From: Beth Hanson [mailto:beth.hanson@berrys.uk.com]
Sent: 02 December 2016 17:35
To: Atkins, Charlotte
Cc: Ben Corbett
Subject: RE: 162690 - Field Meadow, Hampton Bishop

Charlotte

Please find attached the response from our drainage consultants in response to Parsons Brinckerhoff.

The amended clarified drainage report is also attached. This illustrates that the surface run-off rates will be lower as a result of the development and not increased as previously stated.

Our client is also considering to carry out the infiltration testing in accordance with BRE365.

Please do not hesitate to contact us if you require any further information.

Kind regards,

Beth Hanson
Graduate Surveyor

Berrys
Chartered Surveyors & Valuers • Property & Business Consultants • Chartered Town Planners
Newchurch Farm, Kinnersley, Hereford, Herefordshire, HR3 6QQ
t: 01544 598085 m:07469 851825 e: beth.hanson@berrys.uk.com
Please visit our website: www.berrys.uk.com
Follow Berrys:

From: Atkins, Charlotte [mailto:catkins@herefordshire.gov.uk]
Sent: 29 November 2016 16:10
To: Beth Hanson <beth.hanson@berrys.uk.com>
Subject: RE: 162690 - Field Meadow, Hampton Bishop

Thank you.

Kind regards,

Charlotte Atkins, Acting Principal Planning Officer
Development Management | Herefordshire Council | Council Offices | Plough Lane | Hereford | HR4 0LE

Tel: 01432 260536 | Email: catkins@herefordshire.gov.uk

From: Beth Hanson [mailto:beth.hanson@berrys.uk.com]
Sent: 29 November 2016 15:48
To: Atkins, Charlotte
Cc: Ben Corbett
Subject: RE: 162690 - Field Meadow, Hampton Bishop

Dear Charlotte

We confirm a further extension in time until 2 weeks after the receipt of our response in respect of the land drainage issues.

Kind regards,

Beth Hanson
Graduate Surveyor

Berrys
Chartered Surveyors & Valuers • Property & Business Consultants • Chartered Town Planners
Newchurch Farm, Kinnersley, Hereford, Herefordshire, HR3 6QQ
t: 01544 598085 m:07469 851825 e: beth.hanson@berrys.uk.com
Please visit our website: www.berrys.uk.com
Follow Berrys:

From: Atkins, Charlotte [mailto:catkins@herefordshire.gov.uk]
Sent: 29 November 2016 14:13
To: Beth Hanson <beth.hanson@berrys.uk.com>
Subject: 162690 - Field Meadow, Hampton Bishop

Dear Beth,

Further to our emails below can you confirm agreement to a further extension in time, until 2 weeks after the receipt of your response in respect of the land drainage issue?

Kind regards,

Charlotte Atkins, Acting Principal Planning Officer
Development Management | Herefordshire Council | Council Offices | Plough Lane | Hereford | HR4 0LE

Tel: 01432 260536 | Email: catkins@herefordshire.gov.uk

From: Beth Hanson [mailto:beth.hanson@berrys.uk.com]
Sent: 22 November 2016 16:43
To: Atkins, Charlotte
Cc: Ben Corbett
Subject: RE: 162690 Field Meadow, Hampton Bishop, Hereford, Herefordshire HR1 4JP

Charlotte

Many thanks for forwarding the response from Parsons Brinckerhoff. We are liaising with our drainage consultant to resolve the issues and will report back to you ASAP so that we can move forward with this application.

Kind regards,

Beth Hanson
Graduate Surveyor

Berrys
Chartered Surveyors & Valuers • Property & Business Consultants • Chartered Town Planners
Newchurch Farm, Kinnersley, Hereford, Herefordshire, HR3 6QQ
t: 01544 598085 m:07469 851825 e: beth.hanson@berrys.uk.com
Please visit our website: www.berrys.uk.com
Follow Berrys:

From: Atkins, Charlotte [mailto:catkins@herefordshire.gov.uk]
Sent: 21 November 2016 12:56
To: Beth Hanson <beth.hanson@berrys.uk.com>
Subject: 162690 Field Meadow, Hampton Bishop, Hereford, Herefordshire HR1 4JP

Dear Beth,

I have received the attached consultation response from the Land Drainage Engineer. It advises that a clear drainage strategy has not been provided and recommends that it is before granting permission. It is suggested that, given the size of the site, that a viable solution could be implemented – but good practice (and maintaining a consistent approach) should require this to be provided prior to granting permission.

