

NOTES:

- THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT ARCHITECT AND ENGINEERING DETAILS, DRAWINGS AND SPECIFICATIONS.
- ANY DISCREPANCIES SHOULD BE REPORTED TO THE ARCHITECT AND/OR ENGINEER IMMEDIATELY, SO THAT CLARIFICATION CAN BE SOUGHT PRIOR TO THE COMMENCEMENT OF WORK.
- ALL PIPES TO BE ADOPTED, OR CONNECTING TO ADOPTED SEWERS, AND/OR SITUATED UNDER HIGHWAY TO BE VITRIFIED CLAY TO BS EN 295 & BS65 (SWS ONLY), OR CONCRETE PIPES TO BS EN 1916 & BS591(PART 1), OR THERMOPLASTIC STRUCTURED WALL SEWER PIPES TO MS 4-35-01 (CLASS BKN/SOM) AND BE CAPABLE OF WITHSTANDING 4000 PSI JETTING PRESSURE. PRIVATE PIPES MAY BE VC OR PLASTIC.
- ADOPTABLE HIGHWAY WORKS ARE TO BE IN ACCORDANCE WITH LOCAL AUTHORITY DESIGN GUIDANCE.
- ANY WORKS ASSOCIATED WITH THE HIGHWAY/EXTERNAL WORKS INCLUDING HIGHWAY DRAINAGE, SHALL BE IN ACCORDANCE WITH THE HIGHWAYS AGENCY MANUAL OF CONTRACT DOCUMENTS FOR HIGHWAY WORKS, VOL 1' (MCHW), UNLESS OTHERWISE SPECIFIED.
- ALL DRAINAGE WORKS SHOULD COMMENCE AT THE PROPOSED DOWNSTREAM CONNECTION POINT, THE WORKS CONTINUING UPSTREAM FOLLOWING CONFIRMATION OF THE TIE-IN INVERT LEVELS TO THE ENGINEER. CONNECTIONS TO MANHOLES OR LARGER SIZED PIPES ETC. SHOULD BE SLOTTED TO SOFFIT UNLESS OTHERWISE INSTRUCTED BY THE ENGINEER, IF THIS IS NOT POSSIBLE INFORM THE ENGINEER IMMEDIATELY.
- COVER LEVELS SHOWN ARE APPROXIMATE. COVERS AND FRAMES SHALL BE SET TO FINISHED GROUND LEVELS AND FALLS.
- ROAD GULLY PIPES ARE TO BE 150mm DIA. WITH CONCRETE SURROUND AND FLEXIBLE JOINTS, ALL OTHER UN-REFERENCED PIPES ARE ASSUMED TO BE 100mm DIA.
 - FW MIN GRADIENT - 1 IN 40 (100 DIA) NO WC'S CONNECTED
 - FW MIN GRADIENT - 1 IN 80 (100 DIA) MIN 1 WC CONNECTED
 - FW MIN GRADIENT - 1 IN 150 (150 DIA) MIN 5 WC'S CONNECTED
 - SW MIN GRADIENT - 1 IN 100 (100 DIA)
 - SW MIN GRADIENT - 1 IN 150 (150 DIA)
- ALL GULLIES SHALL BE FITTED WITH GRADE D400 GRATINGS AND FRAMES TO BS EN1214, UNLESS OTHERWISE STATED.
- IN ORDER TO MAINTAIN THE SATISFACTORY FUNCTIONING OF SURFACE WATER SEWERS, ALL ROAD AND TARD GULLIES ARE TO BE "TRAPPED".
- ALL NON ADOPTABLE LATERALS BENEATH THE HIGHWAY SHALL BE BACK FILLED WITH A TYPE 1 GRAVULAR MATERIAL AS CL.803 (MCHW) APPROVED BY THE ENGINEER.
- ALL PRIVATE DRAINAGE TO BE IN ACCORDANCE WITH THE BUILDING REGULATIONS APPROVED DOCUMENT PART-H, AND TO THE SATISFACTION OF THE BUILDING CONTROL INSPECTOR.
- WHERE DRAINS PASS THROUGH FOUNDATIONS OR CONNECT TO MANHOLES, A FLEXIBLE PIPE JOINT SHOULD BE PROVIDED TO FORM A ROCKER PIPE IN ACCORDANCE WITH THE STANDARD DETAIL PROVIDED.
- SHALLOW PRIVATE DRAINS MAY REQUIRE PROTECTION USING CLASS 2" CONCRETE SURROUND OR PAVING SLABS BRIDGING THE TRENCH SUBJECT TO THE NIRC INSPECTOR'S REQUIREMENTS.
- WHERE DRAINAGE RUNS PASS CLOSE TO BUILDINGS OR THEIR INVERT LEVELS ARE BELOW FOUNDATION LEVEL, THEN THE TRENCHES ARE TO BE BACK FILLED IN ACCORDANCE WITH THE STANDARD DETAIL PROVIDED.
