

IKO BLINDSIDE WATERPROOFING MEMBRANE INSTALLATION GUIDELINES

- A. This guide describes the minimum application requirements for IKO Blindsight Waterproofing installations. Refer also to all IKO Commercial technical documents, including Installation Manuals, Detail Drawings and Product Data Sheets, to ensure that the installed system complies with all IKO technical requirements.
- B. IKO Commercial does not practice architecture or engineering. IKO provides the general information in this guide in good faith, as a courtesy only, and not as a substitute for consultation with a design professional to determine the applicability of IKO technical requirements for a specific project.
- C. The building owner or project design professional is responsible for consulting with all local authorities having jurisdiction (AHJs), national and local building codes, and insurance requirements to determine project-specific requirements. These codes and requirements may supersede IKO technical requirements, where the codes and requirements are more restrictive.
- D. Not all possible conditions are covered in this document. Whenever any project condition or specification requirement falls outside the guidance given herein, IKO Technical Services must be consulted.

Introduction

The foundation of a building is designed to give strength and stability. In architecture and engineering, they are designed to support and distribute the structural weight of a building, usually made of concrete with steel reinforcing bars but can also be made of wood, concrete blocks or stones.

The foundations are located in the ground and are subject to hydrostatic-pressure, water veins and groundwater, hence the importance of protecting them against these elements, otherwise, cracks in concrete may appear due to ground movements allowing water to infiltrate the building and promote the development of mould, concrete spalling and an increase in humidity, which may affect and make structural materials unstable.

Concrete being a porous material, can become saturated with water over time and lose some of its structural strength. A foundation whose concrete is saturated shows visual signs inside such as efflorescence. Due to the hydrostatic pressure exerted on the foundation from the outside to the inside, it is strongly recommended to waterproof from the outside (Positive Side Waterproofing). The topography of the land and the nature of the soil and groundwater, will dictate the choice of the type of material and waterproofing system that must be installed on the foundation.

Storage and handling of materials:

All IKO products must be stored in a dry place protected from the weather and contaminants. When stored outside, they must be placed on a pallet at least 4 inches above the ground.

Do not install in rainy or snowy conditions.

Membrane storage: Membranes should remain upright on a pallet with the overlap seam positioned up. Self-adhesive membranes must be protected from direct sunlight at all times. If the work must be carried out during the winter period, the membranes can be stored outside, but must be placed in a shelter with a controlled environment at a temperature above 20 degrees Celsius (68 degrees Fahrenheit), 24 hours before their installation.

Storage of primers & mastics: Please refer to Product Data Sheets and iko.com/comm.

Application of primers:

- The drying (curing) time of the different products listed below varies according to the porosity of the surface, the ambient temperature and humidity. Cure time is usually accelerated with higher temperatures and lower relative humidity.
- S.A.M. Adhesive & S.A.M. Adhesive LVC: IKO S.A.M. Adhesive is a quick-drying, solvent-based liquid surface primer for priming substrates over which self-adhering membranes are installed. Yellow in color, it requires a minimum 30 minutes flash off, and its coverage is approximately 3 to 6 m²/L (122 to 244 ft²/gal).
- IKO S.A.M. Adhesive LVC is green in color and formulated with a low volatile organic compound content, so it is used for projects requiring low VOC materials.

Note: Self-adhesive membranes must be installed within a maximum of four (4) hours after the application of the S.A.M. Adhesive.

Under certain job site conditions, the primer may be contaminated with dust; in this situation, the surface must be covered again with another coat of primer before proceeding with the installation of the membranes.

Tools:

Typically, primers are installed with a long nap paint roller, sprayer or brush.

It is not allowed to dilute the primer to increase its coverage or to restore a primer whose solvents have evaporated in the container, this will have a negative impact and will affect the good adhesion of the self-adhesive and heat-welded membranes.

Safety:

Never use the torch to make sure a primer is dry; please refer to the S.A.M. Adhesive SDS for full details.

Products used within an IKO BSW system:

- Membrane for vertical surface: AquaBarrier BSW-V
- S.A.M. Adhesive or S.A.M. Adhesive LVC for self-adhesive membranes
- Membrane for horizontal surface: AquaBarrier BSW-H
- MS Detail for penetrations
- Polyester reinforcement
- Termination bar for membrane
- Fasteners and plates
- Drainage Mat

Membranes for vertical blind side - self adhered:

AquaBarrier BSW-V

Thickness	Dimensions	Reinforcement	Area	Application Temperature
3 mm	32.8 ft x 39.6 ft	Composite	108 ft ² / 97.3 ft ² 10 m ² /9.04 m ²	-10°C to 50°C 14°F to 122°F

- Self-adhesive underside with release film/sanded top surface
- Selvage width: 4.0 inches
- Resistant to hydrostatic pressure
- Dual selvage configuration, 2" self-adhesive and last 2" heat sealable

