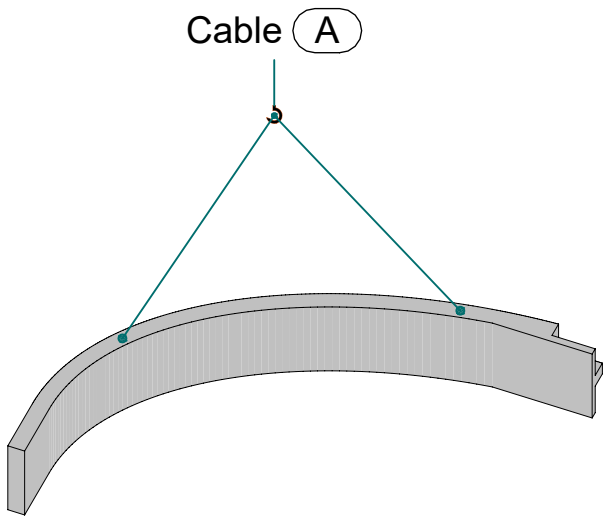
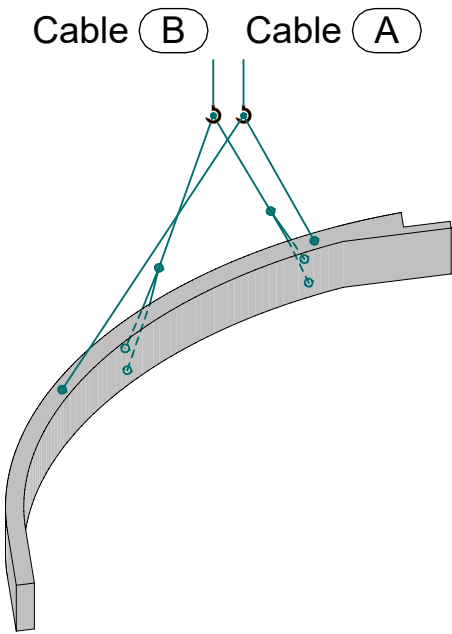


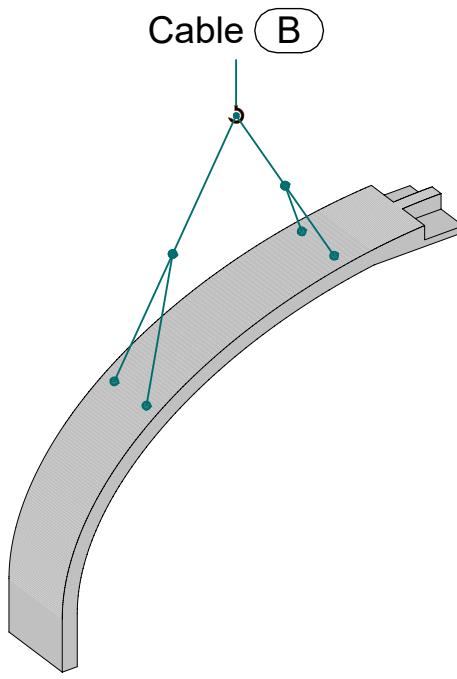
Typical Installation Process (Setting)



