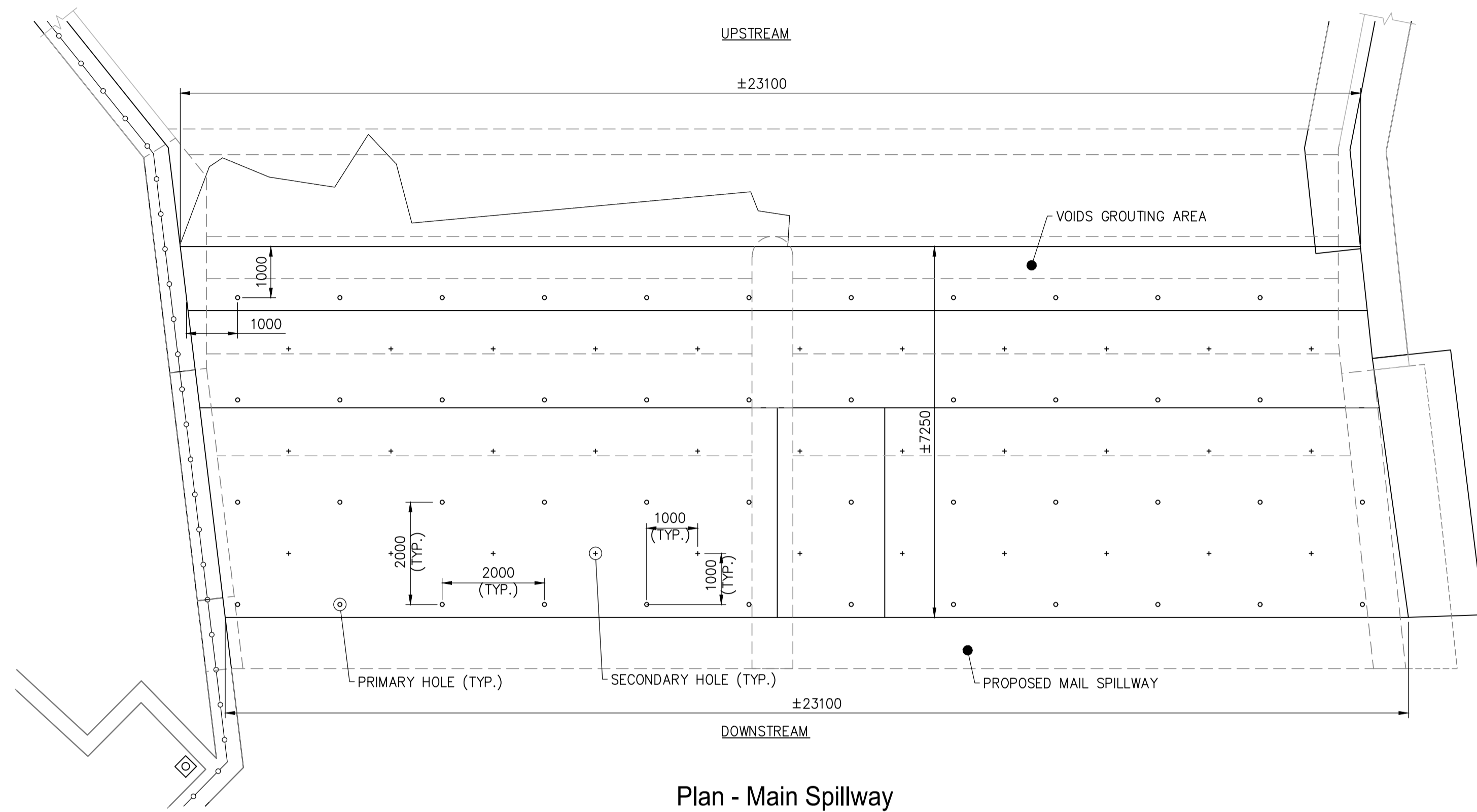


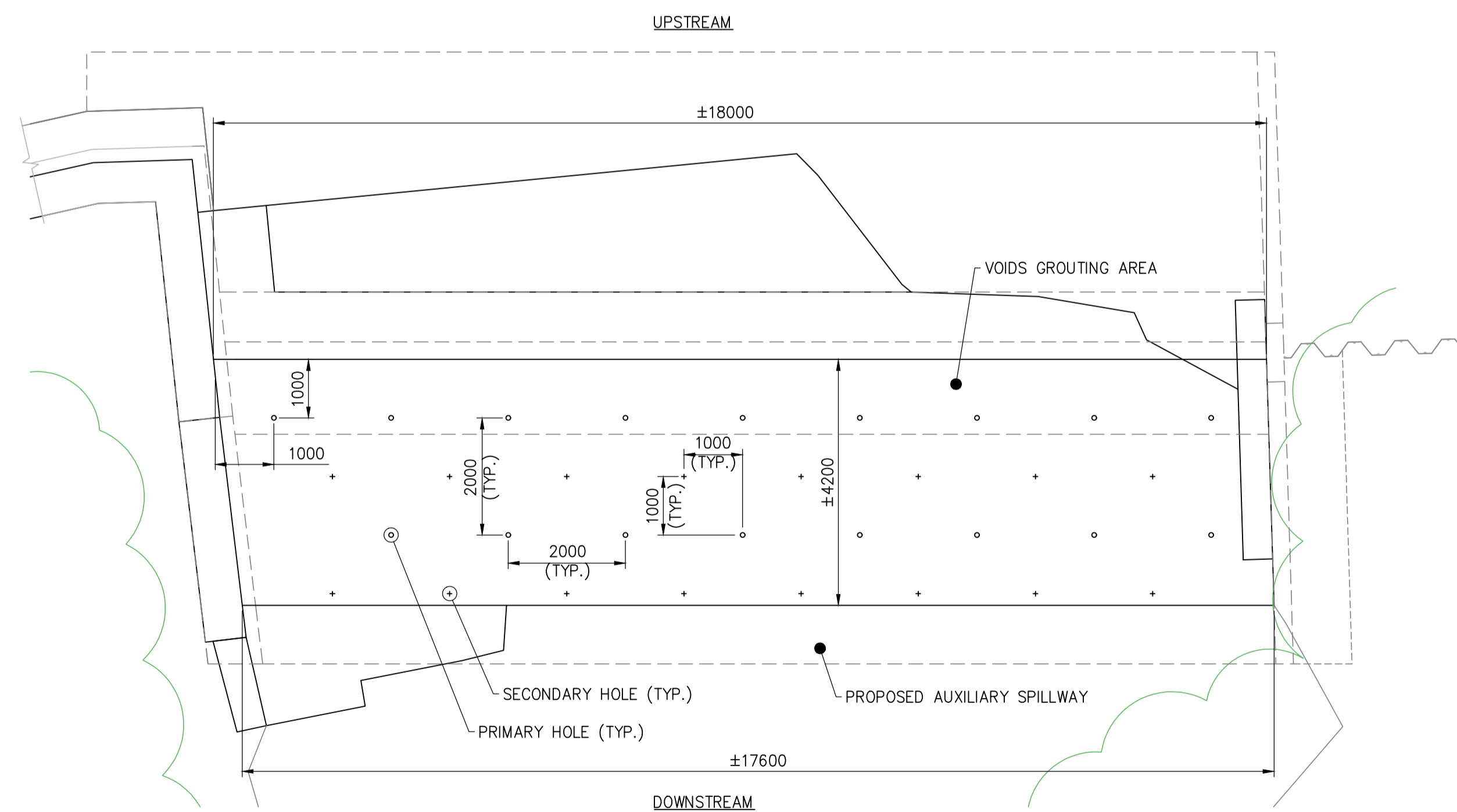
THIS SCALE TO BE USED TO OBTAIN A SCALE FACTOR FOR MEASURES IF THIS DRAWING IS NOT PRINTED ON A SIZE PAPER. MEASURES OBTAINED FROM SCALING ARE APPROXIMATE AND TO BE USED FOR INFORMATION ONLY.

