TECH DATA SHEET

Sections - 071000 / 071700 / 071713 / 071716

AVM INDUSTRIES INC

AVM Aussie Clay

Aussie Clay is a heavy-duty Bentonite Composite Sheet Waterproofing Membrane

Sections - 071000/071700/071713/071716

Product Name

AVM AUSSIE CLAY (Internal reference: AVM System 590)

Manufactured by

AVM Industries, Inc.
8245 Remmet Ave, Canoga Park, CA 91304
888.414.1041 818.888.0050
www.avmindustries.com

Product Description

The AVM Aussie Clay is a heavy-duty high strength Bentonite Composite Sheet Waterproofing Membrane consisting of needle punched woven and non-woven geotextile fabrics encapsulating a thick layer (1 lb/sq.ft. / 4.8 kg/M2) of active sodium bentonite between them.

Aussie Clay works by forming a low permeability membrane once it comes in contact with water. Once wetted, the sodium bentonite swells (up to 15 times its size when unconfined) to form a strong continuous membrane. As Aussie Clay swells, it's also designed to self-seal and expand towards the concrete to fill-in small cracks and voids, as well as reduce the potential of lateral water migration. Aussie Clay forms a mechanical bond to the concrete in a pre-applied waterproofing application.

The hydration of Aussie Clay can be restricted if ground water is contaminated with either salt, Chemicals or other foreign substances. (As determined by the site water analysis). If ground water contains strong acids, alkalis, or other contaminants, or is of a conductivity of 2,500 µmhos/cm or greater, Aussie Clay SW or Aussie Clay SW-PL must be used. Please contact your local rep for details.

Where to Use

Retaining Walls, Basements, Under-Slabs, Mud-Slabs

AVM Aussie Clay is designed for below-grade vertical and horizontal structural foundation surfaces. Aussie Clay may be applied vertically to permanent formwork such as lagging or other property line construction or to existing back-filled structural walls. Aussie Clay may also be applied horizontally either to smoothly prepared concrete substrates and/or compacted earth or crushed stone substrates. Aussie Clay may also be used in conjunction with the AVM Aussie Skin membrane as part of a "Dual Membrane" Assembly.

Application Method

Pre-Applied, loosely laid.

Warranty

AVM Industries will warrant the installed membrane for a period of five (5) years. Extended warranties are available. For complete warranty details, contact AVM Industries or consult with your applicator. Shot-Crete to conform to ACI 506 Standards.

Delivery, Storage, and Handling

a. Delivery of all Aussie Clay system components to the job site must be in their original sealed packaging, with manufacturer's name and label intact.

b. Handle and store containers in accordance with printed instructions.

c. Store in a dry cool space at temperatures between 50°F and 90°F. (Aussie Clay Sealant must be stored at temperatures between 50°F and 75°F) Do not store materials in direct sunlight or where they may be damaged by water or rain.

d. Failure to comply with the recommended storage conditions may result in premature deterioration of the product. For specific storage advice, please contact AVM Industries and/or its representatives.

e. Keep all materials out of the reach of children.

f. If irritation occurs during use, liberally flush affected areas with water. If irritation continues, see a physician immediately.

Project Conditions

1. All surfaces to which the Aussie Clay is applied must be dry, sound and stable, with an even finish and free from sharp protruding items, dust, loose debris, grease, curing agents, or anything else that might damage or prevent the proper installation of the membrane.
2. Aussie Clay may be applied at temperatures as low as -20°F and as high as 110°F.
3. Do NOT install the Aussie Clay if raining or precipitation is imminent.
4. Warn personnel against hazards or hazardous conditions on the job that might require special protective gear and or any other special protective or safety procedures.
5. Protect adjacent surfaces which could be damaged during the application procedure.
6. This system must not be used to cover Expansion Joints.

System Application

Read the Aussie Clay Training Manual/ Installation Instructions Prior to Installation. Application instructions vary based on application surfaces, job conditions and other factors.

Quality Control

a. Visually inspect all coated surfaces to ensure a full and proper application, especially at seams, corners, drainage footings, penetrations and other hard-to-reach areas.

b. All unsatisfactory areas shall be repaired prior to final acceptance.

Protection of Installed Work

a. The membrane shall be protected until backfilled or concrete is properly poured over it.

b. Refer to Aussie Clay Training Manual/ Installation Instructions for complete protection requirements.

Availability and Cost

Contact AVM Industries or your approved applicator for pricing and availability.

Technical Services

Technical services are available by contacting our offices at: **888.414.1041** or **818.888.0050** or visit **www.avmindustries.com**

System Specifications

See next page.

Technical Data

Property	Test Method	Results	Unit
Swell Index	ASTM D5890	≥24	ml/2g
Fluid Loss	ASTM D5891	≤18	ml/2g
Bentonite Mass Per Unit Area	ASTM D5993	1.0 (4.8)	lb/sqft (kg/sqm)
Hydrostatic Resistance	ASTM D5385M	231 (70)	ft (m)
Permeability	ASTM D5084	1 x 10-11	m/s max
Tensile Strength	ASTM D6768	8.0/8.0	kN/m min
Puncture Resistance	ASTM D6241	337 lbs (1.5)	lbs (kN)
Peel Adhesion to Concrete	ASTM D903M	15 (2.6)	lbs/in (kN/m)
Low Temperature Flexibility	ASTM D1970	Unaffected	-25°F (-32°C)

Item/Component	Packaging	Approximate Shipping Weights	Qty/Pallet	Weight/Pallet	Qty/Truck	VOC
AUSSIE CLAY	3.77'x16.4' Roll (61.9 sq.ft.)	73.4 lbs. (33.3 kg) / Roll	35 Rolls/Pallet	2615 Lbs (1186 kg)	16 Pallets *	N/A

For a complete list of details in CAD or PDF, please visit our website at www.avmindustries.com.

AVM Industries, Inc.
8245 Remmet Ave, Canoga Park, CA 91304
888.414.1041 818.888.0050

Quality Waterproofing Products

AVM INDUSTRIES INC

www.avmindustries.com

TECH DATA SHEET

Sections - 071000 / 071700 / 071713 / 071716

AVM Aussie Clay PL

Aussie Clay PL is a heavy-duty Bentonite Composite Sheet Waterproofing Membrane with a Poly Liner Backing.

Sections - 071000/071700/071713/071716

Product Name

AVM AUSSIE CLAY PL
(Internal reference: AVM System 590 PL)

Manufactured by

AVM Industries, Inc.
8245 Remmet Ave, Canoga Park, CA 91304
888.414.1041 818.888.0050
www.avmindustries.com

Product Description

The AVM Aussie Clay PL is a heavy-duty high strength Bentonite Composite Sheet Waterproofing Membrane consisting of needle punched woven and non-woven geotextile fabrics encapsulating a thick layer (1 lb/sq.ft. / 4.8 kg/M2) of active sodium bentonite between them. An HDPE liner is fused to the non-woven side of the membrane to increase its overall waterproofing performance and vapor permeance

Aussie Clay PL works by forming a low permeability membrane once it comes in contact with water. Once wetted, the sodium bentonite swells (up to 15 times its size when unconfined) to form a strong continuous membrane. As Aussie Clay PL swells, it's also designed to self-seal and expand towards the concrete to fill-in small cracks and voids, as well as reduce the potential of lateral water migration. Aussie Clay PL forms a mechanical bond to the concrete in a pre-applied waterproofing application.

The hydration of Aussie Clay can be restricted if ground water is contaminated with either salt, Chemicals or other foreign substances. (As determined by the site water analysis). If ground water contains strong acids, alkalis, or other contaminants, or is of a conductivity of 2,500 µmhos/cm or greater, Aussie Clay SW or Aussie Clay SW-PL must be used. Please contact your local rep for details.

Where to Use

Retaining Walls, Basements, Under-Slabs, Mud-Slabs

AVM Aussie Clay PL is designed for below-grade vertical and horizontal structural foundation surfaces. Aussie Clay PL may be applied vertically to permanent formwork such as lagging or other property line construction or to existing back-filled structural walls. Aussie Clay PL may also be applied horizontally either to smoothly prepared concrete substrates and/or compacted earth or crushed stone substrates. Aussie Clay PL may also be used in conjunction with the AVM Aussie Skin membrane as part of a "Dual Membrane" Assembly.

Application Method

Pre-Applied, loosely laid.

Warranty

AVM Industries will warrant the installed membrane for a period of five (5) years. Extended warranties are available. For complete warranty details, contact AVM Industries or consult with your applicator. Shot-Crete to conform to ACI 506 Standards.

Delivery, Storage, and Handling

a. Delivery of all Aussie Clay PL system components to the job site must be in their original sealed packaging, with manufacturer's name and label intact.

b. Handle and store containers in accordance with printed instructions.

c. Store in a dry cool space at temperatures between 50°F and 90°F. (Aussie Clay Sealant must be stored at temperatures between 50°F and 75°F) Do not store materials in direct sunlight or where they may be damaged by water or rain.

d. Failure to comply with the recommended storage conditions may result in premature deterioration of the product. For specific storage advice, please contact AVM Industries and/or its representatives.

e. Keep all materials out of the reach of children.

f. If irritation occurs during use, liberally flush affected areas with water. If irritation continues, see a physician immediately.