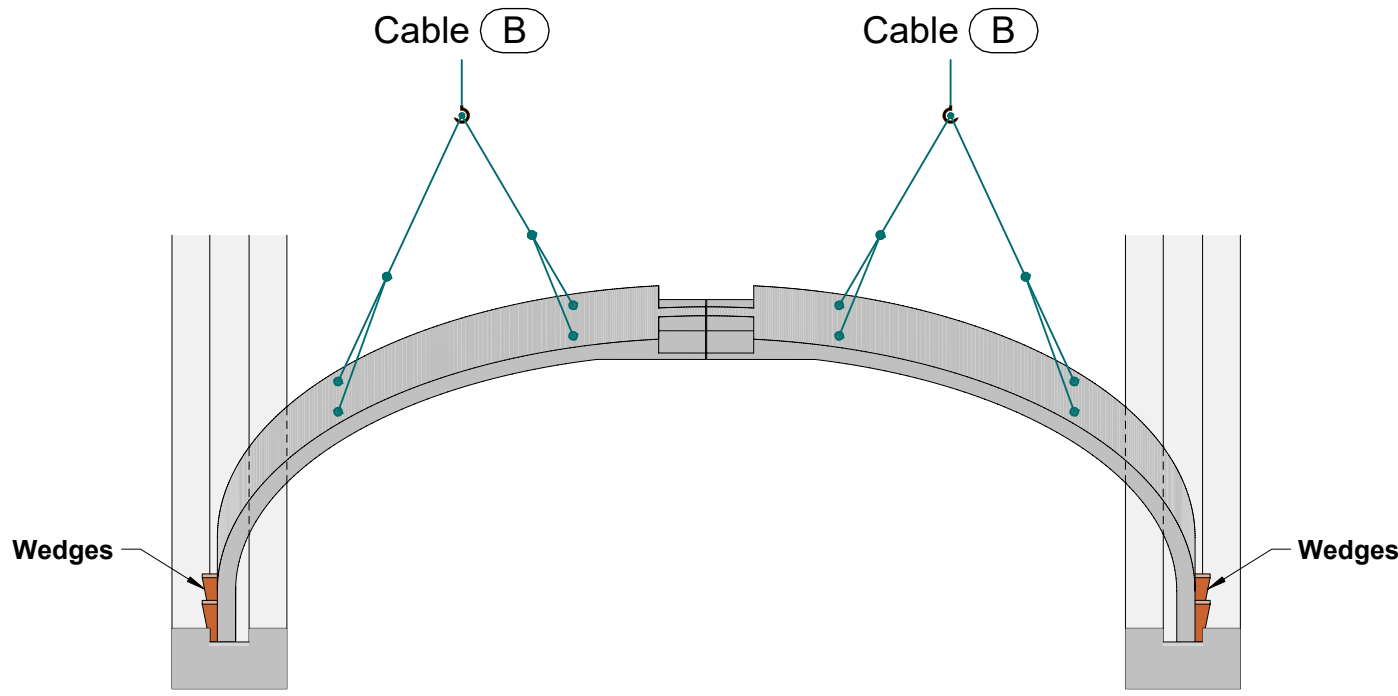
Step S1 Handling Position 1
Cable A lift at Edge Anchors



Step S2 Rotating in the air
Arch Element hanging on Cable A,
Cable B lift at Face Anchors



Step S3 Handling Position 2
Arch Element hanging on Cable B



Step S4 Installation
Lowering Element into final Position
Wedge before removal of cables / liftes

Procedure Installation Process

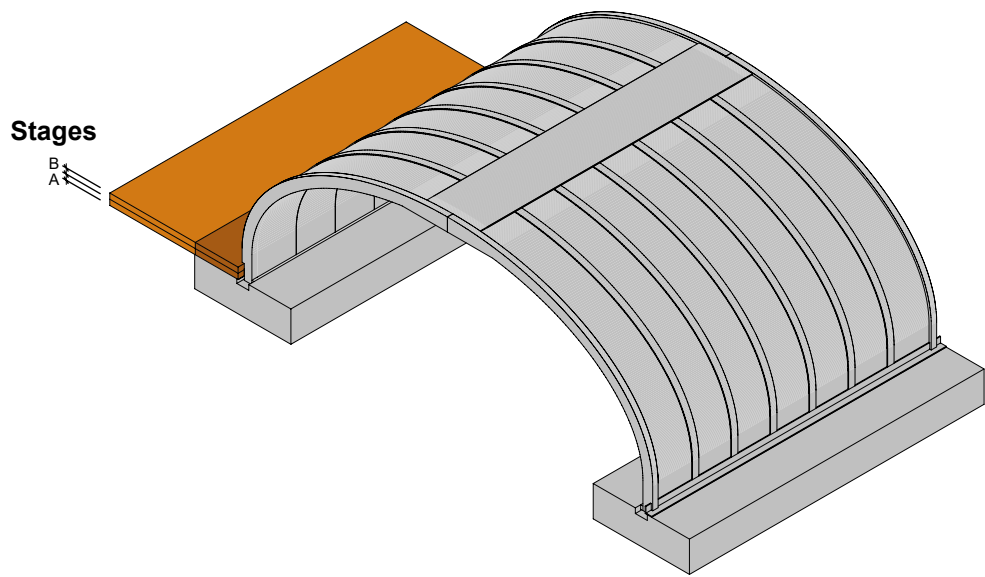
Placement of the BEBO Arch Elements shall be as shown on the Engineer's drawings. Special care shall be taken in setting the elements to the true line and grade. The recommended method for installing the precast elements utilises one or two doubledrum cranes with equal capacity on each drum. Please contact BEBO Arch International AG engineers to develop appropriate alternative installation procedures if double drum cranes are not available. It is the responsibility of the contractor to ensure that cranes of correct lifting capacity are available to handle the precast elements. This can be accomplished by using the weights given for BEBO System components and by determining the lifting reach for each crane. It is also the responsibility of the contractor to ensure that the cranes are correctly positioned on the ground. Site conditions must be checked well in advance of shipping to ensure proper crane location and to avoid any lifting restrictions. Appropriate sized rigging cables and snatch blocks should be available on site. Cables of wrong lengths cause the arch to hang incorrectly and can cause not only problems on site, but can damage the element. Ropes should be at hand to control the arch during installation.