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Plan - Main Spillway

1:75



Plan - Auxiliary Spillway

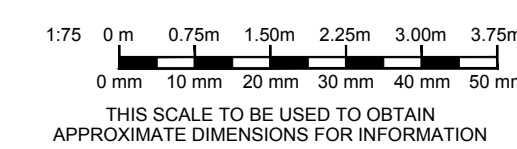
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VOIDS GROUTING PROCEDURE

1. 480 mm STEEL SLEEVES TO BE PLACED PRIOR TO POURING NEW CONCRETE LAYER ABOVE EXISTING GRANULAR MATERIAL. SLEEVES FOR PRIMARY AND SECONDARY HOLES SHALL BE PLACED AS SHOWN ON THE PLAN VIEWS. SLEEVE LENGTH EQUAL TO FULL DEPTH OF NEW CONCRETE LAYER.
2. STEEL SLEEVES TO BE PROTECTED WITH A CAP DURING CONCRETING TO AVOID OBSTRUCTION.
3. ONCE CONCRETE CURING IS COMPLETE, THOROUGHLY CLEAN THE INSIDE OF THE SLEEVES WITH WATER USING A HOSE THAT REACHES THE BOTTOM OF THE HOLE IN ORDER TO REMOVE ANY MUD, DIRT OR DEBRIS.
4. GROUTING WORKS ARE TO BEGIN WITH PRIMARY HOLES. DRILL HOLES THROUGH 480 mm SLEEVES, PENETRATING THROUGH THE NEW AND EXISTING CONCRETE LAYERS. DRILLING OPERATION SHALL BE SUPERVISED BY DFO AT ALL TIMES.
5. CONDUCT VOIDS GROUTING THROUGH DRILLED HOLES IN A SYSTEMATIC MANNER, BEGINNING FROM A DOWNSTREAM CORNER OF THE SPILLWAY AND PROGRESSIVELY GROUTING ADJACENT PRIMARY HOLES TOWARDS THE OPPOSITE CORNER OF THE SPILLWAY. MAXIMUM ALLOWABLE INJECTION PRESSURE IS 100 kPa MEASURED AT COLLAR ELEVATION. SPECIFIED WATER/CEMENT RATIO FOR GROUT IS 1.0, OR AS SPECIFIED BY DFO.
6. BACKFILL HOLES AS DIRECTED IN THE SPECIFICATIONS ONCE INJECTED GROUT HAS SET.
7. ONLY WHEN GROUTING OF ALL PRIMARY HOLES IS COMPLETE, REPEAT STEPS 4, 5 AND 6 FOR SECONDARY HOLES.
8. ONCE ALL VOIDS GROUTING WORKS ARE COMPLETE, TAKE TWO CORE SAMPLES IN THE MAIN SPILLWAY AND ONE CORE SAMPLE IN THE AUXILIARY SPILLWAY TO VALIDATE THAT VOIDS GROUTING HAS BEEN SUCCESSFUL.

Notes

1. SEE DRAWING LIST, GENERAL NOTES, ABBREVIATIONS AND LEGEND ON DWG G02.



THIS SCALE TO BE USED TO OBTAIN APPROXIMATE DIMENSIONS FOR INFORMATION

No	Revision	Date	Eng. / cad
A	Issued for bid and authorization	2017/06/05	M.G./K.N.



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Client: Fisheries and Oceans Canada / Pêches et Océans Canada

Project title: Nicolston Dam Rehabilitation

Drawing title: Voids Grouting Plans

Project number: A00492F
 Designed by: M.Grignon, Eng.
 Drawn by: K.Nonen, Tech.
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