ADOPTABLE SEWER NOTES:

1. ALL ADOPTABLE SEWER WORKS AND MATERIAL TO BE IN ACCORDANCE WITH "CODE FOR ADOPTION". THE RELEVANT BRITISH/EUROPEAN AND THE ADOPTING WATER AUTHORITY'S STANDARDS/REQUIREMENTS/ADDENDUM TO THE MECHANICAL AND ELECTRICAL SPECIFICATION AND KITEMARKED.
2. DRAINAGE SYSTEMS TO COMPLY WITH BS EN 476 AND BS EN 752.
3. ALL COMPONENTS USED IN DRAINAGE SYSTEMS TO COMPLY WITH THE FOLLOWING: BS EN 476:2011.
4. ALL DRAINAGE SYSTEMS AND COMPONENTS TO BE CONSTRUCTED AND TESTED TO THE FULL SATISFACTION OF THE RELEVANT ADOPTING AUTHORITY, AND IN ACCORDANCE WITH BS EN 1610.
5. 'VC' DENOTES VITRIFIED CLAY. VITRIFIED CLAY PIPES AND FITTINGS TO COMPLY WITH THE RELEVANT PROVISIONS OF BS EN 295-1:2013, -2:2012, -3:2012 AND BS 65 RESPECTIVELY AND BE KITEMARKED. ALL PIPES SHALL BE EXTRA STRENGTH TO BS 65 OR EQUIVALENT TO BS EN 295 PIPE CRUSHING STRENGTH.
6. MANHOLE COVERS AND FRAMES SHALL COMPLY WITH THE RELEVANT PROVISIONS OF BS EN 124-2 TO 6:2015 AND BS 7903. MANHOLE COVERS AND FRAMES TO BE OF A NON-ROCKING DESIGN WITH CUSHION INSERTS AND KITEMARKED. LOAD CLASS D400 FOR USE IN VEHICULAR TRAFFICKED AREAS. ALL COVERS TO BE BADGED "FW" OR "SW" AS APPROPRIATE. MANHOLE COVER SLABS AND ACCESS TO BE IN ACCORDANCE WITH CONCRETE PIPE ASSOCIATION TECHNICAL BULLETIN ISSUED SEPTEMBER 2001.
7. NO MECHANICAL COMPACTION OF FILL MATERIAL WITHIN 300mm OF THE CROWN OF ANY PIPE.
8. MORTAR TO COMPLY WITH THE RELEVANT PROVISIONS OF BS EN 998-2:2016 AND PD 6678:2005
9. COVER AND FRAME BEDDING MORTAR TO COMPLY WITH THE DESIGN MANUAL FOR ROADS AND BRIDGES VOLUME 4, SECTION 2, PART 5 HA 104/09 CHAPTER 6, AND THE RELEVANT PROVSIONS OF THE MANUAL OF CONTRACT DOCUMENTS FOR HIGHWAYS WORKS VOLUMES 1 AND 2.
10. MANHOLE COVERS SHALL/MUST HAVE A CLEAR OPENING OF 600mm AND SHALL BE CLASS D400 TO BS EN 124 WITH 150mm DEEP FRAMES IN HIGHWAYS.
11. FILLED GROUND MUST BE FILLED AND CONSOLIDATED UNDER THE SUPERVISION AND TO THE SATISFACTION OF THE ADOPTING WATER AUTHORITY BEFORE ANY SEWER WORKS ARE CARRIED OUT.
12. COVER SLABS MUST CARRY THE BSI KITEMARK. WHERE THE CLEAR OPENING OF THE KITEMARKED PRODUCT IS DIFFERENT TO THAT OF THE COVER AND FRAME, A LOADING BEARING SLAB SHOULD BE FITTED ABOVE THE COVER SLAB TO BRING THE SIZE DOWN TO THE COVER FRAME OPENING SIZE. PLEASE REFER TO CONCRETE PIPE SYSTEMS ASSOCIATION (CPSA), 'TECHNICAL BULLETIN' ISSUED AUTUMN 2004 FOR KITEMARKED COVER SLAB OPENING SIZES.
13. SULPHATE RESISTANT CEMENT (C20-DC2) AND PRECAST CONCRETE PRODUCTS MUST BE USED OR A LABORATORY REPORT PROVIDED PROVING THAT SUCH PRECAUTIONS ARE NOT NECESSARY.
14. THE ADOPTABLE SEWERS SHOULD BE A MINIMUM OF 1m AND MANHOLES 0.5m FROM KERB FACES AND SERVICE MARGINS.
15. SEWERS MUST HAVE 5 METRES CLEARANCE FROM TREES AND HEDGES.
16. SEWERS TO BE LAID IN CLASS "S" BEDDING (150mm GRANULAR BED AND SURROUND). FOR PIPES NOT LOCATED IN FILTER TRENCHES, WHERE DEPTH OF COVER TO TOP OF THE SEWER IS LESS THAN 1.2m IN HIGHWAYS AND VERGES (OR LESS THAN 900mm IN NONE VEHICULAR ACCESS AREAS) THEN A CONCRETE SLAB SHOULD BE PROVIDE ABOVE GRANULAR BED AND SURROUND.
17. BEDDING AND BACKFILL MATERIAL TO CONFORM TO THE REQUIREMENT OF WATER INDUSTRY SPECIFICATION 4-08-02 (TABLE A2).
18. THE CHAMBER SIZE OF MANHOLES WITH MORE THAN ONE CONNECTION IN THEM MAY NEED TO BE INCREASED AN INCREMENT TO ACCOMMODATE THE CONNECTIONS AND BENDS.
19. ADOPTABLE PLASTIC SEWER PIPES TO BE BSI KITEMARKED (CERTIFIED TO WIS 4-35-01 AND BS/EN13476). ADOPTABLE PLASTIC SEWER PIPES TO BE LAID IN MAXIMUM 3 METRE LENGTHS UNLESS THERE IS A SPECIFIC OPERATIONAL NEED TO LAY LONGER LENGTHS. PLASTIC CHANNEL SECTIONS IN MANHOLES ARE NOT ACCEPTABLE AND PREFERENCE IS FOR CLAYWARE CHANNEL IN MANHOLES. THIS IS IS DUE TO THAT TYPICALLY PLASTIC CHANNELS ARE DIFFICULT TO SET IN CONCRETE BECAUSE THEY FLOAT AND A SATISFACTORY FINISH CANNOT BE OBTAINED ON THE BENCHING.
20. THE MINIMUM CRUSHING STRENGTH FOR CLAY PIPES SHOULD BE AS FOLLOWS: 100mm DIA. 40kN/m, 150mm DIA. 40kN/m, 225mm DIA. 45kN/m AND 300mm DIA. 72kN/m. THE MINIMUM CRUSHING STRENGTH FOR CONCRETE PIPES SHOULD BE - (CLASS 120 TO EN 1916/BS5911-1 2002). PLASTIC PIPES SHOULD CONFORM TO WIS 4-35-01 AND BS EN13476.
21. WHERE A B125 COVER AND FRAME HAS BEEN APPROVED, THIS MUST NOT BE COATED IN PLASTIC AND MUST HAVE LIFTING EYES SUITABLY SIZED TO ACCOMMODATE STANDARD LIFTING KEYS. SCREW DOWN COVERS ARE NOT ACCEPTABLE.

