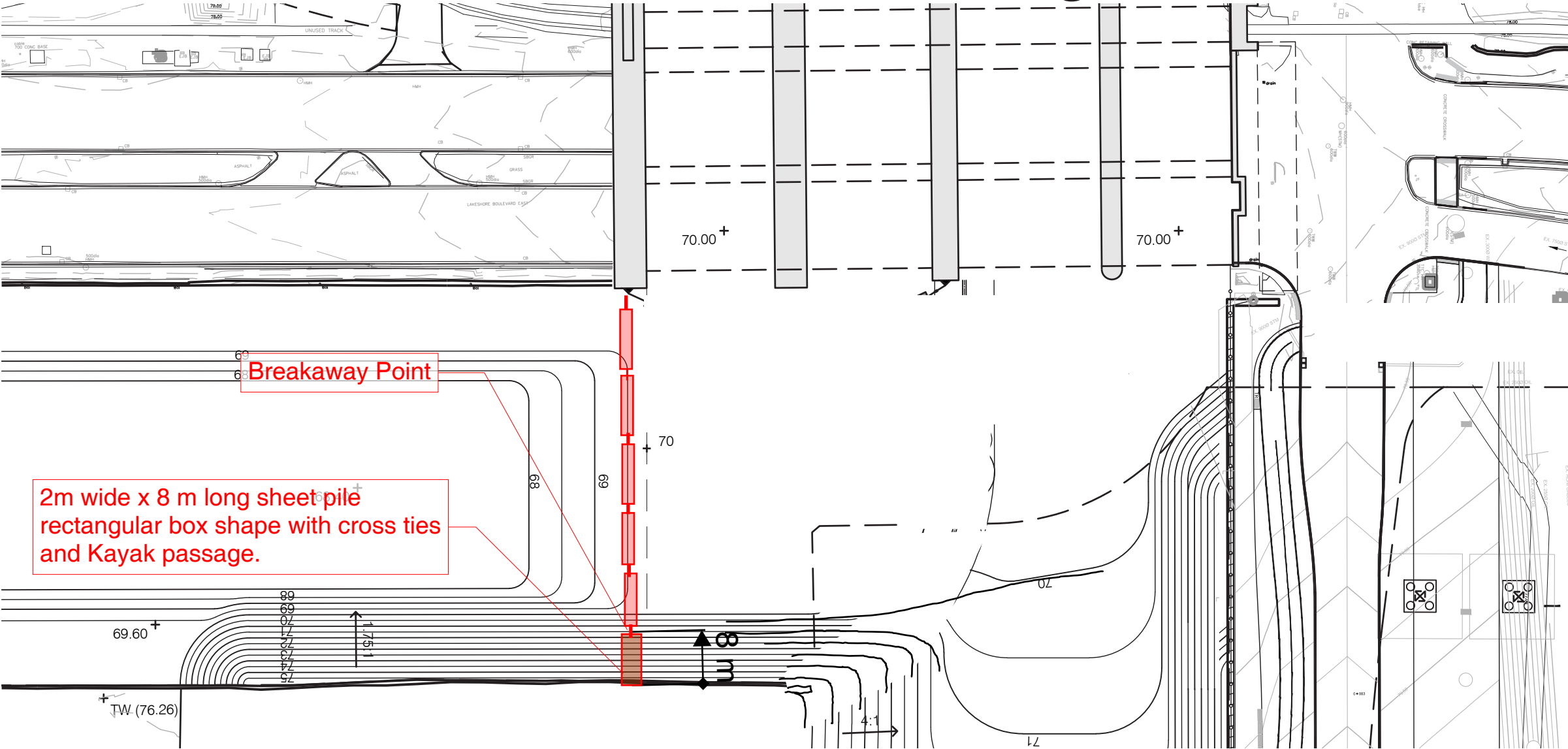
