

- 1 EIFS TAPE & PRIMER
- 2 HYDROFLEX WATER RESISTIVE BARRIER (WRB)
- 3 STARTER MESH
- 4 WATER RESISTIVE BARRIER / ADHESIVE
- 5 NON-COMBUSTIBLE MINERAL FIBRE INSULATION
- 6 MECHANICAL FASTENER & ARMOUR MESH (8"x8")
- 7 NON-COMBUSTIBLE BASECOAT
- 8 STANDARD MESH
- 9 PRIMEX PRIMER
- 10 FINISH COAT

Description

The adex-**XNC** system is a water-managed, non-combustible exterior insulation and finish system (EIFS) favorably evaluated by CCMC (12913-R). It incorporates the use of both a non-combustible basecoat and mineral fibre insulation. The assembly also features a secondary water resistant barrier (WRB) and a vertical drainage plane. The adex-**XNC** system is in full compliance with CAN/ULC-S716.1 "Exterior Insulation and Finish Systems (EIFS) - Materials and Systems."

Benefits

- Provides continuous insulation (CI); reduces energy use
- Seals the building envelope and ensures seamless protection of the substrate
- Allows for drainage of incidental moisture
- Lightweight, durable and flexible
- Architectural design flexibility
- Resists dirt, fading and abrasion
- Made only of non combustible materials
- Mineral fibre insulation is resistant to both moisture and fire

Features

- Seamless substrate protection
- Non-combustible basecoat
- Unlimited colour selection
- Mineral fibre insulation

Please refer to adex.ca for the latest version of this document, specifications (PDF + MS Word), technical drawings, product technical sheets, warranties, maintenance guide...and much more.

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PART 1 GENERAL

1.1 RELATED SECTIONS

1. Section 01 40 00: Quality Requirements
2. Section 03 11 00: Concrete Forming
3. Section 03 30 00: Cast-in-Place Concrete
4. Section 04 20 00: Unit Masonry
5. Section 05 40 00: Cold-Formed Metal Framing
6. Section 06 10 00: Rough Carpentry
7. Section 07 20 00: Thermal Protection
8. Section 07 25 00: Weather Barriers (Vapour / Air Barriers)
9. Section 07 60 00: Flashing and Sheet Metal
10. Section 07 90 00: Joint Protection
11. Section 08 00 00: Openings
12. Section 09 28 00: Backing Boards and Underlayments
13. Section 09 90 00: Painting and Coating

1.2 DESCRIPTION

- 1.2.1 The adex-XNC is a water-managed, non-combustible Exterior Insulation and Finish System (EIFS), composed of the following components:
- 1.2.1.1 Water resistive barrier (air and/or vapour barrier), continuously installed over an approved substrate;
 - 1.2.1.2 Water resistive barrier/adhesive forming the vertical ribbons of adhesive;
 - 1.2.1.3 Non-combustible mineral fibre insulation boards;
 - 1.2.1.4 Non-combustible acrylic basecoat;
 - 1.2.1.5 Glass-fibre reinforcing meshes;
 - 1.2.1.6 Mechanical fasteners combined with high-density polypropylene washer heads;
 - 1.2.1.7 100% acrylic primer and finish coat.

SPEC NOTE: The surface of the mineral wool boards cannot be sanded and therefore may result in increased deflection in the finished surface.

- 1.2.2 The adex-XNC assembly has been favourably evaluated by the Canadian Construction Materials Centre (CCMC), as described in the evaluation report #12913-R.
- 1.2.3 The adex-XNC system is in full compliance with CAN/ULC-S716.1 "Exterior Insulation and Finish Systems (EIFS) - Materials and Systems".

1.3 REFERENCE STANDARDS

- 1.3.1 ASTM International:
- 1.3.1.1 ASTM B117: Standard Practice for Operating Salt Spray (Fog) Apparatus;
 - 1.3.1.2 ASTM C203: Standard Test Methods for Breaking Load and Flexural Properties of Block-Type Thermal Insulation;
 - 1.3.1.3 ASTM C518: Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus;
 - 1.3.1.4 ASTM C666: Standard Test Method for Resistance of Concrete to Rapid Freezing and Thawing;
 - 1.3.1.5 ASTM D522: Standard Test Methods for Mandrel Bend Test of Attached Organic Coatings;
 - 1.3.1.6 ASTM D523: Standard Test Method for Specular Gloss;
 - 1.3.1.7 ASTM D570: Standard Test Method for Water Absorption of Plastics;
 - 1.3.1.8 ASTM D822: Standard Practice for Filtered Open-Flame Carbon-Arc Exposures of Paint and Related Coatings;
 - 1.3.1.9 ASTM D1621: Standard Test Method for Compressive Properties of Rigid Cellular Plastics;
 - 1.3.1.10 ASTM D1623: Standard Test Method for Tensile and Tensile Adhesion Properties of Rigid Cellular Plastics;
 - 1.3.1.11 ASTM D1784: Standard Specification for Rigid Poly (Vinyl Chloride) (PVC) Compounds and Chlorinated Poly (Vinyl Chloride) (CPVC) Compounds;
 - 1.3.1.12 ASTM D2126: Standard Test Method for Response of Rigid Cellular Plastics to Thermal and Humid Aging;

- 1.3.1.13 ASTM D2370: Standard Test Method for Tensile Properties of Organic Coatings;
 - 1.3.1.14 ASTM D2523: Standard Practice for Testing Load-Strain Properties of Roofing Membranes;
 - 1.3.1.15 ASTM D2842: Standard Test Method for Water Absorption of Rigid Cellular Plastics;
 - 1.3.1.16 ASTM D4541: Standard Test Method for Pull-Off Strength of Coatings Using Portable Adhesion Testers;
 - 1.3.1.17 ASTM D5034: Standard Test Method for Breaking Strength and Elongation of Textile Fabrics (Grab Test);
 - 1.3.1.18 ASTM D5420: Standard Test Method for Impact Resistance of Flat, Rigid Plastic Specimen by Means of a Striker Impacted by a Falling Weight (Gardner Impact);
 - 1.3.1.19 ASTM E96: Standard Test Methods for Water Vapor Transmission of Materials;
 - 1.3.1.20 ASTM E283: Standard Test Method for Determining Rate of Air Leakage through Exterior Windows, Curtain Walls, and Doors under Specified Pressure Differences across the Specimen;
 - 1.3.1.21 ASTM E330: Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference;
 - 1.3.1.22 ASTM E331: Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference;
 - 1.3.1.23 ASTM E1131: Standard Test Method for Compositional Analysis by Thermogravimetry;
 - 1.3.1.24 ASTM E1252: Standard Practice for General Techniques for Obtaining Infrared Spectra for Qualitative Analysis;
 - 1.3.1.25 ASTM E2098: Standard Test Method for Determining Tensile Breaking Strength of Glass Fiber Reinforcing Mesh for Use in Class PB Exterior Insulation and Finish Systems (EIFS), after Exposure to a Sodium Hydroxide Solution;
 - 1.3.1.26 ASTM G 155: Standard Practice for Operating-Xenon Arc Light Apparatus, for Exposure of Non-metallic Materials.
- 1.3.2 CSA International
 - 1.3.2.1 CAN/CSA A3000: Cementitious materials compendium (Consists of A3001, A3002, A3003, A3004 and

A3005).