Procedure Backfill Process

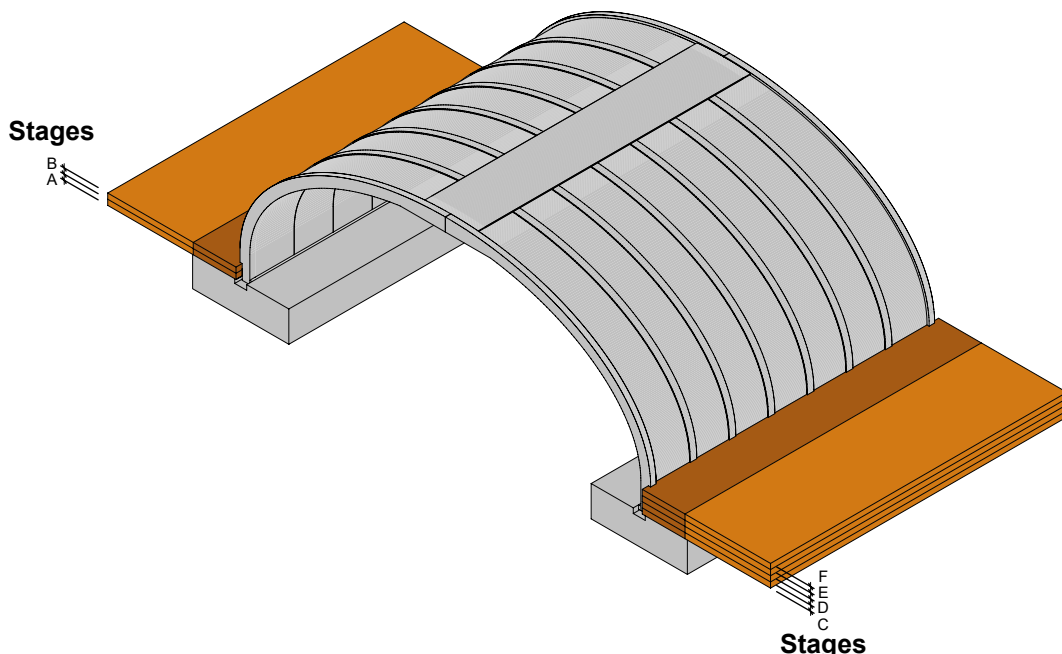
The backfilling operation creates one of the most important series of loads experienced by the structure. The backfill is an integral, load carrying part of the structure. It must permanently fulfill its purpose. Severe damage to the structure can result if proper procedures are not followed. No backfill shall be placed against any structural elements until they have been approved by the Engineer. Backfilling operations should generally not begin until the grout of the arch key has achieved a design strength of 25N/mm² and until the cast-in-place crown joint concrete has reached its specified design strength (twin leaf structures). Dumping for backfilling is not allowed any nearer than 1 Meter to a vertical plane through the arch key. Backfill against waterproofed surfaces shall be placed carefully to avoid damage to the waterproofing material. The backfill material must be placed and compacted in layers not exceeding 0.25m. The maximum difference in the surface levels of the fill on opposite sides of the arch must not exceed 0.5m. The longitudinal slope of the backfill should not exceed 1 in 2. Fill within 0.3m of concrete surfaces should be compacted using hand operated equipment (vibro-tamper) having a mass of at least 250kg, but not exceeding 1500kg. Elsewhere, the use of rollers is acceptable (with restrictions as stated in drawing No. 003, section 2.10.5). Lightweight dozers and graders may be operated over BEBO arch elements having 0.3m of compacted fill material. Heavy earth moving equipment (larger than dozers weighing in excess of 10 tons) may not cross the structure at any time.