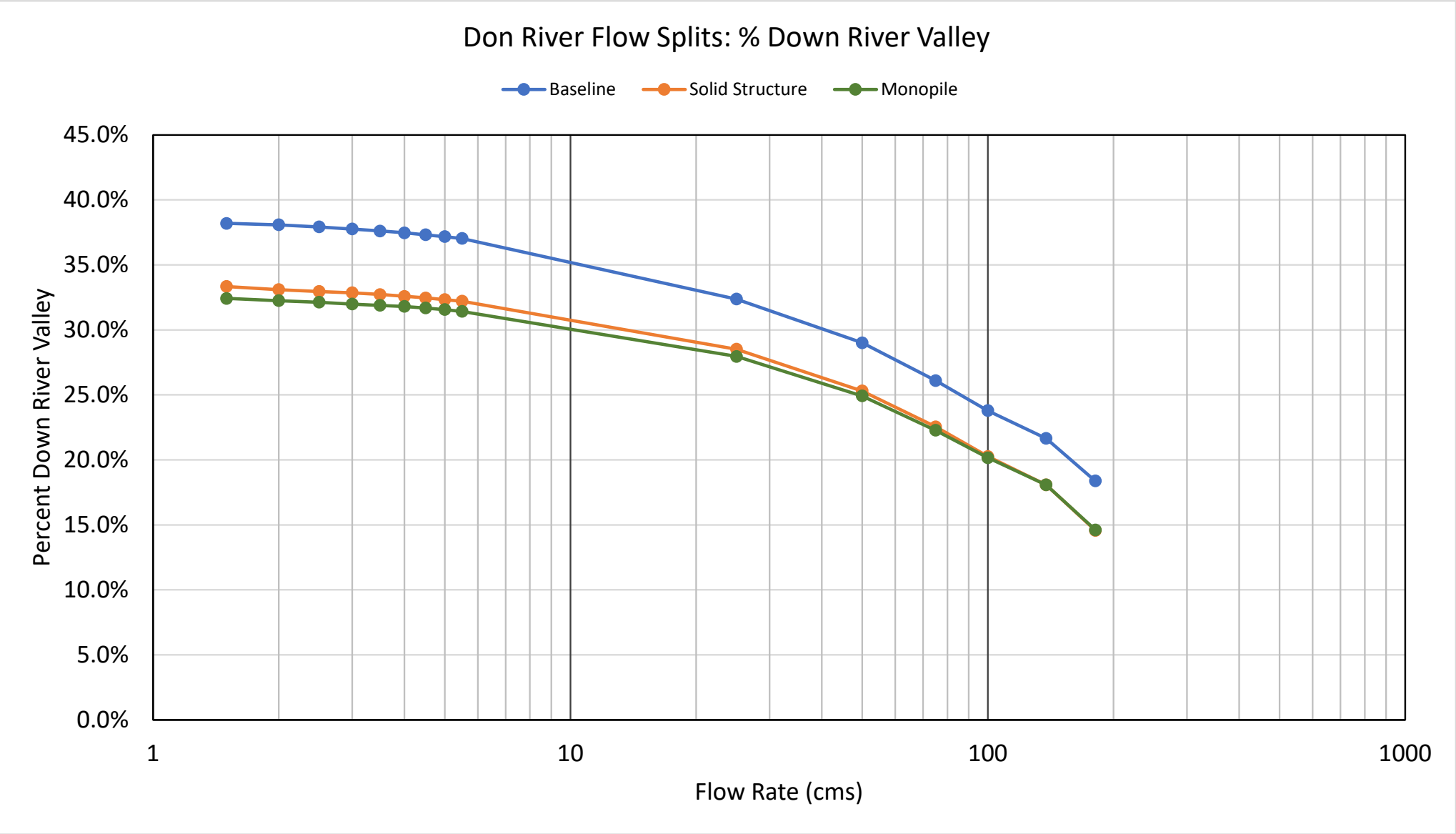


