
PREPRUFE 300R PLUS & 160R PLUS TECHNICAL DATA SHEET

DESCRIPTION

PREPRUFE® 300R Plus & 160R Plus membranes are unique composite sheets comprised of a thick HDPE film, pressure sensitive adhesive and weather resistant protective coating. Designed with Advanced Bond Technology™ and a dual adhesive ZipLap™, PREPRUFE Plus membranes form a unique, integral bond to poured concrete, preventing both the ingress and lateral migration of water while providing a robust barrier to water, moisture, and gas.

Release liner free and designed for efficient, reliable installation, the PREPRUFE Plus ZipLap allows for an adhesive to adhesive bond at seam overlaps and delivers superior performance in harsh conditions without the need for specialized equipment, heat, or power.

The PREPRUFE R Plus System includes:

- **PREPRUFE 300R Plus** — heavy-duty grade for use below slabs and on rafts (i.e. mud slabs). Designed to accept the placing of heavy reinforcement using conventional concrete spacers.
- **PREPRUFE 160R Plus** — thinner grade for blindside, zero property line applications against soil retention systems. Vertical use only.
- **PREPRUFE Tape LT** — for covering cut edges, roll ends, penetrations, and detailing (temperatures between -4°C and +30°C).
- **PREPRUFE Tape HC** — for covering cut edges, roll ends, penetrations, and detailing (minimum 10°C).
- **PREPRUFE CJ Tape LT** — for construction joints, and detailing (temperatures between -4°C and +30°C).
- **PREPRUFE CJ Tape HC** — for construction joints, and detailing (minimum 10°C)
- **Bituthene® LM**—for sealing around penetrations, etc.
- **Water-Bar XR or Water-Bar XR-SW**— waterstop for joints in concrete walls and floors.
- **PREPRUFE Tieback Covers** — preformed cover for soil retention wall tieback heads.

PREPRUFE 300R Plus & 160R Plus membranes are applied either horizontally to smooth prepared concrete, carton forms or well rolled and compacted earth or crushed stone substrate; or vertically to permanent formwork or adjoining structures. Concrete is then cast directly against the adhesive side of the membranes. The specially developed PREPRUFE adhesive layers work together to form a continuous and integral seal to the structure.

PREPRUFE can be returned up the inside face of slab formwork but is not recommended for conventional twin-sided formwork on walls, etc. Use Bituthene self-

adhesive membrane or GCP's Polymeric Liquid membrane to walls after removal of formwork for a fully bonded system to all structural surfaces.

TECHNICAL SPECIFICATIONS

Test Method	Technical Specifications	300R	160R	PREPRUFE Tape (LT or HC)
N/A	LENGTH	31.15m	36.8m	15m
N/A	WIDTH	1.17m	1.17m	100mm
ASTM D2367	NOMINAL THICKNESS	1.2mm	0.8mm	-
N/A	GROSS WEIGHT	50kg	42kg	2kg
N/A	AREA	36m ²	42m ²	-
N/A	MINIMUM LAPS	75mm	75mm	75mm
	COLOUR	White	White	-
ASTM D412	TENSILE STRENGTH OF, FILM	27.6 Mpa	27.6 Mpa	-
ASTM D412 modified ³	ELONGATION	500%	500%	-
ASTM C836 ⁴	CYCLING OVER CRACK @ -32°C 100 CYCLES	Unaffected, Pass	Unaffected, Pass	-
ASTM E154	PUNCTURE RESISTANCE	990 N	445 N	-
ASTM D5385 modified ²	RESISTANCE TO HYDROSTATIC HEAD	71m	71m	-
ASTM E96 method B	PERMEANCE	0.01 perms (0.6 ng/(Pa x s x m ²))	0.01 perms (0.6 ng/(Pa x s x m ²))	-
ASTM D1876 modified ⁶	LAP PEEL ADHESION AT 22°C	1408 N/m	1408 N/m	-
ASTM D1876 modified ⁶	LAP PEEL ADHESION AT 4°C	1408 N/m	1408 N/m	-
ASTM D903 modified ⁵	PEEL ADHESION TO CONCRETE	880 N/m	880 N/m	-
ASTM D5385 modified ¹	LATERAL WATER MIGRATION RESISTANCE	Pass at 71m of hydrostatic head pressure	Pass at 71m of hydrostatic head pressure	-
ASTM D1970	LOW TEMPERATURE FLEXIBILITY	Unaffected at -29°C	Unaffected at -29°C	-

Footnotes:

1. Lateral water migration resistance is tested by casting concrete against membrane with a hole and subjecting the membrane to hydrostatic head pressure with water. The test measures the resistance of lateral water migration between the concrete and the membrane.

2. Hydrostatic head tests of PREPRUFE Membranes are performed by casting concrete against the membrane with a lap. Before the concrete cures, a 3 mm spacer is inserted perpendicular to the membrane to create a gap. The cured block is placed in a chamber where water is introduced to the membrane surface up to the head indicated.

3. Elongation of membrane is run at a rate of 50 mm per minute.

4. Concrete is cast against the PREPRUFE membrane and allowed to cure (7 days minimum).

5. Concrete is cast against the protective coating surface of the membrane and allowed to properly dry (7 days minimum). Peel adhesion of membrane to concrete is measured at a rate of 50 mm per minute at room temperature.

6. The test is conducted 15 minutes after the lap is formed (per GCP published recommendations) and run at a rate of 50 mm per minute at 22°C.

AREA OF USE

Pre-applied waterproofing membranes that bond integrally to poured concrete for use below slabs or behind basement walls on confined sites.

INSTRUCTIONS FOR USE

Surface preparation:

All surfaces - It is essential to create a sound and solid substrate to eliminate movement during the concrete pour. Substrates must be regular and smooth with no gaps or voids greater than 12 mm. Grout around all penetrations such as utility conduits, etc. for stability.

Horizontal - The substrate must be free of loose aggregate and sharp protrusions. Avoid curved or rounded substrates. When installing over earth or crushed stone, ensure substrate is well compacted to avoid displacement of substrate due to traffic or concrete pour. The surface does not need to be dry, but standing water must be removed.

Vertical - Use concrete, plywood, insulation or other approved facing to sheet piling to provide support to the membrane. Board systems such as timber lagging must be close butted to provide support and not more than 12 mm out of alignment.

Membrane installation:

The most current application instructions, detail drawings and technical letters can be viewed at gcpat.com. For other technical information contact your local NURALITE representative.

PREPRUFE Plus membranes have coloured zip strips at the top and bottom of the seam area on the edge of the roll. Both zip strips cover an aggressive adhesive. Once the green zip strip on the top of the membrane and the blue zip strip on the bottom of the membrane is removed, a strong adhesive to adhesive bond is achieved in the overlap area. This PREPRUFE ZipLap™ provides an enhanced sealing of the overlaps in harsh conditions combined with a fast and easy way of execution without specialized equipment, heat, or power.

PREPRUFE Plus membranes can be applied at temperatures of -4°C or above. When installing PREPRUFE Plus product in cold or marginal weather conditions <4°C the use of PREPRUFE Tape LT is recommended at all laps and detailing. PREPRUFE Tape LT should be applied to clean, dry surfaces and the release liner must be removed immediately after application. Alternatively, PREPRUFE Plus Low Temperature (LT) membrane is available for low temperature applications. Refer to PREPRUFE Plus LT data sheet and GCP tech letter 16 for more information.

Horizontal substrates - Kick out or roll out the membrane HDPE film side to the substrate with the green zip strip facing towards the concrete pour. End laps should be

staggered to avoid a build-up of layers. Leave green and blue zip strips on the membrane until overlap procedure is completed.

Accurately position succeeding sheets to overlap the previous sheet 75 mm along the marked selvedge with the blue zip strip on top of the green zip strip. Ensure the underside of the succeeding sheet is clean, dry, and free from contamination before attempting to overlap. Peel back and remove both the green and blue zip strips in the overlap area to achieve an adhesive to adhesive bond at the overlap. Ensure a continuous bond is achieved without creases and roll firmly with a heavy roller. Refer to GCP Tech Letter 15 for information on suitable rebar chairs for PREPRUFE products.

Vertical substrates - Mechanically fasten the membrane vertically using fasteners appropriate for the substrate with the green zip strip facing towards the concrete pour. The membrane may be installed in any convenient length. Fastening can be made through the selvedge using a small and low-profile head fastener so that the membrane lays flat and allows firmly rolled overlaps. Accurately position succeeding sheets to overlap the previous sheet 75 mm along the marked selvedge with the blue zip strip on top of the green zip strip.

Ensure the underside of the succeeding sheet is clean, dry, and free from contamination before attempting to overlap. Peel back and remove both the green and blue zip strips in the overlap area to achieve an adhesive to adhesive bond at the overlap. Roll firmly to ensure a watertight seal.

Roll ends and cut edges

Overlap all roll ends and cut edges by a minimum 75 mm and ensure the area is clean and free from contamination, wiping with a damp cloth if necessary. Allow to dry and apply PREPRUFE Tape LT (or HC in hot climates) centred over the lap edges and roll firmly. Immediately remove tinted plastic release liner from the tape.

Details

Detail drawings are available at <https://www.nuralite.co.nz/index>.

Membrane Repair

Inspect the membrane before installation of reinforcement steel, formwork, and final placement of concrete. The membrane can be easily cleaned by power washing if required. Repair damage by wiping the area with a damp cloth to ensure the area is clean, and free from dust, and allow to dry. Repair small punctures (12 mm or less) and slices by applying PREPRUFE Tape centred over the damaged area. Repair holes and large punctures by applying a patch of PREPRUFE® Plus membrane, which extends 150 mm beyond the damaged area. Seal all edges of the patch with PREPRUFE Tape.

Any areas of damaged adhesive should be covered with PREPRUFE Tape. Where exposed selvedge has lost adhesion or laps have not been sealed, ensure the area is clean and dry and cover with fresh PREPRUFE Tape. All PREPRUFE Tape must be rolled firmly, and the tinted release liner removed. Alternatively, use a hot air gun or

similar to activate the adhesive using caution not to damage the membranes and firmly roll lap to achieve continuity.

Pouring of Concrete

Ensure the plastic release liner is removed from all areas of PREPRUFE Tape.

It is recommended that concrete be poured within 56 days (42 days in hot climates) of application of the membrane. Following proper Australian / New Zealand standards or industry guidelines, concrete must be placed carefully and consolidated properly to avoid damage to the membrane. Never use a sharp object to consolidate the concrete. Provide temporary protection from concrete over splash for areas of the PREPRUFE membrane that are adjacent to a concrete pour.

Removal of Formwork

PREPRUFE membranes can be applied to removable formwork, such as slab perimeters, elevator and lift pits, etc. Once the concrete is poured the formwork must remain in place until the concrete has gained sufficient compressive strength to develop the surface bond. PREPRUFE membranes are not recommended for conventional twin sided wall forming systems, see GCP Tech Letter 13 for information on forming systems used with PREPRUFE products.

A minimum concrete compressive strength of 20 N/mm² is recommended prior to stripping formwork supporting PREPRUFE membranes. Premature stripping may result in displacement of the membrane and/or spalling of the concrete.

Refer to GCP Tech Letter 17 for information on removal of formwork for PREPRUFE products.

