

Cerys Jones

From: Philip Forster
Sent: 09 December 2016 10:18
To: planning_admin
Subject: FW: P/2016/1011 - Packsadlle (RBA Ref:5009)

Flood officer response

From: Rhion Williams [mailto:rhion.williams@rba.ltd.uk]
Sent: 07 December 2016 16:05
To: Neil Taunt; Philip Forster
Cc: 'Michael Forgrave'
Subject: RE: P/2016/1011 - Packsadlle (RBA Ref:5009)

Philip, Neil

Further to the comments contained in the email below we advise that the proposed flood storage areas are not integral to the function of the highway surface water drainage system, they are required to cater for exceedence events ie in excess of that *required* for the design of positive highway drainage systems and highway soakaways. If these areas and provisions were not incorporated then excess surface water would discharge onto Wrexham Road as is the case for the existing access road / drive.

Maintenance of all of the communal landscaped areas is to be undertaken by a Management Company. Further detail can be provided by my Client if required.

My previous emails detail our response regarding the alteration to levels in this area which, despite NRW flood mapping should not constitute part of the flood plain as it's elevation is above that of Wrexham Road, the site entrance, the gap in the wall (flood water route) and the neighbouring site to the west.

I trust that the above is self explanatory. If you wish to discuss this matter please get in touch.

Regards

Rhion Williams

for **RBA LTD | CONSULTING CIVIL & STRUCTURAL ENGINEERS**

26 Mostyn Road, Colwyn Bay, Conwy LL29 8PB ☎ 01492 533117 ✉ admin@rba.ltd.uk 🌐 www.rba.ltd.uk

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From: Neil Taunt [mailto:Neil.Taunt@wrexham.gov.uk]
Sent: 07 December 2016 12:56
To: Philip Forster
Cc: 'Michael Forgrave'; Rhion Williams; Peter Douthwaite
Subject: RE: P/2016/1011 - Packsadlle (RBA Ref:5009)

Hi Phil,

I have reviewed the submitted information in conjunction with the previously submitted soakaway calculations. In principle the proposed scheme would satisfy our standard requirements to manage surface waters generated by new impermeable surfaces. I do have concerns with regards to the excess surface water flood storage areas that appear to be required to manage surface waters generated by the access road, with a small contribution from a few private driveways. It would appear that these storage areas are integral to the function of the highway drainage system. I understand that the highway network will be put forward for adoption.

Prior to providing comment on the discharge of condition I would request that additional information is submitted detailing the proposals for future management of these storage areas? As these areas would most likely fall outside of the adoptable highway extent there would need to be an appropriate management system in place.

I would also recommend that NRW are re-consulted to ensure they have no concerns with regards to any elevation changes in the areas to the far south of the site that falls into the floodplain of the neighbouring watercourse.

If you have any further questions then please let me know.

Many thanks

Neil

Neil Taunt MCIWEM C.WEM CEnv CSci

Uwch Swyddog Rheoli Llifogydd / Senior Flood Management Officer



01978 729734

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From: Rhion Williams [<mailto:rhion.williams@rba.ltd.uk>]

Sent: 02 December 2016 17:17

To: Philip Forster

Cc: 'Michael Forgrave'; Neil Taunt

Subject: FW: P/2016/1011 - Packsadlle (RBA Ref:5009)

Importance: High

Philip

Further to your email of 21 November please find attached the following documentation for your attention:

- Drawing No 5009/105: Excess Flood Water Storage Areas
- Calculation sheet 5009/FS 1
- Parry Davies Drawing 15.5614/8 submitted as part of this application

With reference to your Neil Taunt's comments in his email below (now numbered) we respond as follows:

- 1 No supporting calculations have been submitted to justify the sizing of soakaways that are proposed extensively across, or that adequate storage is provided to manage surface waters generated to our normal requirements.

We understand that our calculations for both the domestic geocellular soakaways and highway soakaways have been submitted to your Council by our Client. These calculations detail the impermeable areas draining to each soakaway including the anticipated excess flood water generated for exceedence events over and above that provided for in the soakaway (design to 1 in 30 year event). The calculations also detail the additional volume of storage provided in the soakaway including associated catch pits and pipework where appropriate.

- 2 3 areas are identified as excess flood storage areas. There is no indication of the volume of storage required to manage the design flood event. This should be submitted along with landscaping detail where appropriate. The source of these waters should also be identified. It would appear that the storage areas are all connected to the highway drainage system. As such are they only present to cater for highway drainage excess or the entire development site excess? This could be contrary to our normal highway adoption criteria.

Drawing 5009/105 shows the areas within domestic gardens which are to be laid low and flat to provide above ground storage for more severe events in excess of the 1 in 30 year event used in the design. The associated volumes of storage provided are based on 80% of these areas at a depth of between 50 and 75mm which is considered to be conservative.

The attached calculation sheet demonstrates that the volumes of storage provided are in excess of that required for a 1 in 100 year event plus a 30% allowance for climate change.