NOTES:

1. THESE NOTES ARE INTENDED TO AUGMENT DRAWINGS AND SPECIFICATIONS. WHERE CONFLICT OF REQUIREMENTS EXIST THE ORDER OF PRECEDENCE SHALL BE AS SHOWN IN THE SPECIFICATION. OTHERWISE THE STRICTEST PROVISION SHALL GOVERN.
2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT ENGINEERS AND ARCHITECTS DRAWINGS.
3. DRAWINGS NOT TO BE SCALED. ALL DIMENSIONS TO BE CHECKED ON SITE BY THE CONTRACTOR. ANY DISCREPANCIES TO BE NOTIFIED TO THE ENGINEER AND FURTHER INSTRUCTIONS OBTAINED BEFORE WORK IS COMMENCED.
4. THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER THE BUILDING IS FULLY COMPLETED. IT IS THE CONTRACTORS SOLE RESPONSIBILITY TO DETERMINE THE ERECTION PROCEDURE AND SEQUENCE AND ENSURE THAT THE BUILDING AND ITS COMPONENTS ARE SAFE DURING ERECTION. THIS INCLUDES THE ADDITION OF WHATEVER TEMPORARY BRACING, GUYS OR TIE-DOWNS WHICH MAY BE NECESSARY, SUCH MATERIAL REMAINING THE THE PROPERTY OF THE CONTRACTOR ON COMPLETION, AND FOR ENSURING THAT THE WORKS AND ANY ADJACENT PROPERTIES ARE SAFE IN THE TEMPORARY CONDITION.

