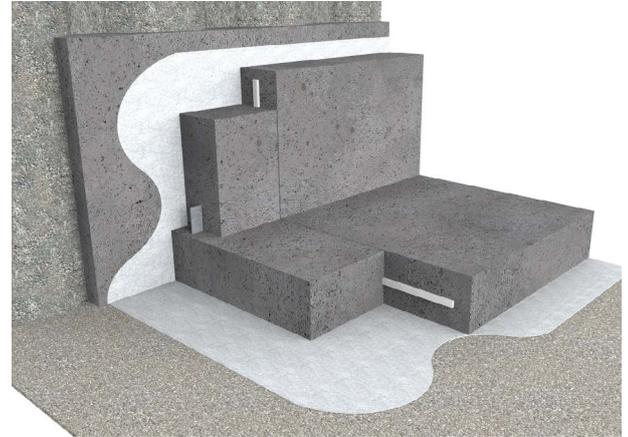


Type A Waterproofing

A-05 SPECIFICATION SHEET

External Waterproofing RC Box & Contiguous Piles

Rev 3.0 - 03 February 2021



BUILD

WALL CONSTRUCTION:
Reinforced Concrete (RC)

FLOOR CONSTRUCTION:
RC Raft

NWI SCORE



This specification employs 1 form of waterproofing (Type A - Barrier Protection) to prevent ground water passing through the structural elements of the building to ensure that the desired internal environment is achieved. The effectiveness of the waterproofing is dependent on the Type A barrier membrane being 100% effective, especially over the mortar joints of the block wall and the wall/raft junction



NOTES

To improve the NWII score and provide a grade 3 environment install Newton CDM System as per Newton Specification Sheet ABC-01.

The detailing of other building elements and termination details are available please contact our technical team.

SPECIFICATION

ANCILLARIES

Install appropriate Newton waterbars to all construction joints and service penetrations.

TYPE A APPLIED EXTERNALLY

Waterproof the structure with [Newton HydroBond System](#) consisting of pre-applied fully bonded membranes.

NEWTON WATERPROOFING INDEX

The Newton Waterproofing Index (NWI) is a unique scoring system that accurately assesses the level of risk and potential success of specific waterproofing specifications. The NWII score is awarded by a panel of experienced waterproofing design specialists and reflects the chances of success of that specification. The scoring system works in conjunction with the British Standard for waterproofing, which defines the three types of internal environments as Grades 1, 2 and 3.

A-RATED INSURANCE

Tailor made insurance policies available depending on the specialist contractor and specification.

Any specification/advice provided is only valid if used with products supplied by John Newton and Company Ltd (trading as Newton Waterproofing Systems). Newton Waterproofing Systems reserve the right to update product literature at any time. Please always refer to our website for the latest versions.