Membranes for horizontal blind side - heat welded:

AquaBarrier BSW-H

Thickness	Dimensions	Reinforcement	Area/Coverage	Application Temperature
3.5 mm	32.8 ft x 39.6 ft	Polyester	108 ft ² / 97.3 ft ² 10 m ² /9.04 m ²	-10°C to 50°C 14°F to 122°F

- Sanded surface and micro perforated film underside
- Selvage width: 4.0 inches
- Resistant to hydrostatic pressure

Installation:

Surface Preparation:

All work surfaces shall be clean and dry and free of dust, dirt, debris, oils and any other contaminants that may negatively affect membrane adhesion. Substrate irregularities which may hinder adhesion shall be corrected.

AquaBarrier BSW-V:

The AquaBarrier BSW-V membrane is usually installed directly over a drainage mat primed with S.A.M. adhesive (where required).

Installation of drainage mat:

Cellular drainage mats are used on the outer side of the foundation wall to eliminate the thrust of the hydrostatic pressure on the exterior side of the foundation and allows the flow of water to be directed towards the drainage tile.

Install the drainage mat according to the manufacturer's recommendations using the appropriate type and number of anchors as prescribed by the design professional. The filter mat must be facing outwards with the female dimpled surface facing inwards.



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Application of the primer:

- IKO S.A.M. Adhesive can be applied with a brush, paint roller or mechanical sprayer.
- Available in 17 L (4.49 gal)
- Coverage: 122 to 244 square feet per gallon
- Flash Off Time: Minimum 30 minutes
- Install the membrane within 4 hours of application, after which time apply another coat of primer.
- Application temperature: -10 to 40 degrees Celsius
- All substrates must be clean, dry and free of dust, dirt, oil and other greasy substances.
- Apply in well-ventilated areas and keep away from open flames.

Note: IKO S.A.M. Adhesive is required for any installations below 10°C and may be needed based on other site specific conditions. Contact IKO Technical Services for more information.

Apply the S.A.M. adhesive directly to the drainage mat and ensure that the surface is completely covered with the primer. Allow to flash off for a minimum of 30 minutes.

Begin installing the AquaBarrier BSW-V membrane from the top down. Remove part of the release film and stick the upper part of the membrane while aligning it so that it is well positioned vertically.

Pull the release film aside at a 45-degree angle to remove it completely.

At each row of installed membranes, with the help of a roller, roll the entire surface of the membrane, applying good pressure.

On some projects, it may be necessary to extend the upper part of each row of membrane to be able to connect it to the membrane that will later be installed on the horizontal slab. To determine the length of the membrane required for the connection, you must know the thickness of the slab to allow a connection joint of a minimum of 6 inches.

End laps must be a minimum of 6" and must be heat welded with a torch or hot air welder. With the torch, it is wise to install a strip of temporary self-adhesive membrane 6 inches wide opposite and next to the end overlap joint, on the adjacent drainage mat to protect it from the flame. Once the joint is welded, remove the strip of temporary membrane that you can reuse in similar situations in the future.

To prevent the membranes from shifting or slipping, IKO BSW-V must be mechanically secured at the top termination with 2" round plates and appropriate fasteners every 13" o.c. The end lap must be a minimum of 6" to cover the screws and plates.

All penetrations must be reinforced with a piece of heat-welded membrane extending a minimum of 6" beyond affected surface.

To complete the waterproofing of penetrations, MS Detail liquid membrane and polyester reinforcement fabric must be used. Installation instructions can be found at www.iko.com/comm.

Projects that are subject to high water table, hydrostatic conditions and/or other extenuating circumstances, based on the geotechnical report, may require two plies of BSW-V membrane or other additional enhancements to be eligible for the IKO Limited Material Warranty. Please refer to the project design professional or your local IKO Representative.



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AquaBarrier BSW-H:

It is common that horizontal waterproofing is also required; for this, AquaBarrier BSW-H is to be used, which is laid directly on the blinding slab or compacted soil and heat welded at all side and end laps. End laps must be staggered by a minimum of 12".

To ensure a perfect seal at the junction of the vertical and horizontal transition, the AquaBarrier BSW-H membrane must rise a minimum of 4 inches on the vertical part of the AquaBarrier BSW-V membrane and be heat-welded there. Make sure that the longitudinal seams of the two membranes are staggered a minimum of 18 inches.

At all angle changes, a 13" membrane flashing must be heat-welded to cover the seams of the two BSW membranes. The membrane flashing must extend a minimum of 6 inches on both the vertical and horizontal surfaces (see IKO Technical Detail Drawings for more information).

All penetrations must be reinforced with a piece of heat-welded membrane extending a minimum of 6" beyond affected surface.

To complete the waterproofing of penetrations, MS Detail liquid membrane and polyester reinforcement fabric must be used. Installation instructions can be found at www.iko.com/comm.

