DESIGN DATA SHEET No. **3**

DESIGN OF SURFACE WATER STORAGE FACILITY

Project No. **Holbeach 2023**

Site: **Washway Road**
Holbeach
Lincolnshire. PE12 8LT

Client: **Holbeach Holdings LLP**

TITLE: # Design of Swale

Notes: THE SWALE IS DESIGNED TO PROVIDE FOR THE CONTAINMENT OF SURFACE WATER. THE VOLUME IS CALCULATED ON THE BASIS OF 50mm DEPTH OF RAINFALL IN A 24 HR PERIOD OVER THE DEVELOPMENT'S IMPERVIOUS AREAS. IT IS TO ACT AS A BUFFER STORE PRIOR TO THE WATER BEING DISCHARGED TO ANY WATER COURSE AND AT THE AGRICULTURAL RUN-OFF RATE OF 0.00014 l/sec/M2 FOR THE SITE AREA (20 Cusecs / 1000 acres).
IN ADDITION IT IS TO BE CAPABLE OF BEING EVACUATED, AT THE ABOVE RATE, WITHIN A 24 HR PERIOD, ALTERNATIVELY ITS CAPACITY MUST BE SUITABLY INCREASED.

a)	**OVERALL SITE AREA**	**12173.00**	m2
b)	**DISCHARGE RATE** Based upon the Agricultural Run-off Rate of **0.00014 l / sec / m2** (20 cusecs / 1000 acres)	**1.70**	l/sec
c)	**DEVELOPMENT IMPERVIOUS AREAS (total areas)**	**852.00**	m2
d)	**ESTIMATED STORAGE VOLUME OF LAGOON** Based upon a rainfall depth of 0.050 m over the development's impervious areas.	**42.60**	m3
e)	**ESTIMATED TIME TO EMPTY LAGOON**	**25.00**	HOURS**
f)	**REQUIRED TIME TO EMPTY LAGOON**	**24.00**	HOURS
g)	**REVISED STORAGE VOLUME OF LAGOON** ** If the value of e) above exceeds the value of f) then estimated storage capacity is to be increased to = 2d-(24xb)	**44.30**	m3
h)	**Cross sectiona area of swale**	**0.61**	m
I)	**Length of swale**	**72.62**	m2

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