Specification Clauses

PREPRUFE 300R Plus or 160R Plus membranes shall be applied with its protective coating presented to receive fresh concrete to which it will integrally bond. Only GCP Applied Technologies approved membranes shall be bonded to PREPRUFE® products. All PREPRUFE system materials shall be supplied by NURALITE Waterproofing Ltd, and applied strictly in accordance with their instructions. Specimen performance and formatted clauses are also available.

NOTE: Use PREPRUFE Tape to tie-in GCP's Polymeric Liquid membrane with PREPRUFE product.

Protection system:

- In order to prevent damages, PREPRUFE must be protected with NURADRAIN protection board where applicable as soon as possible.

INDICATIONS AND IMPORTANT RECOMMENDATIONS

- PREPRUFE should not be applied when temperature is below -4° without consultation with the NURALITE representative.

- Must be stored in a dry place protected from rain, sun, heat, and cold temperatures.

Full application instructions are covered in the PREPRUFE Method Statement, and PREPRUFE details.

SAFETY, STORAGE & HANDLING INFORMATION

Do not stack pallets

Store indoors

Refer to relevant SDS (Safety Data Sheet). Complete rolls should be lifted and carried by a minimum of two persons.

TRANSPORT CLASSIFICATION

N/A

The information in this product data sheet is based on our experience and testing. It represents the latest information available at the time of printing, but no guarantee of its accuracy is made or implied, nor responsibility taken for use to which this information may be put. We reserve the right to alter or up-date information parameters and formulations at any time without notice.

THIS DRAWING IS INDICATIVE ONLY AND BY NO MEANS COMPREHENSIVE

NOTES:-

All sharp edges/corners to be arrised

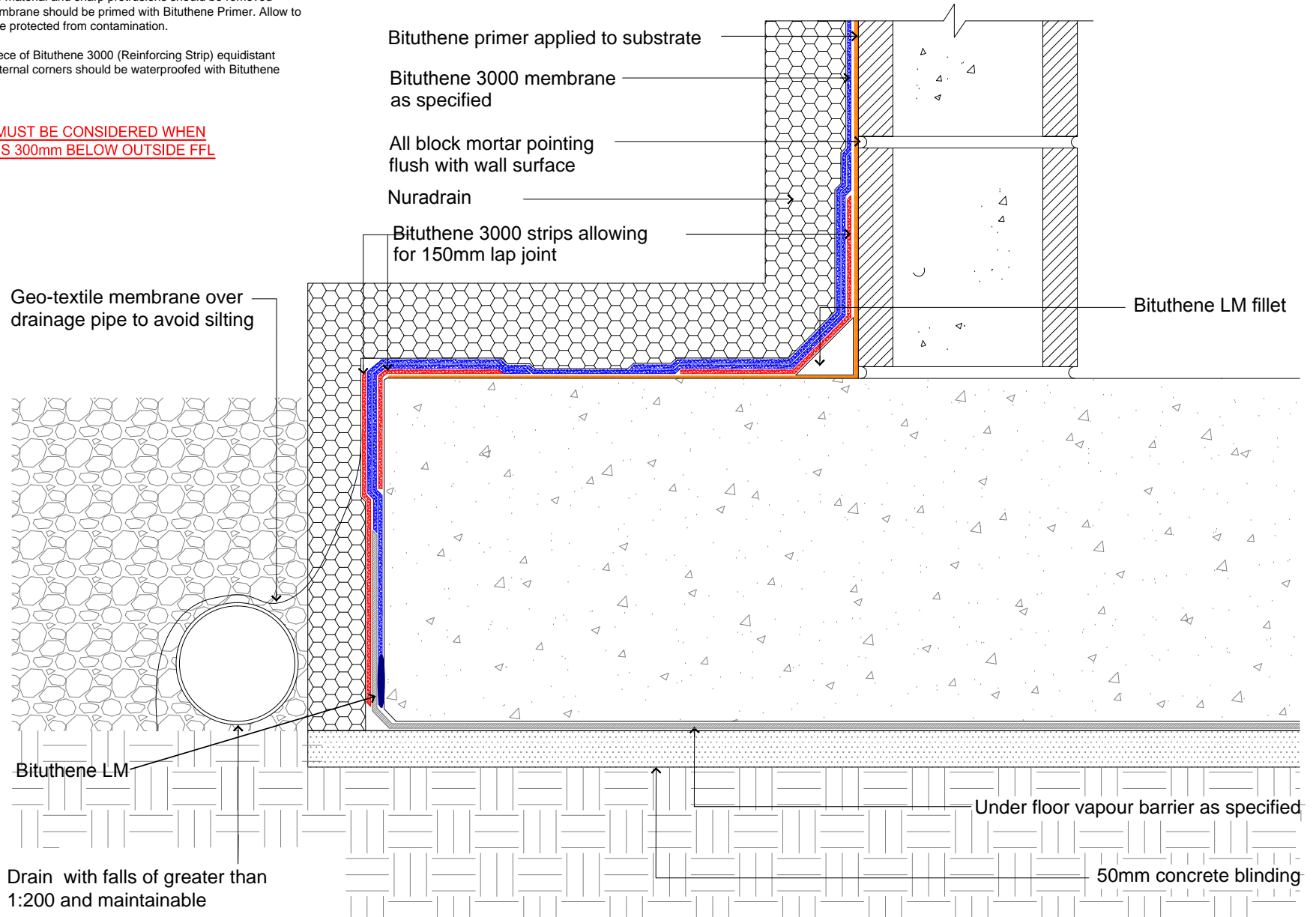
Preparations

All surfaces must be smooth, clean and dry. Loose material and sharp protrusions should be removed mechanically. All areas receiving torch applied membrane should be primed with Bituthene Primer. Allow to dry completely. The newly applied primer should be protected from contamination.

Angles and Corners

These should be reinforced with a 300mm wide piece of Bituthene 3000 (Reinforcing Strip) equidistant across the previously primed area. Internal and external corners should be waterproofed with Bituthene 3000 Membrane.

TANKING UNDER THE SLAB MUST BE CONSIDERED WHEN SLAB FFL (finished floor level) IS 300mm BELOW OUTSIDE FFL



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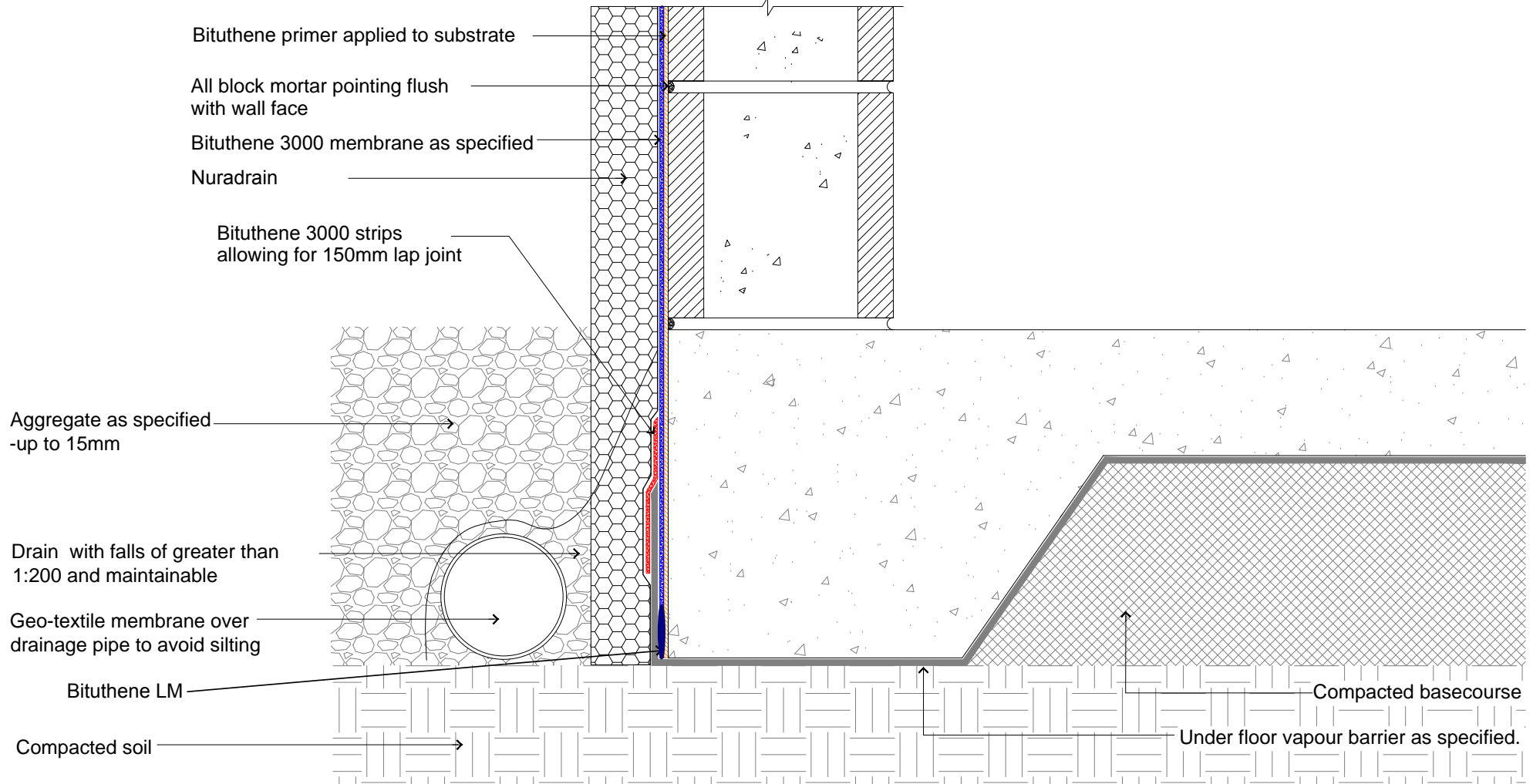
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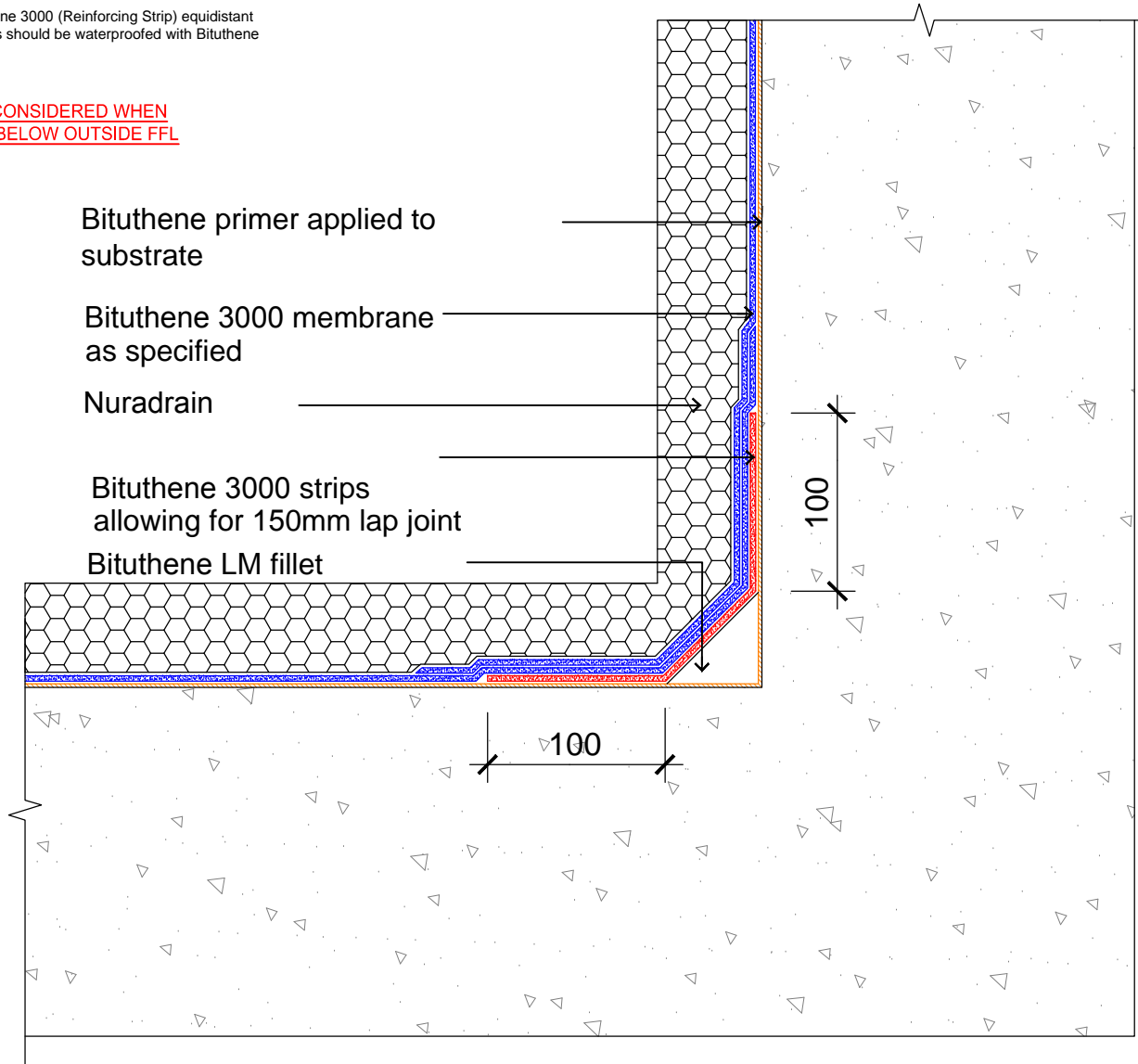
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PLAN VIEW

