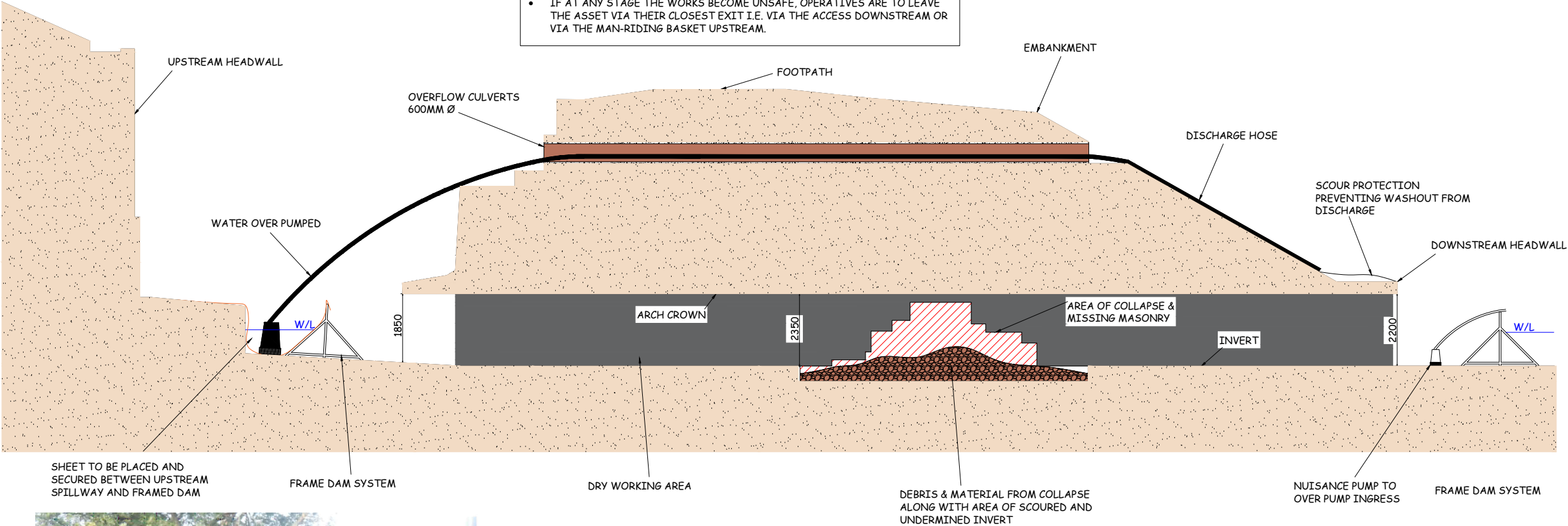


SECTION DRAWING - HIGHLIGHTING PROPOSAL #1



- NOTES:
- FOLLOWING THE SITE COMPOUND SET UP, OPERATIVES WILL PROCEED TO INSTALL THE FRAME DAM SYSTEMS TO BOTH UPSTREAM AND DOWNSTREAM.
  - OPERATIVES WILL ALSO INSTALL ACCESS POINTS TO THE DOWNSTREAM.
  - THE CRANE WILL THEN PROCEED TO INSTALL THE PUMPS. THE DISCHARGE HOSES WILL BE BUILT AND THEN PLACED THROUGH THE DISCHARGE CULVERTS.
  - FOLLOWING THE INSTALLATION OF THE DISCHARGE HOSES OPERATIVES WILL THEN PROCEED TO INSTALL THE SCOUR PROTECTION, ENSURING THAT NO BANK EROSION OCCURS AS A RESULT OF THE OVER PUMPING.
  - A SILT CURTAIN WILL THEN BE PLACED AROUND THE DOWNSTREAM FRAME DAM, MITIGATING POTENTIAL POLLUTION INCIDENTS.
  - THE WATER WITHIN THE CULVERT WILL THEN BE OVER PUMPED INTO THE WATER CONTAINED BY THE SILT CURTAIN.
  - ONCE THE CULVERT HAS BEEN DE-WATERED, ENGINEERS WILL ENTER THE CULVERT FROM THE DOWNSTREAM AND ASSESS THE DAMAGE.
  - IF ALL PARTIES ARE HAPPY TO PROCEED, OPERATIVES WILL THEN BEGIN TO REMOVE THE DEBRIS/INFILL MATERIAL.
  - THIS WILL BE ACHIEVED BY INSTALLING THE GUIDE RAILS AND SUBSEQUENT MODULAR DAM SYSTEM.
  - FOLLOWING THE INSTALLATION OF THE FIRST RAIL, THE MODULAR SHUTTER SYSTEM WILL BE CONSTRUCTED AND PLACED ON THE RAILS.
  - TO TRANSPORT THE MODULAR SYSTEM MACHINE SKIDS WILL BE UTILIZED AND POSITIONED ON THE INTERSECTION BETWEEN THE RAIL. OPERATIVES WILL PUSH A SINGLE SECTION UPSTREAM, CREATING SPACE FOR THE CONSTRUCTION OF AN ADDITIONAL SECTION. OPERATIVES WILL THEN PROCEED TO BOLTS THE UNITS TOGETHER.
  - THIS PROCESS WILL BE REPEATED A FURTHER SEVEN TIMES.
  - WITH THE MODULAR SYSTEM IN PLACE (AND FROM A POSITION OF SAFETY) OPERATIVES WILL EMULSIFY THE DEBRIS. THIS SPOIL WILL THEN NATURALLY MIGRATE DOWNSTREAM, WHERE IT WILL BE OVER PUMPED INTO THE AREA CONTAINED BY THE SILT CURTAIN.
  - AT THIS POINT, ONLY ENOUGH DEBRIS FOR THE INSTALLATION OF THE SECOND SECTION OF RAILS IS REQUIRED TO BE REMOVED.
  - THROUGHOUT THIS PROCESS THE SITE MANAGER WILL CONTINUALLY ASSESS THE CONDITION OF THE COLLAPSED SECTION.
  - IF AT ANY STAGE THE WORKS BECOME UNSAFE, OPERATIVES ARE TO LEAVE THE ASSET VIA THEIR CLOSEST EXIT I.E. VIA THE ACCESS DOWNSTREAM OR VIA THE MAN-RIDING BASKET UPSTREAM.



LEGEND:

- NOTES:
- THE WATER MAY NEED TO BE INITIALLY DIVERTED FOR THE INSTALLATION OF THE UPSTREAM FRAME DAM. THE WATER COULD BE FLUMED.
  - THE DOWNSTREAM INVERT MAY NEED TO BE RE-PROFILED TO ENSURE THAT THE DOWNSTREAM FRAME DAM IS ADEQUATELY POSITIONED.
  - THE DISCHARGE HOSES CAN BE 'MADE UP' IN THE COMPOUND AREA, LOWERED WITH A CRANE, AND THEN PULLED INTO POSITION WITH A TURFER. (THIS WILL BE DONE IN 3 SECTIONS).

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|                      |      |    |                 |
| Rev                  | Date | By | Rev Description |
| Drawing Status:      |      |    |                 |
| FOR INFORMATION ONLY |      |    |                 |

CLIENT:  
SWANSEA CITY COUNCIL

PROJECT REF:  
ECI - MORFA CULVERT

DRAWING TITLE:  
SECTION DRAWING # 1

DRAWING NUMBER:  
NO. 3

ISSUE DATE:  
N/A

SCALE:  
NTS



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