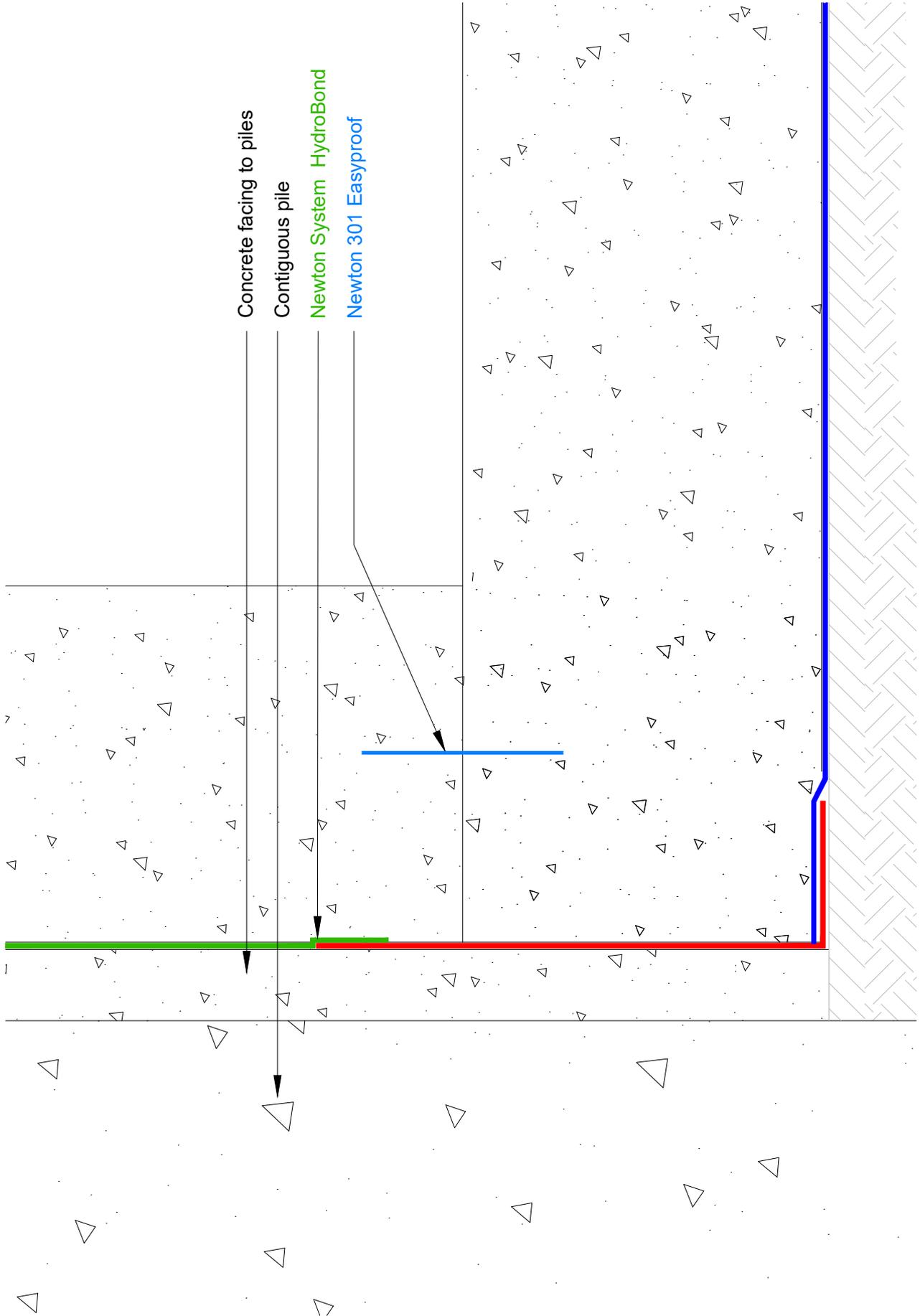
Type A Waterproofing

A-05 SPECIFICATION OUTLINE

External Waterproofing RC Box & Contiguous Piles

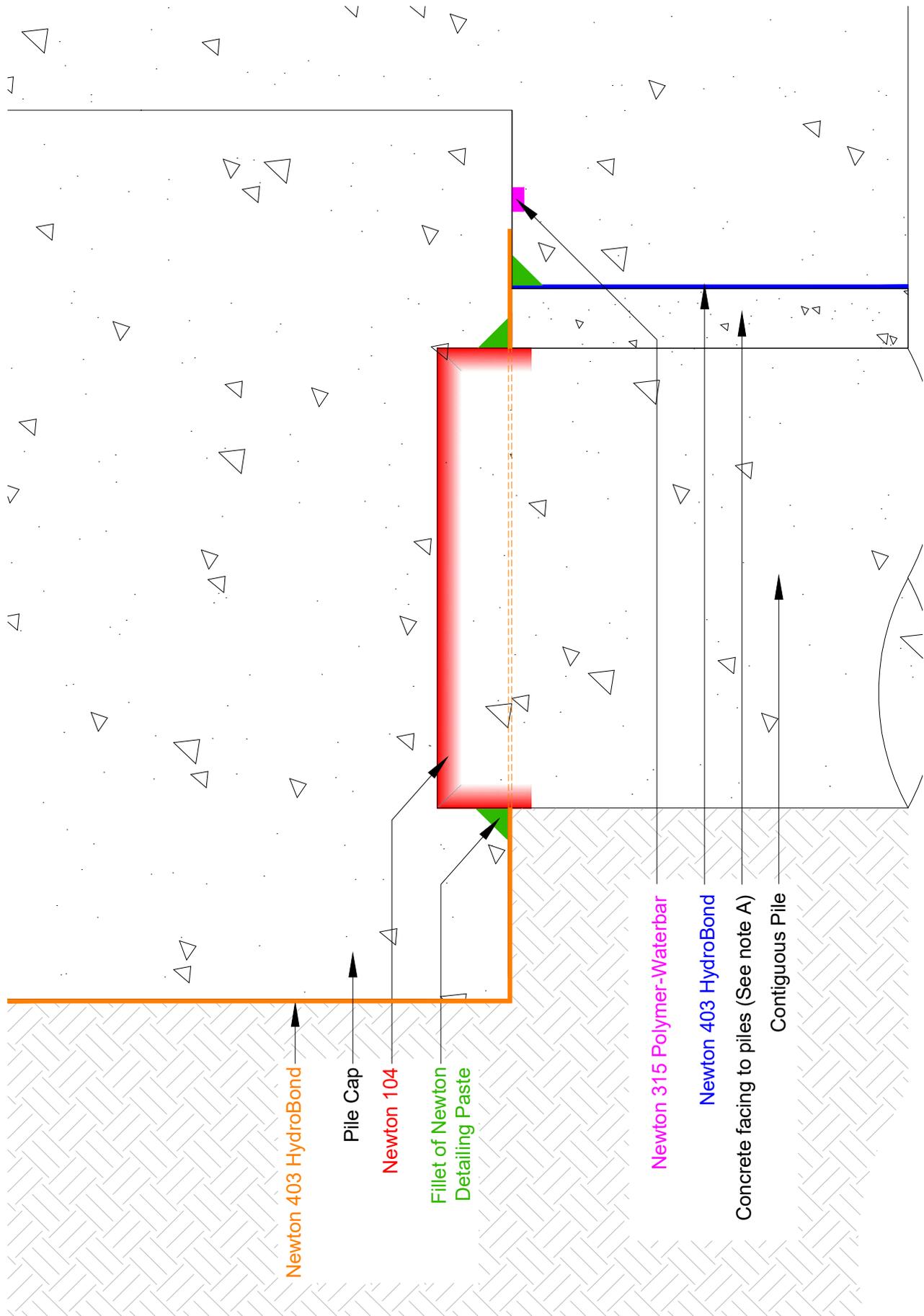
The following specification provides 1 form of waterproofing

Specification	A-05
Description	External waterproofing to RC structure. No gas protection.
Build	Single waterproofing to Reinforced concrete structure. No Gas Protection.
NEWTON HYDROBOND SOLUTION	
	Newton 403 HydroBond®
Preparation	See J40/112 NBS Clause for Newton 403 HydroBond Piles should be faced with sprayed concrete to provide a uniform facing that follows the pile contours. Concrete facing should be structurally capable waterproof concrete facing designed by structural engineer. Please speak with a Newton specialist for further information.
Application	Install the membrane as described in the product Installation Manual. Lap the vertical membrane down onto the suitable substrate, ready for the horizontal application
Base of piles Page 6 of 11	Vertical Newton 403 HydroBond extended horizontally onto blinding (min 100mm), cut and splayed as necessary to allow to lay flat Newton 403 HydroBond (under slab) loose laid onto suitable oversite lapped over the cut and splayed lap from vertical application.