GENERAL NOTES:

G01. ALL WORKS SUBJECT TO SECTION 38, SECTION 62/278 AND SECTION 104 AGREEMENTS TO BE APPROVED BY THE RELEVANT AUTHORITY PRIOR TO COMMENCEMENT OF WORKS.

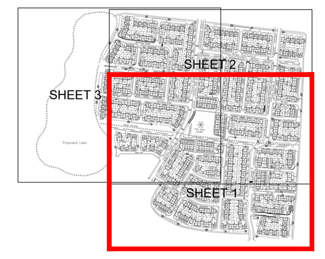
G02. ALL LEVELS ARE IN METRES AOD (ABOVE ORDNANCE DATUM) UNLESS NOTED OTHERWISE.

G03. ALL WORKS TO BE UNDERTAKEN IN COMPLIANCE WITH BS 8000 FOR WORKMANSHIP ON BUILDING SITES.

G04. ABBREVIATIONS:
MH = MANHOLE
CL = COVER LEVEL
IL = INVERT LEVEL
S / SW = SURFACE WATER
F / FW = FOUL WATER

KEY:

- SURFACE WATER SEWER
- FOUL WATER SEWER
- FOUL WATER RISING MAIN
- S104 SITE BOUNDARY
- EXISTING/HIGHWAY DRAIN/FUTURE/PRIVATE SEWERS SURFACE WATER SEWER
- EXISTING/HIGHWAY DRAIN/FUTURE/PRIVATE SEWERS FOUL WATER SEWER
- MAJOR CONTOUR @1.0m SPACING
- MINOR CONTOUR @0.25m SPACING
- PROPOSED FILTER DRAIN WITH GRASSED HIGHWAY VERGE ABOVE, AND DEPRESSION WHERE INDICATED ON HIGHWAY DRAWINGS TO AID DRAINAGE
- 3m EASEMENT FOR ADOPTABLE SEWERS LOCATED OUTSIDE ADOPTABLE HIGHWAY BOUNDARIES



KEY PLAN
SCALE 1:10000

HEALTH & SAFETY RISKS

IN ADDITION TO THE STANDARD HAZARDS AND RISKS NORMALLY ASSOCIATED WITH THE TYPE OF WORK DETAILED ON THIS DRAWING, PLEASE NOTE THE FOLLOWING RESIDUAL HEALTH AND SAFETY RISKS