- REFERENCE SHOULD BE MADE TO THE STRUCTURAL ENGINEERS DETAILS FOR ALL ASPECTS OF FOUNDATION DESIGN AND CONSTRUCTION.
- THE CONTRACTOR IS TO KEEP A RECORD OF ANY VARIATIONS MADE ON SITE, INCLUDING THE RELOCATION OF SEWERS OR DRAINS, SO THAT AN AS CONSTRUCTED DRAWING CAN BE PREPARED UPON COMPLETION OF THE PROJECT.
- THE CONTRACTOR SHOULD CHECK ALL DIMENSIONS ON SITE. NO DIMENSIONS ARE TO BE SCALED FROM THESE DRAWINGS.
- IT IS THE CONTRACTOR/SUBCONTRACTORS RESPONSIBILITY TO ENSURE COMPLIANCE WITH THE CURRENT BUILDING REGULATIONS AND CODES OF PRACTICE.
- STUB CONNECTIONS TO ADOPTABLE MANHOLES SHALL BE MADE FROM VITRIFIED CLAY AND CONSIST OF TWO ROCKER PIPES Laid AT THE SAME GRADIENT AS THE UP OR DOWNSTREAM PIPE.
- ROAD RENSTATEMENTS ARE TO BE TO THE HIGHWAY AUTHORITY APPROVAL.
- NO PRIVATE AREAS ARE TO DRAIN ONTO ADOPTABLE AREAS AND VICE VERSA.
- UNLESS OTHERWISE NOTED OR SIMILAR APPROVED CHANNEL DRAINS TO BE ADOPTED MULTI DRAIN WITH A15 GRATING IN PEDESTRIAN AREAS, C250 IN CAR PARKS AND D400 IN CARRIAGEWAYS. SLOTTED CHANNEL TO BE USED FOR AREAS WITH FALLS <1:15 MESH GRATING TO BE USED WHERE FALLS >1:15.
- GULLY AND CHANNEL DRAIN POSITIONS ARE LIABLE TO ADJUSTMENT WHEN THE DESIGN LEVELS HAVE BEEN DETERMINED.
- MODULAR GEODELLULAR STORAGE/SOAKAWAY SYSTEM TO CONFORM TO CIRIA C793 THE SUDS MANUAL, C680 STRUCTURAL DESIGN OF MODULAR GEODELLULAR DRAINAGE TANKS & C688 SITE HANDBOOK FOR THE CONSTRUCTION OF SUDS. THE MANUFACTURER SHOULD PROVIDE A COMPLETE SET OF INDEPENDENT TEST RESULTS FOR A PROPOSED SYSTEM INCLUDING, AS A MINIMUM, STRESS/STRAIN CURVES FOR VERTICAL AND LATERAL COMPRESSION, AND CREEP TESTS UNDER SUSTAINED LONG-TERM LOADS. A BBA CERTIFICATE IS NOT INDEPENDENT TEST DATA.
- ALL REDUNDANT DRAINAGE TO BE ABANDONED ONCE THE CONTRACTOR HAS SATISFIED HIMSELF THAT NO CONNECTIONS REMAIN LIVE. REDUNDANT DRAINAGE TO BE GRUBBED OUT.
- ALL BELOW GROUND CONCRETE TO ACCORD WITH BS5328:1997/SULPHATE CLASS T5A.
- IF ANY SUB SOIL DRAINAGE SYSTEMS ARE UNCOVERED DURING THE WORKS CONTACT THE ENGINEER FOR INSTRUCTIONS. GENERALLY SUB SOIL DRAINS AFFECTED ARE TO BE DIVERTED AROUND NEW WORKS AND CONNECTED INTO THE SURFACE WATER DRAINAGE SYSTEM. PIPE DIAMETERS AND GRADIENTS ARE TO BE MAINTAINED.
- BEFORE COMMENCING CONSTRUCTION THE CONTRACTOR MUST CHECK THE INVERT LEVELS OF EXISTING SEWERS TO WHICH CONNECTIONS ARE MADE. IN ADDITION THE CONTRACTOR MUST LOCATE AND DETERMINE INVERT LEVELS OF THE EXISTING SPURS TO WHICH CONNECTIONS ARE PROPOSED. ADDITIONAL SPUR/MANHOLE CONNECTIONS ARE TO BE AGREED WITH THE RELEVANT ADOPTING AUTHORITY. ANY DISCREPANCIES ARE TO BE NOTIFIED TO THE ENGINEER IMMEDIATELY, PRIOR TO CONSTRUCTION.
- ROAD RENSTATEMENTS ARE TO BE TO THE HIGHWAY AUTHORITY APPROVAL.
- NO PRIVATE AREAS ARE TO DRAIN ONTO ADOPTABLE AREAS AND VICE VERSA.