Typical Backfill Process

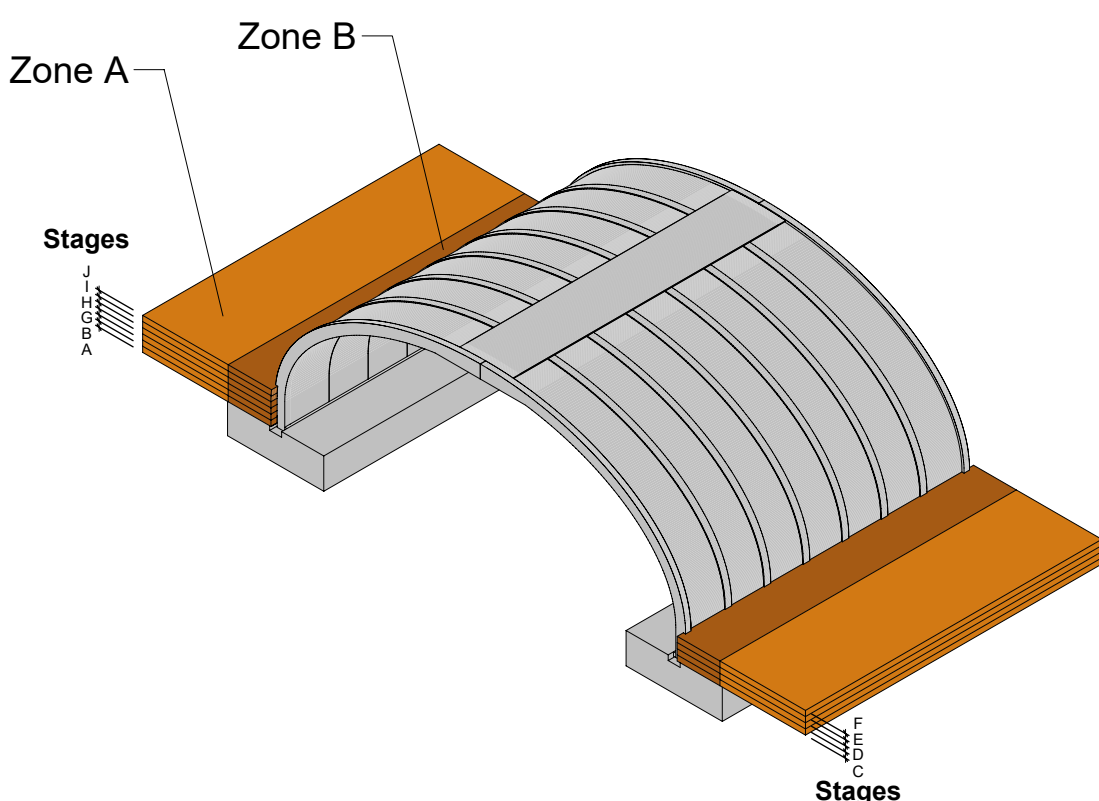
(Wing Wall not shown for clarity)