The attached calculation sheet also includes the volumes of storage provided for in the designated excess surface water run-off / flood water storage areas which are present to cater principally for the proposed access road which have been altered since our previous submission to include level and landscaping information.

These areas denoted in darker blue on the drawing are set lower than the back of proposed footway and gully levels at the ramps so that excess surface water run-off is directed off the highway and into the lower lying storage area to infiltrate into the ground over a relatively short period of time.

Due to the topography of these areas some excavation is required with surrounding embankments / bunds (where necessary) to provide flat contained areas to store the flood water to a depth of between 100 and 160mm. 80% of the area available is used in the calculation of the volumes of storage provided (as detailed on the calculation sheet) with a 30% allowance for climate change used to calculate the required storage volumes. Similarly the areas are assumed to be 'glass walled' and no additional allowance has been made for the increase in storage up the embankments. These volumes are therefore considered to be conservative and are demonstrated to be in excess of that required in all four cases.

Due to the topography of the site several private drives fall towards the highway. ACO channels or similar are included to intercept surface water and discharge to soakaways however in exceedance events it is not possible to intercept all of the surface water. For the design of these storage areas the excess run-off not catered for in the domestic soakaways to these areas has been included in the design and calculation of total storage volume required.

- 3 Of more significant concern is that one of these areas appears to be outside of the development boundary, with no indication of ownership or feasibility of being able to provide the attenuation volume here.

Please note the site boundary shown in red on Parry Davies Architects drawing 15.5614/8 which extends up to the Packsaddle Brook and field boundary and contains all of the proposed earthworks to create the proposed excess surface water run-off / flood water storage areas. This drawing is as submitted to your Council as planning Authority and present on the planning portal website.

I trust that the attached documentation is sufficient for your purposes. If you wish to discuss this matter please do not hesitate to contact us.

Regards

Rhion Williams

for **RBA LTD** | CONSULTING CIVIL & STRUCTURAL ENGINEERS

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From: Michael Forgrave [<mailto:michael.forgrove@gowerhomes.co.uk>]
Sent: 21 November 2016 19:06
To: Rhion Williams
Subject: FW: P/2016/1011 - Packsadlle

Rhion,
See below Neil Taunt's comments on the drainage design.
Please respond accordingly.
Mike.

Michael Forgrave Managing director

michael.forgrove@gowerhomes.co.uk

Tel: 01978 291 364

www.gowerhomes.co.uk

8 Temple Row | Wrexham | LL13 8LY



Take a look at our new look website www.gowerhomes.co.uk featuring our current and upcoming developments

From: Philip Forster [<mailto:Philip.Forster@wrexham.gov.uk>]
Sent: 21 November 2016 15:44
To: Michael Forgrave <michael.forgrove@gowerhomes.co.uk>
Subject: FW: P/2016/1011 - Packsadlle

Dear Mike,

I've had this response back from our own flood officer on the proposed surface water drainage scheme. Are you able to pass back to your consultants for comment?

Regards

Phil

Philip Forster

Swyddog Cynllunio/Planning Officer

Rheoli Datblygu /Development Control



01978 298786



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From: Neil Taunt
Sent: 21 November 2016 15:42

To: Philip Forster
Cc: Peter Douthwaite
Subject: RE: P/2016/1011 - Packsadlle

Hi Phil,

I've had a look at the submitted information in relation to the discharge of condition 8 and 9 and have the following comments:

- 4 No supporting calculations have been submitted to justify the sizing of soakaways that are proposed extensively across, or that adequate storage is provided to manage surface waters generated to our normal requirements.
- 5 3 areas are identified as excess flood storage areas. There is no indication of the volume of storage required to manage the design flood event. This should be submitted along with landscaping detail where appropriate. The source of these waters should also be identified. It would appear that the storage areas are all connected to the highway drainage system. As such are they only present to cater for highway drainage excess or the entire development site excess? This could be contrary to our normal highway adoption criteria.
- 6 Of more significant concern is that one of these areas appears to be outside of the development boundary, with no indication of ownership or feasibility of being able to provide the attenuation volume here.

The above information is required prior to being in a position to recommend discharge or otherwise of the conditions.

If you have any further questions please let me know.

Many thanks

Neil

Neil Taunt MCIWEM C.WEM CEnv CSci

Senior Flood Management Officer / Uwch Swyddog Rheoli Llifogydd



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Environment & Planning, Wrexham County Borough Council, Abbey Road South, Wrexham Industrial Estate, Wrexham LL13 9PW



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From: Philip Forster

Sent: 18 November 2016 15:22

To: Neil Taunt

Subject: P/2016/1011 - Packsadlle

Hello Neil,

Sorry, admin error with this application. Can you have a look at the detail submitted under the above reference. There is a comprehensive drainage scheme submitted for your consideration. Can you take this as a formal consultaion?

Thanks

Phil

Philip Forster



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