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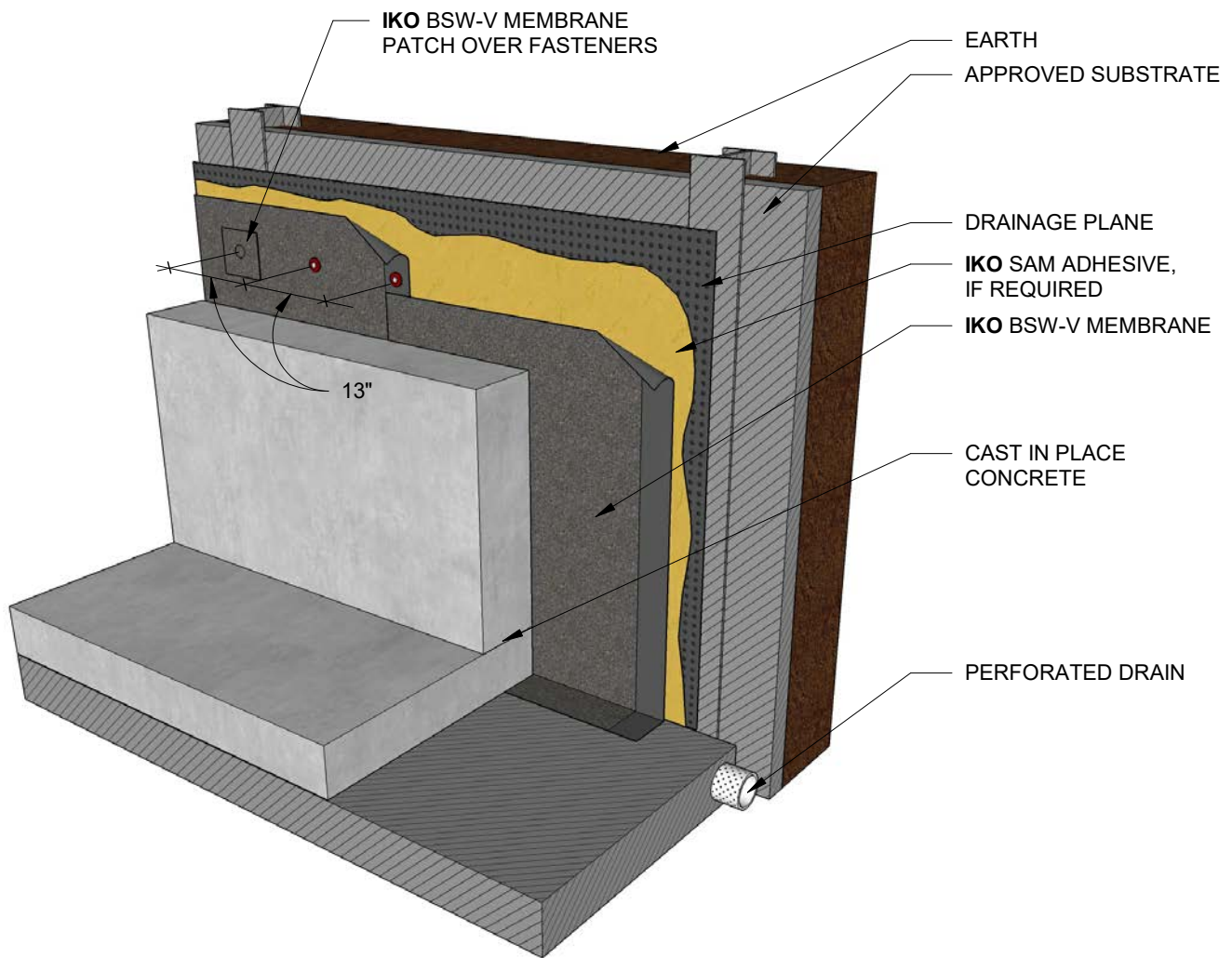
For projects requiring two layers of Aquabarrier BSW-H, the top membrane layer should be heat welded to the bottom membrane layer to avoid membrane movement due to traffic.

Before leaving the site, complete a final inspection to ensure that all joints are welded and that the membrane is not damaged or punctured.

Make the corrections, if necessary, with welded membrane pieces and MS Detail as described above.