- 1.3.3 National Research Council of Canada (NRC)
 - 1.3.3.1 Canadian Construction Materials Centre (CCMC): Technical Guide for EIFS.
- 1.3.4 Underwriters' Laboratories of Canada (ULC)
 - 1.3.4.1 CAN/ULC S114: Method for Determination of Non-Combustibility;
 - 1.3.4.2 CAN/ULC S7021: Standard for Mineral Fibre Thermal Insulation Boards;
 - 1.3.4.3 CAN/ULC S716.1: Standard for Exterior Insulation and Finish Systems (EIFS) - Materials and Systems;
 - 1.3.4.4 CAN/ULC S716.2: Standard for Exterior Insulation and Finish Systems (EIFS) - Installation of EIFS components and Water Resistive Barrier;
 - 1.3.4.5 CAN/ULC S716.3: Standard for Exterior Insulation and Finish Systems (EIFS) - Design Application.

1.4 DESIGN REQUIREMENTS

- 1.4.1 All work must comply with CCMC requirements as outlined in its evaluation report #12913-R.
- 1.4.2 All work undertaken must comply with current codes, norms, construction best practices, as well as the manufacturer's installation instructions;
- 1.4.3 The substrate system shall be engineered to withstand all applicable loads, including live, dead, seismic, positive and negative forces, etc.;
- 1.4.4 On horizontal surfaces, the minimum slope of the system shall be a 6:12 pitch with a maximum length of 250 mm (10");
- 1.4.5 The substrate shall be protected with a waterproofing membrane sealed at all joints and openings;
- 1.4.6 The substrate shall comply will all building codes and be one of the following:
 - a) Brick, masonry or concrete;
 - b) Insulated concrete forming (ICF);
 - c) Fibre cement board;
 - d) Glass-mat faced gypsum board;
 - e) Plywood or OSB board.
- 1.4.7 Expansion joints that allow for building movement shall be installed in the following locations:
 - 1.4.7.1 At expansion joints that occur in the substrate;
 - 1.4.7.2 At any abutment of the system with other materials;
 - 1.4.7.3 Where the substrate changes;

- 1.4.7.4 Where significant structural movement occurs;
- 1.4.7.5 At a maximal distance of 10m (30ft), to counter thermal expansion;
- 1.4.7.6 Where deflections that might be in excess of L/240 are expected;
- 1.4.7.7 At the floor line in wood frame construction (may not be required when using engineered wood beams).
- 1.4.8 Expansion joints, or fire-breaks, shall extend through the EIFS and shall include proper flashing attached to the substrate (horizontal joints).

1.5 QUALITY ASSURANCE

- 1.5.1 Manufacturers
 - 1.5.1.1 EIFS manufacturer shall be Adex Systems Inc.
 - 1.5.1.2 Be a member of and in good standing with the EIFS Council of Canada.
 - 1.5.1.3 All other third-party material manufacturers shall be recognized by Adex Systems Inc.
- 1.5.2 Applicators
 - 1.5.2.1 Applicators shall have the necessary permits.
 - 1.5.2.2 Applicator shall have a minimum of (2) two-years of experience in applying EIFS systems and employ sufficient, knowledgeable personnel to complete work on schedule.
 - 1.5.2.3 Applicator shall follow all EIFS manufacturer's directions when installing system components.

1.6 DELIVERY, STORAGE AND HANDLING

- 1.6.1 All materials supplied by ADEX Systems Inc. shall be delivered in their sealed, original packaging with their labels legible and intact.
- 1.6.2 All materials supplied by ADEX Systems Inc. shall be stored in a cool, dry location at temperatures above 5 °C (41 °F) and protected from weather and other damage.
- 1.6.3 Store materials away from direct sunlight and protect from temperatures in excess of 32 °C (90 °F).
- 1.6.4 Materials suspected of having been frozen or damaged must not be used.

1.7 ARCHITECTURAL SAMPLES

- 1.7.1 Upon request, Adex or its distributor will provide a minimum 200mm x 200mm (8"x8") sample for colour and texture approval.
- 1.7.2 Do not start any final work until the Consultant gives final approval of sample(s).

1.8 JOB MOCK-UP

- 1.8.1 Construct a mock-up panel on site as part of the actual wall on an area as indicated by the Consultant. The approved mock-up panel shall form a standard for the project and no work of inferior quality will be accepted. The mock-up shall match sample panel(s) submitted to the Consultant as described in paragraph 1.7 of this Section.

SPEC NOTE: A job mock up of the assembly is highly recommended on every project to meet expectations and intended performance.

1.9 JOB CONDITIONS

- 1.9.1 Ambient and substrate temperatures shall be minimum 5 °C (41 °F) during installation.
- 1.9.2 When installing in climatic temperatures below 5 °C (41 °F), tarping, heating and ventilation shall be provided to maintain proper installation temperatures.
- 1.9.3 Ambient temperature shall be maintained above 5 °C (41 °F) for a minimum of 24 hours after installation to ensure that drying is complete.
- 1.9.4 Installation of ADEX materials shall be co-ordinated with the other construction trades.

1.10 ALTERNATIVES

- 1.10.1 Systems considered equivalent to adex-XNC shall be evaluated by CCMC according to MasterFormat #07 24 13.05 , including the Water Entry Testing of their respective WRB's and shall be approved by the architect, in writing, at least ten (10) working days prior to the project bid date.

1.11 WARRANTY

- 1.11.1 Upon request, the manufacturer shall provide a five-year limited warranty, stating that materials conform to specifications and are free of manufacturing defects.

PART 2 PRODUCTS

2.1 MANUFACTURER

- 2.1.1 All components of the system shall be obtained from ADEX Systems Inc. or its authorised distributors. No substitution or addition of other material is permitted without written consent from the manufacturer.

2.2 PRODUCTS

2.2.1 Water Resistive Barrier (WRB)

2.2.1.1 Shall be 100% acrylic, such as;

- a) Vapour permeable membranes:
 - HYDROFLEX STD mixed 1:1 by weight with Type GU cement or;
 - HYDROFLEX WO or;
- b) Vapour barrier membranes:
 - HYDROFLEX GUARD, mixed 1:1 by weight with Type GU cement or;
 - HYDROFLEX VB.

SPEC NOTE: Design and location of all air and vapour barriers is the responsibility of the Design Professional.

2.2.2 Water Resistive Barrier/Adhesive (WRB/Adhesive)

2.2.2.1 Shall be 100% acrylic such as:

- 2.2.2.2 Vapour permeable membranes:
 - HYDROFLEX STD mixed 1:1 by weight with Type GU cement, or
- 2.2.2.3 Vapour barrier membranes:
 - HYDROFLEX GUARD, mixed 1:1 by weight with Type GU cement.

2.2.3 Mineral Fibre Insulation Board

2.2.3.1 ADEX MFI-FLAT or MFI-GD INSULATION made by a manufacturer approved by Adex Systems Inc such as:

- a) Owens Corning Thermafibre Rainbarrier HC CI 80
 - b) Powerwool Rigid Board
 - c) Rockwool Comfortboard 80
 - d) Rockwool Comfortboard 110
 - e) Rockwool Frontrock
- 2.2.3.6 Minimum board thickness of 52mm (2") and maximum board size of 600mm x 1200mm (2' x 4').
- 2.2.3.7 Shall conform to CAN/ULC-S702: Standard for Mineral Fibre Thermal Insulation for Buildings.
- 2.2.3.8 Shall conform to CAN/ULC-S114: Standard Method of Test for Determination of Non-Combustibility in Building Materials.

2.2.4 Mechanical Fasteners

- 2.2.4.1 Shall be Wind-Lock Wind-Devil II or ULP-302 low-profile, high-density polypropylene washers.
- 2.2.4.2 Screws must be galvanized or have an approved corrosion-resistant coating with thread patterns and tips designed to fasten into steel or wood studs, or masonry substrates.