TANKING UNDER THE SLAB MUST BE CONSIDERED WHEN SLAB FFL (finished floor level) IS 300mm BELOW OUTSIDE FFL



Bituthene primer applied to substrate

Bituthene 3000 membrane as specified

Nuradrain

Bituthene 3000 strips allowing for 150mm lap joint

Bituthene LM fillet

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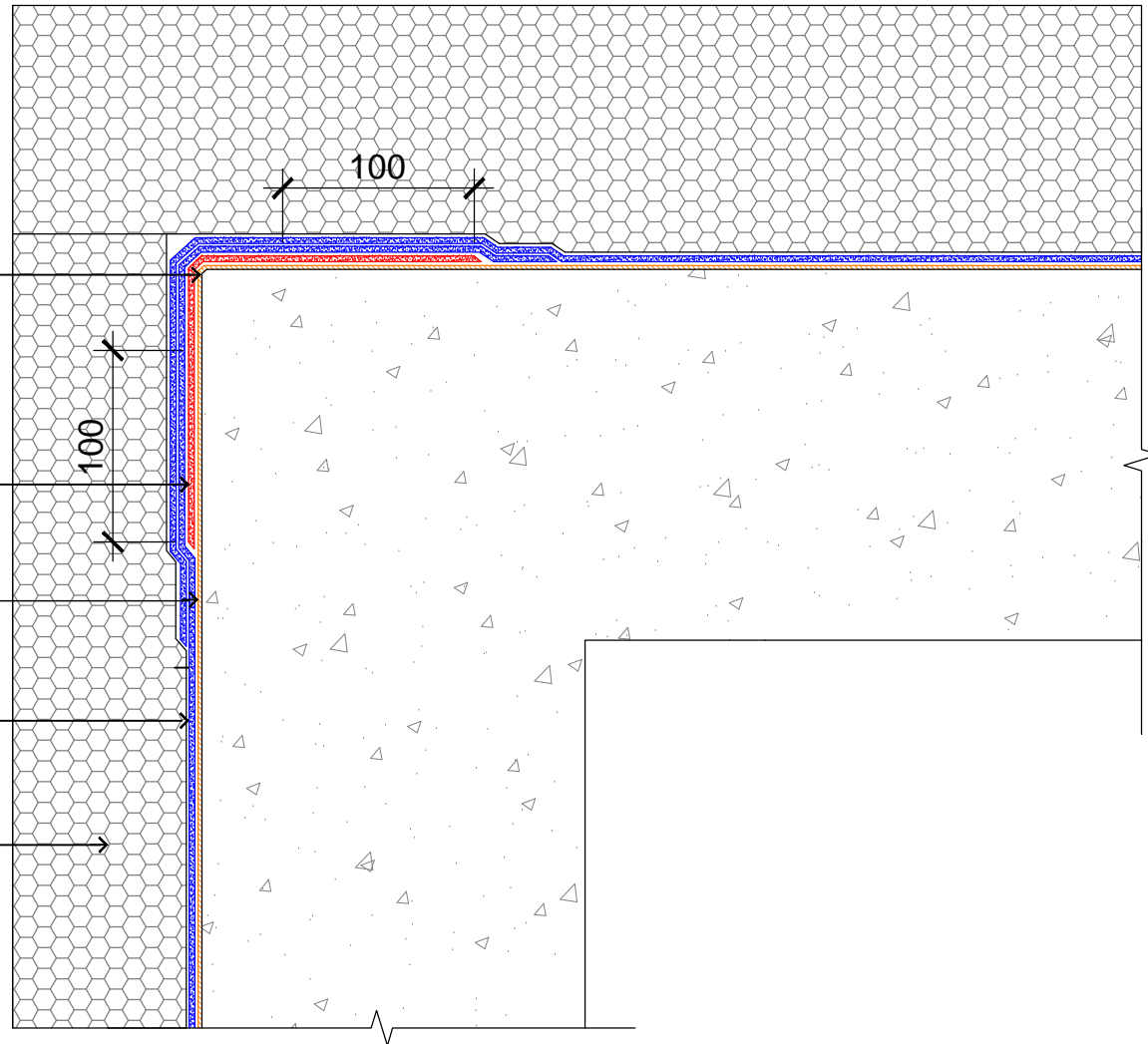
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PLAN VIEW

TANKING UNDER THE SLAB MUST BE CONSIDERED WHEN SLAB FFL (finished floor level) IS 300mm BELOW OUTSIDE FFL

- Chamfer
- Bituthene 3000 strips allowing for 150mm lap joint
- Bituthene primer applied to substrate
- Bituthene 3000 membrane system as specified
- Nuradrain



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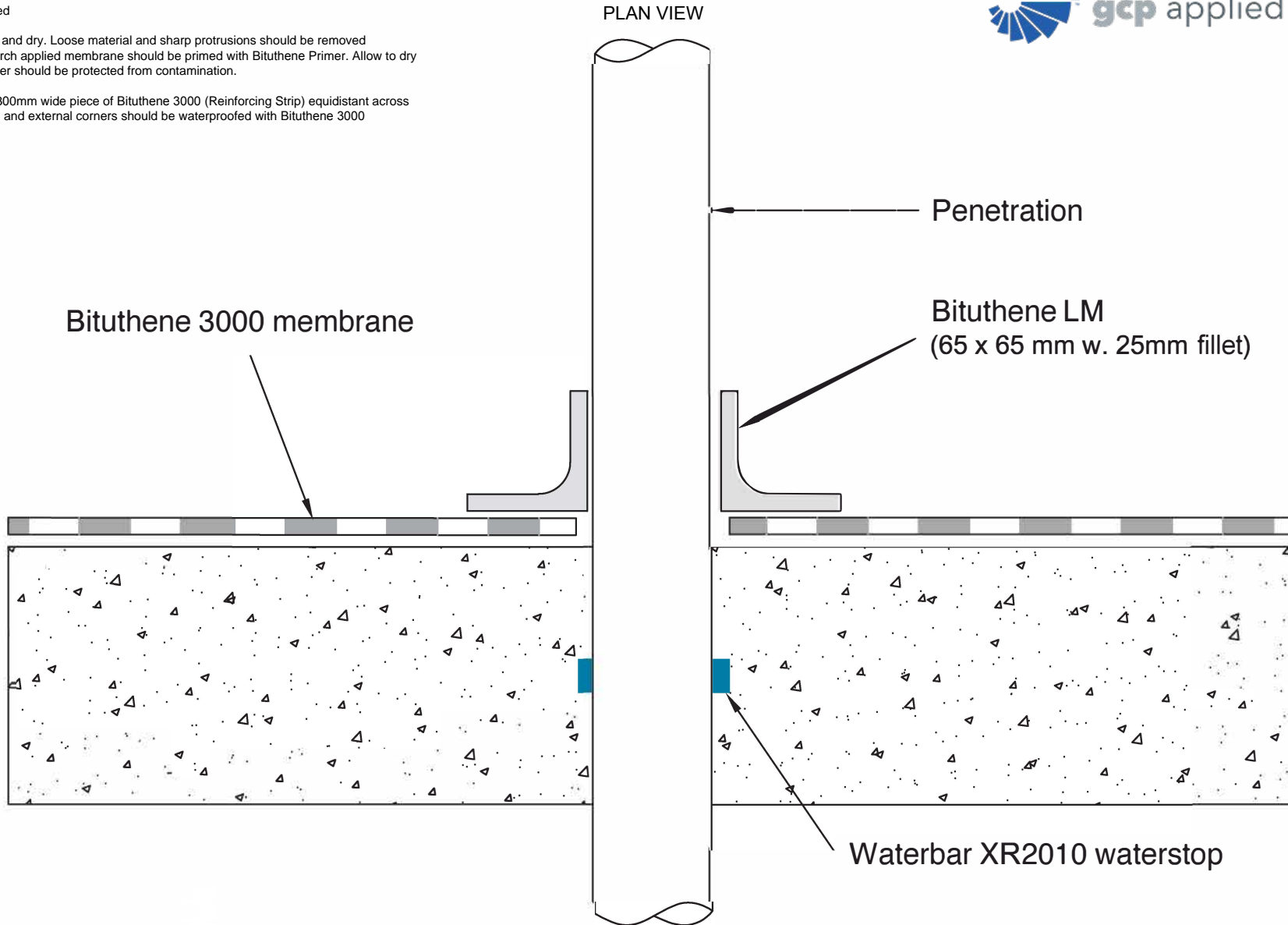
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Angles and Corners

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TANKING UNDER THE SLAB MUST BE CONSIDERED WHEN SLAB FFL (finished floor level) IS 300mm BELOW OUTSIDE FFL

NOTES - NURADRAIN NOT SHOWN FOR CLARITY
 - NURALITE MAY REQUIRE AN ALTERNATE GCP WATERSTOP BASED ON DESIGN CONDITIONS

PRODUCT:		BITUTHENE 3000	
DESCRIPTION:		CONCRETE WALL PENETRATION	
SCALE:	NTS	PREVIOUS DWG No:	New
REVISION:	Rev F	DATE:	OCT 20
			DWG No: TCS-.E1