I look forward to hearing from you shortly and receiving the required drainage strategy to enable us to move forward positively.

Kind regards,

Charlotte Atkins, Acting Principal Planning Officer
Development Management | Herefordshire Council | Council Offices | Plough Lane | Hereford | HR4 0LE

Tel: 01432 260536 | Email: catkins@herefordshire.gov.uk

Field House Farm Surface Water Drainage

Hydrogeo Comments (red text) 29/11/16

The Applicant has summarised the proposed surface water management strategy within the FRA.

The Applicant has considered the SuDS hierarchy that promotes the use of infiltration features in the first instance. Review of baseline data indicates that the use of infiltration features is unlikely to offer a viable solution to surface water discharge, and therefore the Applicant proposes to discharge surface water to the adjacent watercourse to the west of the site. The FRA recommends that on-site testing of the ground's permeability should be undertaken and we agree with this proposal – noting that should infiltration testing indicate soils with a higher permeability than currently assumed, the use of infiltration techniques should be maximised as far as possible. If infiltration is proved to not be a viable solution, we agree with the Applicant's proposal to discharge to the watercourse to the west of the site. The Applicant's FRA states that this is the current method used to drain surface water runoff from the existing site. – due to the close proximity of the site to the River Wye and adjacent drainage ditch it is highly likely that shallow groundwater levels will prohibit the use of infiltration devices such as soakaways. Also, the lack of suitable space for infiltration devices will further prohibit their use.

It also would be impractical to use infiltration methods as the development of the site will lead to a reduction in runoff rates. The proposed development incorporates aspects of sustainable drainage design by including a reduction in the area of impermeable surfaces from the existing to the proposed development with the introduction semi-permeable surfaces underneath the proposed containers units and the semi-permeable hardstanding areas.

The submitted FRA states that "*the pre-developed site is constructed from 0.21ha (100%) of permeable surfaces with 0.00ha (0%) permeable surfaces*" and that "*the post-developed site will be constructed from 0.21ha (100%) of permeable surfaces with 0.00ha (0%) permeable surfaces*". However, the submitted FRA goes on to state that some of the surfaces within the site will be constructed of semi-permeable materials and, as such, the rate and volume of surface water runoff will be less. – The roof area of the container units will be impermeable however, the area underneath the containers units and the roadways will be constructed from semi-permeable surfaces, this is explained further within the updated FRA.

The submitted FRA also provides pre-development and post-development runoff rates within Table 5.2, but this table highlights that the post-development runoff rates during the future 1 in 100 annual probability + 20% CC allowance to be greater than the pre-development present-day and future scenario runoff rates.

The FRA is therefore confusing and we recommend that the proposed drainage strategy is clarified prior to granting approval. We stress that the strategy must demonstrate that there is no increased risk of flooding to the site or downstream of the site as a result of development between the 1 in 1 year event and up to the 1 in 100 year event and allowing for the potential effects of climate change, and that appropriate betterment over existing conditions is promoted where possible. – The FRA confirms that the surface water runoff rates and volumes will be reduced post-application compared to pre-application for the 1 in 1 year up to the 1 in 100 year event.

Allowances for climate change would not typically be included in the calculation of existing discharge rates and attenuation requirements, i.e. discharge should be restricted to (at minimum) current discharge

rates rather than future discharge rates. – Climate change allowances can be included in the existing discharge rates and can be used to show the impact of a proposed development on runoff rates including climate change allowances. There is no mention of restricting to future or proposed discharge rates within the FRA.

The assessment of pre and post-development runoff rates should consider a range of storm durations to determine those which are critical for the site and receiving watercourse or sewer and demonstrate sufficient storage has been provided. - This has been included within the updated FRA. It would be impractical to use formal attenuation storage when the proposed development will increase the permeable surfaces on the site and therefore, surface water runoff rates and volumes.

The Applicant should also consider the risk of water backing up and/or not being able to discharge during periods of high river levels in the receiving watercourse. - The reduction in surface water runoff rates and volumes will also reduce the risk of water backing up and/or not being able to discharge during periods of high river levels in the receiving watercourse.

It also would be impractical to use formal SUDS features as the development of the site will lead to a reduction in surface water runoff rates and volumes. The reduction in surface water runoff rates and volumes will also reduce the risk of water backing up and/or not being able to discharge during periods of high river levels in the receiving watercourse. It will be most sustainable to re-use the existing connection to the drainage ditch.