

**SURFACE WATER MANHOLE / INSPECTION CHAMBER SCHEDULE**

MH REF	CL	IL	DEPTH	DIA	OPENING	COVER	COMMENTS
S1	83.500	81.250	2250	1800	2/600x600	B125	Hydrobrake 7 l/s + Water Overflow 82.200m
S2	84.100	81.400	2700	1800	600x600	B125	300mm Catchpit
S3	84.100	81.850	2250	1800	600x600	B125	.
S4	83.800	81.950	1650	1800	600x600	D400	.
S5	83.700	82.200	1500	1500	600x600	D400	.
S6	83.700	82.425	1275	1350	600x600	D400	.
S7	83.700	82.225	1475	1200	600x600	D400	300mm Catchpit
S8	84.100	82.450	1650	1200	600x600	B125	.
S9	84.100	83.000	1100	600	600x600	B125	600m Dia. PPHC 150mm Concrete Encased
S10	84.100	82.100	2000	1200	600x600	D400	.
S11	84.100	82.950	1150	1200	600x600	D400	.
S12	83.800	82.125	1675	1200	600x600	D400	300mm Catchpit
S13	83.800	81.975	1825	1200	600x600	D400	300mm Catchpit
S14	83.800	82.350	1450	1200	600x600	D400	300mm Catchpit
S15	83.850	81.725	2125	1350	600x600	B125	.
S16	84.100	82.100	2000	1350	600x600	B125	.
S17	84.100	82.250	1850	1350	600x600	B125	.
S18	84.100	82.425	1675	1200	600x600	B125	.
S19	84.000	82.775	1225	1200	600x600	D400	.
S20	84.000	82.050	1950	1200	600x600	D400	300mm Catchpit
S21	84.150	82.350	1800	1350	600x600	D400	.
S22	84.150	82.500	1650	1350	600x600	D400	.
S23	84.200	82.675	1525	1200	600x600	D400	.
S24	84.300	83.100	1200	600x600	B125	.	
S25	84.200	82.200	2000	1200	600x600	D400	300mm Catchpit
S26	84.200	82.875	1255	1200	600x600	D400	.
S27	83.000	80.950	2050	1800	2/600x600	B125	Hydrobrake 3 l/s + Water Overflow 82.200m

**PERMEABLE PAVING SCHEDULE**

AREA REF	IL	LENGTH	WIDTH	AREA	DEPTH	VOLUME	COMMENTS
AREA 1	83.400 - 83.000	28.0m	16.0m	448m <sup>2</sup>	0.3m	N/A	Perm. paving for water quality treatment only
AREA 2	83.400 - 83.000	28.0m	16.0m	448m <sup>2</sup>	0.3m	N/A	Perm. paving for water quality treatment only
AREA 3	83.400 - 83.000	28.0m	16.0m	448m <sup>2</sup>	0.3m	N/A	Perm. paving for water quality treatment only
AREA 4	83.400 - 83.050	38.0m	32.2m	1150m <sup>2</sup>	0.4m	N/A	Perm. paving for water quality treatment only
AREA 5	83.400 - 83.000	38.0m	16.0m	608m <sup>2</sup>	0.4m	N/A	Perm. paving for water quality treatment only

