



By Email

Document Reference: 669931-MLM-ZZ-XX-CO-S-0001  
MLM Reference: 669931  
Revision: P01  
Status: S2  
Your Reference:

FAO: Kerry Greeves  
Arup

19th November 2018

Dear Kerry,

### Chapel Down Gin Distillery, Kings Cross: Kitchen Pod Foundation

As our telephone conversations and emails we write to summarise the basis of the structural engineering design undertaken for the Kitchen Pod foundation at the above named development.

Total loading from the Kitchen Pod (336kN) has been taken from the pod supplier's drawing KP18220-LD dated 10/12/18. This load has been used in the design of the raft foundation to establish the bearing pressure acting at the underside of the raft. This pressure has then been spread at 45 degrees down through the supporting soils (ignoring any existing slabs that may further spread the loads) to establish a loaded area at the point the load would first contact the assumed back of the canal wall. At this level, the UDL is approximately 8kN/sqm, which we believe is less load than the canal wall would have been subjected to in the past (10kN/sqm minimum), given that the site was previously a petrol station with a hardstanding that extended up to the back of the canal wall along the majority of the wall length. We also understand that in the location of the Kitchen pod there was previously a car-wash and water recycling tanks.

We trust the above is self-explanatory but please do not hesitate to contact me if further clarification is required.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'James Thomas'.

James Thomas  
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Encs: MLM Loading Plan Sketch



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 Name: Chapel Down Gin Distillery  
 Company Name: MLM Consulting Engineers Ltd

WEIGHT OF POOL = 336 kN

NET INCREASE DUE TO SUN =  $(25-18) \times 0.3 = 2.1 \text{ kN/m}^2$

$\therefore$  NET PRESSURE UP'S RAFT =  $\frac{336}{35} + 2.1 = 11.7 \text{ kN/m}^2 @ 22.8 \text{m AOD}$  AS 13 X 4 = 52M<sup>2</sup>

AND AT BACK OF CANAL WALL,  
 BELOW RAFT =  $\frac{336 + (24 \times 35)}{52} = 8 \text{ kN/m}^2 @ 21.6 \text{m AOD}$