Detachable Flow Curtain

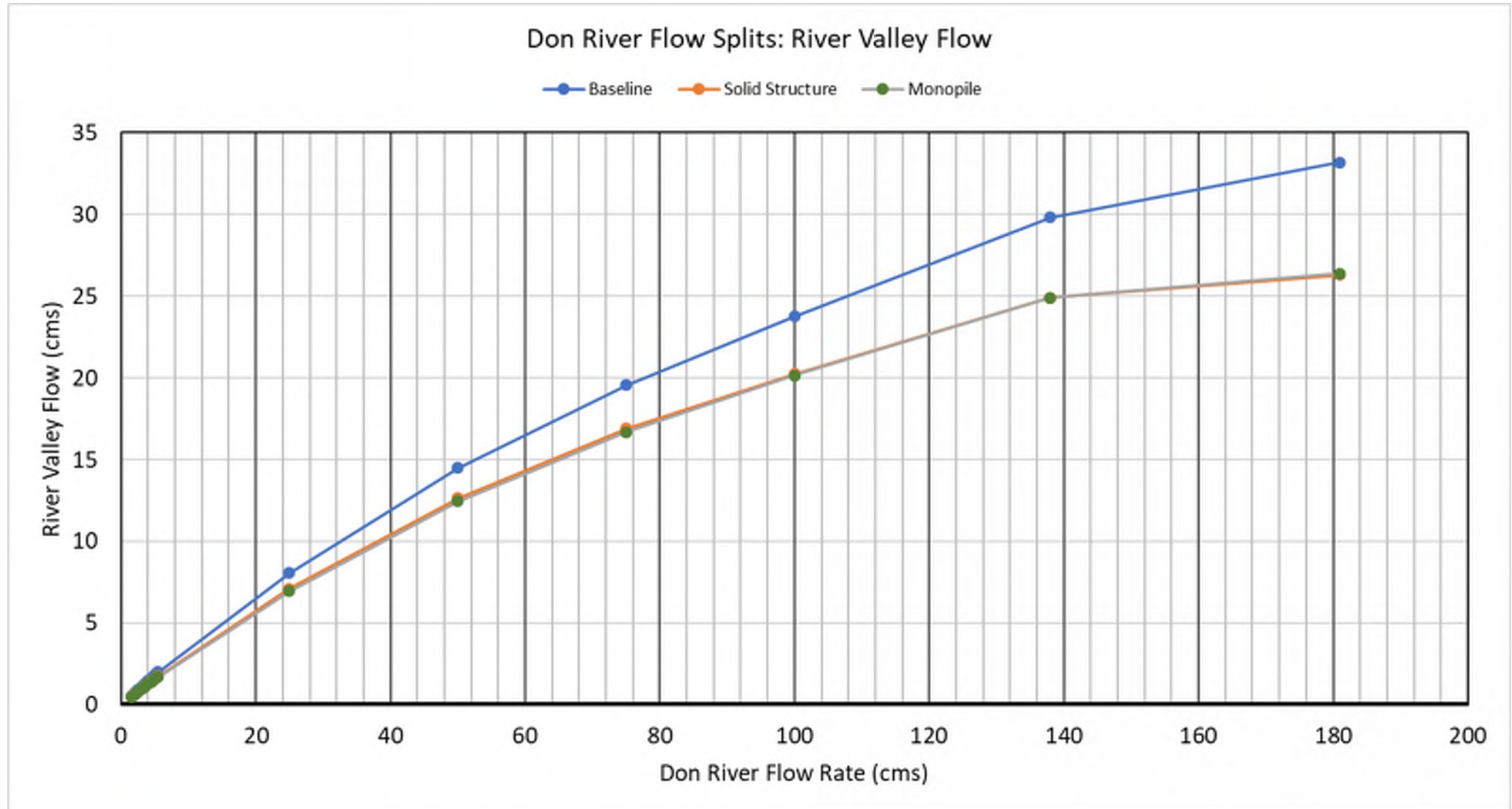
Fixed Weir Alternative - Solid Anchorage

