

PRIVATE DRAINAGE KEY: requirements/addendums to the Mechanical & Electrical Specification 1.000 150Ø at 1:60 PROPOSED PRIVATE FOUL WATER PIPE (150mmØ U.N.O. OUTLET AND

SURFACE WATER CHAMBER

INSPECTION CHAMBER

FOUL WATER GULLY

SURFACE WATER

POLYSTORM-R OR SIMILAR

APPROVED PRODUCT

PROPOSED PERMEABLE

PROPOSED BIORETENTION

ATTENUATION

PAVING AREA

SITE BOUNDARY

CONNECTION BY OTHERS) established prior to commencement on site. PROPOSED PRIVATE 3. The Contractor shall allow for the protection, temporary & permanent SURFACE WATER PIPE

> with road & sewer works. 5. The Contractor shall allow for keeping sewer trenches & excavations as dry as practicable by pumping from temporary sumps &

de-watering as appropriate. The point & method of discharge to be agreed with the drainage authority.

EN1916/BS5911-1:2002. 7. Vitrified clay pipes & fittings shall comply with the relevant provisions

stones larger than 40mm, clay lumps larger than 75mm, tree roots, organic matter & frozen soil. Selected backfill material shall be placed in layers not exceeding 225mm, each layer compacted to form a stable trench backfill. 12. General backfill material to be free from stones larger than 40mm.

crown/barrel of the pipe.

accordance with the requirements & specifications of the adopting authority, or, in the absence of such, in accordance with the requirements of "The Street Works Regulations 1992" & relevant provisions of H.A.U.C. "Specification for the Reinstatement of Openings in Highways" June 1992, both under section 71 of the New

satisfaction of Building Control/Local Authority before any sewer works are carried out.

of gas monitoring equipment & breathing apparatus as required. 16. Contractor to apply for sewer permits & road opening permits as necessary from the appropriate authorities, prior to commencing

adoptable drainage system(directly or in-directly). An alternative method of disposal of land drainage run-off will therefore be required & you will have to liaise with the local authority, land drainage section with regards to the disposal of filter drain/land drainage run off. 18. Cover slabs must carry BSI Kitemark or will be rejected by Statutory Undertaker / Utilities Provider inspector. Where the clear opening of the kitemarked product is different to that of the cover & frame a load bearing slab should be fitted above the cover slab to bring down the size to 600mm x 600mm for Statutory Undertaker / Utilities Provider specified cover size. Please refer to Concrete Pipeline Systems Association (CPSA), Technical Bulletin for kitemarked cover slab

from kerb faces & service margins.

21. Sewers must have 5m clearance from trees & hedges (please also refer to figure B5.1.10 in the 'Sewer Sector Guidance, Appendix C -Design and Construction Guidance planting adjacent to sewers). 22. The chamber size of manholes with more than one connection in

Sector Guidance, Appendix C - Design and Construction Guidance

support, & temporary & permanent diversion works, as necessary to

DO NOT SCALE

FOR THE AVOIDANCE OF DOUBT, NO APPROVALS, REVIEWS, COMMENTS OR INDICATION OF SATISFACTION GIVEN BY ARC ENGINEERS IN TERMS OF SUBCONTRACT DRAWINGS, PRODUCTS OR PROPOSED MATERIALS SHALL REDUCE OR EXTINGUISH THE OBLIGATION OF THE SUB-CONTRACTOR OR SUPPLIER TO ADHERE TO THE SPECIFICATION, GENERAL ARRANGEMENT DRAWINGS, STATUTORY REQUIREMENTS AND GOOD WORKING PRACTICE. ARC ENGINEER'S ACCEPT NO LIABILITY FOR THE SELECTION OF MATERIALS OR WORKMANSHIP IN THE EXECUTION OF THE WORKS.

1. THESE NOTES ARE INTENDED TO AUGMENT DRAWINGS AND SPECIFICATIONS. WHERE CONFLICT OF REQUIREMENTS EXISTS THE

4. ALL DIMENSIONS TO BE CHECKED ON SITE BY THE CONTRACTOR. ANY DISCREPANCIES TO BE NOTIFIED TO THE ENGINEER/ARCHITECT AND FURTHER INSTRUCTIONS OBTAINED BEFORE WORK IS COMMENCED.

5. THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER THE BUILDING IS FULLY COMPLETE. IT IS THE CONTRACTORS

SOLE RESPONSIBILITY TO DETERMINE THE ERECTION PROCEDURE

COMPONENTS ARE SAFE DURING ERECTION. THIS INCLUDES THE

6. ALL WORK TO COMPLY TO CURRENT BUILDING REGULATIONS AND TO

BE IN ACCORDANCE WITH THE RELEVANT BRITISH STANDARDS AND

SAFETY, HEALTH &

ENVIRONMENTAL INFORMATION

In addition to the hazards/risks normally associated

with the types of work detailed on this drawing, note

Risks listed here are not exhaustive. Refer to Risk

For information relating to Use, Cleaning and

It is assumed that all works will be carried out by a

competent contractor working, where appropriate, to

INDICATES A RESIDUAL RISK

REQUIRING A COMPULSORY

INDICATES A RESIDUAL

INDICATES A RESIDUAL RISK

INDICATES A RESIDUAL

RISK AS A WARNING

REQUIRING PROHIBITIVE ACTION

RISK FOR INFORMATION

ACTION

Maintenance see Health & Safety File

an approved method statement

ADD PROJECT NOTES HERE

the following risks and information.

