

Lynnyrd Wolfe

From: Simon Davis
Sent: 11 January 2019 16:14
To: Planning.Responses
Subject: FW: A18237C. Kings Beach Hotel (P/83/18/DOC)
Attachments: Western Catchment.pdf; Eastern Catchment.pdf; A18237-0201-C1 Typical Details-Layout1.pdf; A18237-0200-C3 Drainage Layout-Layout1.pdf; Surfacing check.pdf; Simulation Output.pdf; Porous Surfacing.pdf; HC, Kings Beach, Pagham, Drainage Test, 10 Dec 2018 Reduced File Size.pdf; New BRE Digest 365 soakaway spreadsheet.pdf

Please see Action Sheet

From: Andy Johnson [REDACTED]
Sent: 08 January 2019 13:18
To: Laura Gibbons [REDACTED]
Cc: 'Tom Hall' [REDACTED]
Subject: RE: A18237C. Kings Beach Hotel (P/83/18/DOC)

Laura,

No problem. I used an arbitrary level on the calculations just to get the design done which may have caused some confusion. I have now updated to the correct levels (attached).

Also formation level and cover level shown on the drawing for completeness. I have increased the eastern side to 350mm, the calcs had a typo in which accounts for the error you noted. Many thanks and apologies for that.

Kind Regards,

Engineering Andy Johnson
BSc BEng MEng CEng MICE
Principal Consultant

The Stilwell Partnership

[REDACTED]
[REDACTED] Avenue, Ash Vale, Surrey, GU12 5QE

From: Laura Gibbons [REDACTED]
Sent: 04 January 2019 14:15
To: Andy Johnson [REDACTED]
Cc: 'Tom Hall' [REDACTED]
Subject: RE: A18237C. Kings Beach Hotel (P/83/18/DOC)

Andy,

I do need to see the finish and formation levels specified on the layout plan too.

The calculations do not stipulate the capped depth of stone you state, you have only got invert and cover depths for the storage features. The difference between these is not equal to the depth of stone you stipulate, nor is there any other differentiation between void ratios of the various layers above the stone.

The stone depth required needs to equal or exceed the maximum water depth modelled. Either you model the invert and cover depths so that the difference is equal to the stone you propose, or you model total formation depths and take the maximum water depth calculated as the depth of stone required.

As a further check (which may help demonstrate my point) please ensure the free volume within the stone sub base is equal to or greater than the maximum water volume. If as you state in the eastern catchment you have 250mm of stone, free volume is $10 \times 9 \times 0.3 \times 0.25 = 6.75 \text{ m}^3$, this is less than the maximum volume of water of 10.4 m^3 . Therefore, the depth of stone needs to be increased.

Kind Regards,

Laura Gibbons, MEng, GMICE
Engineer (Drainage & Coastal)

From: Andy Johnson [REDACTED]
Sent: 04 January 2019 13:50
To: Laura Gibbons
Cc: 'Tom Hall'; Simon Davis
Subject: RE: A18237C. Kings Beach Hotel (P/83/18/DOC)

Laura,

Apologies, I just updated that as I had the same request from site. Please find attached.

The dimensions you noted are the overall construction depth. This allows for the topping and sand blinding, the input stone depth in MicroDrainage is capped at 250/350 as required.

Kind Regards,

Engineering Andy Johnson
BSc BEng MEng CEng MICE
Principal Consultant

The Stilwell Partnership

[REDACTED]
[REDACTED] ysons Avenue, Ash Vale, Surrey, GU12 5QE

From: Laura Gibbons [REDACTED]
Sent: 04 January 2019 13:44
To: Andy Johnson [REDACTED]
Cc: 'Tom Hall' [REDACTED]; Simon Davis [REDACTED]
Subject: RE: A18237C. Kings Beach Hotel (P/83/18/DOC)

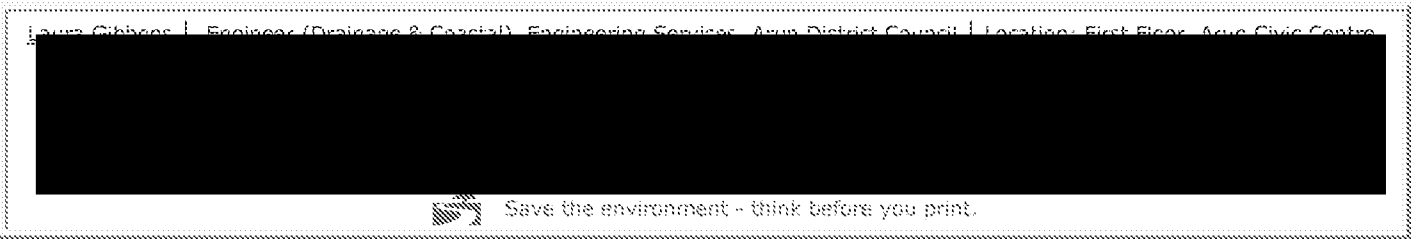
Andy,

The drainage layout submitted doesn't show the permeable paving extents. I don't know if the layer was just switched off or what. However, please ensure extents are shown and that the paving is labelled up with finish and formation level.

The calculations also demonstrate that 390mm stone is required in the west, and 460mm in the east. Please update drawings accordingly.

Kind Regards,

Laura Gibbons, MEng, GMICE
Engineer (Drainage & Coastal)



From: Andy Johnson [REDACTED]
Sent: 02 January 2019 08:17
To: Laura Gibbons
Cc: 'Tom Hall'
Subject: RE: A18237C. Kings Beach Hotel (P/83/18/DOC)

Laura,

Please find attached the updated pack. The system requires 250mm stone in the east side and 350mm stone in the west.

Kind Regards,

For Ing Andy Johnson

BSc BEng MEng CEng MICE
Principal Consultant

The Stilwell Partnership



From: Laura Gibbons <[REDACTED]>
Sent: 21 December 2018 12:26
To: Andy Johnson [REDACTED]
Subject: RE: A18237C. Kings Beach Hotel (P/83/18/DOC)

That's great, then we don't have to wait for a S106 approval either.

Have a good Christmas.

Kind Regards,

Laura Gibbons, MEng, GMICE
Engineer (Drainage & Coastal)



Save the environment - think before you print.

From: Andy Johnson [REDACTED]
Sent: 21 December 2018 12:24
To: Laura Gibbons
Cc: Simon Davis; 'Tom Hall'
Subject: RE: A18237C. Kings Beach Hotel (P/83/18/DOC)

Thanks Laura,

I will do an update to the calculations and drawing to use just the stone for infiltration and increase the depth. This won't be until the new year though.

Have a good Christmas.

Kind Regards,

Enc log *Andy Johnson*

BSc BEng MEng CEng MICE
Principal Consultant

The Stilwell Partnership



From: Laura Gibbons [REDACTED]
Sent: 21 December 2018 12:20
To: Andy Johnson [REDACTED]
Cc: Simon Davis <[REDACTED]>; 'Tom Hall' <[REDACTED]>
Subject: RE: A18237C. Kings Beach Hotel (P/83/18/DOC)

Hi Andy,

We do not require 1m clearance to groundwater, therefore the sub base depth can be increased.

Given the calcs and construction details the total depth could be 0.521m. This still gives nearly 1m clearance to groundwater anyway.

Kind Regards,

Laura Gibbons, MEng, GMICE
Engineer (Drainage & Coastal)



Save the environment - think before you print.