2.2.5 Fiberglass Reinforcing Mesh

- 2.2.5.1 Shall be alkali-resistant and compliant to CAN/ULC-S716.1
- 2.2.5.2 Shall have the following as mandatory components part of the assembly:
- 2.2.5.3 A-FLEX MESH / QUICKTAPE / UNITAPE : 65 g/m² or 2 oz/yd², used for substrate joint treatment;

2.2.5.4 ARMOUR MESH (in 8" x 8"

pre-cut squares): 500 g/m² or 15 oz/yd², used in combination with the mechanical fasteners during attachment of the MFI boards to offer strong consolidation anchoring points prior to the installation of STANDARD MESH.

2.2.5.5 STANDARD MESH: 150 g/m² or 4.5 oz/yd², used to cover the entire surface of the MFI boards and also, to properly backwrap the perimeters of the insulation boards;

2.2.5.6 Assembly may also include the following optional meshes according to the project specific requirements:

- a) STANDARD MESH PLUS: 190 g/m² or 6 oz/yd²
- b) CORNER MESH: 305 g/m² or 9 oz/yd²
- c) INTERMEDIATE MESH: 375 g/m² or 11 oz/yd²
- d) ARMOUR MESH: 500 g/m² or 15 oz/yd²

2.2.6 Non-Combustible Basecoat

- 2.2.6.1 Shall be a 100% acrylic-based, asbestos-free product, manufactured by Adex Systems Inc. such as ADEX BASECOAT or DRYMIX basecoat.
- 2.2.6.2 ADEX BASECOAT mixed with an approximately equal weight of Type GU Portland cement (Weight ratio = 1:1).
- 2.2.6.3 DRYMIX basecoat mixed with approximately 6 litres of clean water in a clean container.
- 2.2.6.4 Shall conform to CAN/ULC-S114: Standard Method of Test for Determination of Non-Combustibility in Building Materials.

2.2.7 Point-Impact Resistant Basecoat (OPTIONAL)

- 2.2.7.1 For geographic locations prone to nesting and migration of bird-pecking species, such as woodpeckers and/or flickers, a point-impact resistant basecoat layer is highly recommended.
- 2.2.7.2 Shall be a 100% acrylic polymer-based product, reinforced with graphene and manufactured by Adex Systems Inc, such as Adex GRAPHEXCOAT.
- 2.2.7.3 GRAPHEXCOAT is mixed with an approximately equal weight of Type GU Portland cement (Weight ratio = 1:1) and up to 1-Litre of water.
- 2.2.7.4 GRAPHEXCOAT shall be installed after the Reinforcing Mesh is embedded into the basecoat layer.
- 2.2.7.5 Shall be listed in the manufacturer's current fire testing: CAN/ULC-S134-13 "Standard Method of Fire Test of Exterior Wall Assemblies"

2.2.8 Primer

2.2.8.1 Shall be a tinted, acrylic-based, roll-on priming agent, such as PRIMEX PRIMER, manufactured by Adex Systems Inc. PRIMEX PRIMER is not mandatory but highly recommended as it will enhance the depth of colour, increase the yield and enhance the longevity of the finish coat.

2.2.9 Finish Coat

2.2.9.1 Shall be a factory-mixed, 100% acrylic-based Adex Finish Coat, containing integral colour and texture.

2.2.9.2 The texture shall be [See the Adex Specification Binder or visit www.adex.ca to view the various textures].

2.3 OTHER MATERIALS

2.3.1 Portland Cement

2.3.1.1 Shall be lump-free, Type GU (Type 10) Portland cement conforming to CSA-A3001 standards.

2.3.2 Water:

2.3.2.1 Shall be clean, potable and free of sediment.

2.3.3 Transition Membrane

2.3.3.1 Shall be a flexible, self-adhesive composite material tested for adhesion to itself and to Adex components. Suitable Adex materials include HYDROFLEX FLASH, A-FLEX SEALANT AND MESH, Adex Primerless EIFS TAPE (4"-12" rolls), or Adex EIFS TAPE (4"-12" rolls) used with the appropriate primer.

2.3.3.1 All other transition membranes must be approved by Adex Systems Inc.

2.3.4 Backer Rod & Sealant

2.3.4.1 Refer to Section 07 90 00.

2.3.4.1 Backer rod must be closed pore type.

2.3.4.1 Use only low-modulus caulking with long service lives. Products should meet ASTM C1481 - 12 Standard Guide for Use of Joint Sealants with Exterior Insulation and Finish Systems (EIFS).

2.4 TESTS

2.4.1 Tests performed by an independent laboratory on the specified materials can be requested.

2.4.2 Properties shall meet or exceed the following values when tested by methods listed:

TEST METHOD

DURABILITY UNDER ENVIRONMENTAL CYCLIC CONDITIONS:

- CCMC Technical Guide 8.1.3 (60 Cycles)

No cracking, blistering, sagging of basecoat. No detachment or crazing of finish coat.

ACCELERATED WEATHER RESISTANCE:

- CCMC Technical Guide 8.1.2.3.6; ASTM G155 (Exposed 2000 Hours)

No cracking, flaking, or deleterious effects.

SALT SPRAY RESISTANCE:

- ASTM-B117-16 (Exposed 300 Hours)

No cracking, flaking, or deleterious effects.

MILDEW AND FUNGUS RESISTANCE:

- CCMC Technical Guide 8.1.2.5.5

No mildew or fungal growth.

IMPERMEABILITY TO WATER:

- CCMC Technical Guide 8.1.2.5.3

Pass. No water penetration in less than 2 hrs.

WATER ABSORPTION:

- CCMC Technical Guide 8.1.2.5.4

Pass. ≤ 20 %.

ADHESION BOND TEST:

- CCMC Technical Guide 8.1.2.3.1 (WRB) and 8.1.2.4.1 (EPS ADHESIVE)

Pass.

ADHESION BOND TEST:

- CCMC Technical Guide 8.1.3.1 (LAMINA)

Pass.

IMPACT RESISTANCE:

- CCMC Technical Guide 8.1.3.2 (ASTM D5420-16)

Pass.

JOINT DISRUPTION RESISTANCE:

- CCMC Technical Guide 8.1.2.3.3

Pass.

WIND LOAD RESISTANCE:

- CCMC Technical Guide 8.1.3.4 (ASTM E330M-14)

Pass.

■ Test Method

■ Result

PART 3 EXECUTION

3.1 INSPECTION

- 3.1.1 Inspect the substrate to verify that it is structurally sound and solid, ensuring there are no irregular voids or projections.
- 3.1.2 Inspect all metal flashing to ensure that they are properly installed, making certain that moisture will be deflected to the exterior of the system.
- 3.1.3 The architect and general contractor shall be advised of any discrepancies. Work shall not proceed until unsatisfactory conditions are corrected.

3.2 PREPARATION

- 3.2.1 Ensure conduit pipes, cables and outlets are adequately covered before commencing with installation.
- 3.2.2 Adjacent finish work (such as brick, siding, concrete, etc.) must be protected from damage during the installation of Adex materials.

3.3 MIXING

- 3.3.1 HYDROFLEX STD membrane
 - 3.3.1.1 Mix the contents of the HYDROFLEX pail until thoroughly blended. This will remove any settling of the contents due to storage.
 - 3.3.1.2 In a clean container, mix HYDROFLEX and Type GU Portland cement at a ratio (by weight) of one-to-one. Add Portland cement in small increments to prevent lumps from occurring.
 - 3.3.1.3 Allow mixture to set up for 5 minutes and mix again to break the initial set.
 - 3.3.1.4 Small amounts of water may be added to adjust the consistency. All other additives (such as rapid binder, anti-freeze, accelerator or others) are strictly prohibited.
- 3.3.2 HYDROFLEX GUARD membrane
 - 3.3.2.1 Mix the contents of the HYDROFLEX pail until thoroughly blended. This will remove any settling of the contents due to storage.
 - 3.3.2.2 In a clean container, mix HYDROFLEX and Type GU Portland cement at a ratio (by weight) of one-to-one. Add Portland cement in small increments to prevent lumps from occurring.
 - 3.3.2.3 Allow mixture to set up for 5 minutes and mix again to break the initial set.
 - 3.3.2.4 Small amounts of water may be

added to adjust the consistency. All other additives (such as rapid binder, anti-freeze, accelerator or others) are strictly prohibited.