Assessment Register: 23047

No Unusual hazards/risks

ADDITION OF WHATEVER TEMPORARY BRACING, GUYS OR TIE-DOWNS WHICH MAY BE NECESSARY, SUCH MATERIAL REMAINING THE

AND SEQUENCE AND ENSURE THAT THE BUILDING AND ITS

PROPERTY OF THE CONTRACTOR UPON COMPLETION.

7. FOR FURTHER NOTES REFER TO PROJECT SPECIFICATIONS.

APPROPRIATE CODES OF PRACTICE.

ORDER OF PRECEDENCE SHALL BE AS SHOWN IN THE SPECIFICATIONS. OTHERWISE THE STRICTEST PROVISION SHALL 2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT ENGINEERS AND ARCHITECTS DRAWINGS,

GENERAL NOTES

3. DRAWINGS NOT TO BE SCALED.

6. Concrete pipes to be Class S unless noted otherwise. The min crushing strength for concrete pipes should be Class 120 to

& 300mm dia 72kN/m. 8. Manhole covers & frames shall comply with the relevant provisions of

frames unless otherwise specified. Manhole covers & frames to be of a non-rocking design without cushion inserts & be kitemarked. Load class D400 in vehicular trafficked areas & load class B125 in footways & pedestrian areas.

13. Backfilling & reinstatement to trenches in public highways shall be in

Roads & Street works Act 1991. 14. Filled ground must be filled & consolidated under the supervision &

connections & bends. 23. Sewers to be laid in Class "S" bedding (150mm granular bed & surround). Where depth of cover to top of sewer is less than 1.2m in highways & verges (or less 900mm in private vehicle areas or 750mm in landscaping areas) then a concrete slab should be provided above the granular surround. Bedding & backfill material to conform to the requirements of Water Industry Specification 4-08-02

## **DRAINAGE NOTES**

of BS EN295 & BS 65 respectively & be kitemarked. All pipes shall be extra strength to BS 65 or equivalent BS EN295 pipe crushing strength. The min crushing strength for clay pipes should be as follows:100mm dia 40kN/m, 150mm dia 40kN/m, 225mm dia 45kN/m

EN124 & be of a non-rocking design with captive hinge access & be kitemarked. Load Class D400 for roads regularly carrying fast moving heavy vehicles. Class C250 to be used in lesser trafficked areas eg. Estate roads, cul-de-sacs, residential car parking areas etc.

15. Contractor to take measures to protect his operatives with respect to the presence of gas in sewer trenches & manholes through the use

17. Statutory Undertaker / Utilities Provider is not obligated to accept filter drain/land drainage run-off into the public sewer network or

19. Sulphate resistant cement (C20-DC2) & precast concrete products

must be used or a laboratory report provided providing that such precautions are not necessary.

All drainage works shall be carried out in accordance with the Sewer

Position size & depth of all existing sewers & services shall be

all existing services. 4. The Contractor shall allow for all traffic management in connection

BS EN124, have minimum 600 x 600 clear openings with 150 deep

9. Gully grates & frames shall comply with the relevant provisions of BS

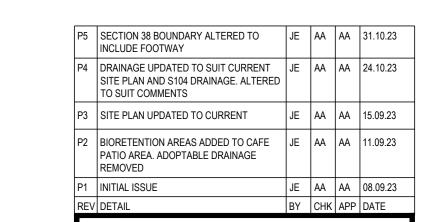
10. Cover slabs shall be provided where cover to the pipe barrel is less than 1.2m in vehicular trafficked areas & 0.9m elsewhere, to all road gully connections & within areas of deep rooting vegetation. 11. Selected backfill material shall consist of uniform material free from

General backfill material is to be placed in layers not exceeding 150mm thickness & each layer compacted by hand. No mechanical compaction of fill material shall be permitted within 300mm above the

20. The adopted sewers should be a minimum of 1m & manholes 0.5m

them may need to be increased an increment to accommodate the

(Table A2).





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PREFERRED HOMES

PROPOSED EXTRA CARE DEVELOPMENT KINGSMERE, BICESTER

PROPOSED PRIVATE DRAINAGE GENERAL ARRANGEMENT

PRELIMINARY					
DRAWN:	DATE:	CHECKED:	DATE:	APPROVED:	DATE:
JE	SEPT 23	AA	SEPT 23	AA	SEPT 23
CONTRACT No. 23047			SCALE @ A1: 1:200		
PROJECT No. ORIGINATOR ZONE LEVEL TYPE DISCIPLINE NUMBER REVISION					
23047- ARC - XX - XX - DR - C - 5000 - P5					

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