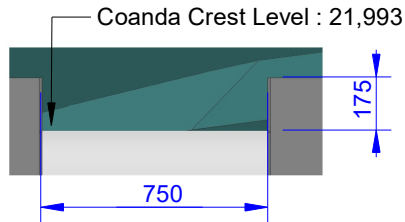


# Stephen Cochrane Intake : Front Elevation and Calculations

**Detail B**

Coanda crest  
Scale 1:25



## Hands-off-flow

Calculation of flow over rectangular broad notch in rock:

Discharge coefficient,  $C_d = 1.6$

Notch depth,  $h = 0.189\text{m}$

Notch width,  $w = 0.321\text{m}$

$$Q = C_d * w * h^{1.5}$$

$$= 1.6 * 0.321 * 0.189^{1.5}$$

$$= 0.0422 \text{ m}^3 / \text{sec}$$

$$= 42.2 \text{ lps}$$

## Take

Total Crest Width :  $750\text{mm} + 321\text{mm} = 1071\text{mm}$

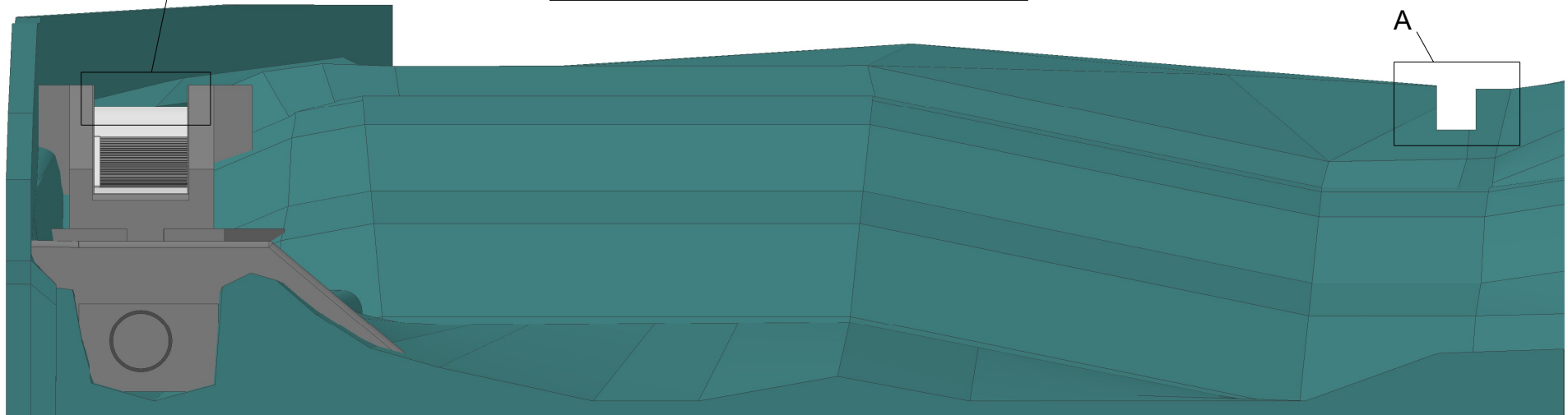
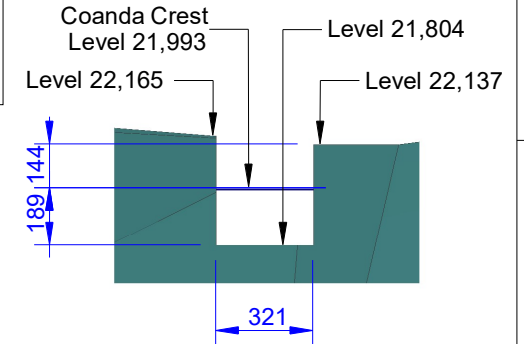
Screen Width :  $750\text{mm}$

Take :  $750/1071 = 70\%$

Notch overall depth provides 144mm flow depth over Coanda crest required for design flow through screen

**Detail A**

Compensation Notch  
Chiselled from existing weir's stone slab  
Scale 1 : 25



All levels relative to Newlyn. All dimensions in mm.

Client : Stephen Cochrane  
Address : Glandwr Mill  
Gwynedd, LL42 1TG

Drawn By : MJP

Date : 27/07/21  
Scale : 1 : 50 @ A4  
Drawing No : 21072701  
Version : 3

Revision Details  
v2 : Levels added  
v3 : HOF notch construction  
clarified: Does not cut  
into bedrock

**Greenearth  
Hydro**

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