- 3.3.3 ADEX BASECOAT basecoat
 - 3.3.3.1 Mix the contents of the Adex BASECOAT pail until thoroughly blended. This will remove any settling of the contents due to storage.
 - 3.3.3.2 In a clean container, combine Adex BASECOAT with fresh, lump-free Type GU Portland cement at a ratio of 1:1 by weight. Thoroughly mix to a homogenous state using a paddle mixer and electric drill. Add Portland cement in small increments to prevent lumps from occurring.
 - 3.3.3.3 Allow mixture to set up for 5 minutes, then mix again to break the initial set.
 - 3.3.3.4 Small amounts of clean water may be added to adjust the consistency and workability. All other additives (antifreeze, accelerators, or otherwise) are strictly forbidden.
- 3.3.4 ADEX DRYMIX
 - 3.3.4.1 In a clean container, mix ADEX DRYMIX basecoat with approximately 6 litres of water.
 - 3.3.4.2 Thoroughly mix to a homogeneous state. Allow mixture to set up for 5 minutes and mix again to break the initial set.
 - 3.3.4.3 Small amounts of clean water may be added to adjust the consistency and workability. All other additives (antifreeze, accelerators, or otherwise) are strictly forbidden.
- 3.3.5 GRAPHEXCOAT point-impact resistant basecoat (OPTIONAL)
 - 3.3.5.1 Mix the contents of the Adex GRAPHEXCOAT-A or GRAPHEXCOAT-B pails until thoroughly blended. This will remove any settling of the contents due to storage.
 - 3.3.5.2 For ease of mixing, split the pail of Adex GRAPHEXCOAT-A or GRAPHEXCOAT-B into two (2) equal portions. Use only clean containers for mixing.
 - 3.3.5.3 In a clean container, combine Adex GRAPHEXCOAT-A or GRAPHEXCOAT-B with fresh, lump-free Type GU Portland cement at a ratio of 1:1 by weight. Thoroughly mix to a homogenous state using a paddle mixer and electric drill. Add Portland cement in small increments to prevent lumps from occurring.
 - 3.3.5.4 Allow mixture to set up for 5 minutes, then mix again to break the

initial set.

- 3.3.5.5 Up to 1-Litre of potable water may be added to adjust the consistency. All other additives (antifreeze, accelerators, or otherwise) are strictly forbidden. Do not overwater.

SPEC NOTE: Refer to the Adex website, www.adex.ca, for individual product Technical Bulletins displaying additional mixing and installation instructions.

3.4 INSTALLATION

3.4.1 Transition Membranes & Flashings

- 3.4.1.1 Refer to Section 07 60 00, Flashing.
- 3.4.1.2 Ensure flashing is installed where specified on the construction documents. Flashing must be installed at through-wall breaks, at the baseline of walls, and anywhere else the system is to drain to the exterior.
- 3.4.1.3 Apply the transition membrane over the flashing leg and ensure the water resistive barrier membrane adequately overlaps the transition membrane surface.

3.4.2 Sheathing Joint Treatment

- 3.4.2.1 Complete sheathing joint treatments as per the Water Resistive Barrier (WRB) data sheets.

3.4.3 Water Resistive Barrier

- 3.4.3.1 Ensure transition membranes are properly installed, sealing all junctions between the substrate and other materials (wall penetrations, openings, and dissimilar materials).
- 3.4.3.2 The Water Resistive Barrier (WRB) shall be joined to other components of the system so that the air barrier is continuous in three dimensions.
- 3.4.3.3 Apply one uniform coat of Water Resistive Barrier (WRB) over the entire surface of the substrate ensuring to respect the minimum wet thickness of the selected WRB (as per respective technical data sheet).
- 3.4.3.4 Allow the first coat of Water Resistive Barrier (WRB) to fully cure before proceeding with the second coat of WRB/Adhesive as described at Section 3.4.5. INSULATION BOARDS below.

3.4.4 Backwraps

- 3.4.4.1 Where the system meets dissimilar substrates and/or terminates, the insulation boards shall be properly backwrapped with basecoat and fiberglass reinforcing

mesh.

- 3.4.4.2 Backwrapping shall allow for efficient drainage where applicable.

3.4.5 Insulation Boards

- 3.4.5.1 The insulation boards shall be butted tightly together and interlocked at corners.
- 3.4.5.2 Gaps between the insulation boards shall be filled with slivers of same insulation material.
- 3.4.5.3 Insulation shall be installed horizontally with vertical joints staggered a minimum of 102 mm (4") from one vertical joint to another and a minimum of 152 mm (6") from framing members.
- 3.4.5.4 Using a 3/8" x 1/2" x 1-1/2" U-notched trowel, install the WATER RESISTIVE BARRIER/ADHESIVE (WRB/Adhesive) to create vertical channels of adhesive over the dry surface of the Water Resistive Barrier (WRB), taking care to leave a continuous film of WATER RESISTIVE BARRIER/ADHESIVE (WRB/Adhesive) to a minimum wet thickness of 1.6 mm underneath the ribbons.
- 3.4.5.5 Immediately install the insulation boards over the vertical channels of adhesive using a combination of mechanical fasteners and pre-cut squares (203 mm x 203 mm / 8" x 8") of ARMOUR fiberglass reinforcing mesh (15 oz/yd²), over the insulation board surface ensuring the materials are secured to the framing members.
- 3.4.5.6 Mechanical fasteners shall be spaced no more than 304 mm (12") apart vertically and 406 mm (16") apart horizontally.
- 3.4.5.7 Mechanical fasteners shall penetrate a minimum of 25.4 mm (1") into wood framing, concrete or masonry or, a minimum of 9 mm (3/8") into steel framing.
- 3.4.5.8 Mechanical fastener washer plates shall be installed flush with the insulation surface.
- 3.4.5.9 Install mechanical fasteners within 152 mm (6") of openings, corners, expansion joints and terminations.
- 3.4.5.10 Pre-drilled holes through surface shall be done in accordance with proper depth and diameter.

3.4.6 Aesthetic Details

- 3.4.6.1 V-grooves/Reveals shall be installed as per the construction documents. Aesthetic details create visual enhancements, ease finish coat applications, and provide drip edges to