Pile cap Page 5 of 11	Cut the Newton 403 HydroBond to tightly abut the profile of the heads of the contiguous piled wall. Sealed with a fillet of detailing mastic. Newton 403 HydroBond mechanically fixed (shotfired) to profile of concrete piles. Vertical Newton 403 HydroBond abuts the underside of the peel adhered membrane on the soffit of beam, and seal around the profile of each pile with a fillet of Newton detailing paste.
Place Raft	Pay particular attention not to damage the 403 HydroBond membrane during vibration of the concrete.
NEWTON HYDROTANK SOLUTION	
Newton 315 Polymer Waterbar	All construction joints (day joints, shrinkage joints, movement joints etc) should be waterproofed with Newton System 300 waterbars to limit water ingress thorough joints in the structure. Option to include 3rd party certified Newton 315 Polymer Waterbar with NHBC approval
Preparation	See E40/230 NBS Clause for Newton 315 Polymer-Waterbar
Application	Install the waterbar as described in the product datasheet Fix waterbars at the centre dimension of joints
Newton 301 EasyProof	
Application	Install to the reinforcement bars prior to the raft pour.
Place Raft	Please see Newton 301 EasyProof Datasheet
Ancillaries	
Newton Detailing Paste	Please contact the Newton Technical Department to confirm which product is suitable for the intended application.
Newton 315 Polymer-Waterbar	Hydrophilic Waterbar for sealing the joint between the slab and the wall.
Newton XPS 500-C insulation	Insulated drainage spacer, or externally applied insulation, or protection for externally applied membranes.