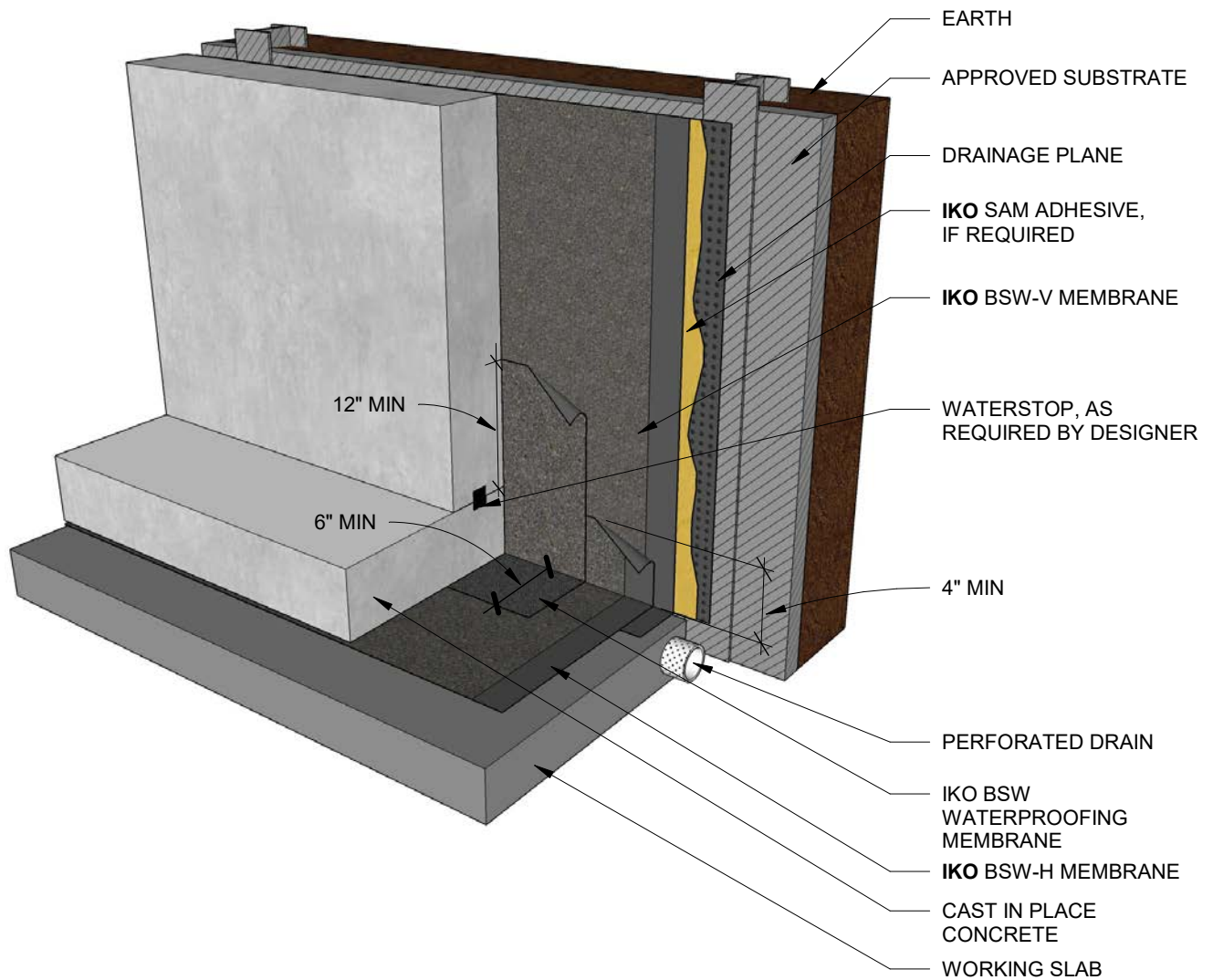
IKO Blindside Waterproofing Typical Wall Detail



Notes:

1) Projects that are subject to high water table, hydrostatic conditions and/or other extenuating circumstances may require two plies of bsw-v for the iko limited material warranty. please refer to project design professional or your local iko representative.