Project Conditions

1. All surfaces to which the Aussie Clay PL is applied must be dry, sound and stable, with an even finish and free from sharp protruding items, dust, loose debris, grease, curing agents, or anything else that might damage or prevent the proper installation of the membrane.
2. Aussie Clay PL may be applied at temperatures as low as -20°F and as high as 110°F.
3. Do NOT install the Aussie Clay PL if raining or precipitation is imminent.
4. Warn personnel against hazards or hazardous conditions on the job that might require special protective gear and or any other special protective or safety procedures.
5. Protect adjacent surfaces which could be damaged during the application procedure.
6. This system must not be used to cover Expansion Joints.

System Application

Read the Aussie Clay Training Manual/ Installation Instructions Prior to Installation. Application instructions vary based on application surfaces, job conditions and other factors.

Quality Control

a. Visually inspect all coated surfaces to ensure a full and proper application, especially at seams, corners, drainage footings, penetrations and other hard-to-reach areas.

b. All unsatisfactory areas shall be repaired prior to final acceptance.

Protection of Installed Work

a. The membrane shall be protected until backfilled or concrete is properly poured over it.

b. Refer to Aussie Clay Training Manual/ Installation Instructions for complete protection requirements.

Availability and Cost

Contact AVM Industries or your approved applicator for pricing and availability.

Technical Services

Technical services are available by contacting our offices at: **888.414.1041** or **818.888.0050** or visit **www.avmindustries.com**

System Specifications

See next page.

Technical Data

Property	Test Method	Results	Unit
Swell Index	ASTM D5890	≥24	ml/2g
Fluid Loss	ASTM D5891	≤18	ml/2g
Bentonite Mass Per Unit Area	ASTM D5993	1.0 (4.8)	lb/sqft (kg/sqm)
Hydrostatic Resistance	ASTM D5385M	231 (70)	ft (m)
Permeability	ASTM D5084	1 x 10-11	m/s max
Tensile Strength	ASTM D6768	8.0/8.0	kN/m min
Puncture Resistance	ASTM D6241	337 lbs (1.5)	lbs (kN)
Peel Adhesion to Concrete	ASTM D903M	15 (2.6)	lbs/in (kN/m)
Low Temperature Flexibility	ASTM D1970	Unaffected	-25°F (-32°C)
Water Vapor Transmission Rate	ASTM E96	0.03	Grains per hr/ft2

Item/Component	Packaging	Approximate Shipping Weights	Qty/Pallet	Weight/Pallet	Qty/Truck	VOC
AUSSIE CLAY PL	3.77'x16.4' Roll (61.9 sq.ft.)	77.8 lbs. (35.3 kg) / Roll	35 Rolls/Pallet	2765 Lbs (1254 kg)	15 Pallets *	N/A

*No. of pallets per truck varies if shipped to or in USA or to or in Canada and/or if shipped in a shipping container or standard truck. Qty/Truck listed above shows maximum pallets per 40 GP shipping container shipped in or to the USA. Call AVM for details.

For a complete list of details in CAD or PDF, please visit our website at www.avmindustries.com.

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888.414.1041 818.888.0050

Quality Waterproofing Products

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TECH DATA SHEET

Sections - 071000 / 071700 / 071713 / 071716

AVM Aussie Clay SW

A heavy-duty Salt Water Bentonite Composite Sheet Waterproofing Membrane to be used in salt water or other contaminated ground conditions.

Sections - 071000/071700/071713/071716

Product Name

AVM AUSSIE CLAY SW (Internal reference: AVM System 590 SW)

Manufactured by

AVM Industries, Inc.
8245 Remmet Ave, Canoga Park, CA 91304
888.414.1041 818.888.0050
www.avmindustries.com

Product Description

The AVM Aussie Clay SW is a heavy-duty high strength Salt Water Grade Bentonite Composite Sheet Waterproofing Membrane consisting of needle punched woven and non-woven geotextile fabrics encapsulating a thick layer (1 lb/sq.ft. / 4.8 kg/M2) of a specially formulated sodium bentonite blend to be used in saltwater and other ground contaminated (Chemicals, Acids, Hydrocarbons) sites

Aussie Clay SW works by forming a low permeability membrane once it comes in contact with water. Once wetted, the sodium bentonite swells (up to 15 times its size when unconfined) to form a strong continuous membrane. As Aussie Clay SW swells, it's also designed to self-seal and expand towards the concrete to fill in small cracks and voids, as well as prevent the potential of lateral water migration. Aussie Clay SW forms a mechanical bond to the concrete in a pre-applied waterproofing application.

Aussie Clay SW and Aussie Clay SW-PL are used where ground water is contaminated with either salt, chemicals or other foreign substances, as determined by a site water analysis, which can keep Aussie Clay or Aussie Clay PL from hydrating. Please contact your local rep for details.

Where to Use

Retaining Walls, Basements, Under-Slabs, Mud-Slabs

AVM Aussie Clay SW is designed for below-grade vertical and horizontal structural foundation surfaces. Aussie Clay SW may be applied vertically to permanent formwork such as lagging or other property line construction or to existing back-filled structural walls. Aussie Clay SW may also be applied horizontally either to smoothly prepared concrete substrates and/or compacted earth or crushed stone substrates. Aussie Clay SW may also be used in conjunction with the AVM Aussie Skin membrane as part of a "Dual Membrane" Assembly.

Application Method

Pre-Applied, loosely laid.

Warranty

AVM Industries will warrant the installed membrane for a period of five (5) years. Extended warranties are available. For complete warranty details, contact AVM Industries or consult with your applicator. Shot-Crete to conform to ACI 506 Standards.

Delivery, Storage, and Handling

a. Delivery of all Aussie Clay SW system components to the job site must be in their original sealed packaging, with manufacturer's name and label intact.

b. Handle and store containers in accordance with printed instructions.

c. Store in a dry cool space at temperatures between 50°F and 90°F. (Aussie Clay Sealant must be stored at temperatures between 50°F and 75°F) Do not store materials in direct sunlight or where they may be damaged by water or rain.

d. Failure to comply with the recommended storage conditions may result in premature deterioration of the product. For specific storage advice, please contact AVM Industries and/or its representatives.

e. Keep all materials out of the reach of children.

f. If irritation occurs during use, liberally flush affected areas with water. If irritation continues, see a physician immediately.

Project Conditions

1. All surfaces to which the Aussie Clay SW is applied must be dry, sound and stable, with an even finish and free from sharp protruding items, dust, loose debris, grease, curing agents, or anything else that might damage or prevent the proper installation of the membrane.
2. Aussie Clay SW may be applied at temperatures as low as -20°F and as high as 110°F.
3. Do NOT install the Aussie Clay SW if raining or precipitation is imminent.
4. Warn personnel against hazards or hazardous conditions on the job that might require special protective gear and or any other special protective or safety procedures.
5. Protect adjacent surfaces which could be damaged during the application procedure.
6. This system must not be used to cover Expansion Joints.

System Application

Read the Aussie Clay Training Manual/ Installation Instructions Prior to Installation. Application instructions vary based on application surfaces, job conditions and other factors.

Quality Control

a. Visually inspect all coated surfaces to ensure a full and proper application, especially at seams, corners, drainage footings, penetrations and other hard-to-reach areas.

b. All unsatisfactory areas shall be repaired prior to final acceptance.

Protection of Installed Work

a. The membrane shall be protected until backfilled or concrete is properly poured over it.

b. Refer to Aussie Clay Training Manual/ Installation Instructions for complete protection requirements.

Availability and Cost

Contact AVM Industries or your approved applicator for pricing and availability.

Technical Services

Technical services are available by contacting our offices at: **888.414.1041** or **818.888.0050** or visit **www.avmindustries.com**

System Specifications

See next page.

Technical Data

Property	Test Method	Results	Unit
Swell Index	ASTM D5890	≥24	ml/2g
Fluid Loss	ASTM D5891	≤18	ml/2g
Bentonite Mass Per Unit Area	ASTM D5993	1.0 (4.8)	lb/sqft (kg/sqm)
Hydrostatic Resistance	ASTM D5385M	231 (70)	ft (m)
Permeability	ASTM D5084	1 x 10-11	m/s max
Tensile Strength	ASTM D6768	8.0/8.0	kN/m min
Puncture Resistance	ASTM D6241	337 lbs (1.5)	lbs (kN)
Peel Adhesion to Concrete	ASTM D903M	15 (2.6)	lbs/in (kN/m)
Low Temperature Flexibility	ASTM D1970	Unaffected	-25°F (-32°C)

Item/Component	Packaging	Approximate Shipping Weights	Qty/Pallet	Weight/Pallet	Qty/Truck	VOC
AUSSIE CLAY SW	3.77'x16.4' Roll (61.9 sq.ft.)	73.4 Lbs. (33.3 kg) / Roll	35 Rolls/Pallet	2615 Lbs (1186 kg)	16 Pallets *	N/A

* No. of pallets per truck varies if shipped to or in USA or to or in Canada and/or if shipped in a shipping container or standard truck. Qty/Truck listed above shows maximum pallets per 40 GP shipping container shipped in or to the USA. Call AVM for details.

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Quality Waterproofing Products

AVM INDUSTRIES INC

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TECH DATA SHEET

Sections - 071000 / 071700 / 071713 / 071716

AVM Aussie Clay SW-PL

A heavy-duty Salt Water Bentonite Composite Sheet Waterproofing Membrane with a poly liner backing to be used in salt water or other contaminated ground conditions.

