



Vision | DESIGN | Group  
Engineering Consultancy

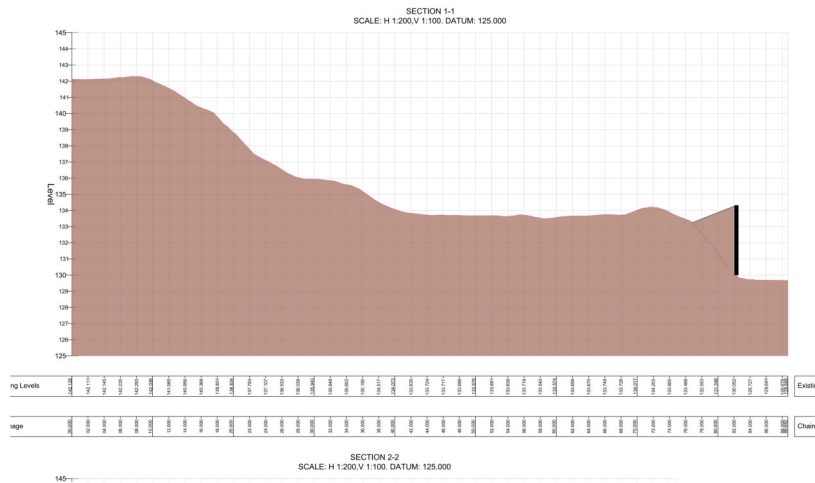
Ref: VDG/RP/121

14 October 2023

EGMONT STREET  
MOSSLEY

### SLOPE STABILITY ASSESSMENT

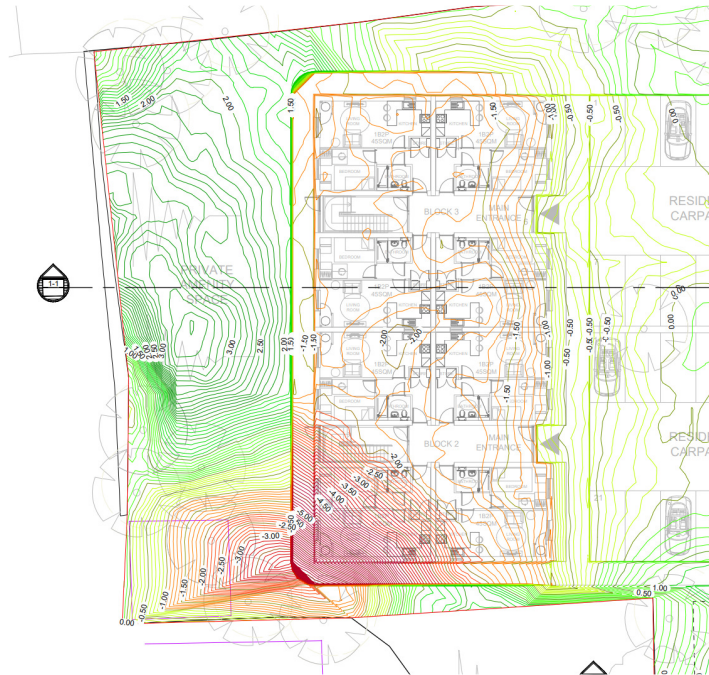
On Request from Bridewater Land and Development, we have conducted a high-level slope stability assessment for the embankment located to the east of the site, behind blocks 1, 2, and 3, extending to Bury Street. To establish existing ground elevations, we utilized Lidar data due to the dense vegetation on the site. The analysis of the existing ground levels indicates a slope steeper than 1:3.



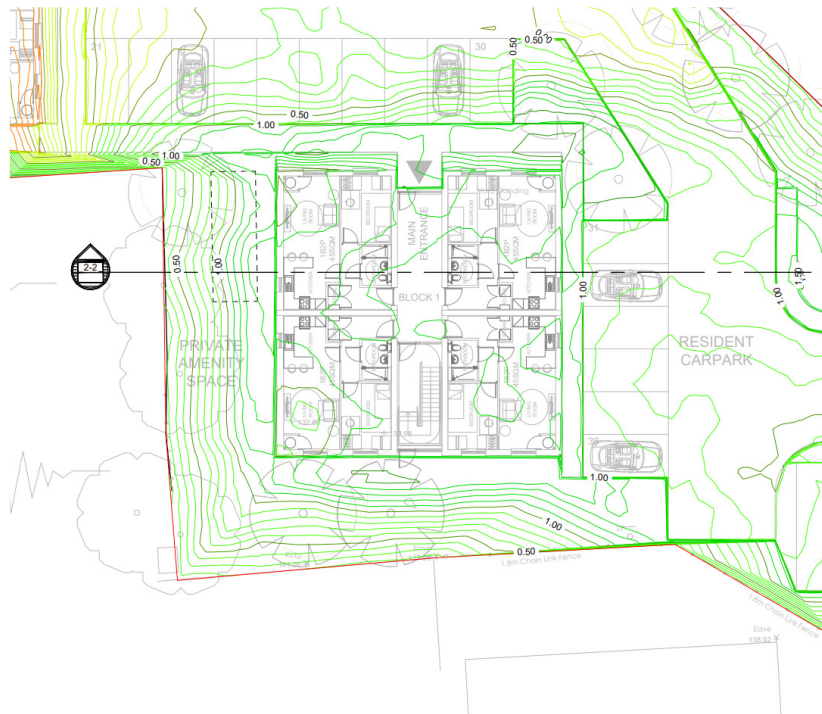
The proposed elevation changes extending up to Bury Street will maintain a maximum slope of 1:3. Such a gradient can effectively support its natural profile, especially when covered with grass. The retaining wall intended for blocks 1 and 2 will serve as a stabilizing element against the lateral forces arising from soil and potential groundwater. Notably, the proposed elevation adjustments in the vicinity of blocks 2 and 3 will mitigate the steepness of the existing slope, enhancing overall stability. To implement this plan, a sequential approach will be necessary, starting with the construction of the retaining wall, followed by the earthworks operation.



