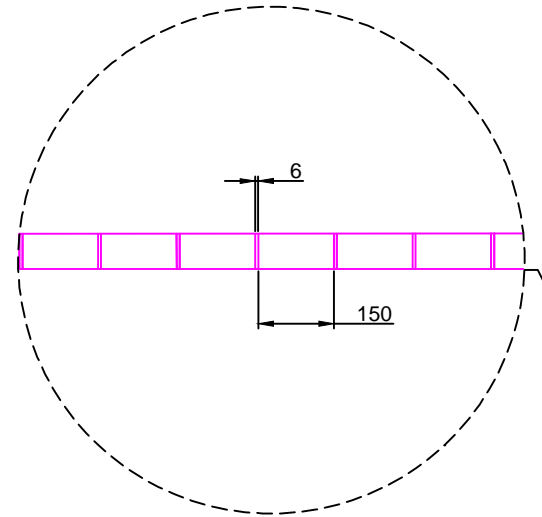
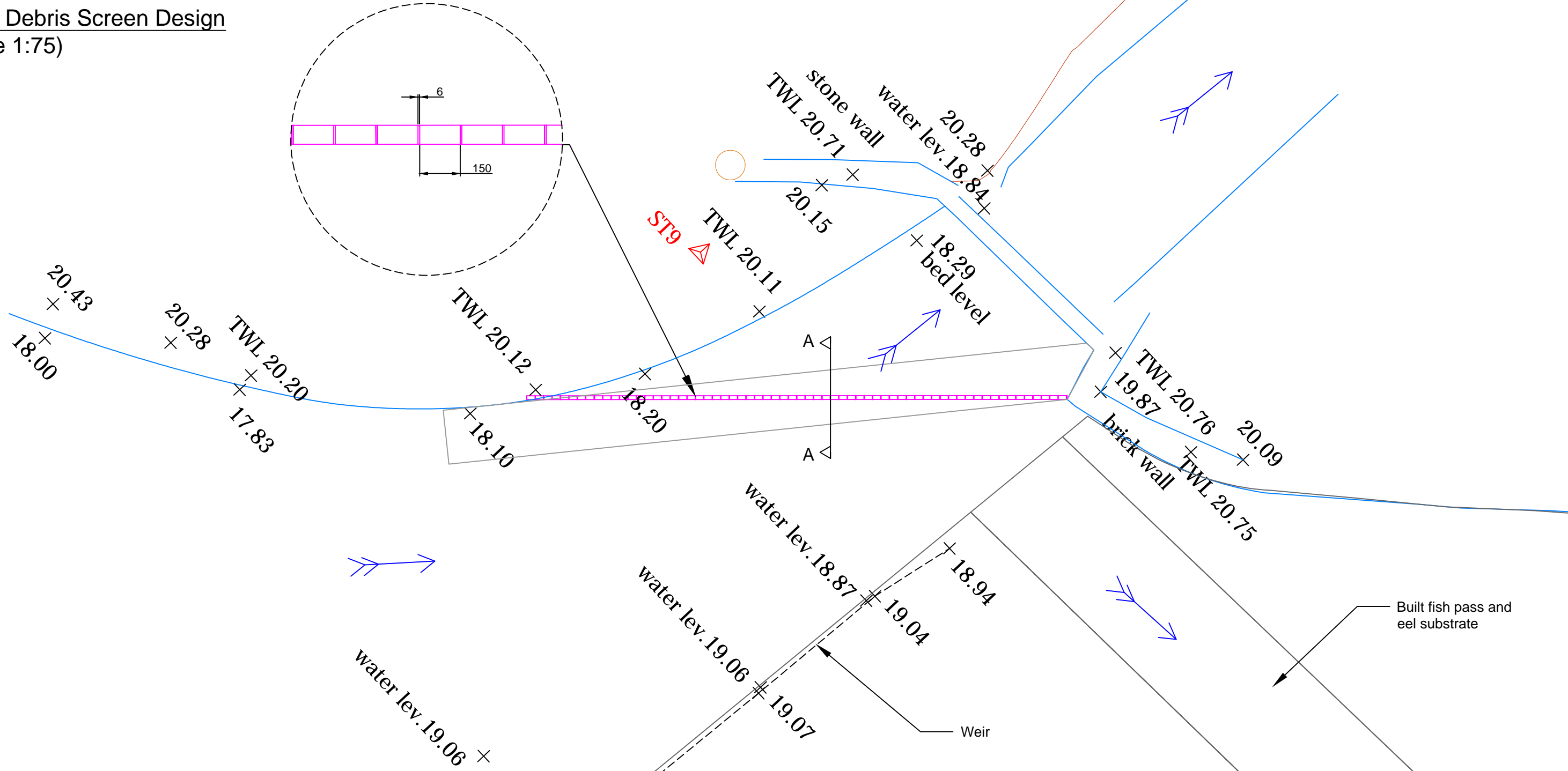


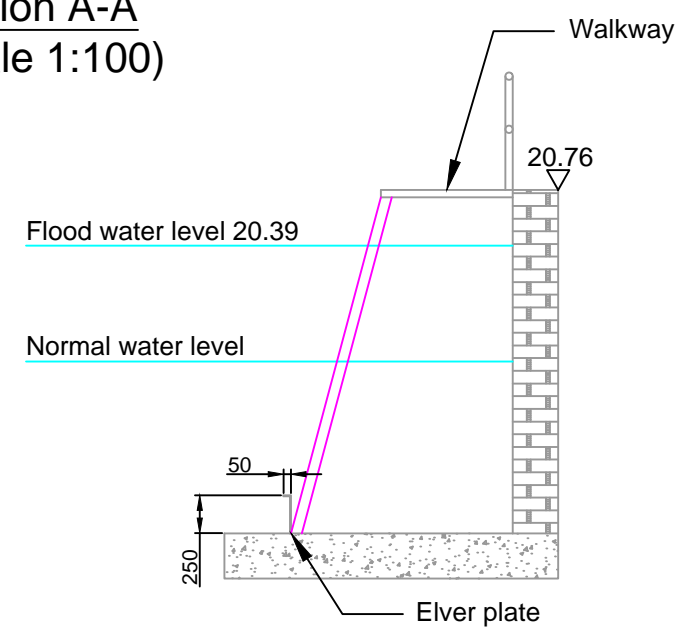
Large Debris Screen Design
(Scale 1:75)



- NOTES:**
- Screen approach velocity
Assumptions for velocity calculations:
- Flow rate = 1.62 m³/s
 - Water level above screen (height of water passing through screen to calculate area) = 1.630 m
 - Estimated span of screen across channel = 10.0 m (dependant on final mechanical design - could be shorter)
- Velocity calculations:
- The steel plates will be perpendicular to the screen frame therefore will be 45deg to the water flow towards the channel at 150 mm spacing.
 - In a 10 m screen span, the louvered screen would consist of 65 x 6 mm plates at 70 mm deep to create a louvre.
 - With an estimated water height above the screens of 1630 mm these 70 x 6 mm plates would make a blocked off area of 0.39 m².
 - Open area for water flow would be 15.65 m².
 - With a flow rate of 1.62 m³/s, the water velocity through the screen would be 0.1035 m/s (Q=vA).

Elver plate
250mm high plate with 50mm lip at the top as shown on Section A-A fixed to the full length of the large debris screen to guide elvers away from the turbine abstraction point.

Section A-A
(Scale 1:100)



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Drawn By / Date SW / 06-05-2016			
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