- soffit areas.
- 3.4.6.2** A minimum thickness of 19mm (3/4") of insulation, between the substrate and base of any reveal, shall be maintained.
- 3.4.6.3** V-grooves/Reveals shall not be in alignment with insulation board joints or with the corners of openings.
- 3.4.7** Basecoat & Fiberglass Reinforcing Mesh
- 3.4.7.1** Using a flat metal trowel, cover the mechanical fasteners, washer plates and pre-cut squares of reinforcing mesh with the selected basecoat. Allow to dry before proceeding further.
- 3.4.7.2** ***OPTION:** At areas where specified in the construction documents, ARMOUR reinforcing mesh shall be embedded into the basecoat and allowed to dry before the installation of the STANDARD reinforcing mesh.
- a) Apply basecoat to the surface of the insulation boards to a thickness of 2.4mm (3/32") and embed ARMOUR MESH (vertical application is preferred). Smooth the surface until the mesh is fully embedded;
- b) ARMOUR MESH shall be abutted and not lapped;
- c) All layers of ARMOUR MESH shall be covered with a layer of STANDARD MESH.
- 3.4.7.3** ***OPTION:** CORNER MESH is recommended at all major inside/outside corners. Install CORNER MESH on exposed interior/exterior corners as noted in the construction documents.
- 3.4.7.4** Install an additional 300mm (12") long piece of STARTER MESH (at a 45° angle) at the corners of all wall openings.
- 3.4.7.5** Install basecoat in a continuous manner over the insulation board including the areas where ARMOUR MESH has been installed, to a uniform thickness of 1.6mm (1/16").
- 3.4.7.6** Immediately embed a layer of STANDARD MESH into the wet basecoat ensuring the reinforcing mesh joints overlap together by at least 64 mm (2-1/2") in the field of the wall and at least 203 mm (8") on both sides of corners. The basecoat shall be smoothed until the mesh is fully embedded.
- 3.4.7.7** Basecoat thickness shall be a minimum of 3 mm (1/8"). A second coat of basecoat may be required if, after drying, there are imperfections, or the mesh is not completely embedded.
- 3.4.7.8** Allow the basecoat to dry before applying point-impact resistant basecoat and/or primer and finish coat (24-hours).
- 3.4.8** ***OPTION:** Point-Impact Resistant Basecoat
- 3.4.8.1** First Coat - GRAPHEXCOAT-A
- a) Using a flat-edge metal trowel, apply GRAPHEXCOAT-A to the surface of the ADEX BASECOAT at a thickness between 3/32" and 1/8".
- b) Holding your trowel at a low-angle, smooth out the basecoat, using the largest aggregate in the GRAPHEXCOAT-A to assist with achieving the proper thickness.
- c) Allow the GRAPHEXCOAT-A to dry before applying the secondary GRAPHEXCOAT-B layer.
- 3.4.8.2** Second Coat- GRAPHEXCOAT-A
- a) Inspect the GRAPHEXCOAT-A installation and rasp down any irregular surfaces or high spots.
- b) With a flat-edge metal trowel, apply a 1.6mm (1/16") uniform layer of GRAPHEXCOAT-B over the entire first coat application and smooth the surface. Take care to fill any voids left behind by the GRAPHEXCOAT-A installation.
- c) Once dry, install additional skim coat layers of GRAPHEXCOAT-B as required.
- d) Allow the GRAPHEXCOAT-B to dry before applying any additional basecoat layers or continuing on to the primer and finish coat (24-hours).
- e) The final dry-film thickness of GRAPHEXCOAT (both layers) shall be no less than 2.5mm (3/32").
- 3.4.9** Primer & Finish Coat
- 3.4.9.1** Apply an even coat of Adex PRIMEX PRIMER (tinted to the same colour as the finish coat) with a good-quality paintbrush, 10mm (3/8") nap roller, or sprayer.
- 3.4.9.2** Allow PRIMEX PRIMER to dry before commencing with the Finish Coat.
- 3.4.9.3** Trowel-apply a tight coat of Adex Finish Coat, texture [see www.adex.ca or Adex Specification Binder] to a thickness not greater than the largest aggregate. Apply the finish coat with a stainless steel trowel in a continuous fashion, maintaining a wet edge. Levelling and texturing shall take place in one operation to give the Adex Finish Coat a uniform appearance.

- 3.4.9.4 Avoid applications in direct sunlight.
- 3.4.9.5 Avoid applying finish coat at locations where sealant will be installed.
- 3.4.9.6 Weather conditions will be a factor in the application and drying time of the Finish Coat.
- 3.4.10 Sealant
 - 3.4.10.1 Refer to Section 07 90 00, Sealant.
 - 3.4.10.2 Sealant shall be installed in a timely manner over the basecoat surface. Protect open joints from water intrusion during the construction period with backer rod until permanently sealed.

3.5 PROTECTION

- 3.5.1 Ensure that the general contractor protects all work against moisture infiltration and other damages by installing the necessary flashing and caulking in a timely manner.
- 3.5.2 Provide protection against dirt, moisture, high humidity, and freezing temperatures until materials are fully dry.

3.6 CLEAN-UP

- 3.6.1 After completion, remove waste and leftover materials from the job site.
- 3.6.2 Clean all adjacent materials and surfaces, and repair any defects to this application or any defects to any other work caused by this application, all to the approval of the consultant.

ALL REQUESTS FOR APPLICATION PROCEDURAL CHANGES MUST BE AUTHORIZED IN WRITING BY ADEX SYSTEMS INC.

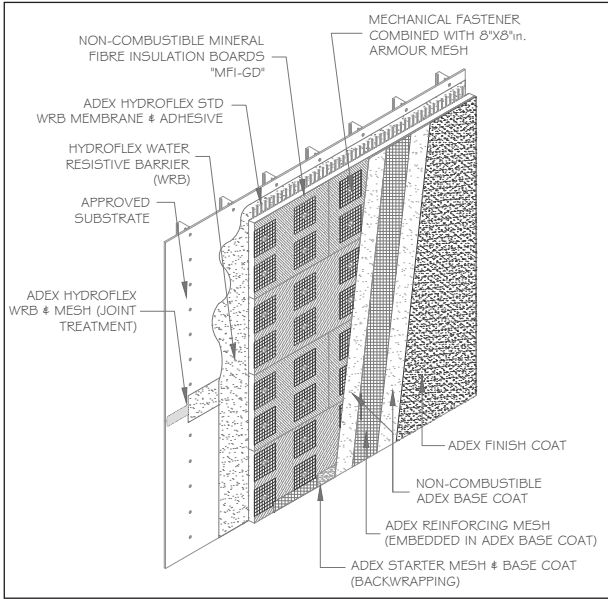
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CORPORATE SALES CENTER

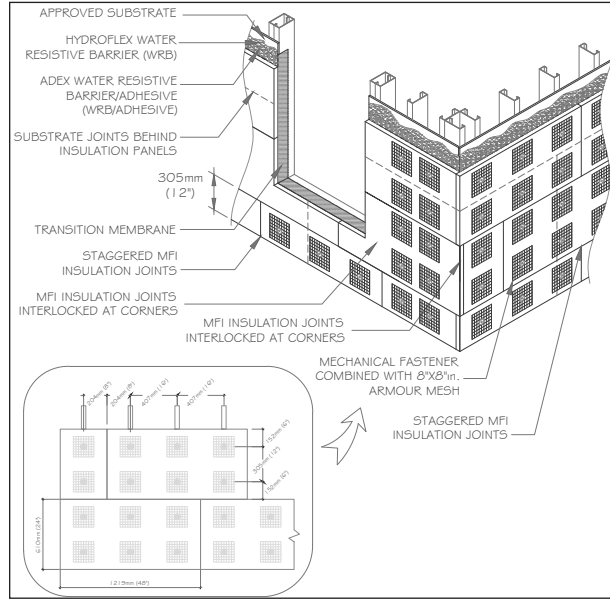
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September 2024