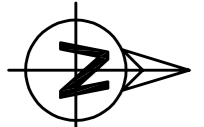
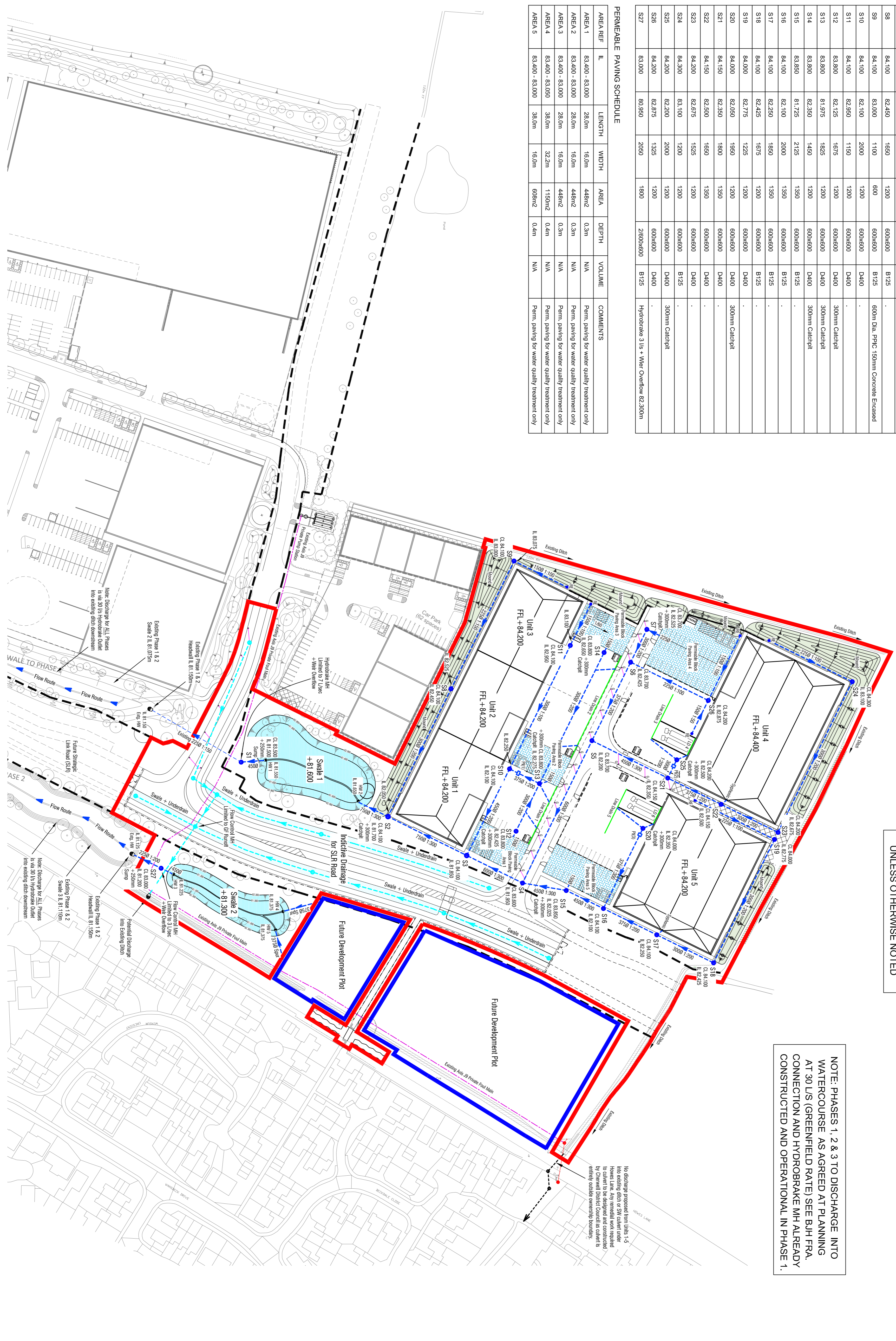
**NOTE: ALL RWP PIPE POSITIONS TO BE AGREED WITH ARCHITECT**

**NOTE: ALL DRAINAGE IS INVERT TO INVERT MANHOLE DESIGN UNLESS OTHERWISE NOTED**

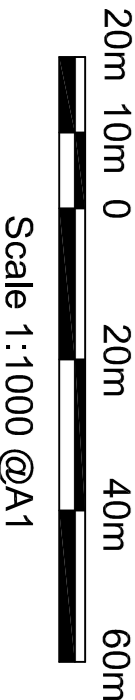
**NOTE: PHASES 1, 2 & 3 TO DISCHARGE INTO WATERCOURSE AS AGREED AT PLANNING AT 30 US (GREENFIELD RATE) SEE B/JH FRA, CONNECTION AND HYDROBRAKE MH ALREADY CONSTRUCTED AND OPERATIONAL IN PHASE 1.**

DRAINED AREAS	STORAGE VOLUMES
WEST - 26,000 m <sup>2</sup>	SWALE 1 - 2,090 m <sup>3</sup>
EAST - 10,000 m <sup>2</sup>	SWALE 2 - 805 m <sup>3</sup>
ROAD - 8,500 m <sup>2</sup>	TOTAL = 2,895 m <sup>3</sup>
TOTAL = 44,500 m <sup>2</sup>	