Sections - 071000/071700/071713/071716

Product Name

AVM AUSSIE CLAY SW-PL (Internal reference: AVM System 590 SW-PL)

Manufactured by

AVM Industries, Inc.
8245 Remmet Ave, Canoga Park, CA 91304
888.414.1041 818.888.0050
www.avmindustries.com

Product Description

The AVM Aussie Clay SW-PL is a heavy-duty high strength Salt Water Grade Bentonite Composite Sheet Waterproofing Membrane consisting of needle punched woven and non-woven geotextile fabrics encapsulating a thick layer (1 lb/sq.ft. / 4.8 kg/M2) of a specially formulated sodium bentonite blend to be used in saltwater and other ground contaminated (Chemicals, Acids, Hydrocarbons) sites. An HDPE liner is fused to the non-woven side of the membrane to increase its overall waterproofing performance and vapor permeance

Aussie Clay SW-PL works by forming a low permeability membrane once it comes in contact with water. Once wetted, the sodium bentonite swells (up to 15 times its size when unconfined) to form a strong continuous membrane. As Aussie Clay SW-PL swells, it's also designed to self-seal and expand towards the concrete to fill in small cracks and voids, as well as prevent the potential of lateral water migration. Aussie Clay SW-PL forms a mechanical bond to the concrete in a pre-applied waterproofing application.

Aussie Clay SW and Aussie Clay SW-PL are used where ground water is contaminated with either salt, chemicals or other foreign substances, as determined by a site water analysis, which can keep Aussie Clay or Aussie Clay PL from hydrating. Please contact your local rep for details.

Where to Use

Retaining Walls, Basements, Under-Slabs, Mud-Slabs

AVM Aussie Clay SW-PL is designed for below-grade vertical and horizontal structural foundation surfaces. Aussie Clay SW-PL may be applied vertically to permanent formwork such as lagging or other property line construction or to existing back-filled structural walls. Aussie Clay SW-PL may also be applied horizontally either to smoothly prepared concrete substrates and/or compacted earth or crushed stone substrates. Aussie Clay SW-PL may also be used in conjunction with the AVM Aussie Skin membrane as part of a "Dual Membrane" Assembly.

Application Method

Pre-Applied, loosely laid.

Warranty

AVM Industries will warrant the installed membrane for a period of five (5) years. Extended warranties are available. For complete warranty details, contact AVM Industries or consult with your applicator. Shot-Crete to conform to ACI 506 Standards.

Delivery, Storage, and Handling

a. Delivery of all Aussie Clay SW-PL system components to the job site must be in their original sealed packaging, with manufacturer's name and label intact.

b. Handle and store containers in accordance with printed instructions.

c. Store in a dry cool space at temperatures between 50°F and 90°F. (Aussie Clay Sealant must be stored at temperatures between 50°F and 75°F) Do not store materials in direct sunlight or where they may be damaged by water or rain.

d. Failure to comply with the recommended storage conditions may result in premature deterioration of the product. For specific storage advice, please contact AVM Industries and/or its representatives.

e. Keep all materials out of the reach of children.

f. If irritation occurs during use, liberally flush affected areas with water. If irritation continues, see a physician immediately.

Project Conditions

1. All surfaces to which the Aussie Clay SW-PL is applied must be dry, sound and stable, with an even finish and free from sharp protruding items, dust, loose debris, grease, curing agents, or anything else that might damage or prevent the proper installation of the membrane.
2. Aussie Clay SW-PL may be applied at temperatures as low as -20°F and as high as 110°F.
3. Do NOT install the Aussie Clay SW-PL if raining or precipitation is imminent.
4. Warn personnel against hazards or hazardous conditions on the job that might require special protective gear and or any other special protective or safety procedures.
5. Protect adjacent surfaces which could be damaged during the application procedure.
6. This system must not be used to cover Expansion Joints.

System Application

Read the Aussie Clay Training Manual/ Installation Instructions Prior to Installation. Application instructions vary based on application surfaces, job conditions and other factors.

Quality Control

a. Visually inspect all coated surfaces to ensure a full and proper application, especially at seams, corners, drainage footings, penetrations and other hard-to-reach areas.

b. All unsatisfactory areas shall be repaired prior to final acceptance.

Protection of Installed Work

a. The membrane shall be protected until backfilled or concrete is properly poured over it.

b. Refer to Aussie Clay Training Manual/ Installation Instructions for complete protection requirements.

Availability and Cost

Contact AVM Industries or your approved applicator for pricing and availability.

Technical Services

Technical services are available by contacting our offices at: **888.414.1041** or **818.888.0050** or visit **www.avmindustries.com**

System Specifications

See next page.

Technical Data

Property	Test Method	Results	Unit
Swell Index	ASTM D5890	≥24	ml/2g
Fluid Loss	ASTM D5891	≤18	ml/2g
Bentonite Mass Per Unit Area	ASTM D5993	1.0 (4.8)	lb/sqft (kg/sqm)
Hydrostatic Resistance	ASTM D5385M	231 (70)	ft (m)
Permeability	ASTM D5084	1 x 10-11	m/s max
Tensile Strength	ASTM D6768	8.0/8.0	kN/m min
Puncture Resistance	ASTM D6241	337 lbs (1.5)	lbs (kN)
Peel Adhesion to Concrete	ASTM D903M	15 (2.6)	lbs/in (kN/m)
Low Temperature Flexibility	ASTM D1970	Unaffected	-25°F (-32°C)
Water Vapor Transmission Rate	ASTM E96	0.03	Grains per hr/ft2

Item/Component	Packaging	Approximate Shipping Weights	Qty/Pallet	Weight/Pallet	Qty/Truck	VOC
AUSSIE CLAY SW-PL	3.77'x16.4' Roll (61.9 sq.ft.)	78.3 lbs. (35.5 kg) / Roll	35 Rolls/Pallet	2787 Lbs (1264 kg)	15 Pallets *	N/A

*No. of pallets per truck varies if shipped to or in USA or to or in Canada and/or if shipped in a shipping container or standard truck. Qty/Truck listed above shows maximum pallets per 40 GP shipping container shipped in or to the USA. Call AVM for details.

For a complete list of details in CAD or PDF, please visit our website at www.avmindustries.com.

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Quality Waterproofing Products

AVM INDUSTRIES INC

www.avmindustries.com

TECH DATA SHEET

Sections - 071000 / 071700 / 071713 / 071716

AVM Aussie Clay Granules

Aussie Clay Granules are expandable, specially sized pure sodium bentonite granules for use in conjunction with AVM Aussie Clay waterproofing systems.

Sections - 071000/071700/071713/071716

Product Name

AVM AUSSIE CLAY GRANULES
(Internal reference: AVM System 590)

Manufactured by

AVM Industries, Inc.
8245 Remmet Ave, Canoga Park, CA 91304
888.414.1041 818.888.0050
www.avmindustries.com

Product Description

Aussie Clay Granules are expandable, specially sized pure sodium bentonite granules for use in conjunction with AVM Aussie Clay waterproofing systems. It may be used as a filler in trenches, terminations, behind footings, around penetrations and in other areas where expandable sodium bentonite granules are beneficial.

Aussie Clay Granules work by forming a low permeability membrane once they come in contact with water. Once wetted, the sodium bentonite granules swell (up to several times its size when unconfined) to form a strong continuous barrier for water. As Aussie Clay Granules swell, they are also designed to self-seal small cracks and voids, as well as reduce the potential of lateral water migration.

Where to Use

Retaining Walls, Basements, Under-Slabs, Mud-Slabs
In trenches, behind retaining walls, to fill tie-back covers, etc.

Application Method

Pre-Applied, loosely poured.

Warranty

Warranties are available when sold as part of an Aussie Clay waterproofing system. Consult AVM Industries for details.

Delivery, Storage, and Handling

a. Delivery of all Aussie Clay Granules to the job site must be in their original sealed bags, with manufacturer's name and label intact.
b. Handle and store containers in accordance with printed instructions.
c. Store in a dry cool space at temperatures between 50°F and 90°F. (Aussie Clay Granules must be stored at temperatures between 50°F and 90°F) Do not store materials in direct sunlight or where they may be damaged by water, humidity or rain.
d. Failure to comply with the recommended storage conditions may result in premature deterioration or swelling of the product. For specific storage advice, please contact AVM Industries and/or its representatives.
e. Keep all materials out of the reach of children.
f. If irritation occurs during use, liberally flush affected areas with water. If irritation continues, see a physician immediately.

Project Conditions

1. Aussie Clay Granules may be used at temperatures as low as -20°F and as high as 110°F.
2. Do NOT install the Aussie Clay granules if raining or precipitation is imminent.
3. Warn personnel against hazards or hazardous conditions on the job that might require special protective gear and or any other special protective or safety procedures.
4. Protect adjacent surfaces which could be damaged during the application procedure.

Granules Application

Granules come loose in a bag. Pour/spread granules as needed.

Quality Control

Visually inspect all areas where granules were used to ensure a full and proper application. All unsatisfactory areas shall be repaired prior to final acceptance.

Protection of Installed Work

a. The Granules shall be protected from rain, wind, debris, etc until backfilled or concrete is properly poured over it.
b. Refer to Aussie Clay Training Manual/ Installation Instructions for complete requirements and procedures.

Availability and Cost

Contact AVM Industries or your approved applicator for pricing and availability.