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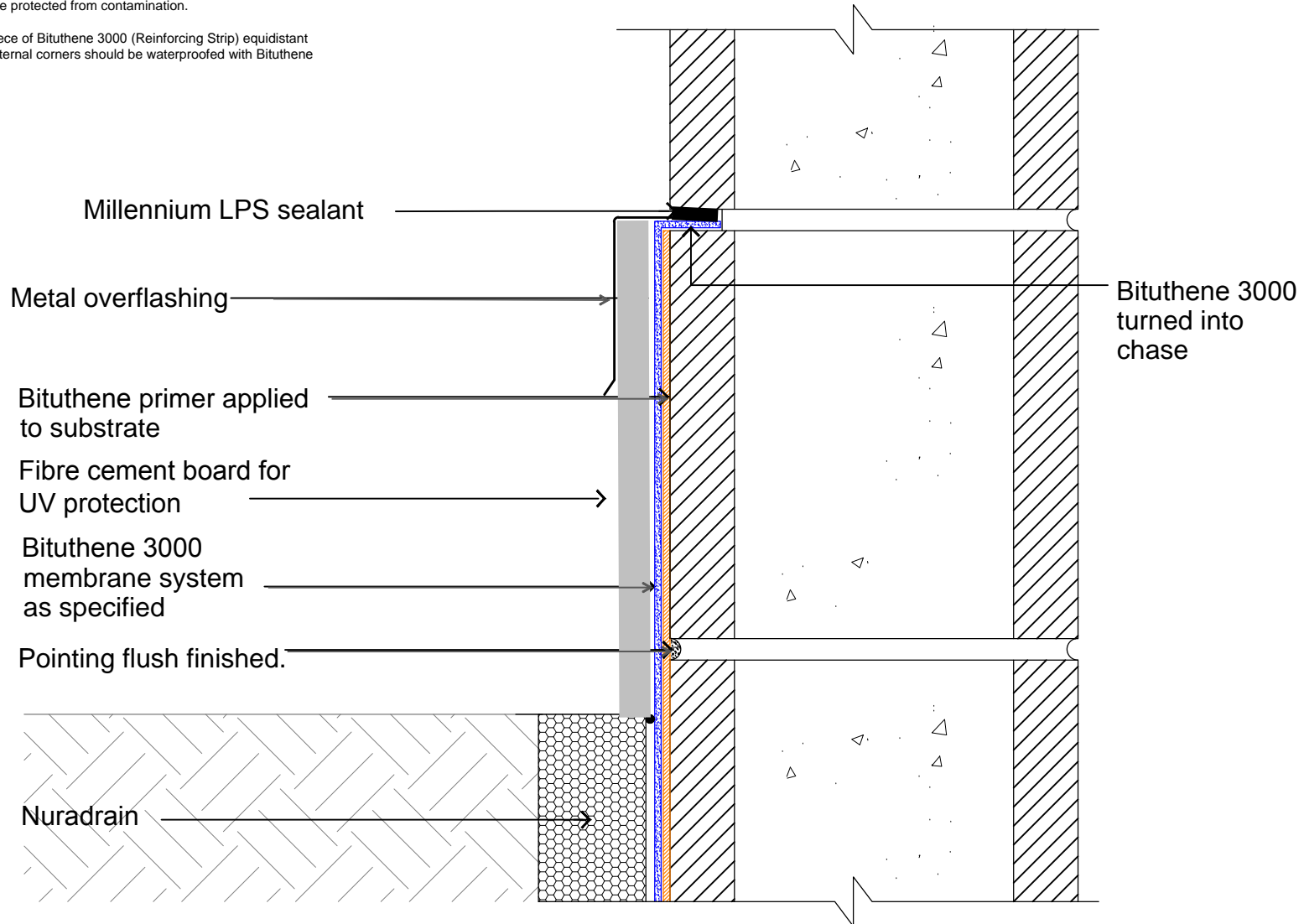
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Preparations

All surfaces must be smooth, clean and dry. Loose material and sharp protrusions should be removed mechanically. All areas receiving torch applied membrane should be primed with Bituthene Primer. Allow to dry completely. The newly applied primer should be protected from contamination.

Angles and Corners

These should be reinforced with a 300mm wide piece of Bituthene 3000 (Reinforcing Strip) equidistant across the previously primed area. Internal and external corners should be waterproofed with Bituthene 3000 Membrane.



TANKING UNDER THE SLAB MUST BE CONSIDERED WHEN

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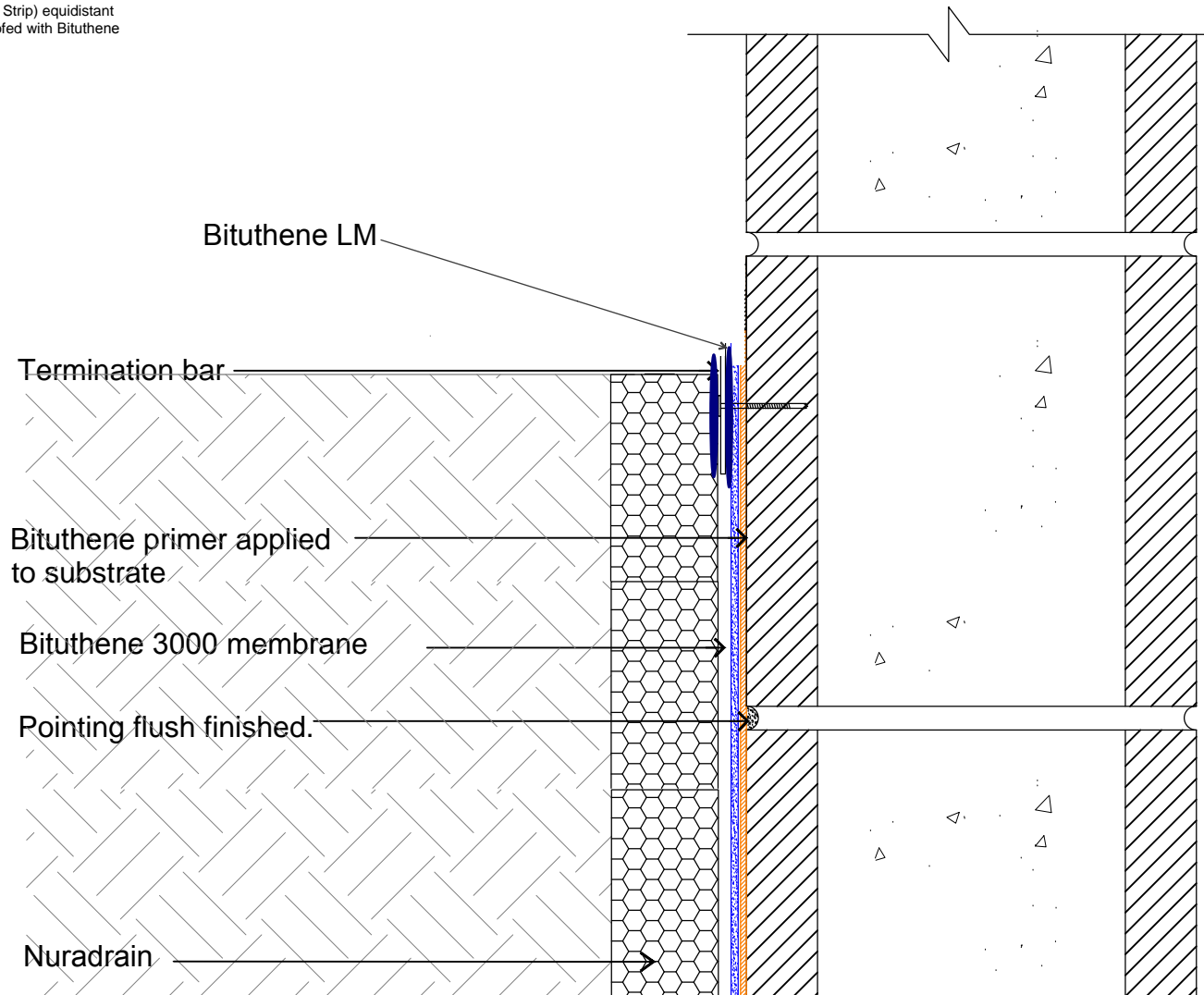
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TANKING UNDER THE SLAB MUST BE CONSIDERED WHEN SLAB FFL (finished floor level) IS 300mm BELOW OUTSIDE FFL

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 All surfaces must be smooth, clean and dry. Loose material and sharp protrusions should be removed mechanically. All areas receiving torch applied membrane should be primed with Bituthene Primer. Allow to dry completely. The newly applied primer should be protected from contamination.
Angles and Corners
 These should be reinforced with a 300mm wide piece of Bituthene 3000 (Reinforcing Strip) equidistant across the previously primed area. Internal and external corners should be waterproofed with Bituthene 3000 Membrane.

Bituthene Primer applied on substrate

Nuradrain

Bituthene 3000 membrane system as specified

Bituthene 3000 strip

100mm

20mm gap approx

Specified sealant (Width greater than depth with concave finish)

Non Adherent Backing Rod

Precast Concrete Panel

TECHNICAL DATA SHEET

DESCRIPTION

BITUTHENE® 3000 is a high performance, cold-applied, flexible, preformed factory controlled thickness waterproof membrane combining a special high performance, cross-laminated, HDPE carrier film with a unique self-adhesive rubber bitumen compound.

Waterproof membrane with high hydrostatic head resistance. The high density cross-laminated polythene film provides dimensional stability and puncture resistance. A simply single layer, reliable, low labour cost with the benefit of site programmed installation.

Gas resistant to methane, carbon dioxide and radon gas protection in excess of the standard requirements in BRE Reports 211 (radon) and 212 (methane and carbon dioxide). Provides external chemical resistance for effective protection against aggressive environments and ozone attack.

Cold applied with no flame or heating required. Self-adhesive rubberised asphalt, ensuring continuity at overlaps and reinforcements. Unique rubber/bitumen formulation allows healing of small punctures and allows flexibility to accommodate minor settlement and shrinkage movement.

TECHNICAL SPECIFICATIONS

Test Method	Technical Specifications	Unit of Measurement	Nominal Value
N/A	LENGTH	m	20
N/A	WIDTH	m	1
N/A	NOMINAL THICKNESS*	mm	1.5
N/A	GROSS WEIGHT	kg	39
ASTM D412 modified**	TENSILE STRENGTH OF MEMBRANE		4N/mm
ASTM D412 modified**	ELONGATION OF MEMBRANE (to ultimate failure of membrane)		200%
ASTM D1876	LAP ADHESION @ 23°C		683N/m
ASTM C836	CYCLING OVER CRACK @ -32°C		No effect over 100 cycles
ASTM E154	PUNCTURE RESISTANCE OF MEMBRANE		>220N
ASTM D5385	RESISTANCE TO HYDROSTATIC HEAD		60m
ASTM E96 (12)	PERMEANCE		1.9na Pa. m2. S

Typical test values represent average values from samples tested. Test methods noted may be modified. * Nominal thickness refers to the thickness of the membrane without release liner. ** The test is run at a rate of 100 mm per minute. Please consult your local NURALITE representative on recommended installation temperature.

AREA OF USE

Basements, sub-structures, elevated or grade level podiums.