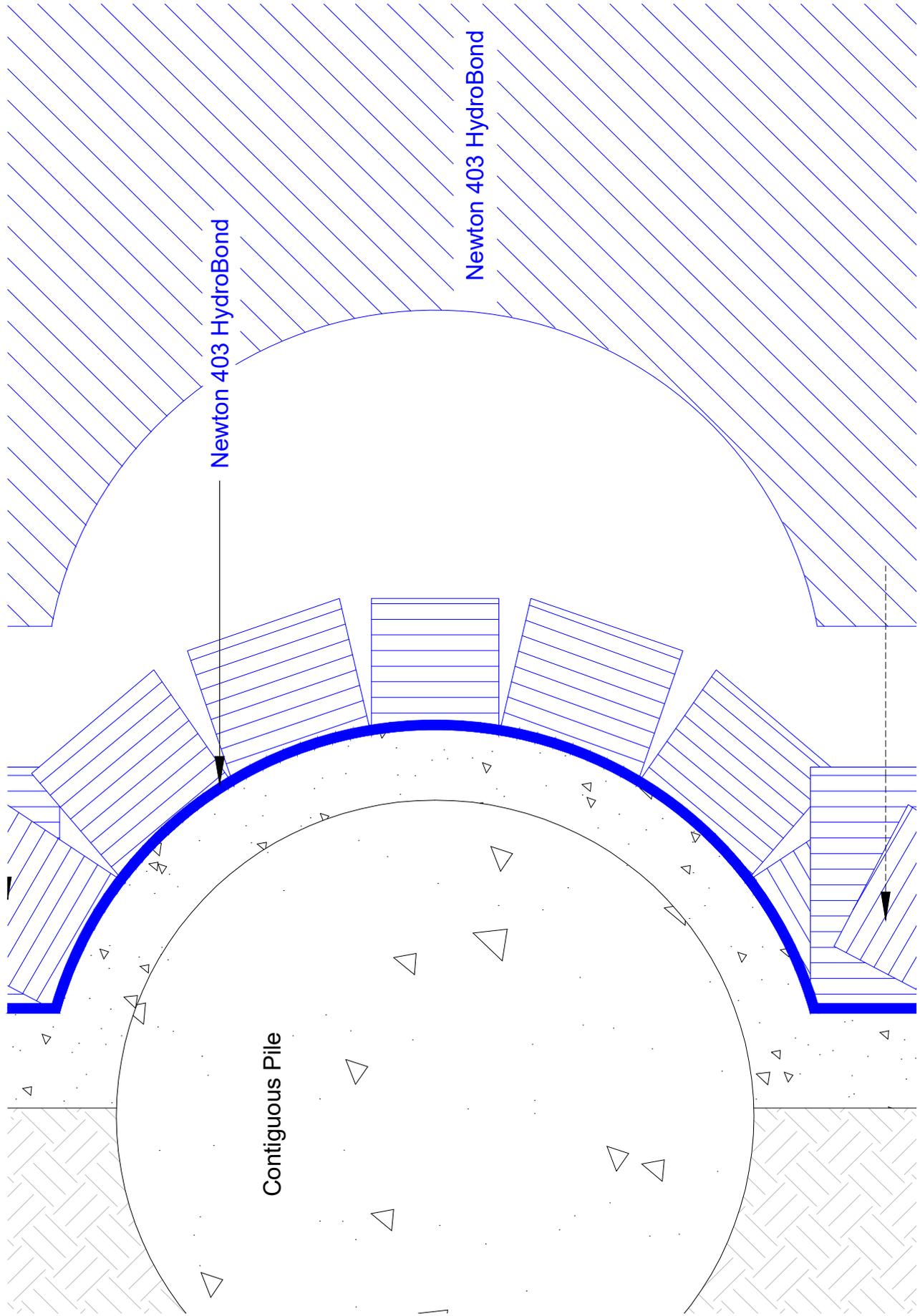
A-05

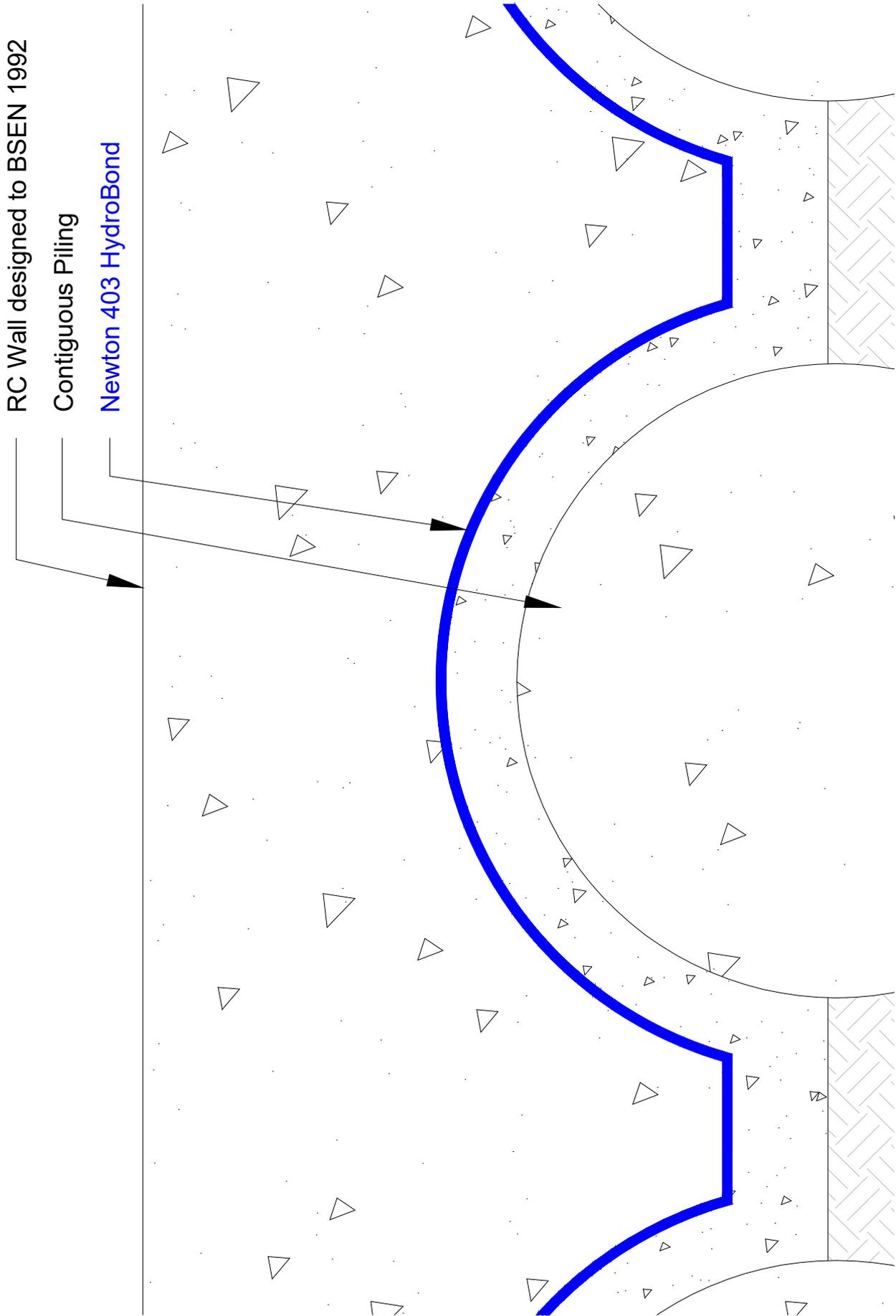
External Waterproofing RC Box & Contiguous Piles



A-05

External Waterproofing RC Box & Contiguous Piles





Type A Waterproofing

A-05 NBS CLAUSE

External Waterproofing RC Box & Contiguous Piles

The following document is to be read alongside the relevant Newton Waterproofing datasheets.