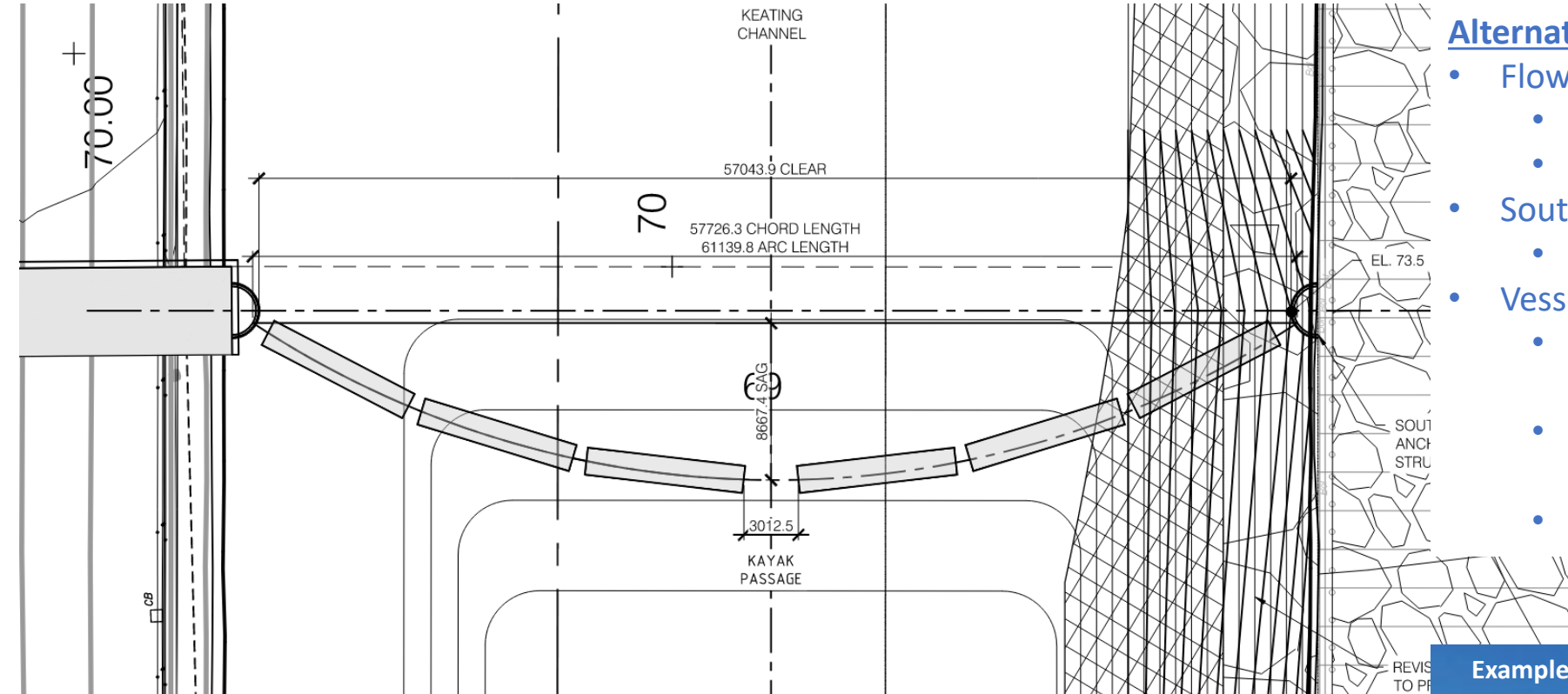


Low Flow model results



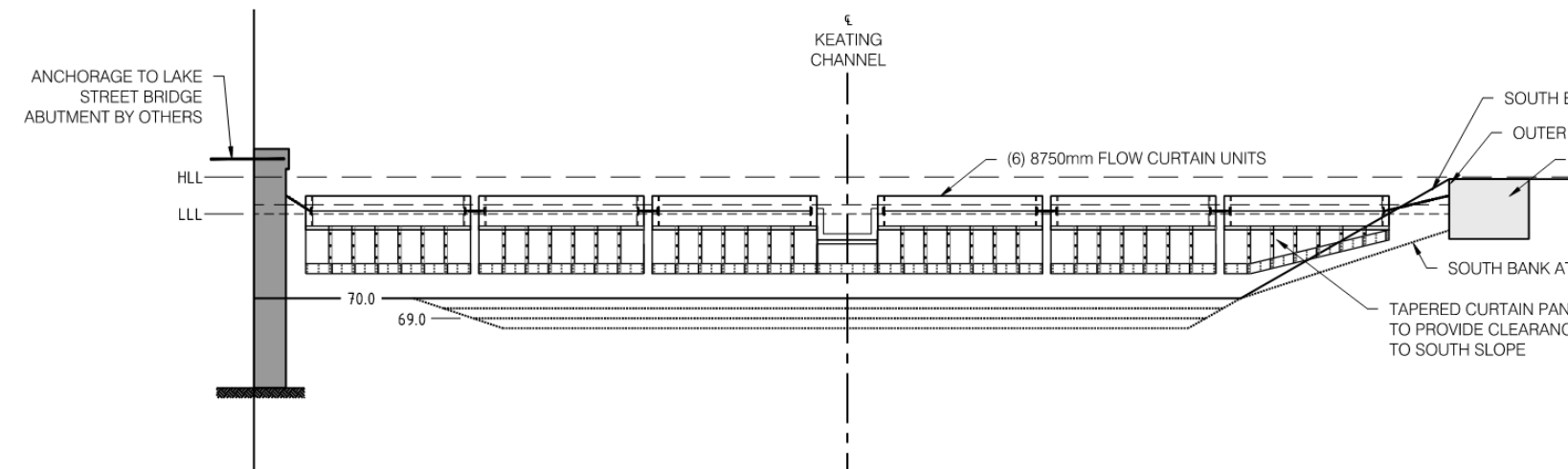
Low Flow model results



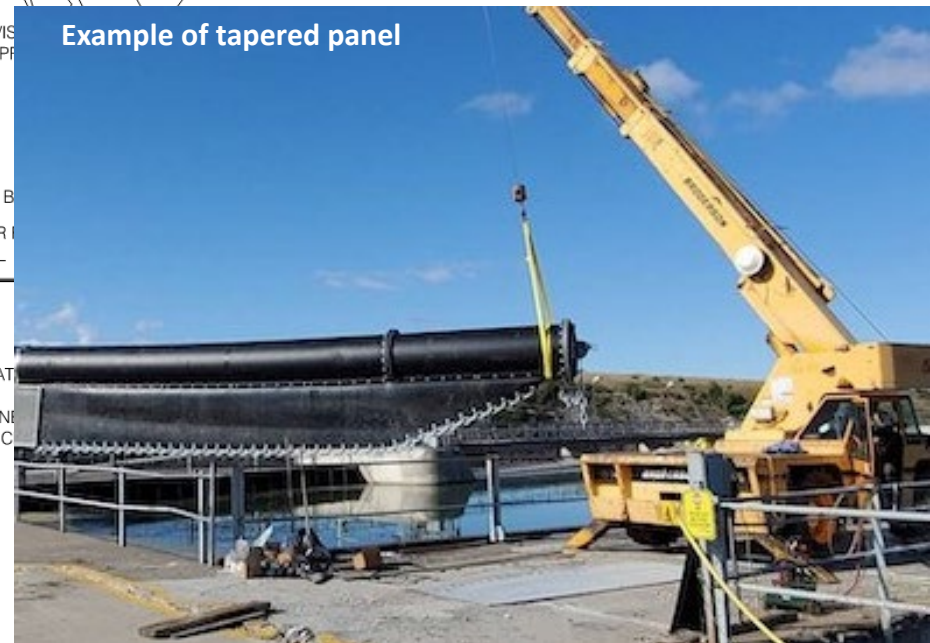


Alternative

- Flow curtain
 - (6) 8.75m long units
 - Tapered curtain panel on end unit
- South Anchorage Structure
 - 4mx4mx2m concrete anchor
- Vessel Passage
 - 3.0m wide x 1.0m draft integral with flow curtain
 - Can consider modifying gate dimensions to accommodate alternate vessels
 - Reduced south bank regrading