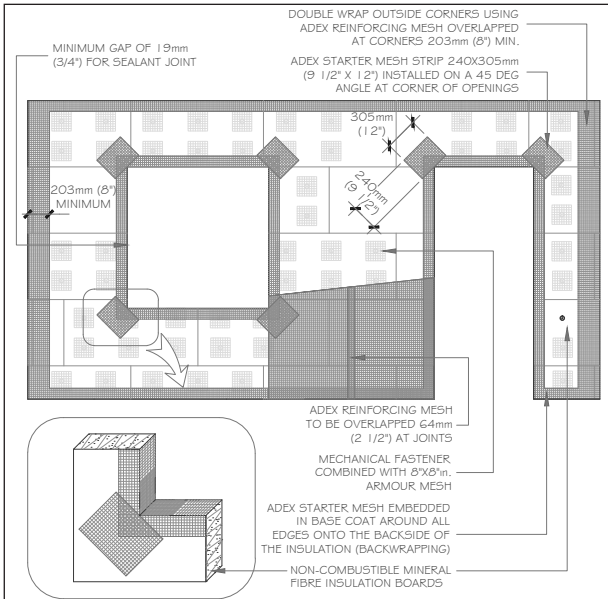




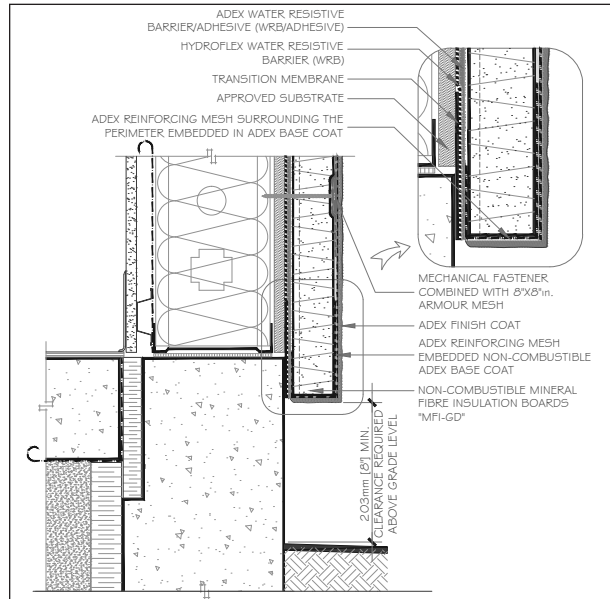
SYSTEM COMPONENTS



INSULATION INSTALLATION

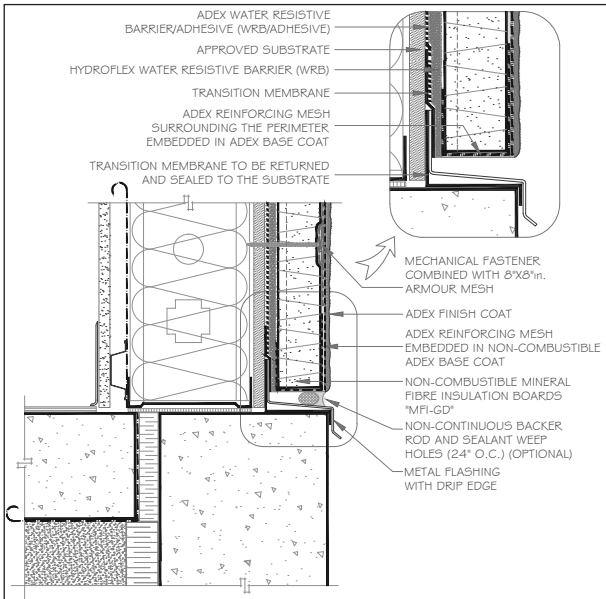


REINFORCING MESH INSTALLATION

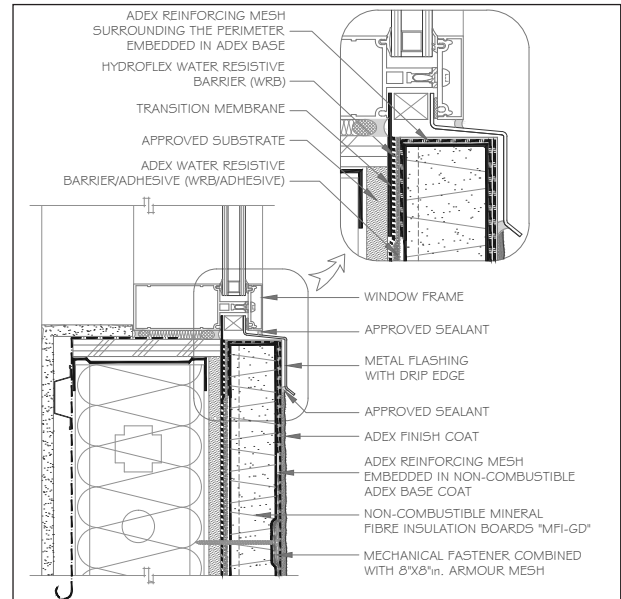


TERMINATION AT GRADE - OPTION A

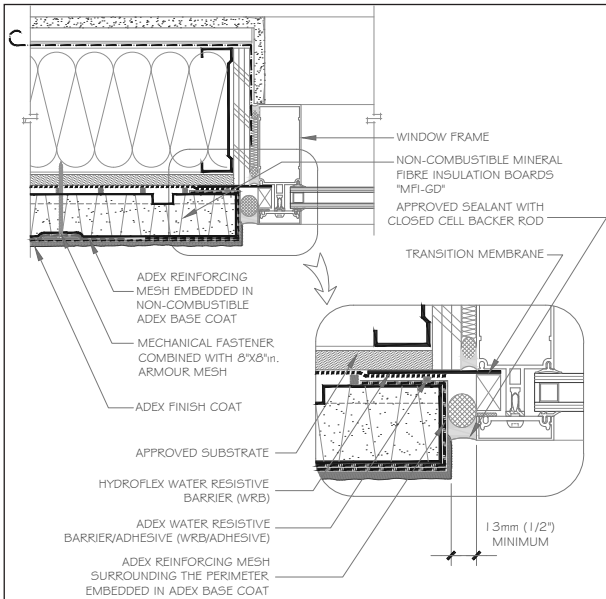
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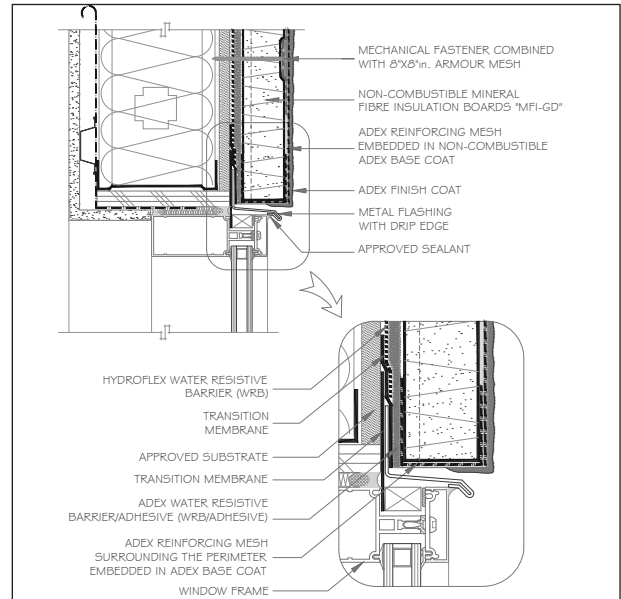
TERMINATION AT GRADE - OPTION B