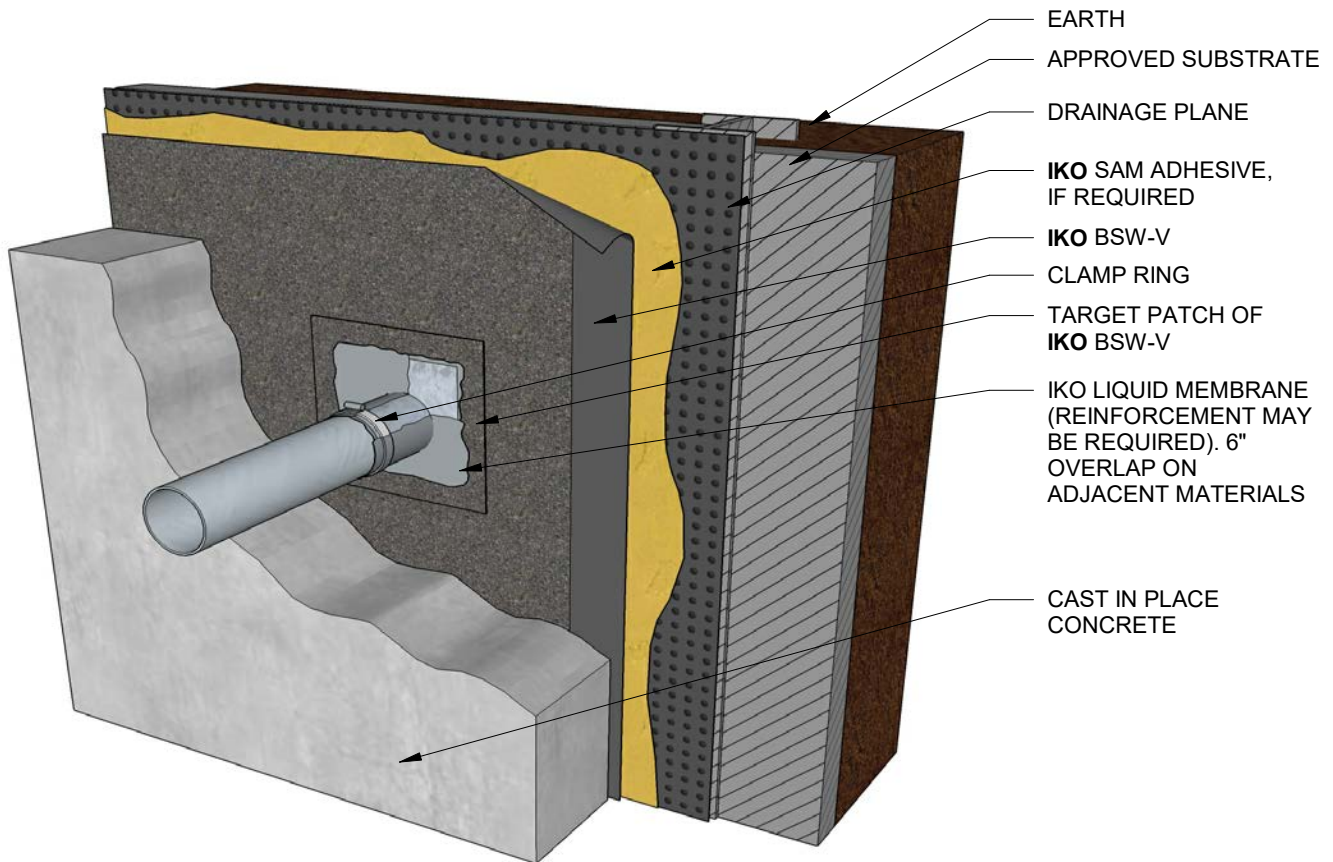
IKO Blindside Wall Base Detail



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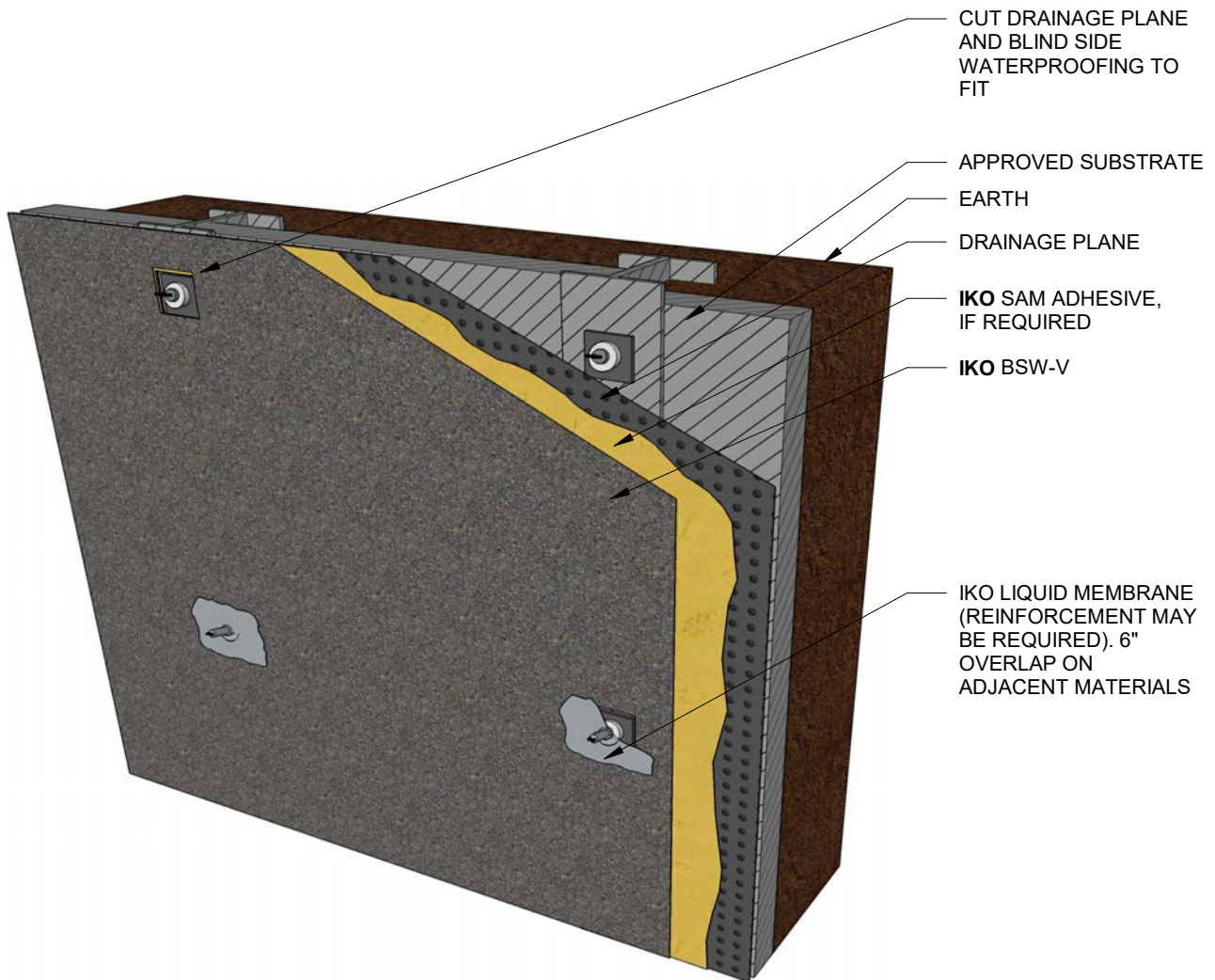
IKO Blindside Penetration Detail