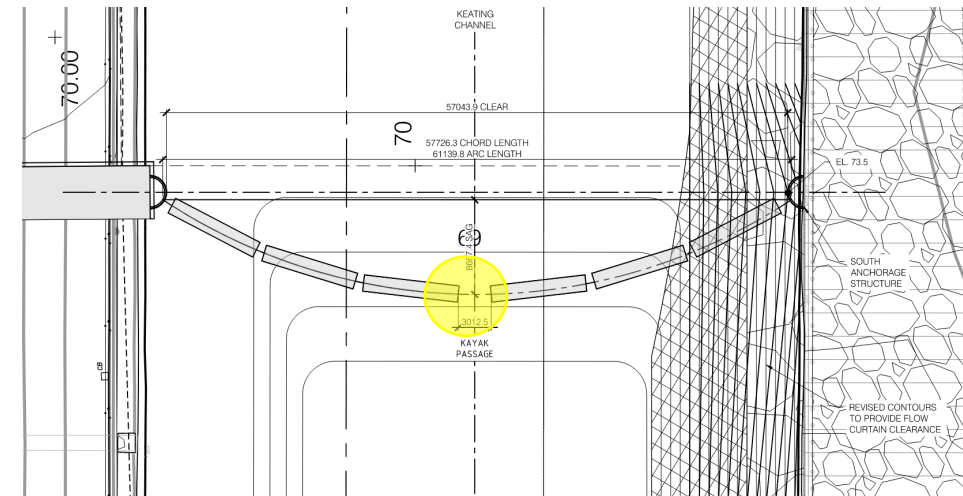
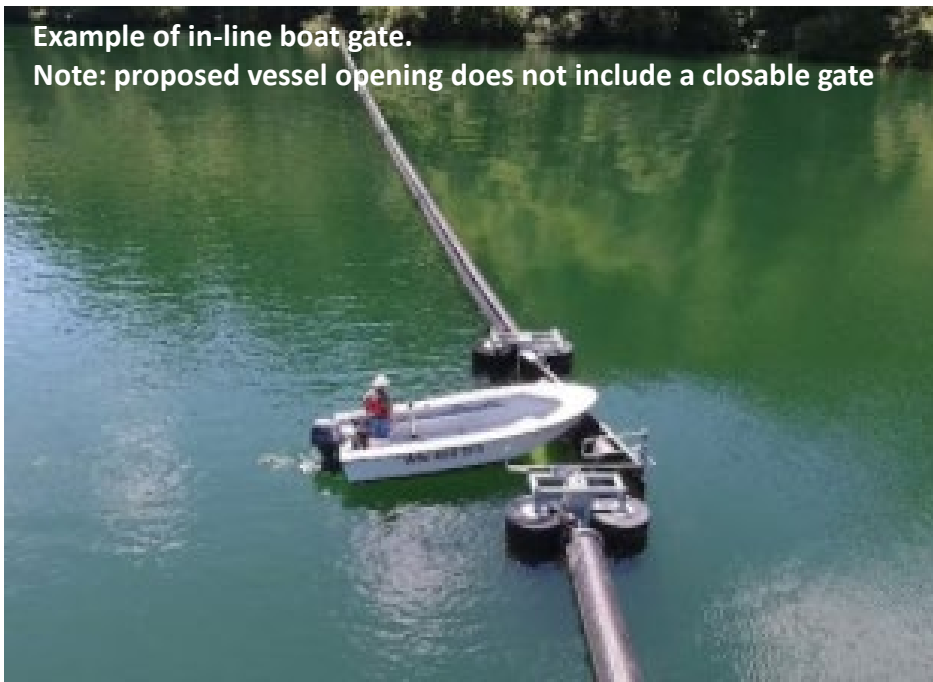
B FLOW CURTAIN ELEVATION
SCALE: 1:200