WINDOW SILL

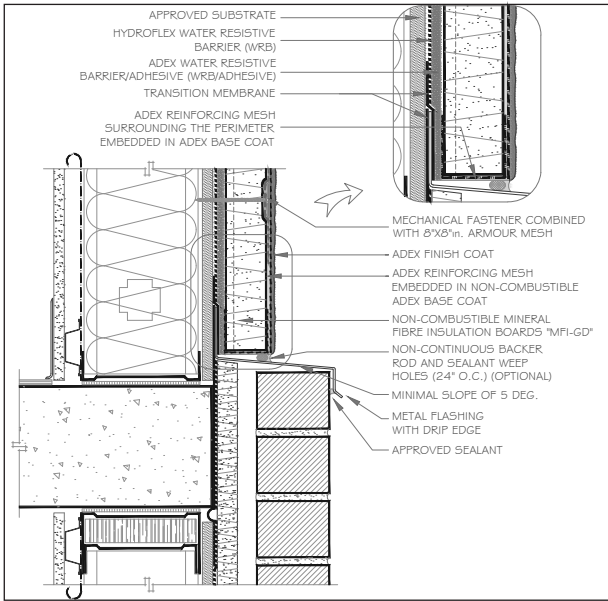


WINDOW JAMB

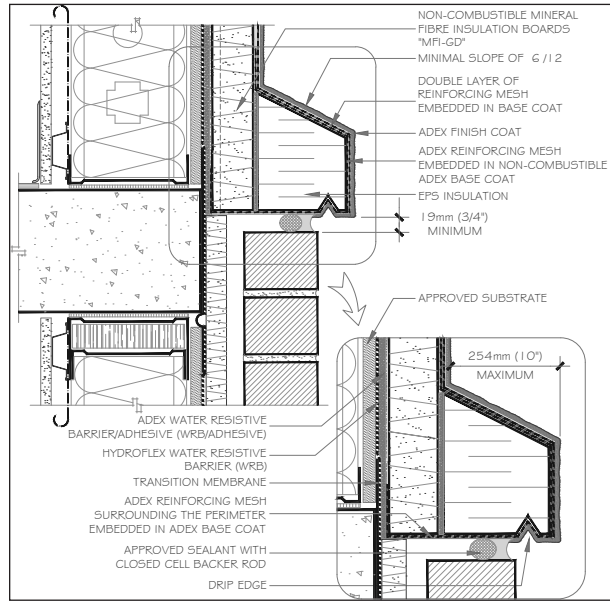


WINDOW HEAD

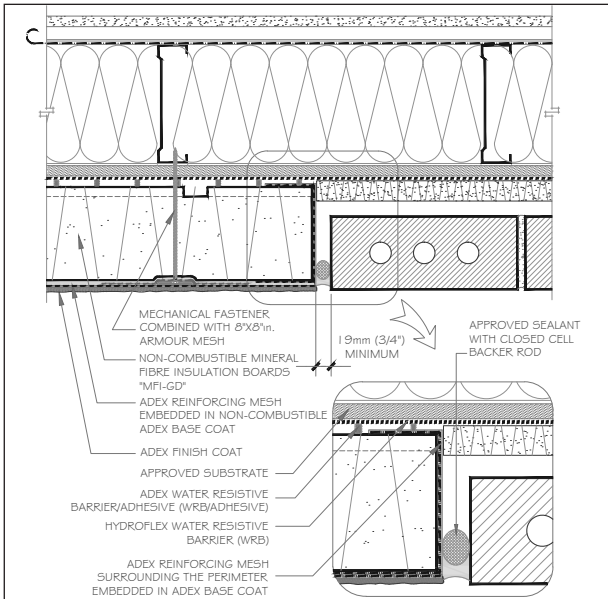
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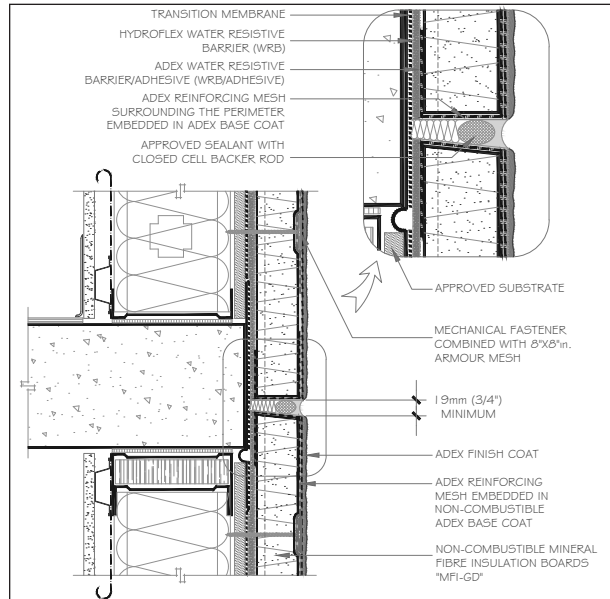
HORIZONTAL JUNCTION - OPTION A