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IKO Blindside Tie Back Detail

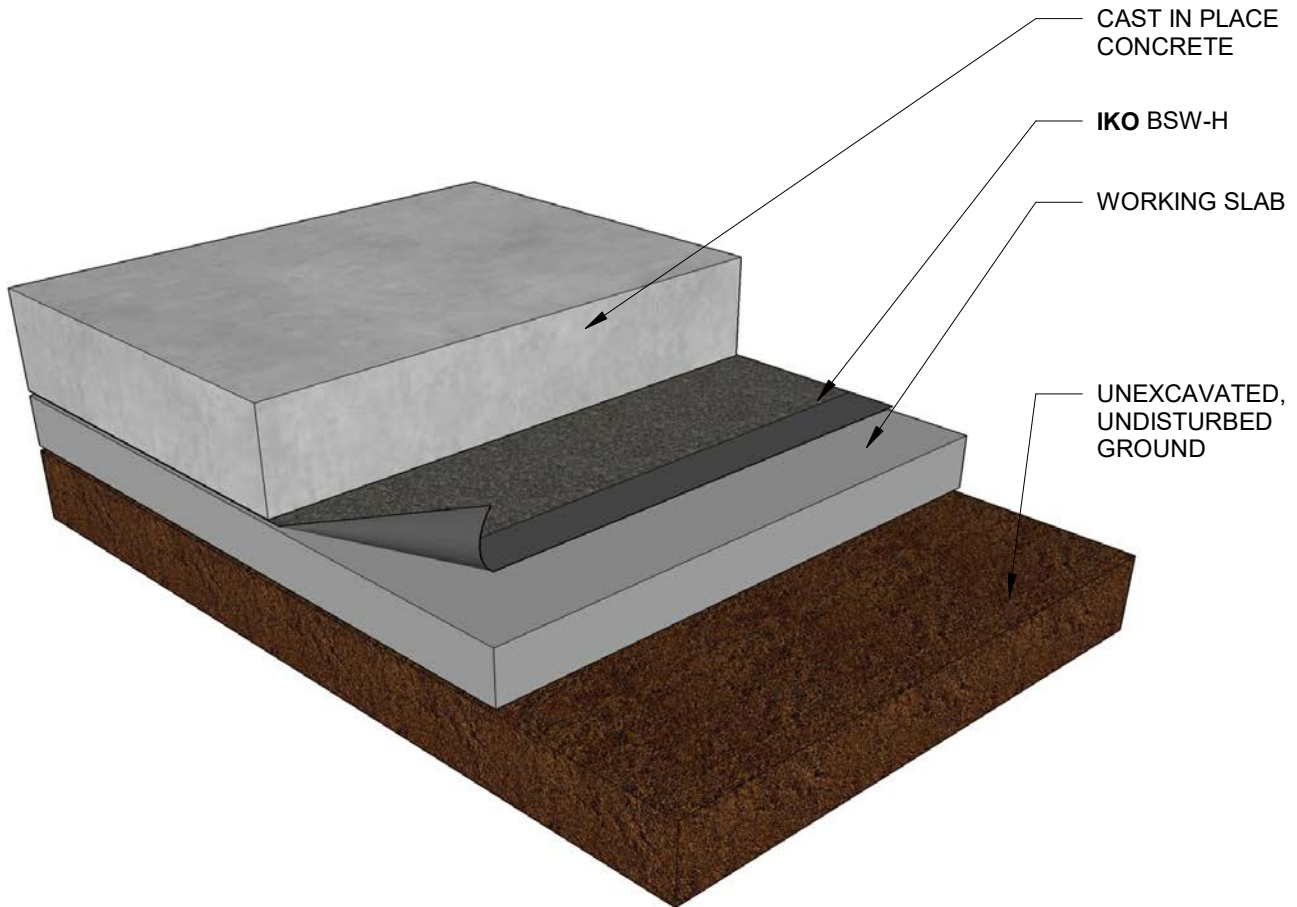


Notes:

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IKO Blindside