TECHNICAL DATA SHEET

INSTRUCTIONS FOR USE

Surface preparation:

- Concrete must be dry, clean and free from sharp projections such as nail heads and concrete nibs.
- Remove all surface imperfections, protrusions, cavities, structurally unsound and friable concrete and repair with NURAPATCH.
- Remove contaminants such as grease, oil, dust, dirt, loose stones, debris and wax from exposed concrete.
- Concrete must be properly dried (minimum 28 days for normal structural concrete and 14 days for lightweight structural concrete).
- Substrate should be prepared using BITUTHENE® 3000 solvent primer, at the recommended rate (approximately 6/8m² per litre depending on porosity) prior to installation of BITUTHENE® 3000.
- Primer should be dry before the application of the membrane. Drying time depends of the temperature and humidity.
- Apply NURALITE bitumen fillets where required before membrane placement.

Alignment:

- Start the installation of all membrane plies from the low point or drains, so the flow of water is over or parallel to the plies, but never against the laps. All overlaps at the membrane seams shall be installed so as to have "up" slope laps over "down" slope laps.
- Begin membrane application by unrolling the roll of BITUTHENE® 3000 membrane and aligning the side laps. Re-roll the roll halfway and hold on the unrolled portion to prevent shifting.

Membrane installation:

- Unroll only the required length of BITUTHENE® 3000, and cut the piece to the desired shape and size.
- Place the pieces of BITUTHENE 3000® on the area to be covered, and check whether they match with the profile of the marked substrate.
- Peel off the release film from the self-adhesive side and place the membrane so as to ensure a minimum overlap of 50 mm.
- Start unrolling the membrane and press it firmly against the surface, from the middle to the edges in order to drive out entrapped air with a wooden press or roller.
- The surface to be overlapped should be dust free and the membrane must be firmly pressed down to ensure a watertight bond.
- Apply BITUTHENE 3000® reinforcing strips 300mm wide where required.

Protection system:

- In order to prevent damages, BITUTHENE® 3000 must be protected with NURADRAIN protection board as soon as possible.

INDICATIONS AND IMPORTANT RECOMMENDATIONS

- BITUTHENE 3000® should not be applied when temperature is below +10° without consultation with the NURALITE representative.
- Must be stored in a dry place protected from rain, sun, heat and cold temperatures.
- Sun exposure of the product may difficult the removal of the polyethylene non-stick film. In service, maximum temperature should be below 50°C.

Bituthene
3000

TECHNICAL DATA SHEET

- BITUTHENE 3000® should be kept exposed to the sun for the minimum possible time in order to prevent from U.V. rays damage. It is recommended to cover BITUTHENE ® 3000 within a few hours after application.

Full application instructions are covered in the BITUTHENE ® 3000 Method Statement, and BITUTHENE 3000® details.

SAFETY, STORAGE & HANDLING INFORMATION

Do not stack pallets
Store indoors

TRANSPORT CLASSIFICATION

N/A

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THE PREPRUFE R PLUS SYSTEM INCLUDES:

- **PREPRUFE® 300R Plus** — heavy-duty grade for use below slabs and on rafts (i.e. mud slabs). Designed to accept the placing of heavy reinforcement using conventional concrete spacers.
- **PREPRUFE® Tape LT** — for covering cut edges, roll ends, penetrations, and detailing (temperatures between -4°C and +30°C).
- **PREPRUFE® Tape HC** — for covering cut edges, roll ends, penetrations, and detailing (minimum 10°C).
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PREPRUFE® can be returned up the inside face of slab formwork but is not recommended for conventional twin-sided formwork on walls, etc. Use BITUTHENE® self-adhesive membrane or GCP's Polymeric Liquid membrane to walls after removal of formwork for a fully bonded system to all structural surfaces.

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N/A	GROSS WEIGHT	50kg	42kg	2kg
N/A	AREA	36m ²	42m ²	-
N/A	MINIMUM LAPS	75mm	75mm	75mm
	COLOUR	White	White	-
ASTM D412	TENSILE STRENGTH OF, FILM	27.6 Mpa	27.6 Mpa	-
ASTM D412 modified ³	ELONGATION	500%	500%	-
ASTM C836 ⁴	CYCLING OVER CRACK @-32°C 100 CYCLES	Unaffected, Pass	Unaffected, Pass	-
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ASTM D5385 modified ²	RESISTANCE TO HYDROSTATIC HEAD	71m	71m	-
ASTM E96 method B	PERMEANCE	0.01 perms (0.6 ng/(Pa x s x m ²))	0.01 perms (0.6 ng/(Pa x s x m ²))	-
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ASTM D1876 modified ⁶	LAP PEEL ADHESION AT 4°C	1408 N/m	1408 N/m	-
ASTM D903 modified ⁵	PEEL ADHESION TO CONCRETE	880 N/m	880 N/m	-
ASTM D5385 modified ¹	LATERAL WATER MIGRATION RESISTANCE	Pass at 71m of hydrostatic head pressure	Pass at 71m of hydrostatic head pressure	-
ASTM D1970	LOW TEMPERATURE FLEXIBILITY	Unaffected at -29°C	Unaffected at -29°C	-

Footnotes:

1. Lateral water migration resistance is tested by casting concrete against membrane with a hole and subjecting the membrane to hydrostatic head pressure with water. The test measures the resistance of lateral water migration between the concrete and the membrane.
2. Hydrostatic head tests of PREPRUFE® Membranes are performed by casting concrete against the membrane with a lap. Before the concrete cures, a 3 mm spacer is inserted perpendicular to the membrane to create a gap. The cured block is placed in a chamber where water is introduced to the membrane surface up to the head indicated.
3. Elongation of membrane is run at a rate of 50 mm per minute.
4. Concrete is cast against the PREPRUFE® membrane and allowed to cure (7 days minimum).
5. Concrete is cast against the protective coating surface of the membrane and allowed to properly dry (7 days minimum). Peel adhesion of membrane to concrete is measured at a rate of 50 mm per minute at room temperature.
6. The test is conducted 15 minutes after the lap is formed (per GCP published recommendations) and run at a rate of 50 mm per minute at 22°C.

TECHNICAL DATA SHEET

AREA OF USE

Pre-applied waterproofing membranes that bond integrally to poured concrete for use below slabs or behind basement walls on confined sites.

INSTRUCTIONS FOR USE

Surface preparation

All surfaces - It is essential to create a sound and solid substrate to eliminate movement during the concrete pour. Substrates must be regular and smooth with no gaps or voids greater than 12 mm. Grout around all penetrations such as utility conduits, etc. for stability.

Horizontal - The substrate must be free of loose aggregate and sharp protrusions. Avoid curved or rounded substrates. When installing over earth or crushed stone, ensure substrate is well compacted to avoid displacement of substrate due to traffic or concrete pour. The surface does not need to be dry, but standing water must be removed.

Vertical - Use concrete, plywood, insulation or other approved facing to sheet piling to provide support to the membrane. Board systems such as timber lagging must be close butted to provide support and not more than 12 mm out of alignment.

Membrane installation

The most current application instructions, detail drawings and technical letters can be viewed at gcpat.com. For other technical information contact your local NURALITE representative.

PREPRUFE® Plus membranes have coloured zip strips at the top and bottom of the seam area on the edge of the roll. Both zip strips cover an aggressive adhesive. Once the green zip strip on the top of the membrane and the blue zip strip on the bottom of the membrane is removed, a strong adhesive to adhesive bond is achieved in the overlap area. This PREPRUFE® ZipLap™ provides an enhanced sealing of the overlaps in harsh conditions combined with a fast and easy way of execution without specialized equipment, heat, or power.

PREPRUFE® Plus membranes can be applied at temperatures of -4°C or above. When installing PREPRUFE® Plus product in cold or marginal weather conditions <4°C the use of PREPRUFE® Tape LT is recommended at all laps and detailing. PREPRUFE® Tape LT should be applied to clean, dry surfaces and the release liner must be removed immediately after application. Alternatively, PREPRUFE® Plus Low Temperature (LT) membrane is available for low temperature applications. Refer to PREPRUFE® Plus LT data sheet and GCP tech letter 16 for more information.

Horizontal substrates

Kick out or roll out the membrane HDPE film side to the substrate with the green zip strip facing towards the concrete pour. End laps should be staggered to avoid a build-up of

layers. Leave green and blue zip strips on the membrane until overlap procedure is completed.

Accurately position succeeding sheets to overlap the previous sheet 75 mm along the marked selvedge with the blue zip strip on top of the green zip strip. Ensure the underside of the succeeding sheet is clean, dry, and free from contamination before attempting to overlap. Peel back and remove both the green and blue zip strips in the overlap area to achieve an adhesive to adhesive bond at the overlap. Ensure a continuous bond is achieved without creases and roll firmly with a heavy roller.

Refer to GCP Tech Letter 15 for information on suitable rebar chairs for PREPRUFE® products.

Vertical substrates

Mechanically fasten the membrane vertically using fasteners appropriate for the substrate with the green zip strip facing towards the concrete pour. The membrane may be installed in any convenient length. Fastening can be made through the selvedge using a small and low-profile head fastener so that the membrane lays flat and allows firmly rolled overlaps. Accurately position succeeding sheets to overlap the previous sheet 75 mm along the marked selvedge with the blue zip strip on top of the green zip strip.

Ensure the underside of the succeeding sheet is clean, dry, and free from contamination before attempting to overlap. Peel back and remove both the green and blue zip strips in the overlap area to achieve an adhesive to adhesive bond at the overlap. Roll firmly to ensure a watertight seal.

Roll ends and cut edges

Overlap all roll ends and cut edges by a minimum 75 mm and ensure the area is clean and free from contamination, wiping with a damp cloth if necessary. Allow to dry and apply PREPRUFE® Tape LT (or HC in hot climates) centred over the lap edges and roll firmly. Immediately remove tinted plastic release liner from the tape.

Details

Detail drawings are available at <https://www.nuralite.co.nz>

Membrane Repair

Inspect the membrane before installation of reinforcement steel, formwork, and final placement of concrete. The membrane can be easily cleaned by power washing if required. Repair damage by wiping the area with a damp cloth to ensure the area is clean, and free from dust, and allow to dry. Repair small punctures (12 mm or less) and slices by applying PREPRUFE® Tape centred over the damaged area. Repair holes and large punctures by applying a patch of PREPRUFE® Plus membrane, which extends 150 mm beyond the damaged area. Seal all edges of the patch with PREPRUFE® Tape.

Any areas of damaged adhesive should be covered with PREPRUFE® Tape. Where exposed selvedge has lost adhesion or laps have not been sealed, ensure the area is clean and dry and cover with fresh PREPRUFE® Tape. All PREPRUFE® Tape must be rolled firmly, and the tinted release liner removed. Alternatively, use a hot air gun or similar to

activate the adhesive using caution not to damage the membranes and firmly roll lap to achieve continuity.

Pouring of Concrete

Ensure the plastic release liner is removed from all areas of PREPRUFE® Tape.

It is recommended that concrete be poured within 56 days (42 days in hot climates) of application of the membrane. Following proper Australian / New Zealand standards or industry guidelines, concrete must be placed carefully and consolidated properly to avoid damage to the membrane. Never use a sharp object to consolidate the concrete. Provide temporary protection from concrete over splash for areas of the PREPRUFE® membrane that are adjacent to a concrete pour.