Technical Services

Technical services are available by contacting our offices at: **888.414.1041** or **818.888.0050** or visit **www.avmindustries.com**

System Specifications

See next page.

Technical Data

Typical Characteristics	
Bulk Density (lbs/ft³):	63 ± 3
Cation Exchange Capacity (CEC meq (100gm):	70-90
Color	Light Grey to Tan
Free Swell (cc/2gm):	20 ± 4
Moisture Content (%):	6-10
pH	9.1 ± 0.4
Resistivity (ohm-meters):	2.40
Specific Gravity:	2.55 ± 0.1
Thermal Conductivity	Dry – 0.20
(Btu/hr-ft-0F):	Saturated – 0.50
Wet Screen Analysis (% Residue on #200 Sieve):	3.0 ± 0.5

Typical Chemical Analysis:	%
SiO_2	60.34
Al_2O_3	19.28
Fe_2O_3	3.48
Na_2O	2.34
TiO_2	.22
CaO	.38
MgO	1.67
K_2O	.10
H_2O	7.75
Other	.07
L.O.I.	4.37

E.P.A Toxicity Analysis:	E.P.A Standard (ppm)	Typical Analysis (ppm)
Arsenic	5.0	<0.1
Barium	100.0	0.5
Cadmium	1.0	<0.05
Chromium	5.0	<0.1
Lead	5.0	<0.1
Mercury	0.2	<0.02
Selenium	1.0	<0.05
Silver	5.0	<0.1
H_2O	7.75	7.75
Other	.07	.07
L.O.I.	4.37	4.37

Typical Sieve Analysis	
Sieve Size	**% retained**
#8	0.92
#20	75.67
#30	17.40
#100	5.34
Pan	0.67

Item/Component	Packaging	Qty / Pallet	Weight / Pallet	Qty / Truck	Approx Truck-Load Shipping Weights	VOC
AUSSIE CLAY GRANULES	50 Lbs Bag	60 Bags/Pallet	3100 Lbs / 1409 kg	15 Pallets *	46,500 Lbs / 21,140 kg	N/A

* No. of pallets per truck varies if shipped to or in USA or to or in Canada. Qty/Truck listed above shows maximum pallets per 53' flat-bed truck shipped in or to the USA. Call AVM for details.

For a complete list of details in CAD or PDF, please visit our website at www.avmindustries.com.

AVM Industries, Inc.
8245 Remmet Ave, Canoga Park, CA 91304
888.414.1041 818.888.0050

Quality Waterproofing Products

AVM INDUSTRIES INC

www.avmindustries.com

TECH DATA SHEET

Sections - 071000 / 071700 / 071713 / 071716

AVM Aussie Clay Sealant

Trowel-Grade Sodium Bentonite/ Butyl Rubber Waterproofing Sealant

Sections - 071000/071700/071713/071716

Product Name

Aussie Clay Sealant

Manufactured by

AVM Industries, Inc.
8245 Remmet Ave, Canoga Park, CA 91304
888.414.1041 818.888.0050
www.avmindustries.com

Product Description

Aussie Clay Sealant is a trowel-grade sodium bentonite-butyl rubber sealant designed to be used as a detail acces-sory in conjunction with other waterproofing products for below-grade waterproofing. Aussie Clay Sealant swells upon contact with water to provide a water-tight seal.

Where to Use

Around penetrations, drains, waterproofing transitions, terminations and other common waterproofing details.

Warranty

Aussie Clay Sealant is sold as part of a waterproofing system. For complete warranty details, refer to that specific waterproofing system's warranty or contact AVM Industries or your applicator for details.

Delivery, Storage, and Handling

a. Delivery of the Aussie Clay Sealant to the job site must be in its original sealed container, with manufacturer's name and label intact.

b. Handle and store containers in accordance with printed instructions.

c. Store indoors at temperatures between 50°F and 90°F. Do not store materials in direct sunlight or where they may be damaged by water or rain.

d. Shelf life: 12 months when properly stored.

e. Failure to comply with the recommended storage conditions may result in premature deterioration of the product. For specific storage advice, please contact AVM Industries and/or its representatives.

f. Keep all materials out of the reach of children.

g. If irritation occurs during use, liberally flush affected areas with water. If irritation continues, see a physician immediately.

Project Conditions

1. All surfaces to which the Aussie Clay Sealant is applied to must be sound and stable, with an even finish and free from dust, loose debris, grease, curing agents, etc.
2. Do not apply materials at temperatures below 25°F and falling or if precipitation is imminent. Do not apply materials in direct sunlight at temperatures above 100°F or rising. In cold weather, condition material to a minimum of 40°F prior to application.
4. Warn personnel against hazards of materials to skin and eyes. Note other hazardous conditions on the job that might require special protective gear and or any other special protective or safety procedures.
5. Protect adjacent surfaces which could be damaged during the application procedure.
6. This sealant must not be used to cover Expansion Joints.

System Application

Spread the sealant as needed using a trowel, brush or by hand (always wear protection gloves). Material is typically applied in ¼" minimum thickness. Allow to fully cure.

Quality Control

a. Visually inspect all coated surfaces to ensure a full and proper coating application, especially at corners, drains and other hard-to-reach areas.

b. All unsatisfactory areas shall be repaired prior to final acceptance.

Protection of Installed Work

a. The completed section shall be protected for the first 24 hours after application or until the surface is sufficiently cured. (The amount of drying time may vary depending on temperature and humidity conditions)

b. Always protect the sealant from possible damage.

Availability and Cost

Contact AVM Industries or your approved applicator for pricing and availability.

Technical Services

Technical services are available by contacting our offices at: **888.414.1041** or **818.888.0050** or visit **www.avmindustries.com**

System Specifications

Item/Component	Packaging	Approximate Shipping Weights	Qty/Pallet	Weight/Pallet	Qty/Truck	VOC
AUSSIE CLAY SEALANT	5.2 Gallons (20 Liters) Bucket	55.1 lbs. (25.7 kg) / Bucket	36 Buckets/ Pallet	2083 Lbs (945 kg)	20 Pallets *	N/A

* No. of pallets per truck varies if shipped to or in USA or to or in Canada and/or if shipped in a shipping container or standard truck. Qty/Truck listed above shows maximum pallets per 40 GP shipping container shipped in or to the USA. Call AVM for details.

TECH DATA SHEET

Sections 031100 / 031500 / 031513.16

AVM Aussie Swell® Red (The Red Waterstop) Expandable Waterstop

AVM System 940, Aussie Swell® Red, Expandable Bentonite Waterstop

Sections Section 031100 / 031500 / 031513.16 Expandable Waterstop

Product Name

AVM Aussie Swell® Red

Manufactured by

AVM Industries, Inc.
8245 Remmet Ave, Canoga Park, CA 91304
888.414.1041 818.888.0050
www.avmindustries.com

Product Description

Aussie Swell Red is a hydrophilic strip waterstop and that is a formulated blend of sodium bentonite & butyl rubber. Aussie Swell Red is an active waterstop which reacts with water to seal construction joints within concrete. The seal resists hydrostatic pressure, stopping the passage of water through the joint. Due to the sodium bentonite content, on contact with water, Aussie Swell Red will swell (expand) within its confinement, self-injecting into localized voids & minor fissures. Aussie Swell Red is an active waterstop designed to replace passive PVC/Rubber waterbars, without the need for pre-formed intersections, split forming or seam welding.

Where to Use

Aussie Swell Red can be applied to concrete, steel or pipe (PVC). Coil ends are butt jointed (not overlapped) to form a continuous waterstop. Use in concrete joints, pipe penetrations, wall-to-floor joints, irregular surfaces, etc.

Advantages

- Non-dimensional swell allows complete injection to surrounding voids.
- Conformable – can be applied to a range of irregular substrates.
- Resists in excess of 6 bar (60m) hydrostatic pressure.
- Swells many times more than its dry volume to form impenetrable gel.
- Simple butt jointing on site application.
- Reproducible swell after wet-dry cycle.
- Unaffected by freeze/thaw cycling.

Limitations

- Aussie Swell Red is not designed to function in movement/expansion joints.
- Aussie Swell Red is designed for minimum 2000 PSI reinforced concrete. Furthermore, it requires confinement and it must be covered by minimum 3" concrete on all sides.
- Aussie Swell Red should not be subjected to submersion or remain in contact with water prior to concrete pour. If the product exhibits any considerable swell prior to concrete pour it must be replaced.
- In conditions where sever ground water or chemical contamination exists or is expected consult manufacture for approval

Warranty

AVM's Standard 5-year material warranty applies. Contact AVM for warranty information.

Delivery, Storage, and Handling

a. Delivery of all the Aussie Swell Red® components to the job site must be in their original sealed packaging, with manufacturer's name and label intact.

b. Store indoors in a cool DRY place (away from heat or moisture) at temperatures between 50°F and 90°F. Do not store materials in direct sunlight or where they may be damaged by water or rain.

c. Keep all materials out of the reach of children.

Project Conditions

a. Do not apply materials at temperatures below 20°F, or above 110°F if applying in direct sun light.

System Application

Use AVM's Aussie Seal M as the adhesive to install the Aussie Swell Red waterstop. Refer to the Aussie Swell Red Installation instructions, for detailed Installation procedures.

Quality Control

Visually inspect the installed Aussie Swell Red product to ensure it is properly adhered to substrate and that it has not been subjected to premature hydration. Consult with manufacturer if you have any questions.