NEWTON J40 - NEWTON HYDROBOND SYSTEM

[J40 Flexible sheet waterproofing/ damp proofing](#)

297A WATERPROOFING MEMBRANE

Newton 403 HydroBond

A high performance, self-healing membrane with a locking fleece on the inner surface and a hydrophilic polymer coating externally. The membrane is BDA approved, NHBC accepted as Type A waterproofing, and the gas barrier variant provides resistance to radon, carbon dioxide and hydrocarbons.

Newton 403 HydroBond provides a complete waterproof envelope to the structure to achieve Type A (barrier) waterproofing suitable for Grades 1, 2 and 3 as defined by BS 8102:2009, are suitable for all below ground and earth-retained structures from domestic basements to the largest civil engineering projects, and can be used as part of the HydroBond® System with Newton 108 HydroBond-LM which is sprayed to the exposed walls of the basement after the temporary formwork is removed. Where space is tight, Newton 109-LM can be applied by roller or brush or small airless spray machine.

Newton 403 HydroBond can be used in conjunction with other Newton products to provide a co-ordinated and combined approach to the waterproofing of the whole structure that includes protection against water ingress to the deck, through construction joints, through and around service entries and to movement joints.

Correctly protected, the Newton HydroBond System will provide, under normal service conditions, a durable waterproof barrier for the life of the building to which it is installed; the expected lifetime of the building itself should be at least 60 years. The Newton HydroBond System is supported by BDA Agrément Certificate BAB 16-031/03/A and is accepted by the NHBC as a suitable waterproofing system for Type A Waterproofing to Grades 1, 2 & 3 – BS 8102:2009 System Manufacturer:

Newton Waterproofing Systems Ltd, Newton House, 17-20 Sovereign Way, Tonbridge, Kent, TN9 1RH
NEWTON E40 - NEWTON HYDROTANK SYSTEM

[E40 Designed joints in in situ concrete](#)

120 CONSTRUCTION/ MOVEMENT JOINTS GENERALLY

Newton 301 EasyProof

Coated metal waterbar system used for sealing kickerless construction joints within retained concrete structures. It features an adhesive, reactive polymer coating on one of its sides which creates a permanent watertight seal that works immediately.

Installation is quick and easy with the waterbar fitted in place to the reinforcement steel with special clips so that after the placement of the concrete, the waterbar is fully embedded within the two adjoining elements, completely blocking the passage of water through the joint.

Because Newton 301 EasyProof is not fixed to one of the concrete elements as is the case with conventional waterbars, the forming of a kicker is not necessary. Where the walls are formed above a kicker joint, use Newton 315 Polymer-Waterbar.

Newton 301 EasyProof metal waterbar is certified to resist water pressure of up to 5 bar (50m), and is resistant to all types of naturally occurring ground water types.

Newton Waterproofing Systems Ltd, Newton House, 17-20 Sovereign Way, Tonbridge, Kent, TN9 1RH

Tel: 01732 360095, Email: Tech@Newtonwaterproofing.co.uk, Web: www.newtonwaterproofing.co.uk

[Please click here to download the full Newton 301 EasyProof NBS Clause](#)

Type A Waterproofing

A-05 NBS CLAUSE

External Waterproofing RC Box & Contiguous Piles

NEWTON E40 - NEWTON HYDROTANK SYSTEM

[E40 Designed joints in in situ concrete](#)

120 CONSTRUCTION/ MOVEMENT JOINTS GENERALLY

Newton 315 Polymer-Waterbar

A high grade, hydrophilic waterbar with high elasticity and high tensile strength, made from a polymer which swells when in contact with moisture. Ideal for sealing structures against water leaks to both cast-in-place concrete and precast construction joints.

The swelling is achieved through hydrophilic acrylate polymers, which are inseparably embedded within the butylene carrier material. This results in high elasticity and exceptional tensile strength, even when fully expanded within the joint.

Due to its high resistance to acids, alkalis and organic solutions, Newton 315 Polymer-Waterbar can be used to seal joints where aggressive water is expected such as within sewage treatment plants, biogas plants and liquid waste holding tanks.

Newton 315 Polymer-Waterbar swells up to 9 times its original size when in contact with water, sealing the joint fully and reliably. Newton 315 Polymer-Waterbar is particularly suited to sealing non-compressed joints such as at the junction between slab and wall.

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[Please click here to download the full Newton 315 Polymer-Waterbar NBS Clause](#)