Removal of Formwork

PREPRUFE® membranes can be applied to removable formwork, such as slab perimeters, elevator and lift pits, etc. Once the concrete is poured the formwork must remain in place until the concrete has gained sufficient compressive strength to develop the surface bond.

PREPRUFE® membranes are not recommended for conventional twin sided wall forming systems, see GCP Tech Letter 13 for information on forming systems used with PREPRUFE® products.

A minimum concrete compressive strength of 20 N/mm² is recommended prior to stripping formwork supporting PREPRUFE® membranes. Premature stripping may result in displacement of the membrane and/or spalling of the concrete.

Refer to GCP Tech Letter 17 for information on removal of formwork for PREPRUFE® products.

Specification Clauses

PREPRUFE® 300R Plus membranes shall be applied with its protective coating presented to receive fresh concrete to which it will integrally bond. Only GCP Applied Technologies approved membranes shall be bonded to PREPRUFE® products. All PREPRUFE® system materials shall be supplied by NURALITE Waterproofing Ltd, and applied strictly in accordance with their instructions. Specimen performance and formatted clauses are also available.

NOTE: Use PREPRUFE® Tape to tie-in GCP's Polymeric Liquid membrane with PREPRUFE product.

Protection system

In order to prevent damages, PREPRUFE® must be protected with NURADRAIN protection board where applicable as soon as possible.

INDICATIONS AND IMPORTANT RECOMMENDATIONS

PREPRUFE should not be applied when temperature is below -4° without consultation with the NURALITE representative.

TECHNICAL DATA SHEET

Must be stored in a dry place protected from rain, sun, heat, and cold temperatures.

Full application instructions are covered in the PREPRUFE Method Statement, and PREPRUFE® details.

SAFETY, STORAGE & HANDLING INFORMATION

Do not stack pallets

Store indoors

Refer to relevant SDS (Safety Data Sheet). Complete rolls should be lifted and carried by a minimum of two persons.

TRANSPORT CLASSIFICATION

N/A

The information in this product data sheet is based on our experience and testing. It represents the latest information available at the time of printing, but no guarantee of its accuracy is made or implied, nor responsibility taken for use to which this information may be put. We reserve the right to alter or up-date information parameters and formulations at any time without notice.

PREPRUFE
300R PLUS & 160R PLUS

THIS DRAWING IS INDICATIVE ONLY AND BY NO MEANS COMPREHENSIVE

NOTES:

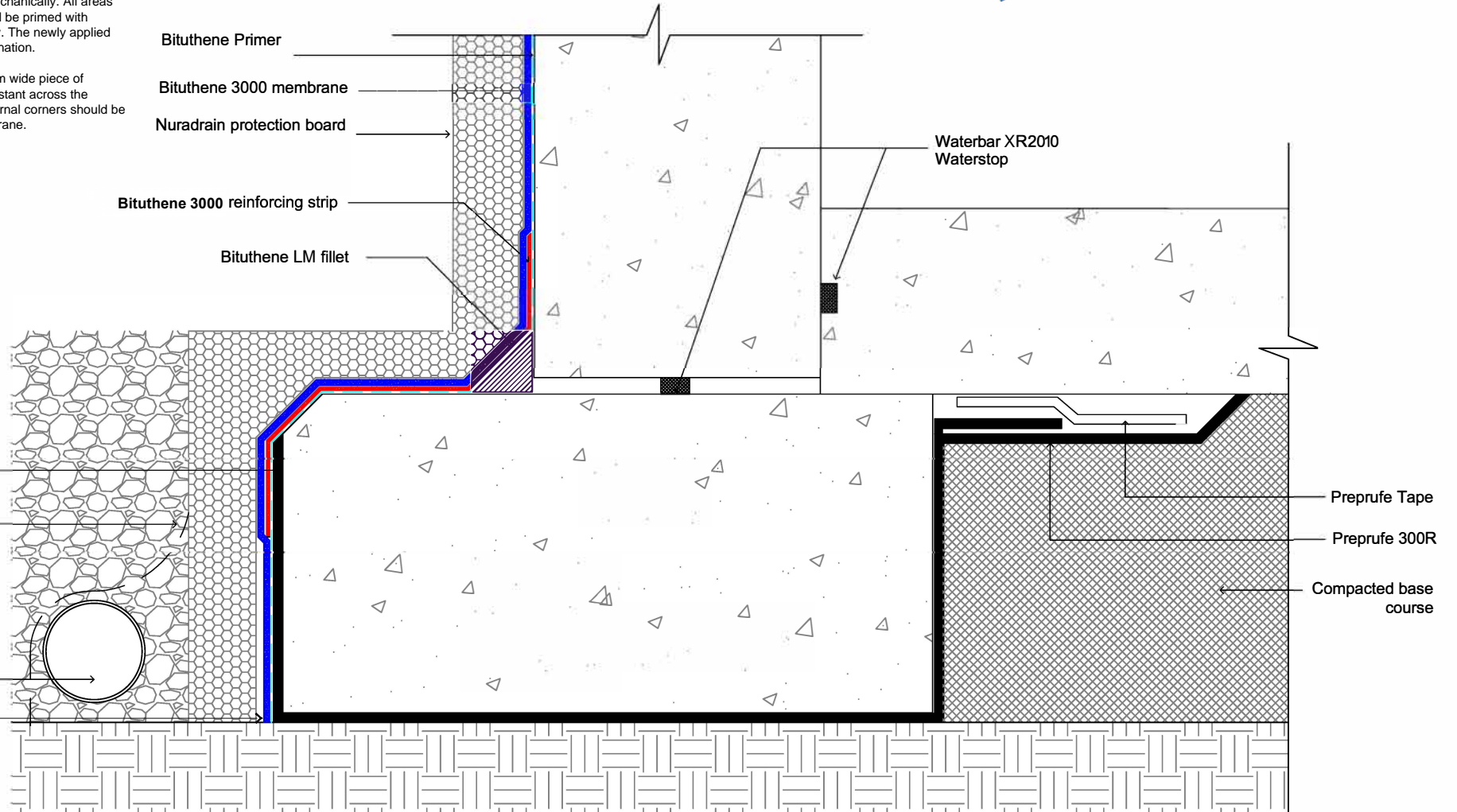
All sharp edges/corners to be arrised

Preparations

All surfaces must be smooth, clean and dry. Loose material and sharp protrusions should be removed mechanically. All areas receiving torch applied membrane should be primed with Bituthene Primer. Allow to dry completely. The newly applied primer should be protected from contamination.

Angles and Corners

These should be reinforced with a 300mm wide piece of Bituthene 3000 (Reinforcing Strip) equidistant across the previously primed area. Internal and external corners should be waterproofed with Bituthene 3000 Membrane.



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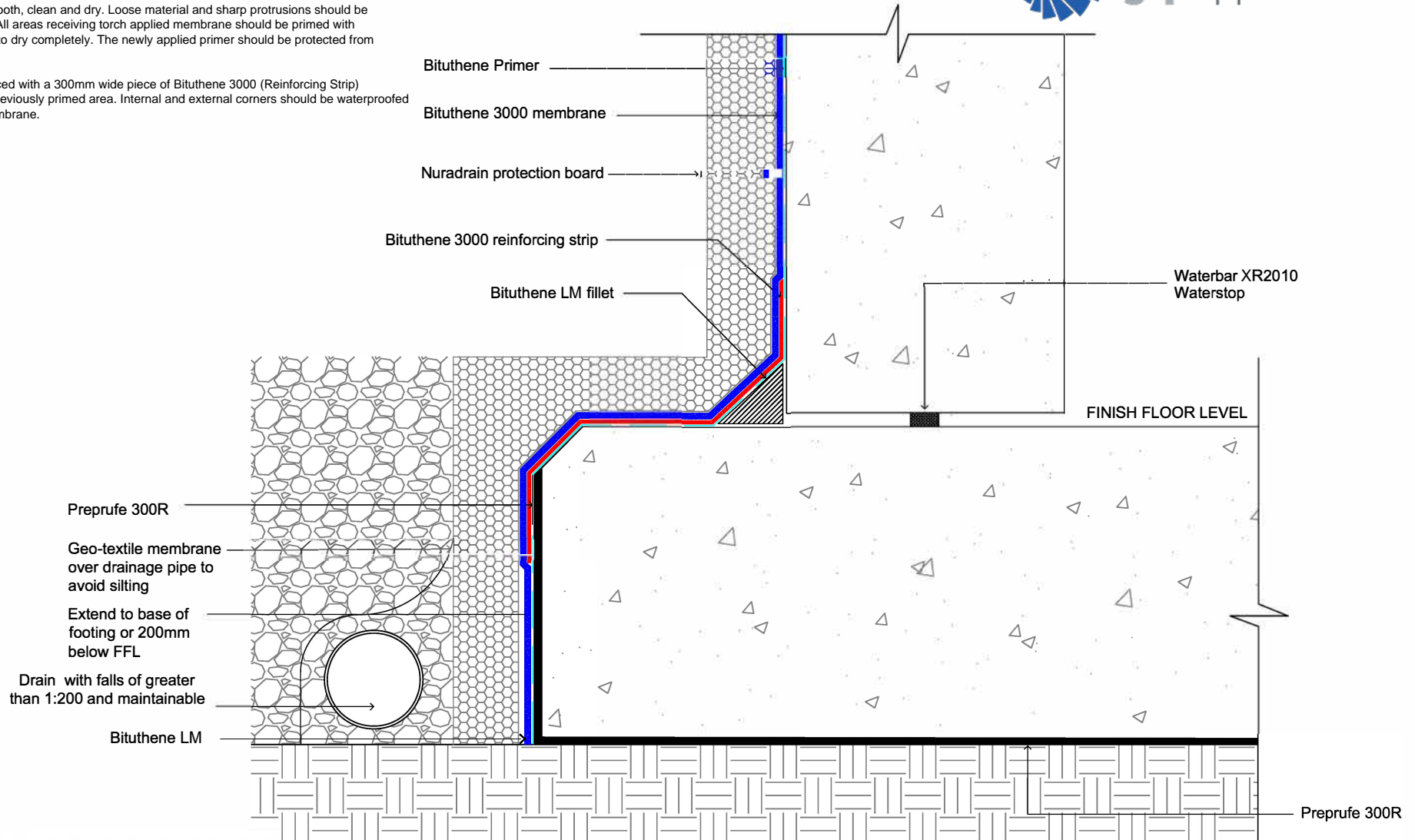
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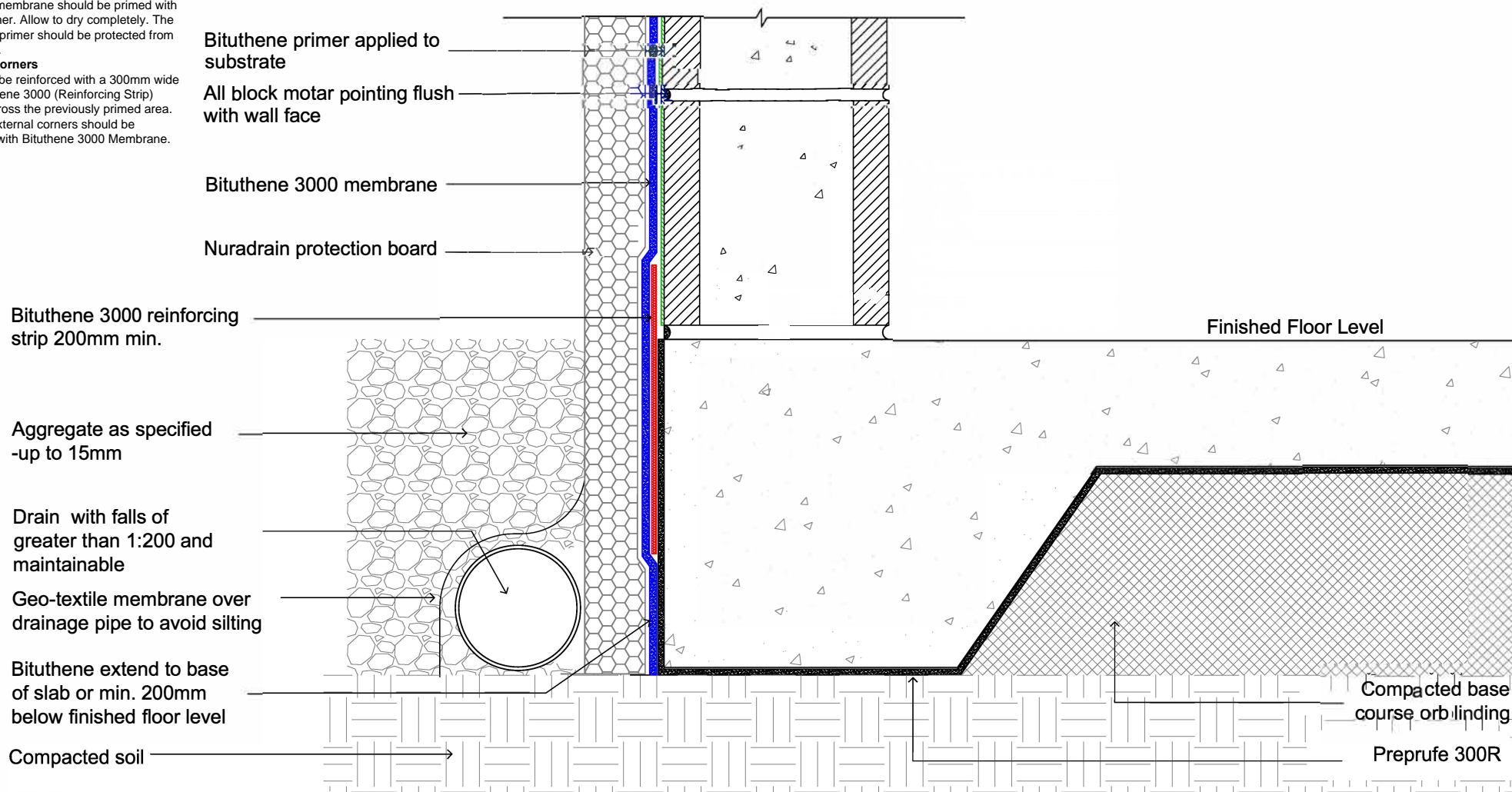
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Bituthene primer applied to substrate

