

- Do not scale this drawing. All dimensions must be checked / verified on site. If in doubt ask.
- This drawing is to be read in conjunction with all relevant Architects, Engineers and Specialists drawings and specifications.
- All dimensions in millimetres unless noted otherwise. All levels in metres unless noted otherwise.
- Any discrepancies noted on site are to be reported to the Engineer immediately.
- The above specification for drainage works shall be the Water Authority Association 'Sewers for Adoption' (7th Edition).
- For details of ground conditions refer to the Ground Investigation Report.
- The following pipe strengths shall be adopted unless noted otherwise:
 - Pipes 100mm diameter up to and including 225mm to be classed to BS EN 252 Class 100
 - Pipes over 300mm diameter to be classed to BS EN1191 Class M
 - All pipes must be laid with flexible joints.
 - All pipes entering and exiting manholes are to be connected with pipe socket level unless noted otherwise.
 - Bedding and surround to be as follows:

Location	Cover to Surface	Bedding
Roads	+1.2m	Class 'S' granular bed and surround
	+1.2m	Class 'X' Concrete surround
Hard and soft landscaping	+0.6m	Class 'S' granular bed and surround
	+0.6m	Class 'X' Concrete surround
- The following concrete mixes are to be used (all in accordance with BS 5885):

Location	Mix Reference
Concrete surround to pipes	St1
Concrete base and surround to manholes	St1

The above concrete mixes have been selected for BS 5885 Class 2 Sulphates.

- All precast concrete products (ie pipes, manholes rings etc) shall be of suitable concrete mix to cater for Class 2 sulphates.
- The proposed concrete areas are to be used in manholes where applicable.
- Granular concrete bedding to be used throughout to a dense smooth finish ready placed and finished to all branch connections and laid in accordance with the Specification.
- All connections to be laid in direction of flow using pipe bends.
- Manhole covers and frames to be ductile iron medium duty Grade D400 circular or rectangular to BS EN124 positions inside wherever notified areas.
- First flexible joint in pipes adjacent to a manhole shall be a maximum of 600mm from inside face of manhole, connecting to rocker pipe.

The length of rocker pipe is as follows:

Pipe Diameter	Length of Rocker pipe
150mm-400mm	600mm

- Manholes with outgoing pipes greater than 600mm diameter shall be fitted with guard bars, safety chains or other safety devices.
- The proposed concrete areas are to be used in manholes where applicable.
- Granular concrete bedding to be used throughout to a dense smooth finish ready placed and finished to all branch connections and laid in accordance with the Specification.
- All connections to be laid in direction of flow using pipe bends.
- Manhole covers and frames to be ductile iron medium duty Grade D400 circular or rectangular to BS EN124 positions inside wherever notified areas.
- First flexible joint in pipes adjacent to a manhole shall be a maximum of 600mm from inside face of manhole, connecting to rocker pipe.