Protection of Installed Work

The completed Aussie Swell Red system shall be protected until concrete is poured over it. Maximum exposure to UV is 30 days.

Availability and Cost

Contact an AVM authorized distributor for availability and pricing.

Technical Services

Technical services are available by contacting our offices at: **888.414.1041** or **818.888.0050** or visit **www.avmindustries.com**

System Specifications

See next page.

The following coverages are based on controlled tests. Actual coverages may vary.

Item/Component	Item Size	Qty / Box	Qty per Pallet	Weights			VOC
				Each	Box	Pallet	
Aussie Swell Red Coil	16.4 LF (5M)	6 Coils	216 Coils (36 Boxes)	8.58 lb	53.7 lbs	1937 lbs	N/A
Aussie Seal M Cartridge	10.1 oz (300 ml)	12 Cartridges	105 Boxes / 1260 Cartridges	1.0 lb	12.2 lbs	1281 lbs	15 g/l
Aussie Seal M Sausage	20 oz (600 ml)	12 Sausages	45 Boxes / 540 Sausages	2.0 lb	24.4 lbs	1098 lbs	15 g/l

For a complete list of details in CAD or PDF, please visit our website at www.avmindustries.com.

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Quality Waterproofing Products

AVM INDUSTRIES INC

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AVM INDUSTRIES INC

AVM Drain Board 2000

Prefabricated Drainage Composites

Sections 334600 / 334613 / 334616 / 334619 / 334633

Prefabricated Drainage Composites

Product Name

AVM Drain Board 2000

Manufactured by

AVM Industries, Inc.
8245 Remmet Ave, Canoga Park, CA 91304
888.414.1041 818.888.0050
www.avmindustries.com

Product Description

AVM Drain Board 2000 Performs a multi-faceted role by providing protection for waterproofing systems and managing sub-surface water around building foundations. Consists of a light duty impermeable low profile polymeric sheet cuspated under heat and pressure to form a high flow dimpled drainage core. The core is then bonded to a layer of nonwoven filter fabric. The filter fabric retains soil or sand particles as well as freshly placed concrete or grout, allowing filtered water to pass into the drainage core. Collected water is then conveyed to a proper collection system.

Where to Use

AVM Drain Board 2000 is ideal for use with foundation walls, retaining walls, planters, roof gardens, bridge abutments, and under slabs.

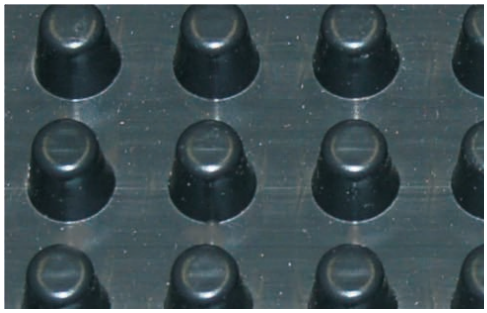
Delivery, Storage, and Handling

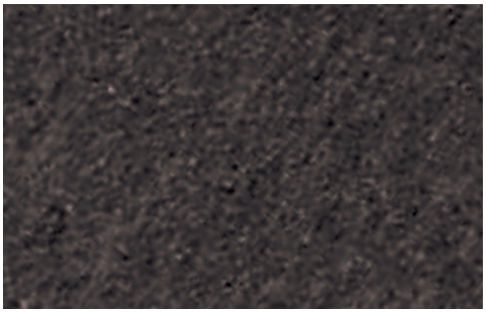
a. Packing and shipping: Provide materials in original unopened containers with manufacturer's labels intact and legible.

b. Acceptance at site:
   1. Unload materials: check for damage.
   2. Damaged materials determined by visual inspection will not be accepted.
   3. Remove rejected materials from site immediately.

c. Store materials in dry area in manufacturer's protective packaging with labels and installation instructions intact.

d. Store materials under cover, off ground; protect from sunlight.





Project Conditions

1. All surfaces to which the Drainage Boards are applied to must be clean, sound and stable enough to properly attach and hold onto the drain boards being installed.
2. Warn personnel against hazards of working with this product. Sharp edges, weight, etc. Note other hazardous conditions on the job that might require special attention or extra protective gear and or any other special protective or safety procedures.
3. Protect adjacent surfaces which could be damaged during the application procedure.

Inspection of Substrates

1. Verify 1% slope to underslab collection pipes or site water drainage system at underslab drainage system location substrate.
2. Examine conditions and substrates where products specified in this section are installed; submit written notification of unacceptable conditions or substrates.

System Application

Refer to installation instructions.

Quality Control

a. Visually inspect all drain board surfaces to ensure a full and proper drain board system application, especially at corners, drainage footings and other hard-to-reach areas.

b. All unsatisfactory areas shall be repaired prior to final acceptance.

Protection of Installed Work

Always protect the waterproofing and drainage system until fully covered with dirt, concrete, shot-crete, etc.

Warranty: One year from date of installation

Shelf Life: One year from date of manufacture when properly stored.

Availability and Cost

Contact AVM Industries or your approved applicator for pricing and availability.

Technical Services

Technical services are available by contacting our offices at: **888.414.1041** or **818.888.0050** or visit **www.avmindustries.com**

System Specifications

See next page.

Physical Properties

Core	2000
Compressive Strength (ASTM D-1621)	5,200 psf (249 kNm²)
Thickness (ASTM D-1777)	.31" (7.87 mm)
Flow (Hydraulic gradient = 1) (ASTM D-4716)	12.5 g/min/ft (155 L/min/m)

Fabric	2000
Flow (ASTM D-4491)	140 gal/min/ft² (5704 L/min/m²)
CBR Puncture (ASTM D-6241	250 lbs. (1.11 kN)
AOS (ASTM D-4751)	70 U.S. Sieve (.212 mm)
Grab Tensile (ASTM D-4632)	100 lbs. (.45 kN)
U.V. Resistance (ASTM D-4355)	70% @500 hrs.

General Characteristics				
Roll Length	**Roll Width**	**Roll Weight (approx. lbs.)**	**Packaging**	
50 ft. (15.24 m)	4.0 ft. (1.22 m)	~27 lbs./roll	9 rolls/pallet	468 rolls/Truck Load
50 ft. (15.24 m)	6.5 ft. (1.98 m)	~43.75 lbs./roll	9 rolls/pallet	312 rolls/Truck Load

Notes:

Full truck load of 6.5' wide rolls consists of 9 rolls/pallet x 26 pallets = 234 rolls + 78 rolls loosely top-loaded.
Notes: For pricing and availability, please contact AVM Industries or your local distributor

For a complete list of details in CAD or PDF, please visit our website at www.avmindustries.com.

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Quality Waterproofing Products

AVM INDUSTRIES INC

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AVM INDUSTRIES INC

AVM Drain Board 6000/6020

Prefabricated Drainage Composites

Sections 334600 / 334613 / 334616 / 334619 / 334633

Prefabricated Drainage Composites

Product Name

AVM Drain Board 6000/6020

Manufactured by

AVM Industries, Inc.
8245 Remmet Ave, Canoga Park, CA 91304
888.414.1041 818.888.0050
www.avmindustries.com

Product Description

Provides protection for waterproofing systems and managing subsurface water around building foundations. Soil backfill is retained while allowing water to pass into the drainage system providing hydrostatic relief. Collected water is then conveyed to AVM Bottom Drain 6" or AVM Bottom Drain 12", or other collection systems.

Consists of an impermeable polymeric sheet cuspated under heat and pressure to form a high flow dimpled drainage core. The core is then bonded to a layer of nonwoven filter fabric. The filter fabric retains soil or sand particles as well as freshly placed concrete or grout, allowing filtered water to pass into the drainage core.

Where to Use

AVM Drain Board 6000/6200 is ideal for use with foundation walls, retaining walls, planters, roof gardens, bridge abutments, and under slabs.

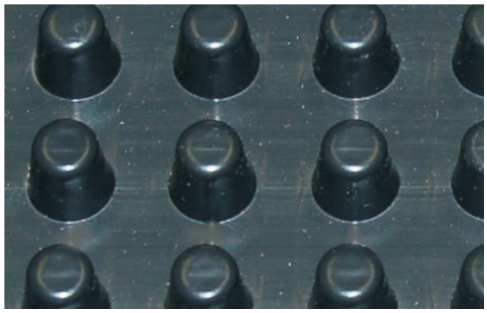
AVM Drain Board 6000 / 6020

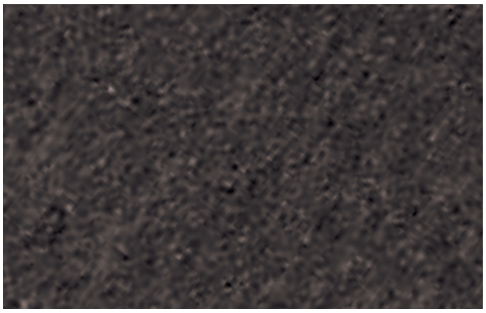
Maintains a very high flow rate while providing a higher compressive strength for greater depths. A very popular choice for vertical and horizontal single sided drainage applications. Moderate duty.

AVM Drain Board 6000XL / 6020XL*

Designed for extra heavy duty vertical and horizontal applications that demand greater compressive strength and improved filtration for challenging soil conditions. Heavier duty drain core & fabric.