**MAXIMUM DISCHARGE WESTERN PLOT = 7 l/sec  
MAXIMUM DISCHARGE EASTERN PLOT = 3 l/sec**



**Phase 3 SW Drainage Layout 1:1000**



Scale 1:1000 @A1

**DRAINAGE NOTES**

- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS AND BAILEY JOHNSON HAYES DRAWINGS AND SPECIFICATIONS.
- DRAINS TO BE HERMERTH SUPERSEAL CLASS S APPENDING D. 450 DIA DRAINS AND ABOVE TO BE HERMERTH CONCRETE PIPES CLASS H. OR EQUAL APPROVED DRAINS WITHIN THE SITE MAY BE THERMOPLASTIC STRUCTURED WALL PIPE IN ACCORDANCE WITH CLAUSE E2.2 OF SPA 5th EDITION.
- ALL TRENCHES WITHIN TRAFFICED AREAS TO BE BACKFILLED WITH 75 MM DOWN GRADED STONE FILL, PLACED AND SERVICE YARDS AND CARPARKS LESS THAN 1200 MM DEEP TO BE ENCASED IN CONCRETE. PROVIDE FLEXIBLE JOINTS AT 3 METRE CENTRES.
- MANHOLES TO BE CONSTRUCTED IN PRECAST CONCRETE RINGS TO BS 5911: PART 1. RINGS TO BE BEDDED IN SEALANT STRIPS.
- MANHOLES IN FOOTPATHS OR UNDEVELOPED AREAS TO BE CONSTRUCTED IN LAYERS NOT EXCEEDING 150 MM THICK MANHOLES BENEATH ROADS AND PARKING AREAS TO BE CASED IN 150 MM CONCRETE SURROUND.
- ALL CONNECTIONS TO RAIN WATER PIPES TO BE PROVIDED WITH RODDING ACCESS.
- ALL ROAD GULLIES TO BE HERMERTH ROAD GULLIES, REF BS84 WITH 150 MM DIAMETER OUTLETS. GULLIES TO BE ENCASED IN 150 MM MINIMUM CONCRETE.
- UNDERSIDE OF FLOORSLAB TO BE ENCASED IN 150 MM CONCRETE. DRAINS UNDER FLOORSLAB ARE TO BE PROVIDED AT SPACINGS AS RECOMMENDED BY THE PIPE MANUFACTURER. DRAINS UNDER BUILDINGS GENERALLY TO HAVE MIN 100 FULL GRANULAR SURROUND TO CLASS BS8301
- WHERE PIPES RUN THROUGH GROUND BEAMS, FLEXIBLE JOINT CASINGS AT EACH FACE OF THE GROUND BEAM ARE TO BE PROVIDED. PIPES WHICH RUN UNDER GROUND BEAMS TO BE PROVIDED WITH 150 MM POLYETHYLENE FLEXIBLE JOINT OVER THE CROWN OF THE PIPE.
- ALL WORK TO EXISTING PUBLIC SEWERS TO BE IN ACCORDANCE WITH SEWERS FOR ADOPTION 8TH EDITION AND BS 8301: CODE OF PRACTICE FOR BUILDING DRAINAGE
- WHERE DRAINS RUN CLOSE TO BUILDINGS AND INVERT LEVELS ARE BELOW FOUNDATIONS THE DRAINS SHOULD BE ENCASED AS FOLLOWS:-
  - WHERE THE DRAIN TRENCH IS WITHIN 1M OF THE BUILDING FOUNDATION FORMATION LEVEL, or
  - WHERE THE DRAIN TRENCH IS FURTHER THAN 1M OF THE FOUNDATION FORMATION LEVEL, the trench should be filled with concrete to a level below FOUNDATION FORMATION EQUAL TO THE DISTANCE FROM THE BUILDING LESS 150mm.

**KEY:**

- INDICATES NEW GULLIES
  - INDICATES NEW SURFACE WATER MANHOLES
  - INDICATES NEW PIPE RUNS
  - INDICATES INDICATIVE ROAD DRAINAGE
  - INDICATES LINE DRAIN RUNS
  - INDICATES NEW PERMEABLE PAVING
  - INDICATES NEW SWALE BASINS
- ALL PIPES CONNECTED DIRECTLY INTO GULLIES TO BE 150MM DIAMETER (SHOWN IN MAGENTA ON PLAN)

**TOWN PLANNING**

Rev	Date	Revision Description
H	29.06.22	Boundary Updated
G	13.06.22	Additional indicative SLR drainage
F	22.04.22	Updated to LLFA planning comments
E	07.03.22	Updated to latest planning scheme.
D	07.01.22	Updated to LLFA planning comments
C	02.09.21	Red line planning boundary adjusted
B	23.08.21	Updated to latest Architects layout, pipe sizes added & manholes scheduled

**Axis J9 - Bicester**



**PHASE 3 SW Drainage Layout**

**BAILEY JOHNSON HAYES Consulting Engineers**

ST ALBANS - Suite 4 Phoenix House, 63 Cornfield Rd, ST ALBANS, Herts, AL1 5PL  
 MANCHESTER: George House, 24th Colton Street, MANCHESTER, M2 6JY  
 Scale: 1:1000 @A1  
 Date: 23.06.21  
 Drawing Number: S1209-PH3-02 H  
 Drawn: JNG