SITE SPECIFIC RISKS

A-1.1	SITE CONTAMINATION - UNABLE TO DESIGN OUT ALL RISK DUE TO NATURE OF THE WORKS. CONTRACTOR TO IMPLEMENT BEST PRACTICE FOR POSSIBILITY OF ENCOUNTERING AND HANDLING POTENTIAL CONTAMINATED MATERIAL.
A-1.5	POTENTIAL UNEXPLODED ORDNANCE (UXO) - UNABLE TO DESIGN OUT ALL RISK DUE TO NATURE OF THE WORKS. CONTRACTOR TO TAKE APPROPRIATE MEASURES IF ANY UNKNOWN OBJECTS THAT MAY BE UXO DISCOVERED ON SITE.
A-2.1	EXISTING SERVICES - ELECTRIC, RISK OF ELECTROCUTION - UNABLE TO DESIGN OUT ALL RISK DUE TO NATURE OF THE WORKS. CONTRACTOR TO ISOLATE SUPPLY IF POSSIBLE, ACCURATELY MARK OUT THE SERVICE AND PROTECT ACCORDINGLY
A-2.2	EXISTING SERVICES - GAS, RISK OF EXPLOSION - UNABLE TO DESIGN OUT ALL RISK DUE TO NATURE OF THE WORKS. CONTRACTOR TO ISOLATE SUPPLY IF POSSIBLE, ACCURATELY MARK OUT THE SERVICE AND PROTECT ACCORDINGLY
A-2.3	EXISTING SERVICES - WATER, RISK OF STRIKING WATER MAINS - UNABLE TO DESIGN OUT ALL RISK DUE TO NATURE OF THE WORKS. CONTRACTOR TO ISOLATE SUPPLY IF POSSIBLE, ACCURATELY MARK OUT THE SERVICE AND PROTECT ACCORDINGLY
A-2.4	EXISTING SERVICES - COMMS - UNABLE TO DESIGN OUT ALL RISK DUE TO NATURE OF THE WORKS. CONTRACTOR TO ISOLATE SUPPLY IF POSSIBLE, ACCURATELY MARK OUT THE SERVICE AND PROTECT ACCORDINGLY
A-2.5	EXISTING SERVICES - UNDERGROUND CABLES - UNABLE TO DESIGN OUT ALL RISK DUE TO NATURE OF THE WORKS. CONTRACTOR TO ISOLATE SUPPLY IF POSSIBLE, ACCURATELY MARK OUT THE SERVICE AND PROTECT ACCORDINGLY
A-2.6	EXISTING SERVICES - OVERHEAD CABLES - UNABLE TO DESIGN OUT ALL RISK DUE TO NATURE OF THE WORKS. CONTRACTOR TO ISOLATE SUPPLY IF POSSIBLE, ACCURATELY MARK OUT THE SERVICE AND PROTECT ACCORDINGLY
A-2.7	EXISTING SERVICES - SEWERS - UNABLE TO DESIGN OUT ALL RISK DUE TO NATURE OF THE WORKS. CONTRACTOR TO ISOLATE SUPPLY IF POSSIBLE, ACCURATELY MARK OUT THE SERVICE AND PROTECT ACCORDINGLY
A-2.8	EXISTING SERVICES - COMMS TELEGRAPH POLES - UNABLE TO DESIGN OUT ALL RISK DUE TO NATURE OF THE WORKS. CONTRACTOR TO ISOLATE SUPPLY IF POSSIBLE, ACCURATELY MARK OUT THE SERVICE AND PROTECT ACCORDINGLY
A-2.9	EXISTING SERVICES - UNIDENTIFIED - UNABLE TO DESIGN OUT ALL RISK DUE TO NATURE OF THE WORKS. CONTRACTOR TO ISOLATE SUPPLY IF POSSIBLE, ACCURATELY MARK OUT THE SERVICE AND PROTECT ACCORDINGLY
A-4.2	ENVIRONMENTAL FACTORS - WORKING HOURS, DISTURBING NEARBY RESIDENTIAL AREAS - CONTRACTOR TO CONFIRM THE SUITABLE WORKING HOURS ACCEPTED BY THE LOCAL AUTHORITY
A-4.3	ENVIRONMENTAL FACTORS - NOISE LEVELS, DISTURBING NEARBY RESIDENTIAL AREAS - CONTRACTOR TO CONFIRM THE SUITABLE NOISE LEVELS ACCEPTED BY THE LOCAL AUTHORITY
A-4.4	ENVIRONMENTAL FACTORS - MEANS OF ACCESS, OBSTRUCTING NEARBY RESIDENTIAL AREAS - CONTRACTOR TO ENSURE ACCESS TO RESIDENTIAL PROPERTIES SUITABLY MAINTAINED. CONTRACTOR MAY CONSIDER PHASING OF WORKS TO ASSSIST SUITABLE ACCESS.

IT IS ASSUMED THAT ALL WORKS WILL BE CARRIED OUT BY A COMPETENT CONTRACTOR WORKING IN ACCORDANCE WITH THE REQUIREMENTS DEFINED IN THE CDM REGULATIONS.

Rev	Description	Date	By	Chk	App
P4	S104 LAYOUT AMENDED TO SUIT LATEST LAYOUT	12.02.24	ERD	JP	JAG
P3	NORTHERN PARCEL PVT DRAINAGE ADDED	06.11.23	ERD	JP	JAG
P2	S104 LAYOUTS RESCALED TO 1:500	26.09.23	JP	JAG	JAG
P1	FIRST ISSUE	11.09.23	JP	BH	JAG

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Project: Proposed Residential Development at Lincolnshire Lakes, Burringham Road

Client: Keepmoat Homes

Drawing: Section 104 Layout - Sheet 1

Role: Civil Engineer

Drawing Status: FOR APPROVAL — Suitability Code: S4

Job. no. 45822 — Scale@ A0: 1:500 — Rev. P4

Project	Originator	Volume	Level	Type	Role	Number
KPPL	AWP	ZZ	XX	DR	C	3001

KPPL - AWP - ZZ - XX - DR - C - 3001