Horizontal Typical Application

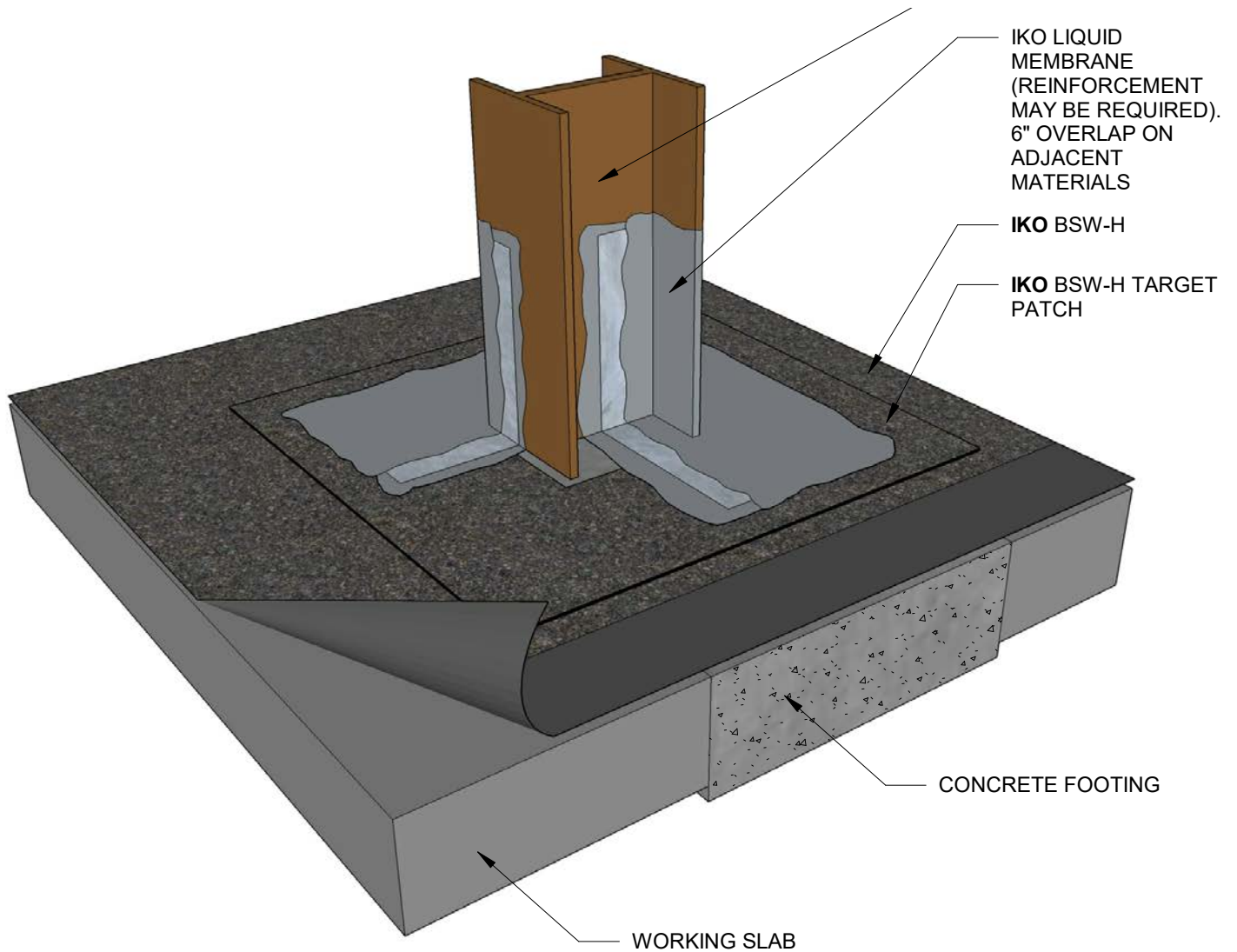


Notes:

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- 2) Minimum membrane lap distance of 12" from cold joint.



