CLAYWARE AS PER S106 REQUIREMENT	DM
P04	21.02.24	PUMP CHAMBER REFERENCE UPDATED	DM
P03	16.02.24	FW01 ADDED, FW REFERENCES UPDATED	DM
P02	13.02.24	LAYOUT UPDATED	DM
P01	17.08.23	INITIAL ISSUE	DM
REV	**DATE**	**DESCRIPTION**	**DRN**

REVISIONS

PROJECT

NEW CLUBHOUSE, HAYWARDS HEATH RUGBY CLUB

TITLE

DRAWING TITLE

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STATUS **CONSTRUCTION**

DRAWN BY	CHECKED BY	APPROVED BY MH
HJCE REF.	DATE DM	SCALES @ A1 1:250

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REVISION **C04**

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