HORIZONTAL JUNCTION - OPTION B

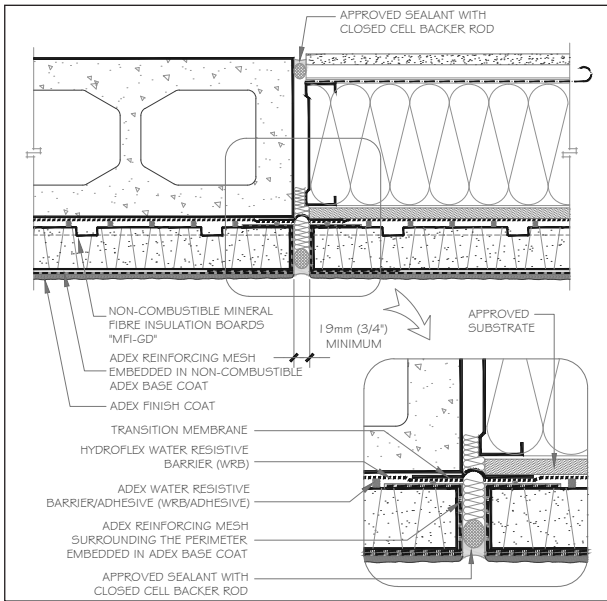


VERTICAL JUNCTION

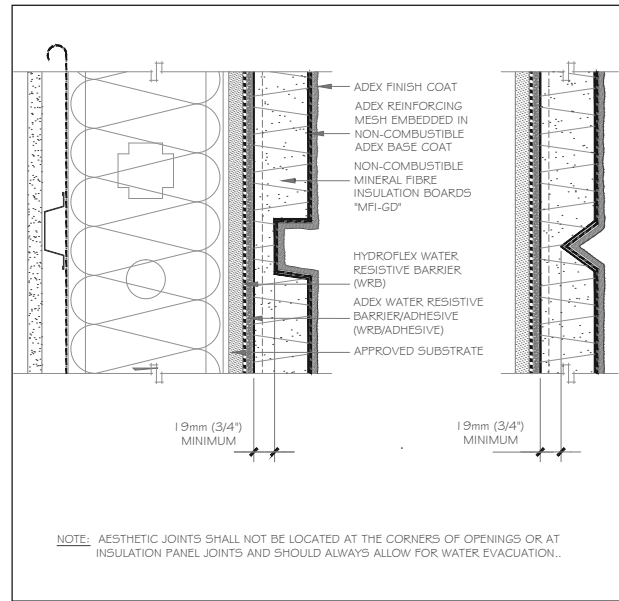


HORIZONTAL EXPANSION JOINT

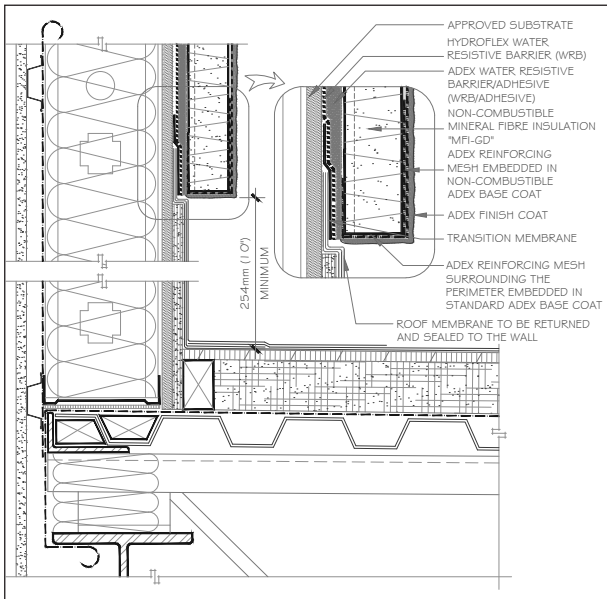
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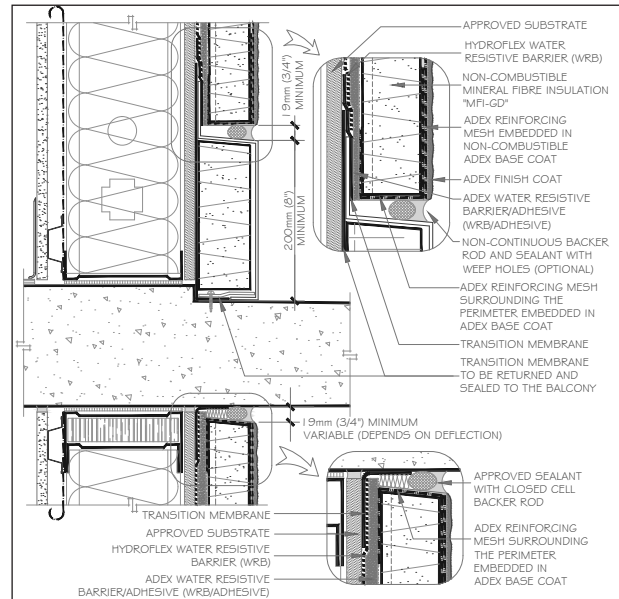
VERTICAL EXPANSION JOINT



AESTHETIC JOINTS

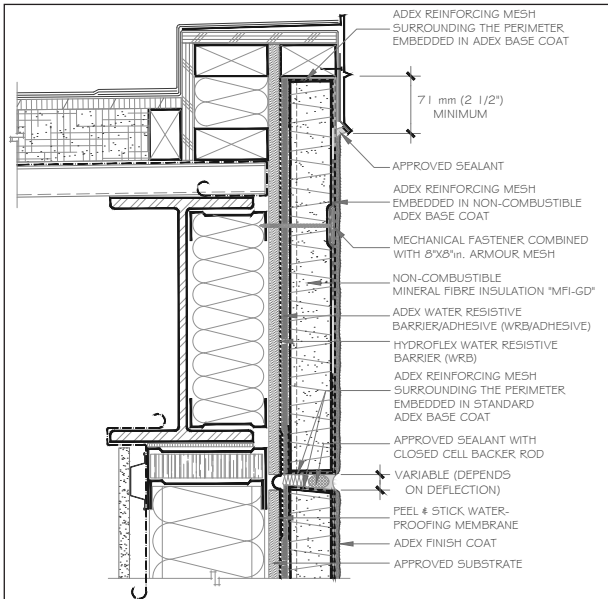


WALL / ROOF JUNCTION

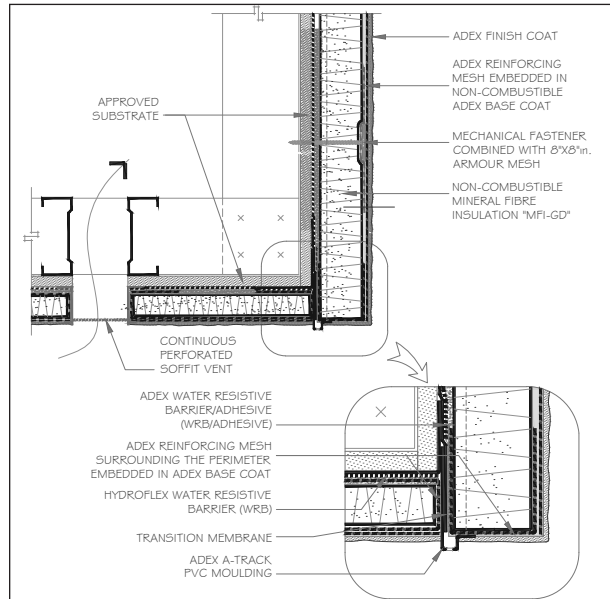


BALCONY JUNCTION

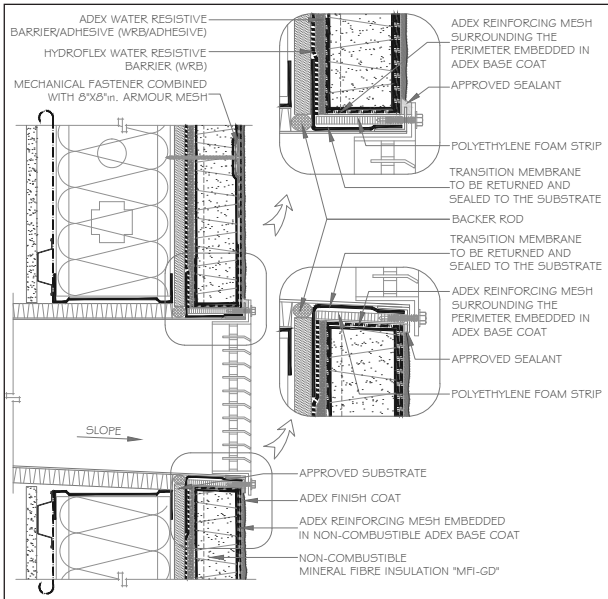
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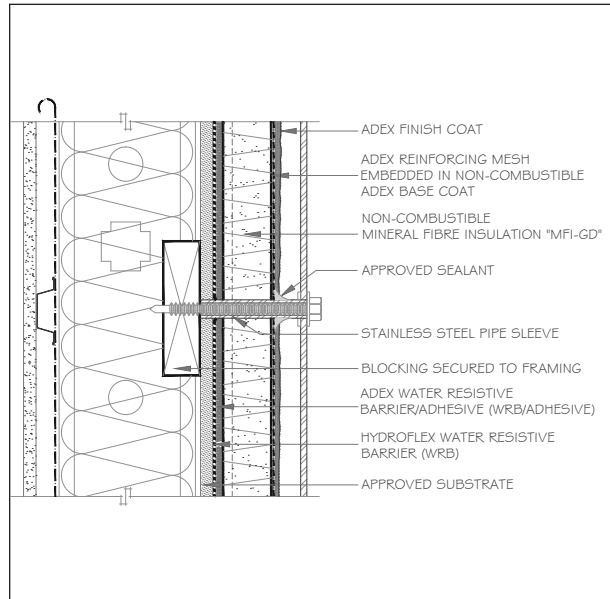
PARAPET



SOFFIT

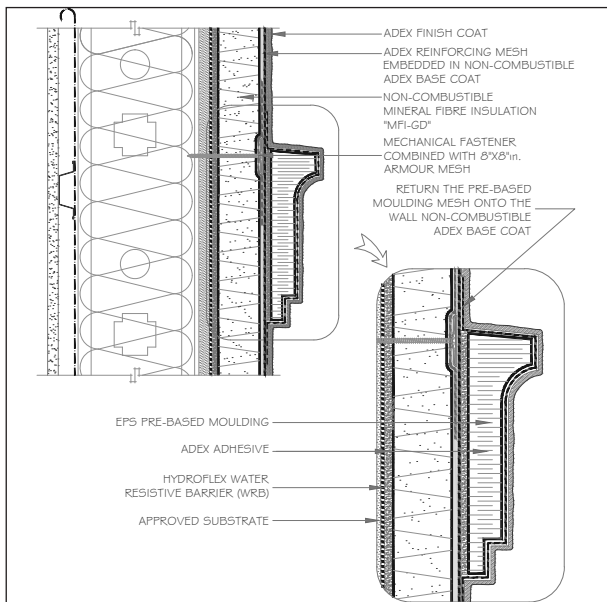


WALL PENETRATIONS



ACCESSORIES ATTACHMENT

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PRE-BASED MOULDINGS

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