All block mortar pointing flush with wall face

Bituthene 3000 membrane

Nuradrain protection board

Bituthene 3000 reinforcing strip 200mm min.

Aggregate as specified -up to 15mm

Drain with falls of greater than 1:200 and maintainable

Geo-textile membrane over drainage pipe to avoid silting

Bituthene extend to base of slab or min. 200mm below finished floor level

Compacted soil

Finished Floor Level

Compacted base course orb bedding

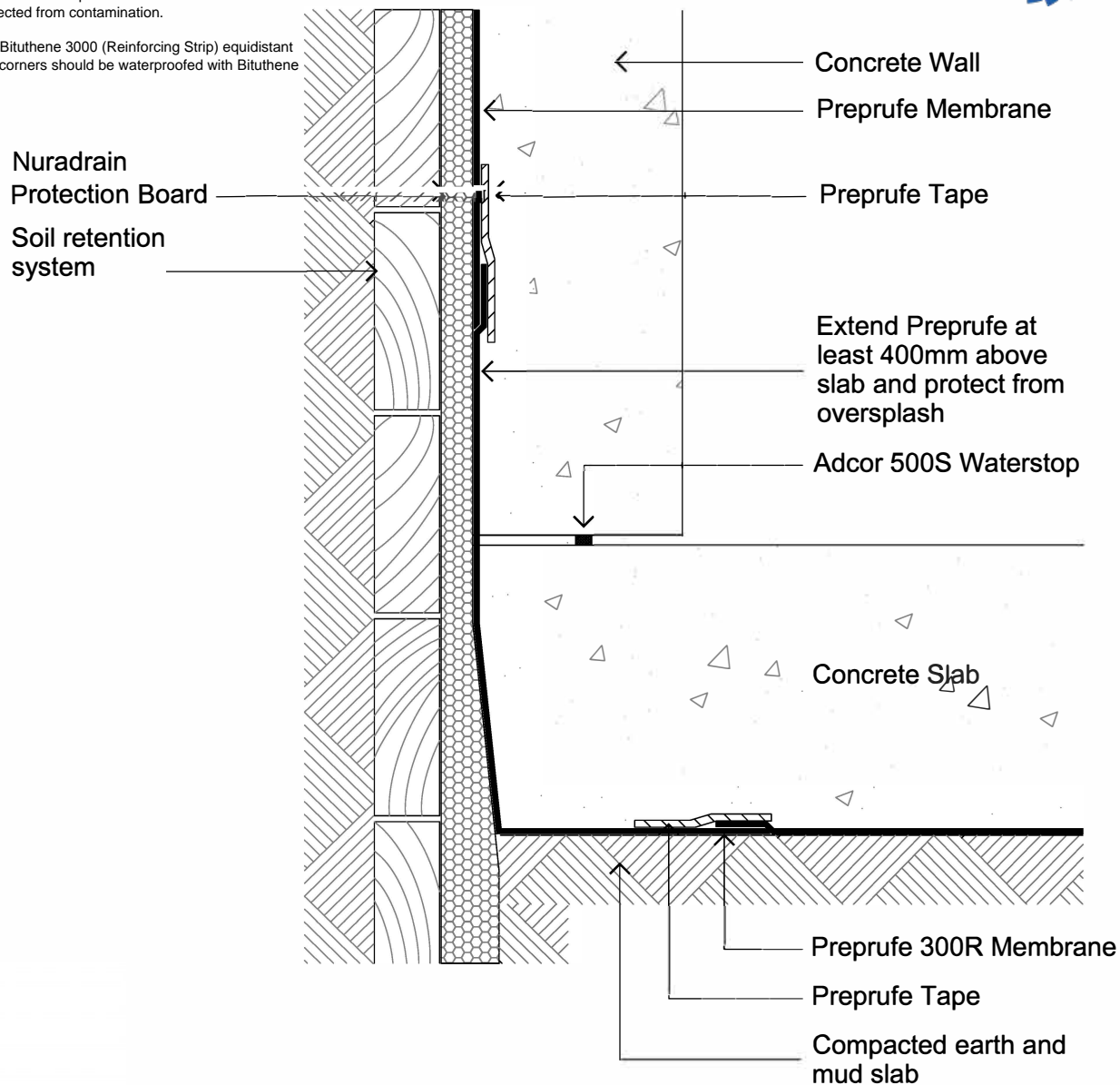
Preprufe 300R

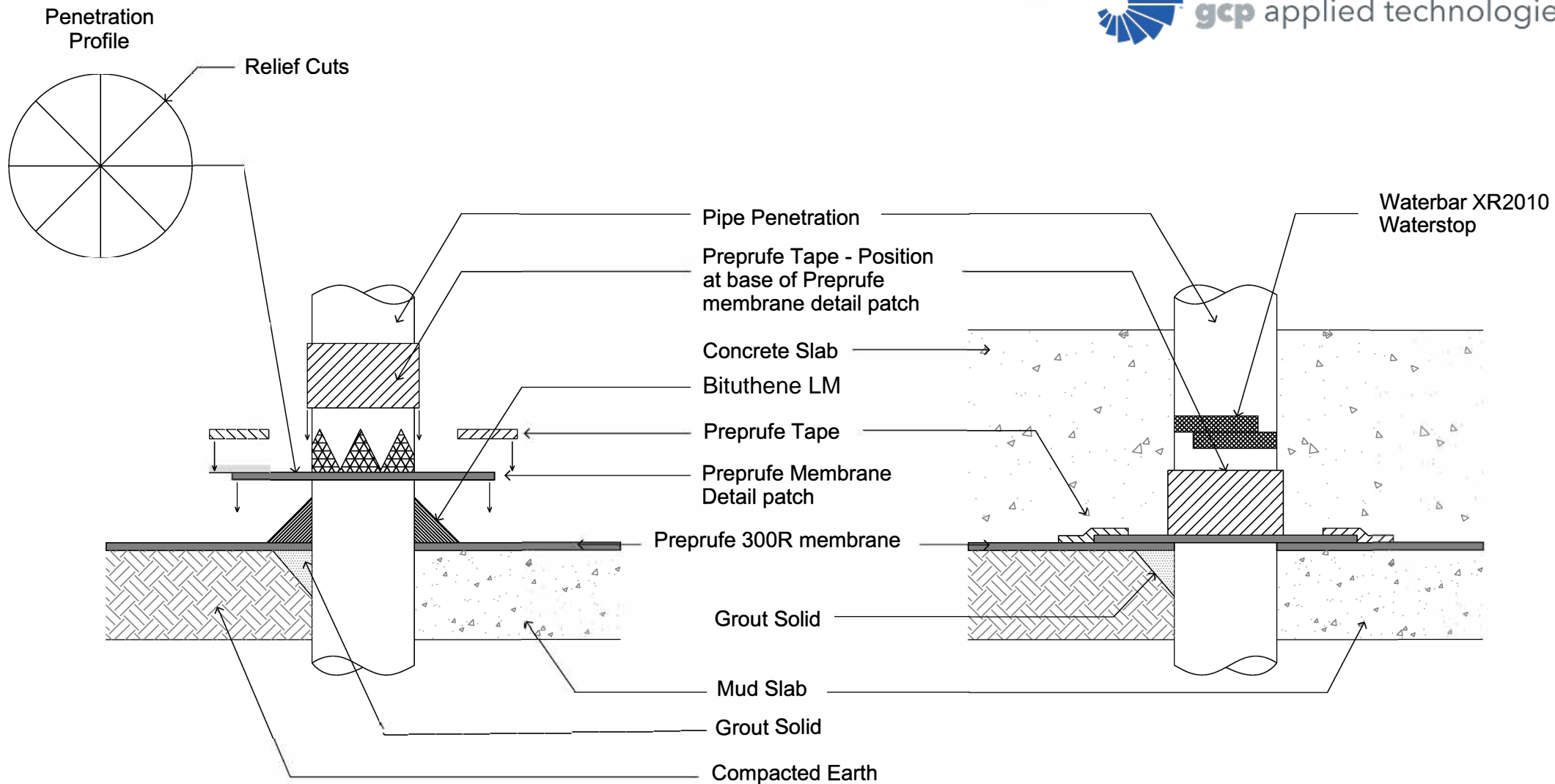
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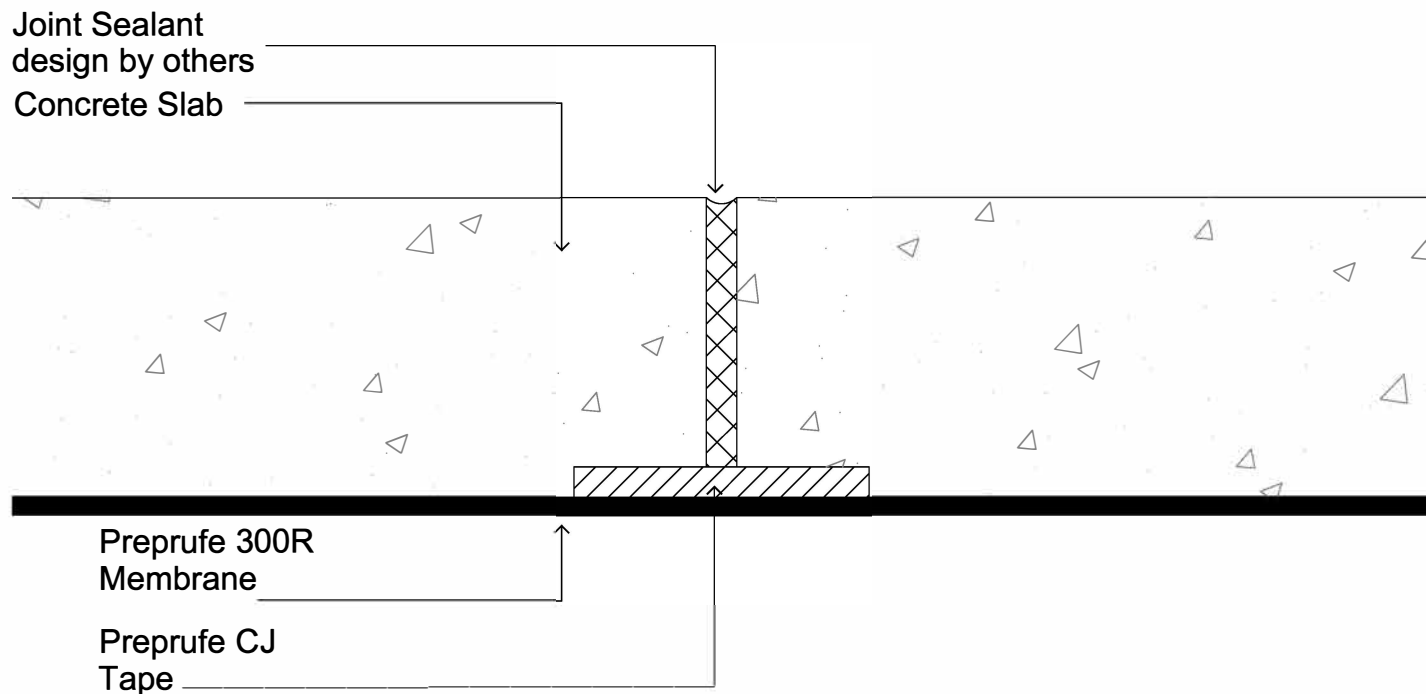
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NOTE: FOR JOINTS WITH EXPECTED MOVEMENT NOT TO EXCEED 13mm