Example of tapered panel

Vessel Passage

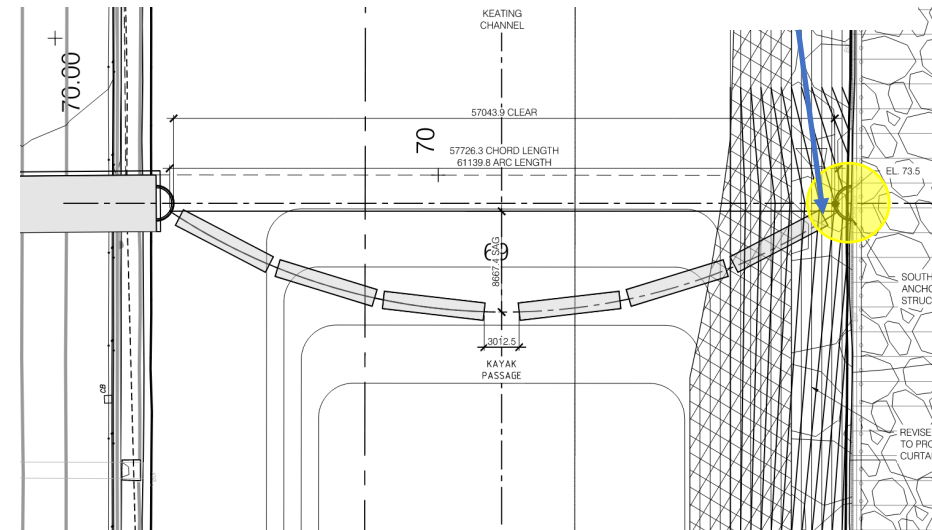
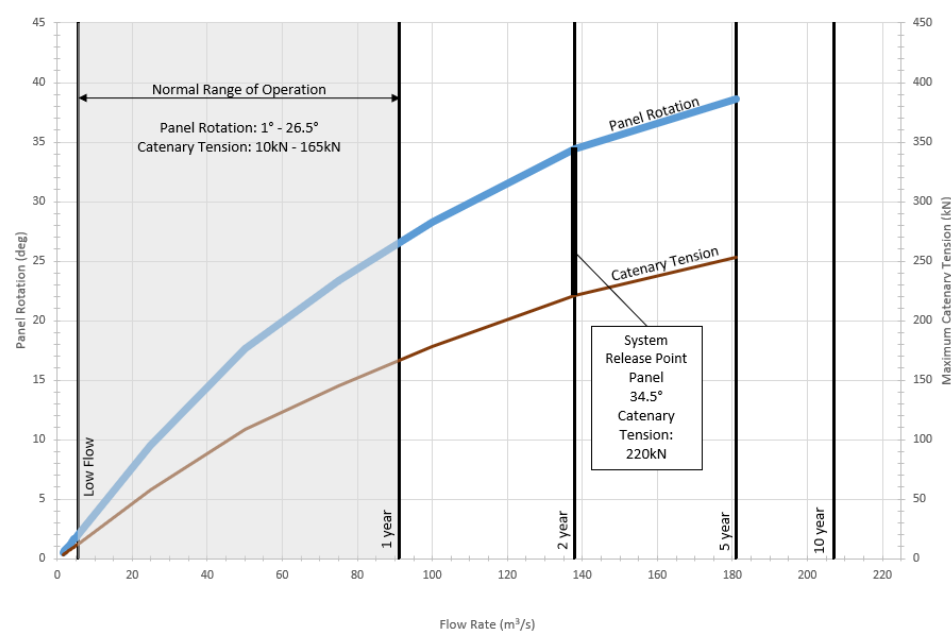
- Alternative
 - 1.0m depth, 3.0m width
 - Current dimensions based on paddlecraft/small vessel use, could be modified if use by larger vessels is necessary



Alternative

Release & Reconnection

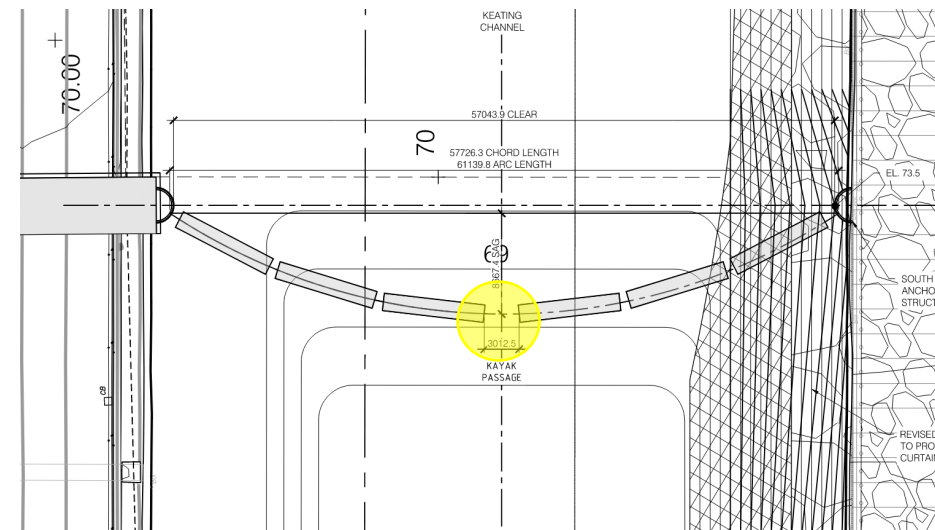
- Seasonal
 - winter removal, spring Install of full system
- High flow event
 - Reconnection of south end after high flows subside
- Large Vessel Passage
 - Removal/Reconnection of South End
- Small Vessel Passage
 - Size opening to minimize need for system removal and reconnection



