

Hydraulic and energy grade lines

Engineering Fluid Mechanics

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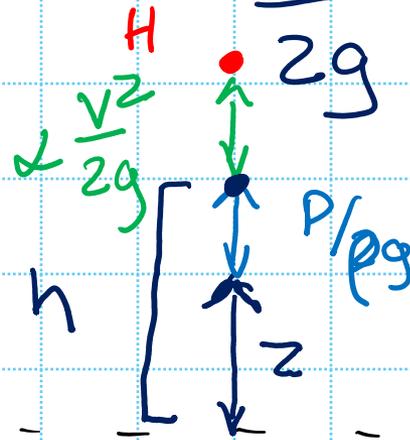
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$$\text{TOTAL HEAD (H)} = \frac{P}{\rho g} + \alpha \frac{v^2}{2g} + z$$

$$\text{HYDRAULIC HEAD (h)} = \frac{P}{\rho g} + z$$

$$H - h = \alpha \frac{v^2}{2g}$$

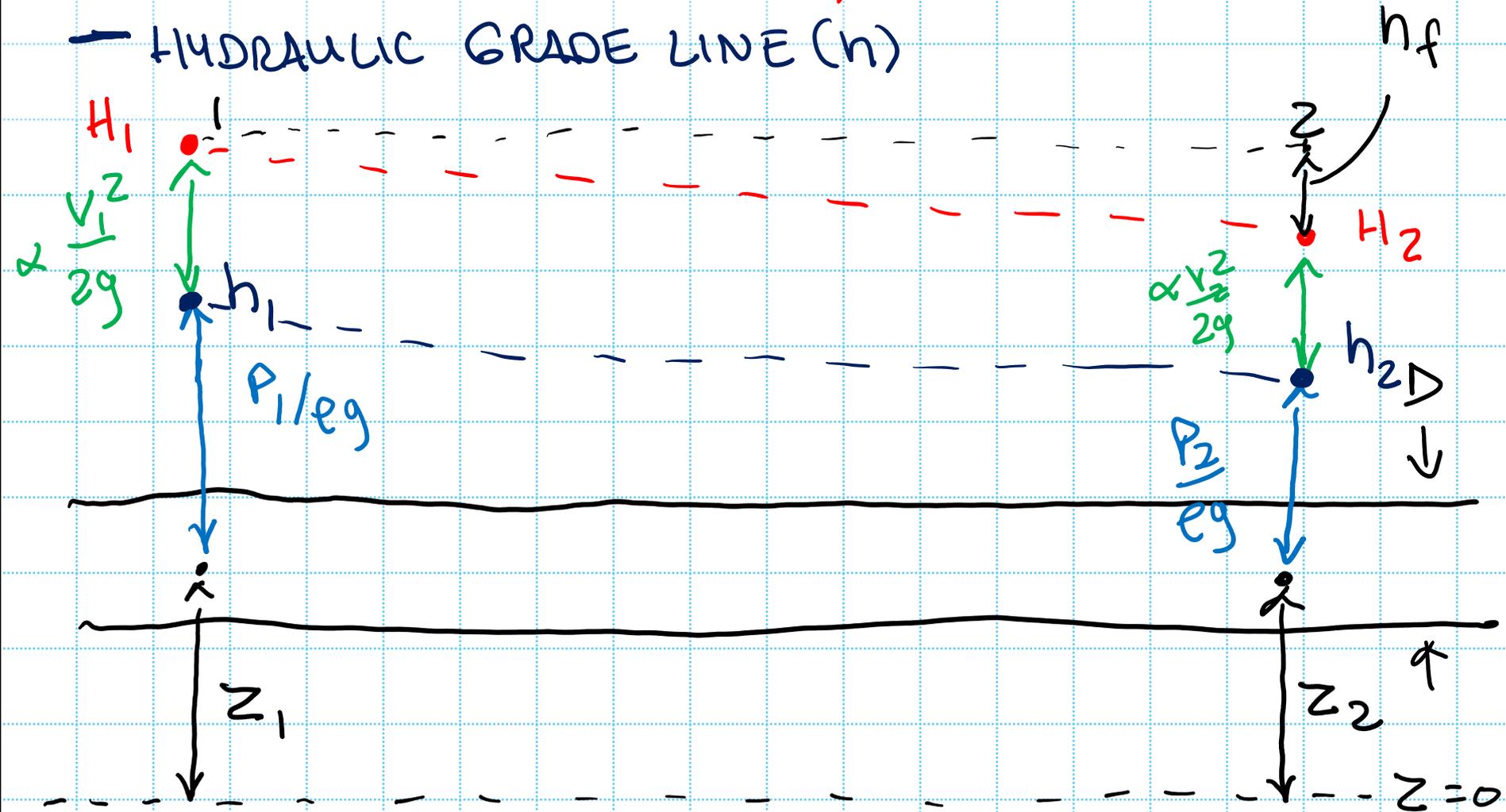


Hydraulic Head and Total Head

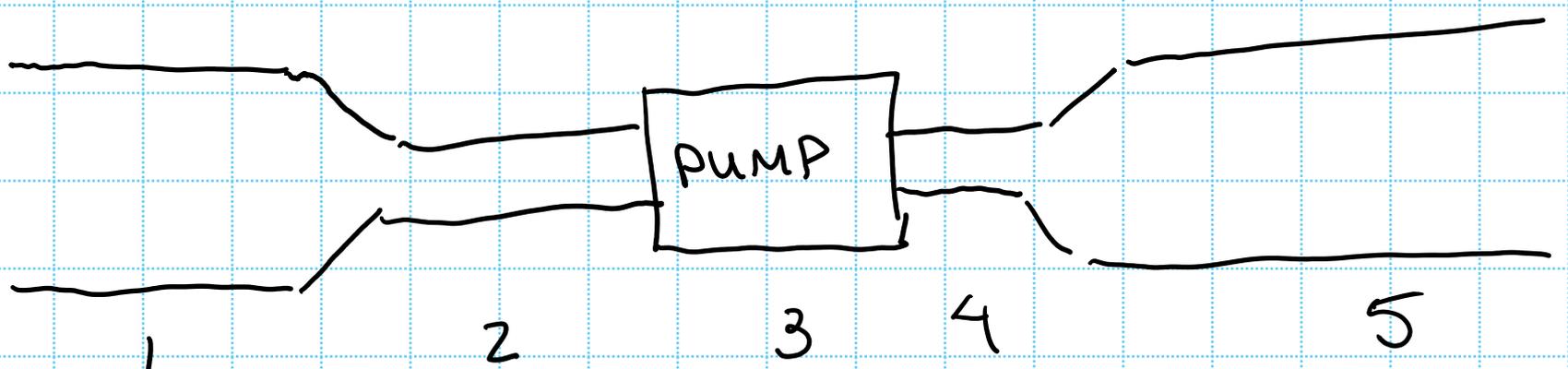