* 6020 and 6020XL are identical to 6000 and 600XL with the addition of a membrane protective film on the back side.





Delivery, Storage, and Handling

a. Packing and shipping: Provide materials in original unopened containers with manufacturer's labels intact and legible.

b. Acceptance at site:

1. Unload materials: check for damage.
2. Damaged materials determined by visual inspection will not be accepted.
3. Remove rejected materials from site immediately.

b. Storage and protection:

1. Store materials in dry area in manufacturer's protective packaging with labels and installation instructions intact.
2. Store materials under cover, off ground; protect from sunlight.
3. Transmissivity or Flow Q with hydraulic gradient of 1 with confining stress indicated in MANUFACTURED UNITS Article in accord with ASTM D4716-01

Project Conditions

1. All surfaces to which the Drainage Boards are applied to must be clean, sound and stable enough to properly attach and hold onto the drain boards being installed.
2. Warn personnel against hazards of working with this product. Sharp edges, weight, etc. Note other hazardous conditions on the job that might require special attention or extra protective gear and or any other special protective or safety procedures.
3. Protect adjacent surfaces which could be damaged during the application procedure.

Inspection of Substrates

1. Verify 1% slope to underslab collection pipes or site water drainage system at underslab drainage system location substrate.
2. Examine conditions and substrates where products specified in this section are installed; submit written notification of unacceptable conditions or substrates.

System Application

Refer to installation instructions.

Quality Control

a. Visually inspect all drain board surfaces to ensure a full and proper drain board system application, especially at corners, drainage footings and other hard-to-reach areas.

b. All unsatisfactory areas shall be repaired prior to final acceptance.

Protection of Installed Work

Always protect the waterproofing and drainage system until fully covered with dirt, concrete, shot-crete, etc.

Availability and Cost

Contact AVM Industries or your approved applicator for pricing and availability.

Technical Services

Technical services are available by contacting our offices at: **888.414.1041** or **818.888.0050** or visit **www.avmindustries.com**

System Specifications

See next page.

Physical Properties

Core	6000/6020	6000XL/6020XL
Compressive Strength (ASTM D-1621)	15,000 psf (719 kNm²)	16,500 psf (790 kNm²)
Thickness (ASTM D-1777)	.40" (10.16 mm)	.40" (10.16 mm)
Flow (Hydraulic gradient = 1) (ASTM D-4716)	21 g/min/ft (260 L/min/m)	21 g/min/ft (260 L/min/m)

Fabric	6000/6020	6000XL/6020XL
Flow (ASTM D-4491)	140 gal/min/ft^{22} (5704 L/min/m²)	110 gal/min/ft² (4482 L/min/m²)
Puncture (ASTM D-4833)	65 lbs. (.30 kN)	95 lbs. (.42 kN)
AOS (EOS)	70 U.S. Sieve (.212 mm)	70 U.S. Sieve (.212 mm)
Grab Tensile (ASTM D-4632)	100 lbs. (.45 kN)	160 lbs. (.71 kN)

General Characteristics					
Roll Length	**Roll Width**	**Roll Weight (approx. lbs.)**			
		6000	**6020**	**6000XL**	**6020XL**
50 ft. (15.24 m)	4.0 ft. (1.22 m)	39.0	40.5	45.0	46.5
50 ft. (15.24 m)	6.5 ft. (1.98 m)	63.0	65.5	73.0	75.5
50 ft. (15.24 m)	8.0 ft. (2.43 m)	82.0	85.0	95.0	98.0

Notes:
AVM Drain Board 6000 in 4' and 6.5' widths are stocked items.
All other drain board versions are "Special Order" items. Allow 2 weeks lead time for special order items.
For pricing and availability of special order items, please contact AVM Industries or your local distributor.

For a complete list of details in CAD or PDF, please visit our website at www.avmindustries.com.

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888.414.1041 818.888.0050

Quality Waterproofing Products

AVM INDUSTRIES INC

www.avmindustries.com

TECH DATA SHEET

Sections - 334600 / 334616.16 / 334619.16 / 334623.19

AVM Drain Board 9000/9020/9080

Prefabricated Drainage Composites

Sections 334600 / 334616.16 /
334619.16 / 334623.19

Prefabricated Drainage Composites

Product Name

AVM Drain Board 9000 / 9020 / 9080

Manufactured by

AVM Industries, Inc.
8245 Remmet Ave, Canoga Park, CA 91304
888.414.1041 818.888.0050
www.avmindustries.com

Product Description

Drain Board for Horizontal Applications:
AVM Drain Board 9000 provides protection for waterproofing systems and collecting excess water in planters, rooftop gardens, and other horizontal surfaces such as in-between slab waterproofing applications. The filter fabric retains soil or sand particles as well as freshly placed concrete or grout, allowing filtered water to pass into the drainage core. The collected water is then conveyed to a proper collection system.

Where to Use

AVM Drain Board 9000/9020/9080 is ideal for use with planters, roof gardens, plaza decks, split-slabs, and under slabs.

AVM Drain Board 9000

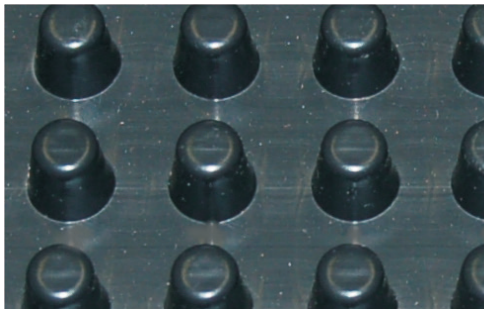
Consists of a heavy duty impermeable polymeric sheet cuspated under heat and pressure to form a high flow dimpled drainage core. The core is then bonded to a layer of woven filter fabric. The filter fabric retains soil or sand particles as well as freshly placed concrete or grout, allowing filtered water to pass into the drainage core.

AVM Drain Board 9020

The identical properties as AVM Drain Board 9000 with the addition of a protection sheet bonded to the back side of the cuspated core providing protection for soft membrane waterproofing systems. AVM Drain Board 9020 is compatible with waterproofing without the use of a protection board.

AVM Drain Board 9080

Consists of a heavy-duty impermeable polymeric cuspated sheet bonded to a layer of heavy-duty non-woven filter fabric (8 oz./sq. yd).



Delivery, Storage, and Handling

a. Packing and shipping: Provide materials in original unopened containers with manufacturer's labels intact and legible.

b. Acceptance at site:

1. Unload materials: check for damage.
2. Damaged materials determined by visual inspection will not be accepted.
3. Remove rejected materials from site immediately.

b. Storage and protection:

1. Store materials in dry area in manufacturer's protective packaging with labels and installation instructions intact.
2. Store materials under cover, off ground; protect from sunlight.
3. Transmissivity or Flow Q with hydraulic gradient of 1 with confining stress indicated in MANUFACTURED UNITS Article in accord with ASTM D4716-01

Project Conditions

1. All surfaces to which the Drainage Boards are applied to must be clean, sound and stable enough to properly attach and hold onto the drain boards being installed.
2. Warn personnel against hazards of working with this product. Sharp edges, weight, etc. Note other hazardous conditions on the job that might require special attention or extra protective gear and or any other special protective or safety procedures.
3. Protect adjacent surfaces which could be damaged during the application procedure.

Inspection of Substrates

1. Verify 1% slope to underslab collection pipes or site water drainage system at underslab drainage system location substrate.
2. Examine conditions and substrates where products specified in this section are installed; submit written notification of unacceptable conditions or substrates.

System Application

Refer to installation instructions.

Quality Control

a. Visually inspect all drain board surfaces to ensure a full and proper drain board system application, especially at corners, drainage footings and other hard-to-reach areas.

b. All unsatisfactory areas shall be repaired prior to final acceptance.

Protection of Installed Work

Always protect the waterproofing and drainage system until fully covered with dirt, concrete, shot-crete, etc.

Availability and Cost

Contact AVM Industries or your approved applicator for pricing and availability.

Technical Services

Technical services are available by contacting our offices at: **888.414.1041** or **818.888.0050** or visit **www.avmindustries.com**

System Specifications

See next page.

Physical Properties

Core	9000/9020	9080
Compressive Strength (ASTM D-1621)	21,000 psf (1005 kNm²)	21,000 psf (1005 kNm²)
Thickness (ASTM D-1777)	.40" (10.16 mm)	.40" (10.16 mm)
Flow (Hydraulic gradient = 1) (ASTM D-4716)	21 g/min/ft (261 L/min/m)	21 g/min/ft (261 L/min/m)

Fabric	9000/9020	9080
Flow (ASTM D-4491)	145 gal/min/ft² (5907 L/min/m²)	95 gal/min/ft² (3866 L/min/m²)
Puncture (ASTM D-4833)	100 lbs. (.44 kN)	130 lbs. (.58 kN)
AOS (EOS)	40 U.S. Sieve (.42 mm)	90 U.S. Sieve (.18 mm)
Grab Tensile (ASTM D-4632)	355 lbs. (1.62 kN)	205 lbs. (.90 kN)

General Characteristics				
Roll Length	**Roll Width**	**Roll Weight (approx. lbs.)**		
		9000	**9020**	**9080**
50 ft. (15.24 m)	4 ft. (1.22 m)	50.0	50.0	
50 ft. (15.24 m)	8 ft. (2.43 m)	100.0	100.0	

Notes:
All AVM Drain Board 9000 versions are “Special Order” items. Allow 2 weeks lead time for special order items.
For pricing and availability of special order items, please contact AVM Industries or your local distributor.