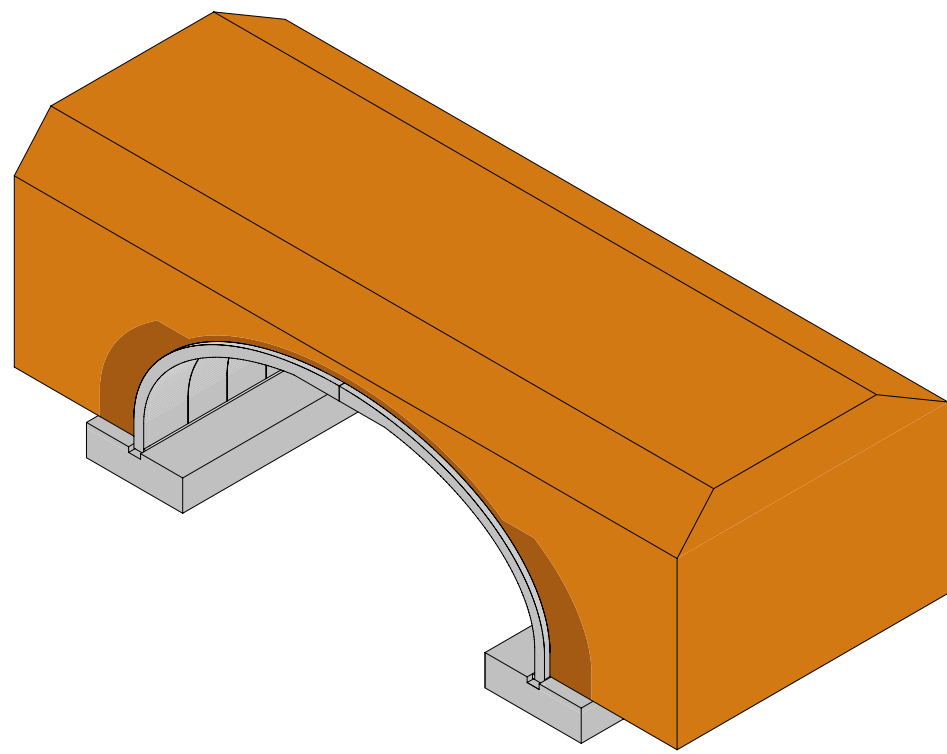
Step B1 Stages A-B
2 x 0.25m fill on left side of Arch
(for definition of Zones A & B, refer to Drawing No. 003, Clause 2.9)



Step B2 Stages C-F
4 x 0.25m fill on right side of Arch
(Note: Backfill can be placed simultaneously from both side)



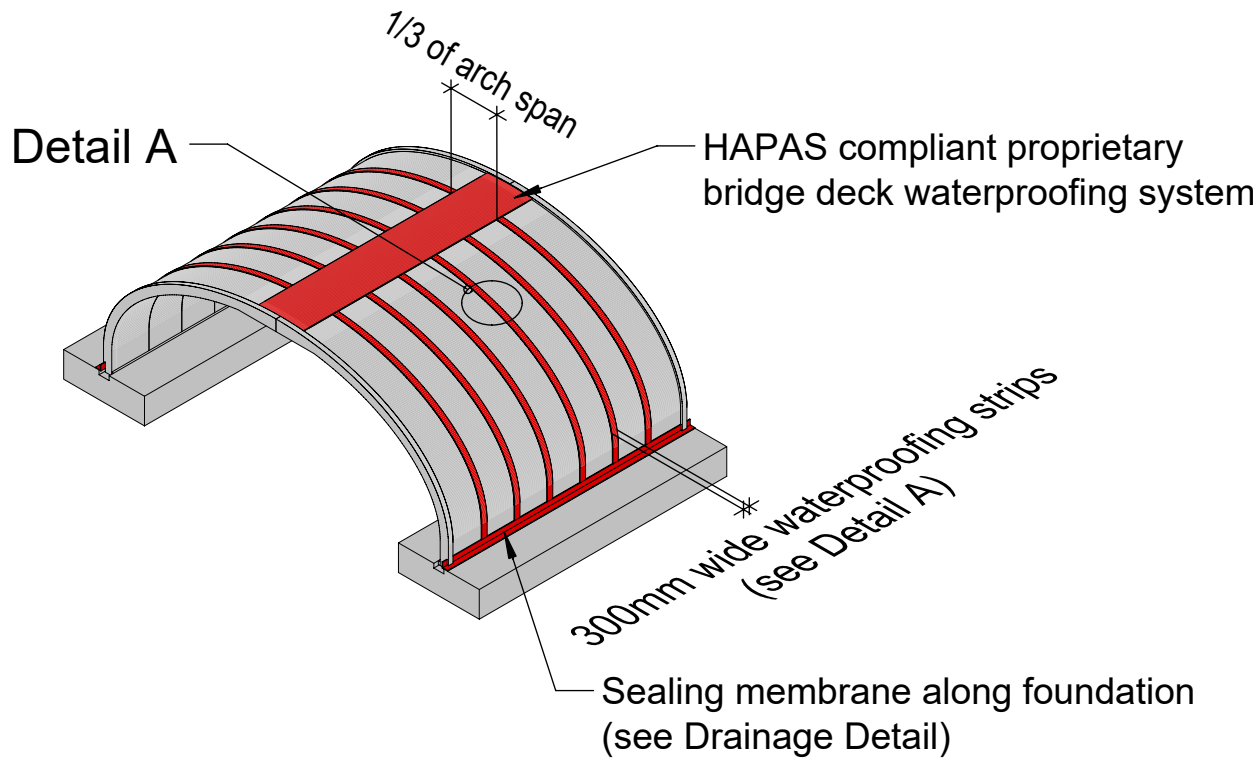
Step B3 Stages G-J
4 x 0.25m fill on left side of Arch



