My comments on the original manuscript were focused on two main perceived issues: the use of a square lattice and the achievement of the angle of repose. On the first of these points the authors have given a detailed explanation as to:

1) Why they believe that changing the (height) aspect ratio of grid cells would not have a significant impact on the results
2) The amount of additional work that would be required to do so.

On the first of these points, I am willing to accept the authors' argument that the basal shear stress distribution (which is the key determinant of migration rate) would not be significantly impacted by changing the aspect ratio. The authors do concede that there would be some changes "but may require to change the distance over which the shear stress is computed" but that the fundamental presence of a equilibrium distance would not be changed. This may well be the case, and given the authors' explanation of the amount of additional work that would be required to change the aspect ratio, I am satisfied with this.

On the second main concern I raised, pertaining to the angle of repose, the authors have included additional text explaining that the local slope is calculated over five cells which does resolve the issue I had. Although I still have some queries listed below.

Aside from these, the authors have taken on board all of my other comments and made appropriate changes to the manuscript. The article has been improved under the revision remains well-written and presented and I believe it will interest many in the community. Therefore, with some minor changes, I would recommend publication.

Specific suggestions:

Line 99 – The authors have included additional description of how the slope is calculated over more than one cell – thus enabling a more accurate angle of repose to be imposed. The authors state that this was done in Zhang et al. (2014) however I cannot find this in the text of that article (perhaps I am missing something?). The other reference (Gao et al. (2016)) does include a specific statement of this rule in its Supplementary Material. I don't believe that it is stated in either of the sources why the choice was made to calculate over this particular number of cells – but this is only a very minor point.

The methods section should include a short version (a sentence or two) of the argument that the aspect ratio of cells should not impact the mechanisms this work describes.