For a complete list of details in CAD or PDF, please visit our website at www.avmindustries.com.

AVM Industries, Inc.
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Quality Waterproofing Products

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AVM INDUSTRIES INC

AVM Bottom Drain
Foundation Wall Drainage System

Sections 334100, 334113, 334143, 334133

Prefabricated Drainage System

Product Name
AVM Bottom Drain

Manufactured by
AVM Industries, Inc.
8245 Remmet Ave, Canoga Park, CA 91304
888.414.1041 818.888.0050
www.avmindustries.com

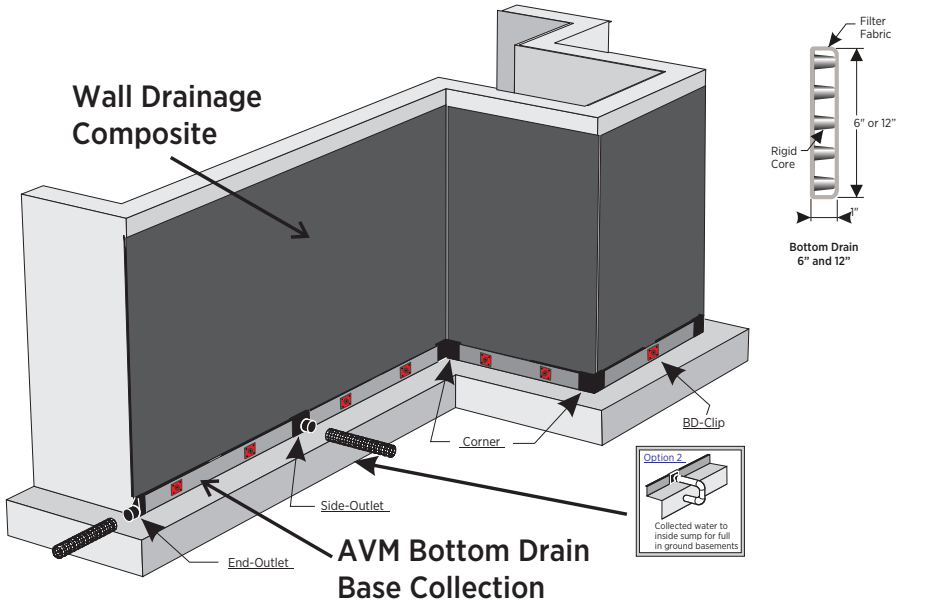
Product Description
The first truly modular drainage and water collection system for:

- Basements
- Foundations Walls
- Retaining Walls

AVM Bottom Drain
AVM Bottom Drain is a modular composite drainage and collection system consisting of a 3-dimensional, high-flow, drainage core which is wrapped with a non-woven filter fabric. It is designed to replace a conventional sand or gravel covered pipe drain around building foundations and retaining walls. Soil particles are held back by the filter fabric allowing water to pass through to the drain core for easy removal by sump or by running to daylight. Available in 6 inch and 12 inch widths. A full array of fittings are available in the system to allow for a fast and easy installation. BD-Clips are used to hold the Bottom Drain vertically against the foundation wall for a secure hold and BD-Tape is used to attach all Bottom Drain fittings.

Where to Use
- Eliminates pipe & gravel
- Saves time and labor
- Lightweight and
- Easy to install
- Cost effective
- Code approvals

Installation Instructions:
1. Apply waterproofing system to wall.
2. Determine location of fittings for base part. Cut Bottom Drain to proper length between fittings. (Allow for extra length for insertion into fittings) Insert Bottom Drain completely into fittings. Tape fittings with BD-Tape.
3. Bond fittings and Bottom Drain to base of wall with either Aussie Seal M, waterproofing mastic, panel adhesive, insulation board adhesive, or BD-Clips.
4. Connect base fittings to 4" corrugated plastic drain pipe and run to sump or daylight. Special care should be taken to properly compact soil under drain pipe to prevent settling of drain pipe.
5. Backfill and compact soil.



Project Conditions
1. All surfaces to which the Drainage Boards are applied to must be clean, sound and stable enough to properly attach and hold onto the drain boards being installed.
2. Warn personnel against hazards of working with this product. Sharp edges, weight, etc. Note other hazardous conditions on the job that might require special attention or extra protective gear and or any other special protective or safety procedures.
3. Protect adjacent surfaces which could be damaged during the application procedure.

Inspection of Substrates
1. Verify 1% slope to underslab collection pipes or site water drainage system at underslab drainage system location substrate.
2. Examine conditions and substrates where products specified in this section are installed; submit written notification of unacceptable conditions or substrates.

System Application
Refer to installation instructions.

Quality Control
a. Visually inspect all Bottom Drain components to ensure a full and proper system installation.

b. All unsatisfactory areas shall be repaired prior to final acceptance.

Delivery, Storage, and Handling
a. Packing and shipping: Provide materials in original unopened containers with manufacturer's labels intact and legible.

b. Acceptance at site:
   1. Unload materials: check for damage.
   2. Damaged materials determined by visual inspection will not be accepted.
   3. Remove rejected materials from site immediately.

c. Storage and protection:
   1. Store materials in dry area in manufacturer's protective packaging with labels and installation instructions intact.
   2. Store materials under cover, off ground; protect from sunlight.

Protection of Installed Work
Always protect the waterproofing and drainage system until fully covered with dirt, concrete, shot-crete, etc.

Availability and Cost
Contact AVM Industries or your approved applicator for pricing and availability.

Technical Services
Technical services are available by contacting our offices at: **888.414.1041** or **818.888.0050** or visit **www.avmindustries.com**

System Specifications
See next page.

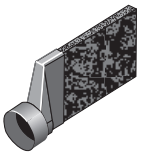
Physical Properties

Core	
Compressive Strength (ASTM D-1621)	9,500 psf (455 kNm²)
Thickness (ASTM D-1777)	1" (2.54 mm)
Flow (Hydraulic gradient = 1) (ASTM D-4716)	30 g/min/ft (372 L/min/m)

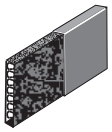
Fabric	
Flow (ASTM D-4491)	140 gal/min/ft² (5704 L/min/m²)
Puncture (ASTM D-6241)	250 lbs. (1.11 kN)
AOS (ASTM D-4751)	70 U.S. Sieve (.212 mm)
Grab Tensile (ASTM D-4632)	100 lbs. (.45 kN)

General Characteristics		
Roll Length	**Roll Width**	**Roll Weight (approx. lbs.)**
165 ft. (50.29 m)	6" (15 cm)	35.0 (16.7 kg)
165 ft. (50.29 m)	12" (30 cm)	65.0 (29.2 kg)

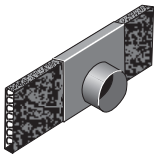
6" & 12" End Outlet



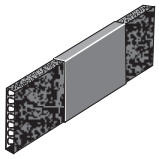
6" Only Endcap



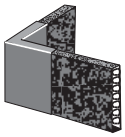
6" & 12" Side Outlet



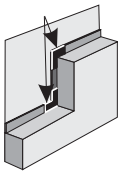
6" & 12" Splice



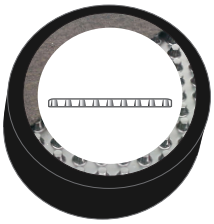
6" & 12" Corner



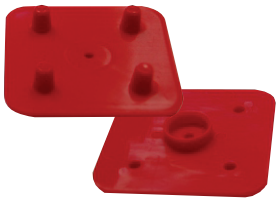
6" Only Step Down



Bd-Tape



Bd-Clips



Unrolling Bottom Drain

Corner Fitting

End Outlet Fitting

Step Down Fitting

Notes:
The information contained herein is believed by AVM Industries, Inc. to be accurate and is offered solely for the customer's consideration, investigation and verification. Determination of suitability for use is the responsibility of the user. AVM's Limited Warranty apply. See www.avmindustries.com for more info. Limitations: Bottom Drain is resistant to chemicals in normal soil environments. However, some reagents may affect the performance of the Bottom Drain. An AVM representative should be contacted for further information to determine the suitability of use of Bottom Drain in unusual soil environments. Bottom Drain should be limited to its exposure to ultra-violet sunlight. Bottom Drain should be backfilled or covered within seven days of installation. Disclaimer: All information, drawings and specifications are based on the latest published information at the time of printing. AVM reserves the right to make changes due to manufacturing improvements and engineering at any time. All physical properties are minimum average roll values (MARV). Standard variations of 10% in mechanical properties and 15% in hydraulic properties are normal.

For a complete list of details in CAD or PDF, please visit our website at www.avmindustries.com.

AVM Industries, Inc.
8245 Remmet Ave, Canoga Park, CA 91304
888.414.1041 818.888.0050

Quality Waterproofing Products

AVM INDUSTRIES INC

www.avmindustries.com

AVM Aussie Clay Granules

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date: 02/21/2019 Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture

Product name : AVM Aussie Clay Granules

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Sprinkling the conjunction points of ActiMat.