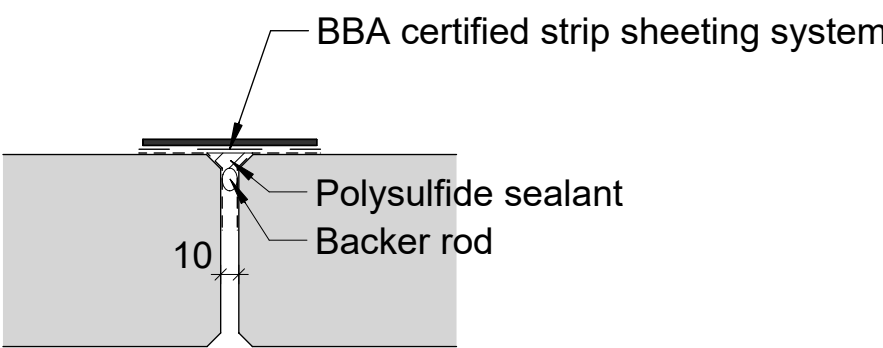
FINISHED Overfilled Structure

Waterproofing schematic

(refer to Drawing No. 003 Specifications - Clause 2.6:
"Waterproofing and Subsoil Drainage")



Detail A

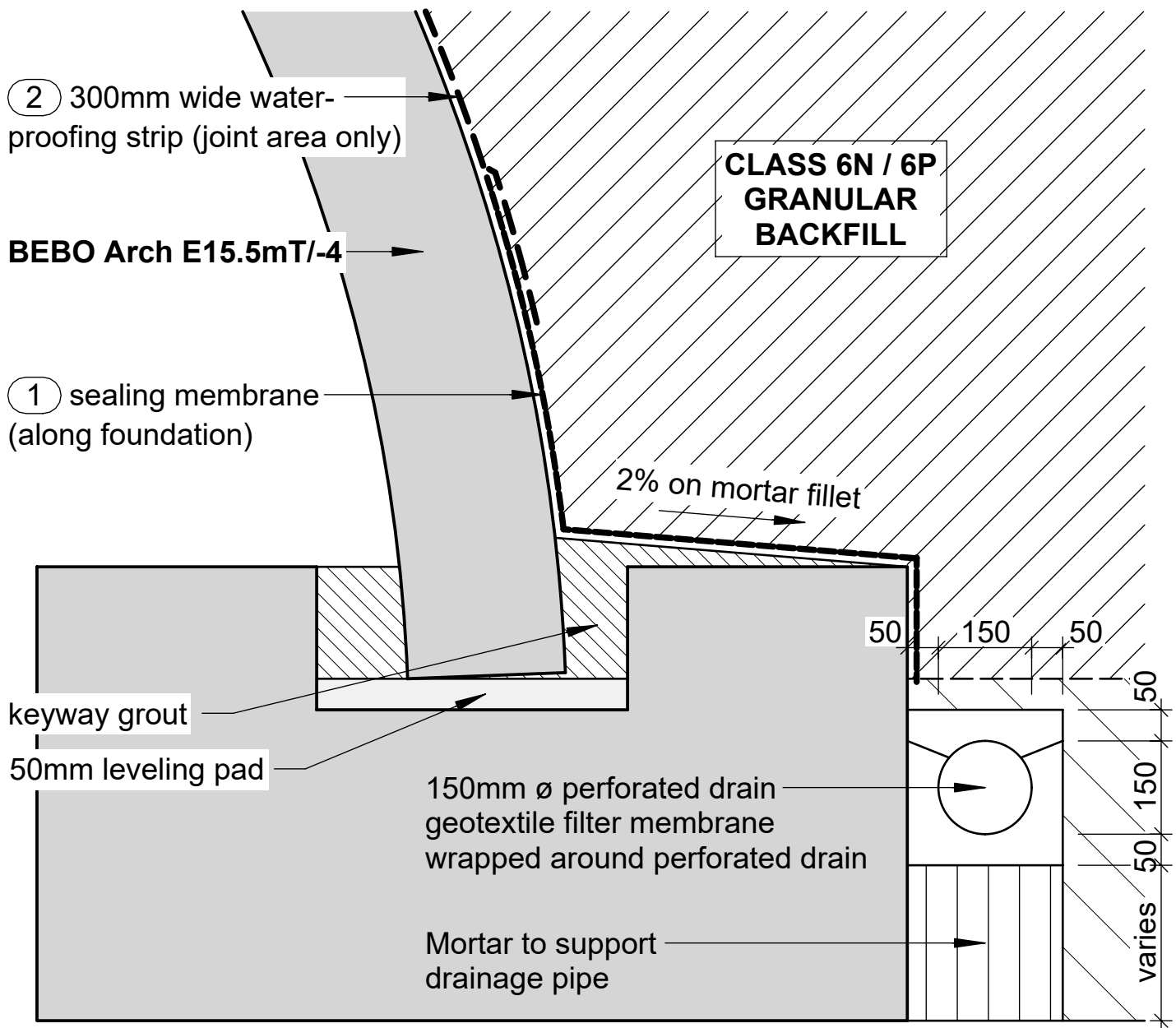


- Step W1: Seal Joint by placing Backer Rod
- Step W2: Cover Backer rod with sealant
- Step W3: Apply BBA certified strip sheeting system
- Step W4: Apply two coats of bituminous paint or equivalent

Backer Rod (Example):
Fosroc Expandafoam, medium Density, closed Cell Polyethylene Backing Rod
20mm dia. which covers Joints Widths of 14 to 17mm or similar approved.

Typical Keyway & Drainage Detail

(schematic)



THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH:

6217-255_E15.5mT/001-637 SEE DRAWING LIST

NOTE:
DO NOT SCALE FROM THIS DRAWING. ALL DIMENSIONS ARE IN MILLIMETRES. LEVELS ARE IN METRES. SCALES REFER TO PLOTS ON DRAWING SIZE SPECIFIED BELOW.

CONFIDENTIAL