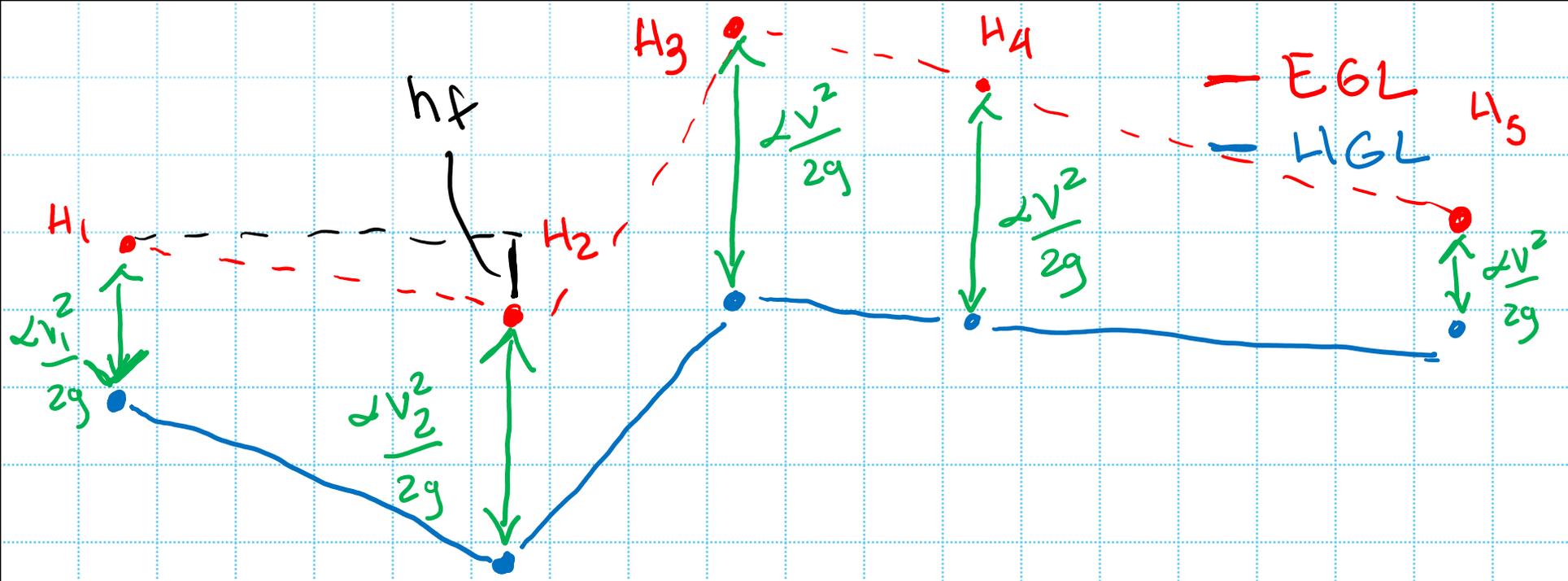


— ENERGY GRADE LINE (H)

— HYDRAULIC GRADE LINE (h)



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Acknowledgement

This material is based upon work partially supported by the National Science Foundation under Grant# 2335802. Any opinions, findings, and conclusions, or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.





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THE END



Video credit: Kelly Kibler, Mosquito Lagoon, Volusia County, FL