IKO Blindside Column Penetration

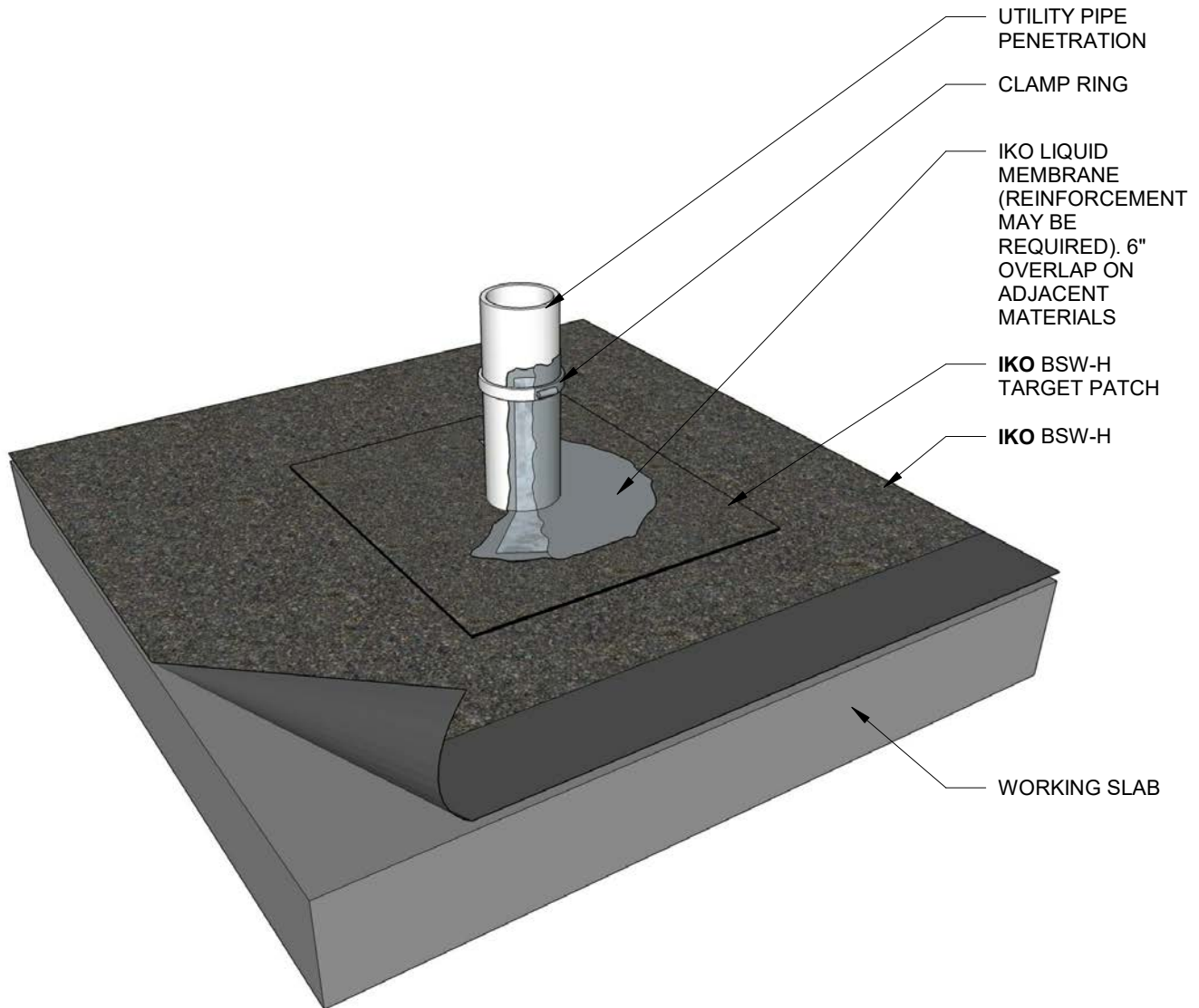


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IKO Blindside Service Pipe Penetration



Notes:

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The technical information regarding the application of liquid waterproofing products supplied by IKO is provided in good faith on the basis of IKO's current know-how and experience, and assumes that these products will be used in accordance with the above-mentioned recommendations, under normal circumstances, and that these products were stored and handled in the correct manner. The above-mentioned information is only intended to inform the user about the various properties and/or recommendations and can in no way be considered as a guarantee with regard to the merchantability and suitability for a specific purpose in view of the continuously changing environmental factors, including the specific conditions at the building site, the use of different materials and substrates, etc. As a result, and with the exception of binding legal stipulations to the contrary, IKO cannot be held liable on the basis of the provided information and any other written recommendations and/or advice. Please contact IKO if you have any doubts regarding the processing, the end use or the application of these products. Users are recommended to consult the most recent edition of the technical data sheet. A copy of this will be provided upon request or can be obtained from www.iko.com/comm.