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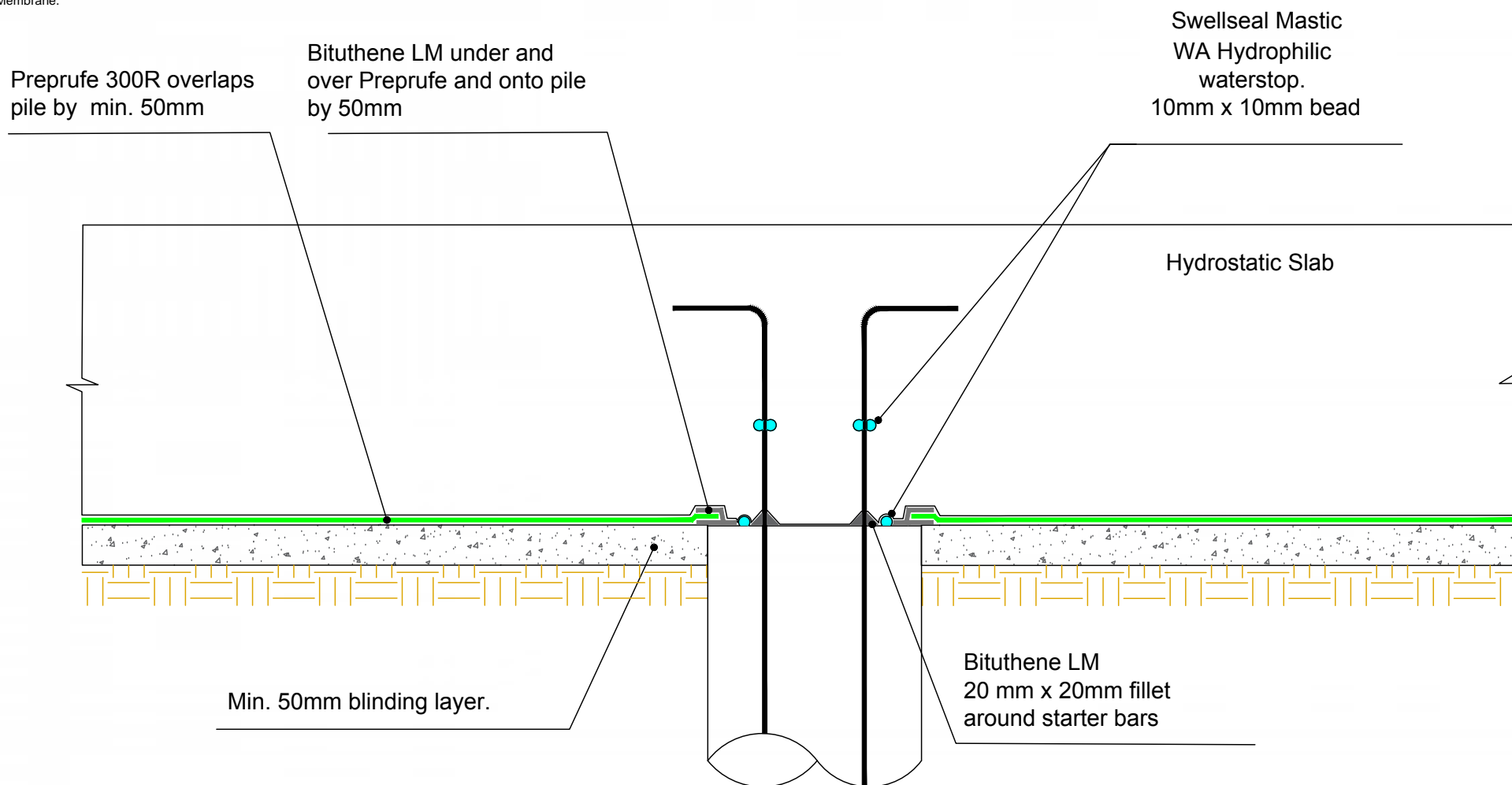
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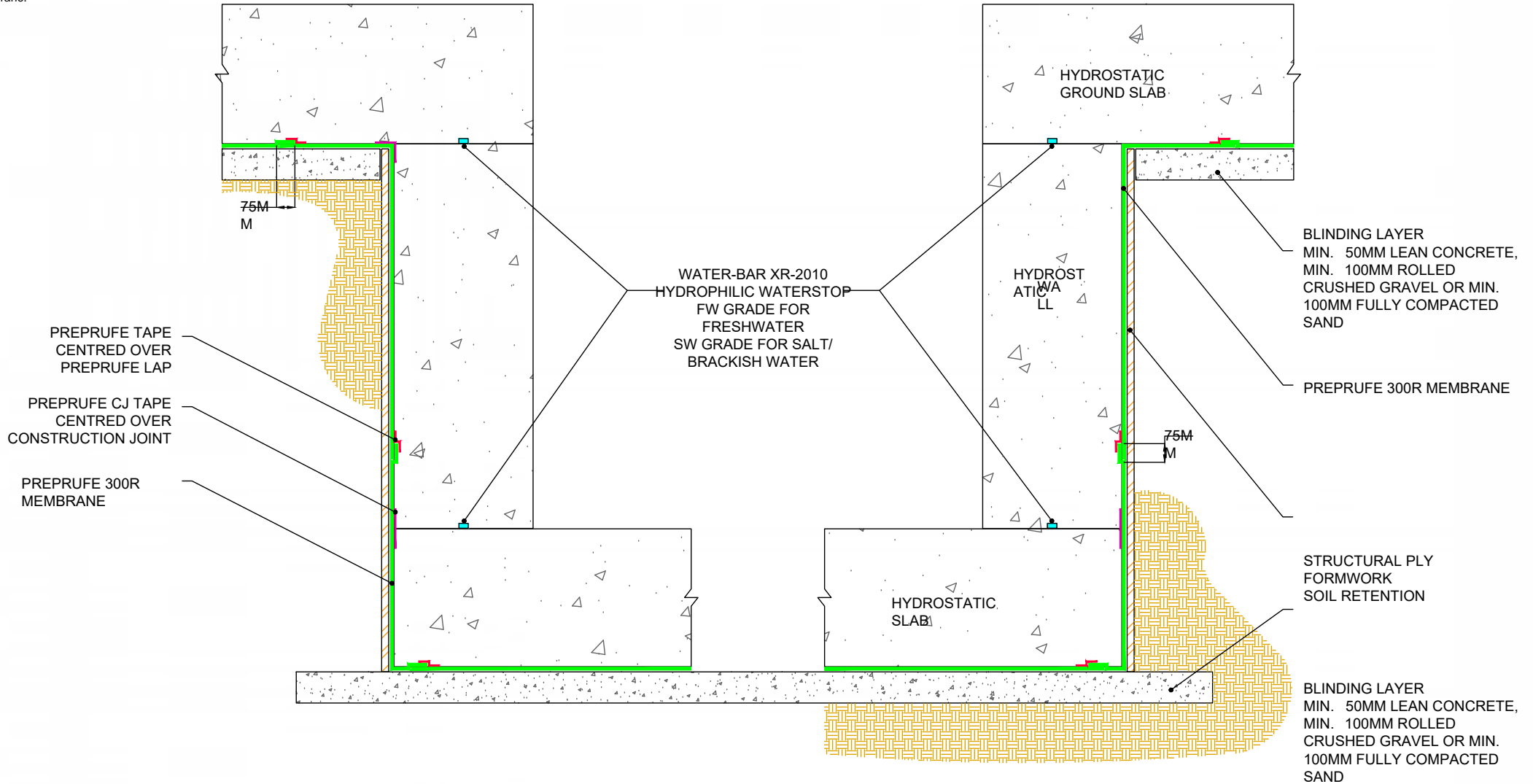
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www.nuralite.co.nz

All applications to be installed by an authorised nuralite applicator. All materials to be applied in accordance with standard published installation instruction and product data sheet should be consulted at all times. This drawing is for comment & approval it must not be used for construction until authorised by the site specifier or other relevant technical expert. This detail drawing is to be used only as a part of the nuralite specification package.
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PRODUCT:		PREPRUFE 300R	
DESCRIPTION:		LIFT PIT	
SCALE:	NTS	PREVIOUS DWG No:	New
REVISION:	Rev E	DATE:	OCT 20
			DWG No: PR.005