KEY

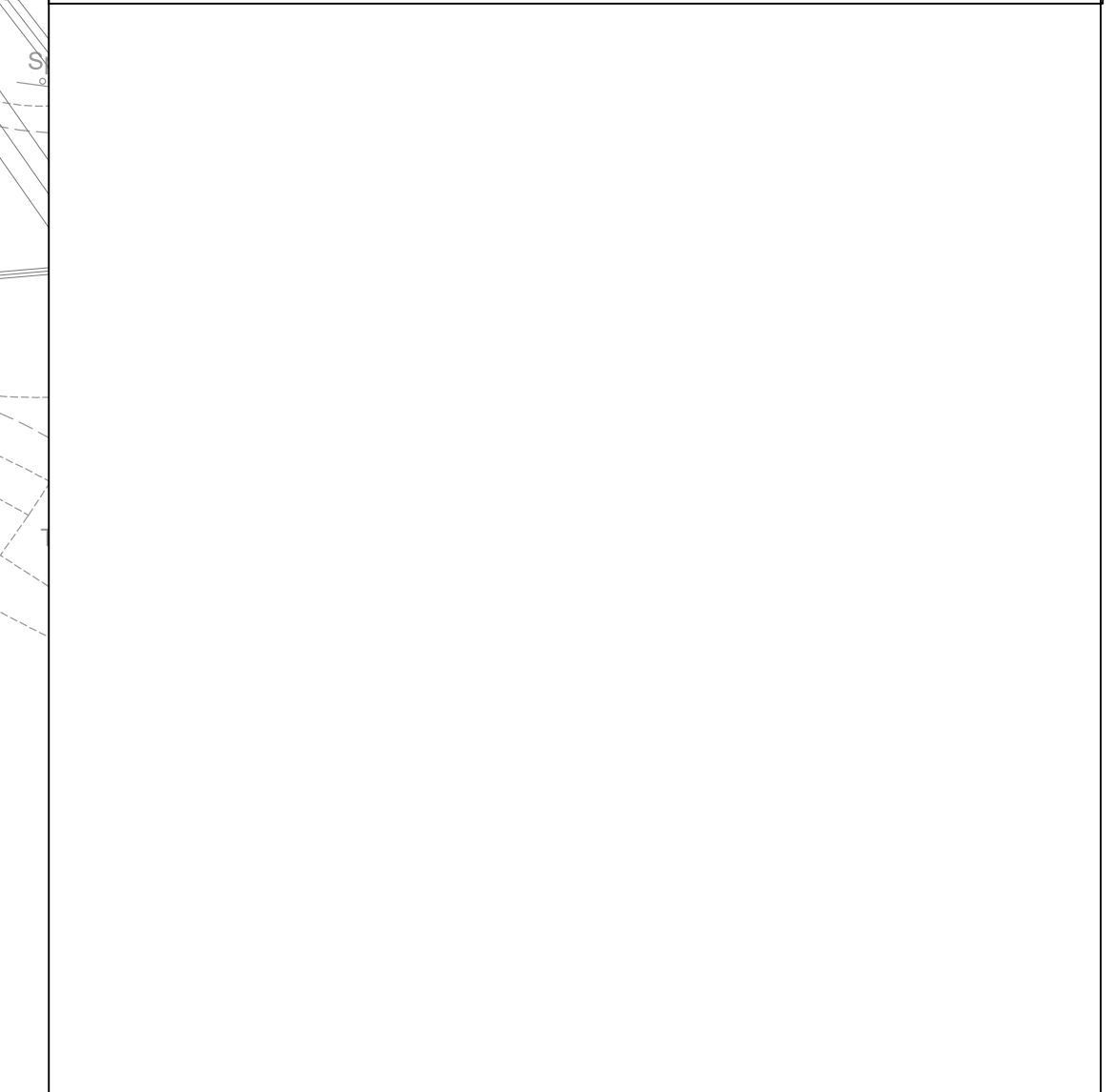
- PROPOSED STORM
- PROPOSED CHANNEL DRAINAGE
- PROPOSED PERMEABLE PAVING
- PROPOSED PERFORATED LAND DRAINAGE
- PROPOSED TUBESIDER ATTENUATION SYSTEM
- PROPOSED FOUL
- PROPOSED LEVELS
- PROPOSED PETROL INTERCEPTOR
- PROPOSED RAIN WATER PIPE - TBC
- PROPOSED SYNPHONIC RAINWATER PIPE - TBC
- PROPOSED SOIL VENT PIPE - TBC

ALL MANHOLES RECEIVING SYNPHONIC FLOW TO HAVE VENTED COVER
 ALL MANHOLES WITHIN AREA OF BLOCK PAVING FINISH TO BE RECESSED
 SRWP, RWP AND SVP POSITIONS TO BE CONFIRMED

EXISTING FOUL PUMPING STATION AND EASEMENT TO REMAIN AND BE PROTECTED

PERMEABLE PAVING FINISH WITHIN AREA OF PUMPING STATION TO BE CONFIRMED BY THAMES WATER

ANY PROPOSALS WITHIN PUMPING STATION IS IN ABYEANCE AND IS TO BE AGREED WITH THAMES WATER AND UK POWER NETWORKS. EASEMENT DETAILED ON DRAWING 12690 / 103



FOR CONSTRUCTION

Rev	Date	Description	By	Chkd
C05	22/04/2021	LAYOUT UPDATED.	JH	G.L.
C04	13/04/2021	AMENDED TO SUIT SITE TEAM COMMENTS.	JH	G.L.
C03	26/03/2021	AMENDED TO SUIT SITE TEAM COMMENTS.	JH	G.L.
C02	24/03/2021	AMENDED TO SUIT SITE TEAM COMMENTS.	JH	G.L.
C01	17/03/2021	AMENDED TO SUIT SITE TEAM COMMENTS.	JH	G.L.
P01	22/02/2021	FIRST ISSUE.	JH	G.L.

Project Title
**PLOT 5000A
 HATFIELD BUSINESS PARK**

Drawing Title
PROPOSED LEVELS & DRAINAGE PLAN

P21001 - BMP - ZZ - ZZ - DR - C - 0104
 Client Project # / Originator Ref / Plot / Level / Info Type / Discipline / Drawing #

Drawn by **J.H.** Checked by **G.L.** Project Engineer **G.L.**

Date **FEB 2021** Scale @ A0 **1 : 250** Project No **12690** Rev **C05**

BAYNHAM MEIKLE
 Consulting Structural & Civil Engineers

8 Meadow Road, Edgbaston, Birmingham B11 8BU
 Tel: 0121 434 4100 Fax: 0121 434 4073 Email: admin@bme.co.uk