DRAINAGE LEGEND

EXISTING FOUL WATER SEWER/DRAIN TO BE RETAINED

EXISTING SURFACE WATER SEWER/DRAIN TO BE RETAINED

EXISTING FOUL/SURFACE WATER SEWER/DRAIN TO BE ABANDONED. CONTRACTOR TO CONFIRM THAT NO LIVE CONNECTIONS REMAIN

SURFACE WATER DRAIN

RWP

RAINWATER PIPE

RG

ROAD GULLY

YG

YARD GULLY

ACO SUMP
M1000S
CL 00.00
IL 00.00

SW ACO M1000 2.9m
CONSTANT DEPTH 150mm

CHANNEL DRAINAGE
SIZED USING ACO MULTI DRAIN TECHNICAL INFORMATION
HYDRAULIC PERFORMANCE TABLES FOR LATERAL FLOW

LAND DRAIN
REFER TO STRUCTURAL ENGINEER DRAWINGS

475mm PPIC
DEPTH 1200(MAX) SW UPVC INSPECTION CHAMBER
MAX NO. OF PIPES 5 (100/150mm) MAX COVER GRADE B125

SW MANHOLE TYPE D
INTERNAL DIMENSIONS 900x675mm
DEPTH FROM COVER TO SOFFIT OF PIPE LESS THAN 1m

SOAKAWAY

FOUL WATER SEWER/DRAIN

CAP PIPE FOR PHASE 2 CONNECTION

SOIL STACK (TYPE TBC BY ARCHITECT/M&E ENGINEER)

475mm PPIC
475x1200(MAX) FW UPVC INSPECTION CHAMBER
MAX NO. OF PIPES 5 (100/150mm) MAX COVER GRADE B125

FW MANHOLE TYPE D
INTERNAL DIMENSIONS 900x675mm
DEPTH FROM COVER TO SOFFIT OF PIPE LESS THAN 1m

FW MANHOLE TYPE C
INTERNAL DIMENSIONS 1240x675mm
DEPTH FROM COVER TO SOFFIT OF PIPE 1m - 1.5m

TRAPPED GULLY

FFL: 00.00 TBC

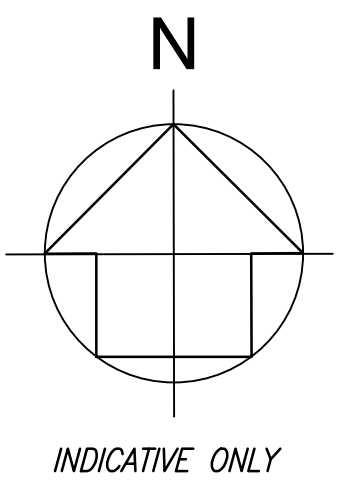
FINISHED FLOOR LEVEL

SWD 100# 4.5m 1:100
CONC TYPE 2 BED

PIPE DETAIL: #, LENGTH, GRADIENT,
MATERIAL & BEDDING TYPE

SW MH 1.0
CL 00.00
IL 00.00
TYPE C MH
CATCHPIT
D400

MANHOLE DETAIL: COVER LEVEL, INVERT LEVEL,
SUMP INVERT LEVEL, MH TYPE, COVER GRADE



INDICATIVE ONLY

Q	15.02.22	Attenuation crates adjusted to suit latest Architect's drawing	JM
P	06.12.21	FW drain under foyer changed to 100mm Ø and gradient increased as confirmed achievable on site. Existing drain confirmed 100mm Ø, noted changed to suit.	RJC
N	05.11.21	SW routes revised to suit further drainage survey info.	RJC
M	03.11.21	Layout reverted to revision K as previously agreed. SW routes revised to suit drainage survey info.	JM
L	02.08.21	Foul water drainage to existing connection revised to suit Architect's comments	JM
K	08/06/21	Issue for Construction/Contract	SPB
J	26/03/21	Updated to suit architects comments	SPB
I	23/03/21	Land drain added, new sewer connection removed, existing flow rates adjusted, proposed run off rates adjusted, attenuation tanks sized to suit.	SPB
H	27/07/20	Updated to suit revised layout	SPB
G	28/10/19	Drainage revised to suit internal layout and clients comments	SPB
F	02.05.19	Soakaway revised, drawing updated to suit clients comments	SPB
E	24.04.19	Updated to suit clients comments	SPB
D	24.04.19	Updated to suit clients comments	SPB
C	22.01.19	Updated to suit clients comments	JM
B	17.12.18	Updated to suit clients comments	SPB
A	03.12.18	SW discharge point revised	SPB
-	26.11.18	First Issue	SPB
MK	DATE	REVISION	BY

JOB TITLE

Anchor Garage,
Haslemere Road, Liphook

CLIENT

Tiger Hill Ltd

SCALES

1:100

DRG. SIZE

A1

DATE

NOV 2018

DRAWN

SPB

CHECKED

DRAWING TITLE

BELOW GROUND DRAINAGE
LAYOUT

STRUCTURAL AND CIVIL
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REVISION

Q