

## **BROADLAND HOUSING PROPOSED DEVELOPMENT AT CORPUSTY**

### **PARISH COUNCIL AGENDA 16 NOVEMBER 2021 ITEM 12: BROADLAND HOUSING ASSOCIATION MATTERS**

REPORT OF AN INFORMAL WORKING PARTY MEETING HELD ON 11 NOVEMBER 2021 TO EXPLORE AND COMMENT ON HYDROLOGY ASSOCIATED WITH THE PROPOSED DEVELOPMENT

#### **A. IN ATTENDANCE:**

1. Tony Barnett, Corpusty and Saxthorpe Parish Councillor, BA (Hons), MA (Econ), PhD
2. Andrew Brown, BA (Hons) Law and Psychology, Solicitor, District Councillor, North Norfolk District Council, Parish Councillor, Corpusty and Saxthorpe Parish Council, Chair of the Planning Policy & Built Heritage Working Party, Member of the Development Committee.
3. Simon Waller, MSc, Water Resource Systems Engineering and Saxthorpe resident.
4. Emeritus Professor Bruce Lankford, BA (Soil Science), MSc (Irrigation), PhD (Irrigation Design and Management).

**NOTE:** Professor Lankford (a former colleague of Tony Barnett) attended this meeting in a purely private capacity and his comments and opinions reported here do not constitute a professional opinion in any sense that he accepts responsibility as a consultancy. He did not request and was not paid a fee of any kind and participated on a *pro bono* basis. The other members of this informal working party offer their opinions in a private capacity and/or as members of the parish or other councils. Simon Waller provided attended as a private citizen, member of the local community and provided his advice and expertise on a *pro bono* basis.

#### **B. DOCUMENTATION AND PURPOSE**

1. The working party had as its brief to consider critically the methods and conclusions of the Rossi Long Report provided by Broadland Housing Association.
2. The working party had to hand the following documents:
  - i. Rossi Long Consulting Flood Risk Assessment / Drainage Strategy Residential Development Land off Norwich Road Corpusty Norfolk RLC Ref: 191238 February 2021
  - ii. Appendix D of the above Flood Risk Assessment – Anglian Water Mapping
  - iii. Report by Ms Jill Scott-Bisset, Design Engineer and Corpusty Resident which consisted of an email dated 21/10/21 with comments and a spread sheet calculating the relationship between run off from the proposed development and the wetland area designed to accommodate and control run off from the proposed development.
3. The working party undertook a site visit examining a number of locations associated with the Bure valley as it runs through the villages and also the proposed development site.
4. Subsequent to the meeting which lasted from 1100 until 1500, Professor Lankford submitted a brief note of some questions that he considered the Parish Council might be advised to address to BHA and through them to Rossi Long for clarification of the reports detailed above. These questions appear in the next section.

### C. QUESTIONS TO FOLLOW UP WITH ROSSI LONG

1. To confirm the rainfall amount and intensity that represents the 1% probability rainfall event being used to design the pond and reedbed.
2. To confirm that their design will meet the likelihood of future climate change that very likely might involve drought followed by a series of intense rainfalls bunched together, with each rainfall delivering between 75 and 175 mm with intervals of only a day or two.
3. To confirm the reedbed will function as a flood attenuator by being filled during a high rainfall event.
  - i. If this is confirmed who/what/when would ensure that the reedbed is returned to its dead / partial storage so that it is ready to be filled again? In other words what hydraulic structures and mechanisms will drain down the reedbed after it has been filled? Would this draining down be automatic or would it require human intervention?
4. To cross check question C2 (above) and clarify whether it is envisaged that the reedbed could be expected to remain full in between rainfall events and if so whether it can then can be surmised that a small rainfall event will refill the reedbed.
5. To confirm in relation to the above at what level of rainfall intensity will the reedbed fill and discharge to the river?
6. To confirm that in the absence of on-going and careful human intervention, how will the small pond (“proposed pond” shown in the NW quadrant of the Diagram “Foul and Surface Water Drainage Strategy”, Drawn EJK, Date 03/02/21, Project # 1911238, Drawing # C-001 Rev P1) and reedbed be designed to ensure maintenance-free functioning over the long term?
7. To confirm the exact x, z, z location and dimensions of the reedbed. In doing so then to:
  - i. confirm the bunds of the reedbed will not act to hold back water drainage moving parallel to the river at the high-water flood events which in turn might back-up and flood houses located close to the high-water mark on the floodplain.