Alternative

Debris Accumulation

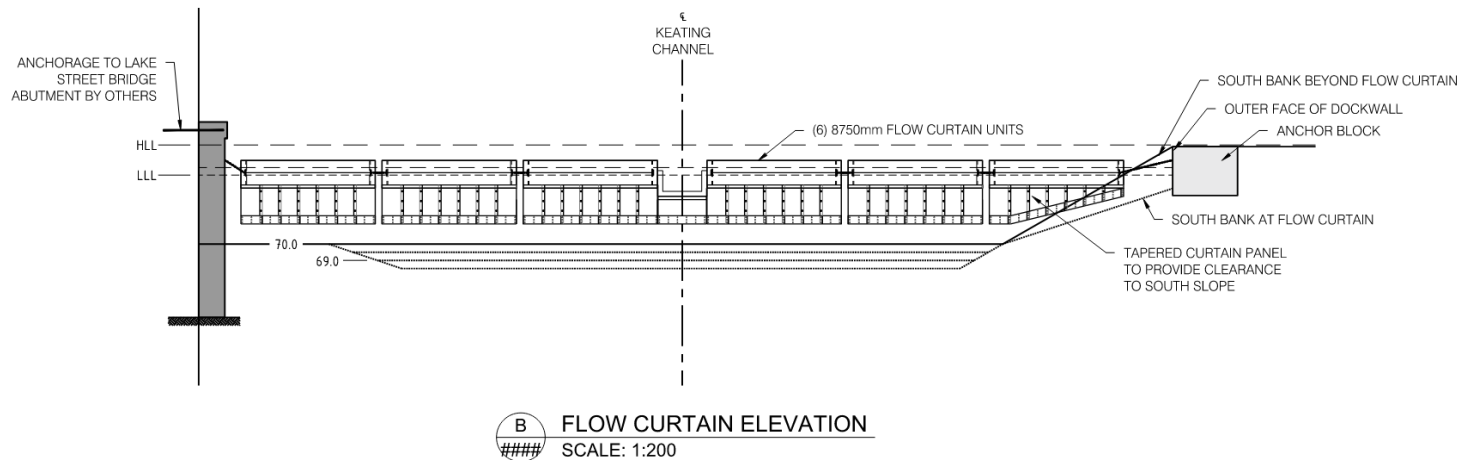
- Alternative
 - Small debris that passes the SDMA can pass through vessel may buildup behind the Flow Curtain.
 - Larger debris can be cleared during system opening, or by guiding through vessel opening



Alternative

Panel Depth

- Both alternatives use panel depth of 3.0m below water level
- Flexible panel system can accommodate bottom contact if excessive sedimentation occurs before maintenance
- Hydraulic analysis forthcoming to determine flow splits in revised condition. If necessary, panel depth may be modified.



Flow Curtain Geometry
Chord Length
Sag
Sag Ratio
Units
Curtain Panel Dimensions
South Support Structure
Type
Dimensions
Bearing/Anchors
Vessel Passage
Width
Bed EL
Depth @ LLL
Depth @ HLL
Ice exposure
Debris Removal
Reconnection

57.7m
8.7m
15%
(6) 8.75m x 1.5m
Southernmost unit: Tapered panel to clear slope All other units: 3.0m below water level
Mass concrete deadman anchor
4.0m x 4.0m x 2.0m
Shallow foundation
3.0m

1.0m
1.0m
South anchorage outside of channel clear of ice impact
Small debris clears through vessel opening Large debris cleared during opening event or through opening with assistance
Reconnection of boom requires boat to tow loose end into position. Winching and reconnection completed from land anchor.