SOME PARTS OF THE BEBO SYSTEM ARE PATENTED IN THE UK AND IRELAND. FURNISHING OF THESE DRAWINGS AND SPECIFICATIONS DOES NOT CONSTITUTE AN EXPRESS OR IMPLIED LICENSE TO USE THESE DRAWINGS AND SPECIFICATIONS AND PATENTS.

THE DRAWINGS AND SPECIFICATIONS, HEREIN, CONTAIN PROPRIETARY INFORMATION. THEY ARE THE EXCLUSIVE CONFIDENTIAL PROPERTY OF BEBO ARCH INTERNATIONAL AG. AND COPYING, DISCLOSURES TO OTHERS, OR OTHER USE IS PROHIBITED WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF BEBO ARCH INTERNATIONAL AG.

ALL RIGHTS RESERVED.

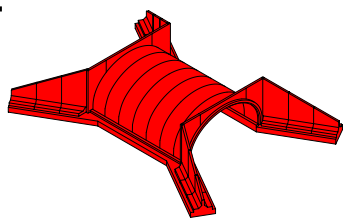
Rev	Description
1	
2	
3	

	BEBO Arch International AG Witikonstrasse 15 CH-8032 Zurich Switzerland T: +41 43 501 04 50 F: +41 43 268 96 71 techcenter@beboarch.com www.beboarch.com	
--	--	--

BEBO SYSTEM

NORTH LITTLEHAMPTON - E15.5mT/-4

INSTALLATION AND DETAILS



ILLUSTRATIONS AND DETAILS

ISSUED FOR APPROVAL

Rev	Date	Drawn	Checked	Size	File #	Document #
	18 Feb 2021	P. Weber	G. Nick	A1 594x840	Z004-T5041	
						6217-255_E15.5mT/004
						Revision 00