Vision | DESIGN | Group  
Engineering Consultancy



**Block 2 & 3- Cut and Fill**



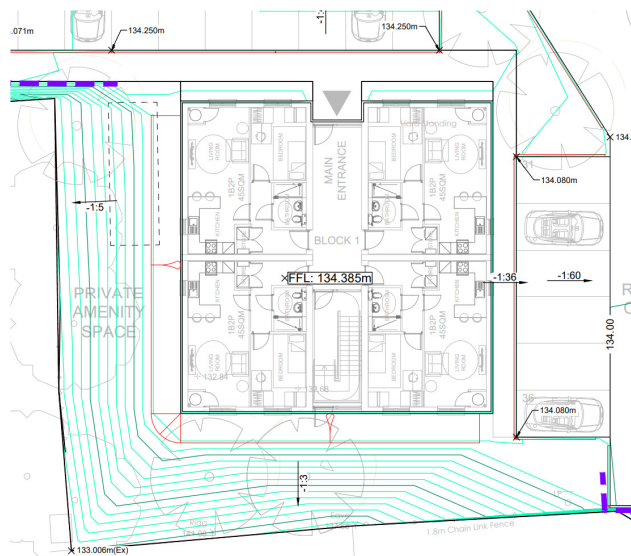
**Block 1- Cut and Fill**



Vision | DESIGN | Group  
Engineering Consultancy



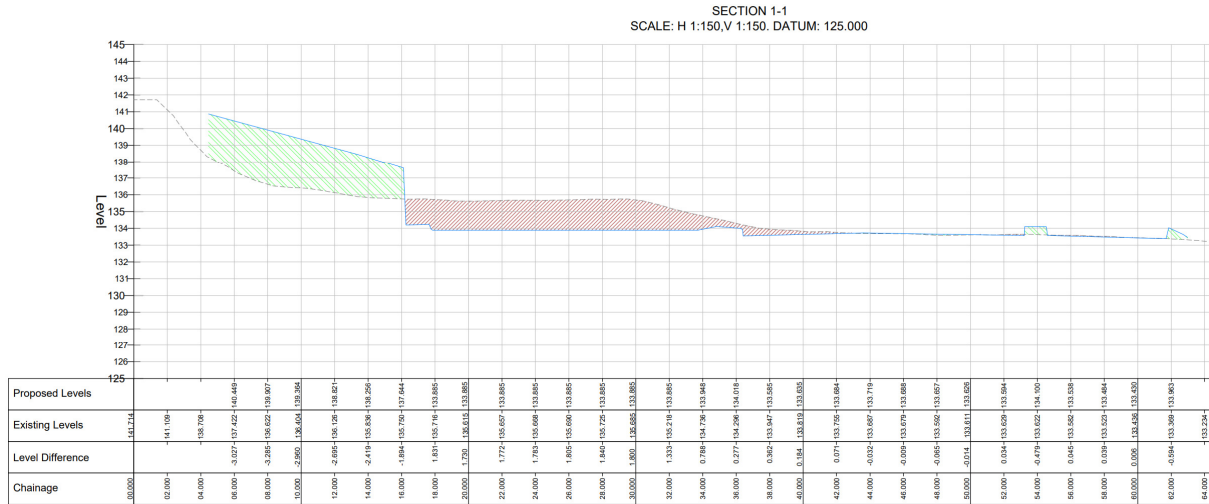
**Proposed Levels block 2 & 3**



**Proposed Levels block 1**

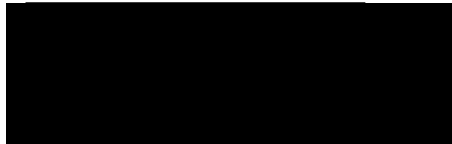


Vision | DESIGN | Group  
Engineering Consultancy



Given that the slopes and elevations in the development area do not exceed a 1:3 gradient, there will be no need for significant earth re-engineering. As a next step, we can delve into a comprehensive site investigation report and conduct a more thorough examination of the cut and fill earthworks process.

Yours sincerely



**Mark Walsh BEng(Hons) MSc CEng MIstructE**  
Director