1.3. Supplier

AVM Industries, Inc.
8245 Remmet Ave
Canoga Park, CA 91304
Tel: 818-888-0050
Fax: 818-888-0030
www.avmindustries.com

1.4. Emergency Contact

Chemtrec (800) 424-9300

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Carc. 1A H350
STOT RE 1 H372

2.2. GHS Label elements, including precautionary statements

GHS US labelling

Hazard pictograms (GHS US) :

Signal word (GHS US) : Danger

Hazard statements (GHS US) : H350 - May cause cancer (Inhalation).
H372 - Causes damage to organs (lungs) through prolonged or repeated exposure (Inhalation).

Precautionary statements (GHS US) : P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P260 - Do not breathe dust.
P264 - Wash hands, forearms and face thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P280 - Wear eye protection, protective gloves, protective clothing, respiratory protection
P308+P313 - If exposed or concerned: Get medical advice/attention.
P314 - Get medical advice/attention if you feel unwell.
P405 - Store locked up.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
Silica: Crystalline, quartz	(CAS-No.) 14808-60-7	<= 6

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : If exposed or concerned, get medical attention/advice. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before re-use. Never give anything to an unconscious person.

First-aid measures after inhalation : IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if breathing is affected. If breathing is difficult, supply oxygen.

First-aid measures after skin contact : IF ON SKIN (or clothing): Remove affected clothing and wash all exposed skin with water for at least 15 minutes. If irritation develops or persists, get medical attention.

First-aid measures after eye contact : IF IN EYES: Immediately flush with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do so. Continue rinsing if pain, blinking, or irritation develops or persists, get medical attention. Continue rinsing.

First-aid measures after ingestion : IF SWALLOWED: rinse mouth thoroughly. Do not induce vomiting without advice from poison control center. Get medical attention if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects : May cause cancer. May cause damage to organs through prolonged or repeated exposure.

Symptoms/effects after inhalation : May cause respiratory irritation.

Symptoms/effects after skin contact : May cause skin irritation.

Symptoms/effects after eye contact : Direct contact with eyes is likely to be irritating.

Symptoms/effects after ingestion : May cause gastrointestinal irritation.

Chronic symptoms : May cause cancer. May cause damage to organs through prolonged or repeated exposure.

4.3. Immediate medical attention and special treatment, if necessary

No additional information available.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Carbon dioxide (CO2). Dry chemical. Foam. Water spray.

Unsuitable extinguishing media : Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Specific hazards arising from the chemical

Fire hazard : Not flammable.

Explosion hazard : Product is not explosive.

Reactivity : No dangerous reactions known under normal conditions of use.

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Evacuate unnecessary personnel. Do not enter fire area without proper protective equipment, including respiratory protection.

Other information : Avoid breathing smoke, fumes, decomposition products.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Spill should be handled by trained cleaning personnel properly equipped with respiratory and eye protection.

6.1.1. For non-emergency personnel

Protective equipment : Wear Protective equipment as described in Section 8.

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Wear suitable protective clothing, gloves and eye or face protection. Approved supplied-air respirator, in case of emergency.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Contain and collect as any solid. Avoid dust formation.

Methods for cleaning up : Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal. Dispose of material in compliance with local, state, and federal regulations.

6.4. Reference to other sections

See Sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Handle in accordance with good industrial hygiene and safety procedures. Use only in well-ventilated areas. Avoid dust formation. Avoid contact with skin and eyes. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in dry, well-ventilated area. Protect against weather conditions.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Silica: Crystalline, quartz (14808-60-7)		
ACGIH	ACGIH TWA (mg/m³)	0.025 mg/m³ (respirable fraction)
OSHA	OSHA PEL (TWA) (mg/m³)	(30)/(%SiO2 + 2) total dust; (10)/(%SiO2 + 2) respirable fraction
OSHA	OSHA PEL (TWA) (ppm)	(250)/(%SiO2 + 5) respirable fraction
OSHA	Remark (OSHA)	Table Z-3. For OSHA PEL (TWA): Use formulas: (250 / (%SiO2+5)) for mppcf and (10 mg/m3 / (%SiO2+2)) for mg/m3. CAS No. source: eCFR Table Z-1.
OSHA	Regulatory reference (US-OSHA)	OSHA Annotated Table Z-3 Mineral Dusts

8.2. Appropriate engineering controls

Appropriate engineering controls : Provide adequate general and local exhaust ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof equipment with flammable materials. Ensure adequate ventilation, especially in confined areas.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment symbol(s):

Personal protective equipment:

Gloves. Protective goggles. Protective clothing. Insufficient ventilation: wear respiratory protection.

Hand protection:

Use gloves chemically resistant to this material when prolonged or repeated contact could occur.

Eye protection:

Wear eye protection, including chemical splash goggles and a face shield when possibility exists for eye contact due to spraying liquid or airborne particles.

Skin and body protection:

Wear long sleeves, and chemically impervious PPE/coveralls to minimize bodily exposure.

Respiratory protection:

Use NIOSH (or other equivalent national standard) -approved dust/particulate respirator. Where vapour, mist, or dust exceed PELs or other applicable OELs, use NIOSH-approved respiratory protective equipment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Solid
Appearance	:	Granular powder.
Colour	:	Beige
Odour	:	Odourless
Odour threshold	:	No data available
pH	:	No data available
Melting point	:	No data available
Freezing point	:	No data available
Boiling point	:	No data available
Flash point	:	No data available
Relative evaporation rate (butylacetate=1)	:	No data available
Flammability (solid, gas)	:	No data available
Vapour pressure	:	No data available
Relative vapour density at 20 °C	:	No data available
Relative density	:	No data available
Solubility	:	Water: Not soluble in water
Log Pow	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosive limits	:	No data available
Explosive properties	:	No data available
Oxidising properties	:	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of hazardous reactions

Hazardous polymerization does not occur.

10.4. Conditions to avoid

Moisture.

10.5. Incompatible materials

Strong oxidizers.

10.6. Hazardous decomposition products

None known.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	:	Not classified
Acute toxicity (dermal)	:	Not classified
Acute toxicity (inhalation)	:	Not classified

Silica: Crystalline, quartz (14808-60-7)	
LD50 oral rat	500 mg/kg

Skin corrosion/irritation : Not classified

Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: May cause cancer (Inhalation).

Silica: Crystalline, quartz (14808-60-7)	
IARC group	1 - Carcinogenic to humans

Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Causes damage to organs (lungs) through prolonged or repeated exposure (Inhalation).
Aspiration hazard	: Not classified
Viscosity, kinematic	: No data available
Symptoms/effects	: May cause cancer. May cause damage to organs through prolonged or repeated exposure.
Symptoms/effects after inhalation	: May cause respiratory irritation.
Symptoms/effects after skin contact	: May cause skin irritation.
Symptoms/effects after eye contact	: Direct contact with eyes is likely to be irritating.
Symptoms/effects after ingestion	: May cause gastrointestinal irritation.
Chronic symptoms	: May cause cancer. May cause damage to organs through prolonged or repeated exposure.

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

AVM Bentonite Granules	
Persistence and degradability	Not expected to be readily bio-degradable.

12.3. Bioaccumulative potential

AVM Bentonite Granules	
Bioaccumulative potential	This material is not expected to bioaccumulate.

12.4. Mobility in soil

AVM Bentonite Granules	
Mobility in soil	Not mobile in soil

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not regulated

Transportation of Dangerous Goods

Not regulated

Transport by sea (IMDG)

Not regulated

Air transport (IATA)

Not regulated

SECTION 15: Regulatory information

15.1. US Federal regulations

AVM Bentonite Granules	
All chemical substances in this product are listed in the EPA (Environment Protection Agency) TSCA (Toxic Substances Control Act) Inventory or are exempt.	
SARA Section 311/312 Hazard Classes	Health hazard - Carcinogenicity Health hazard - Specific target organ toxicity (single or repeated exposure)

15.2. International regulations

No additional information available

15.3. US State regulations

WARNING: This product can expose you to Silica: Crystalline, quartz, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Component	Carcinogenicity	Developmental toxicity	Reproductive toxicity male	Reproductive toxicity female	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
Silica: Crystalline, quartz(14808-60-7)	X					

Component	State or local regulations
Silica: Crystalline, quartz(14808-60-7)	U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List, U.S. - Massachusetts - Right To Know List

SECTION 16: Other information

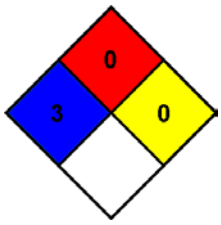
Revision date : 02/21/2019

Other information : Author: BCS.

NFPA health hazard : 3 - Materials that, under emergency conditions, can cause serious or permanent injury.

NFPA fire hazard : 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



HMIS Hazard Rating

Health : 3*

* - Chronic (long-term) health effects may result from repeated overexposure

Flammability : 0

Physical : 0

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

Aussie Clay Sealant

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date: 02/21/2019 Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture

Product name : Aussie Clay Sealant

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Bentonite sealant.

1.3. Supplier

AVM Industries, Inc.
8245 Remmet Ave
Canoga Park, CA 91304
Tel: 818-888-0050
Fax: 818-888-0030
www.avmindustries.com

1.4. Emergency Contact

Chemtrec 800-424-9300 (USA, +(48)-223988029 Warsaw (Polish)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Carc. 1A H350
STOT RE 1 H372

2.2. GHS Label elements, including precautionary statements

GHS US labelling

Hazard pictograms (GHS US) :

Signal word (GHS US) : Danger

Hazard statements (GHS US) : H350 - May cause cancer (Inhalation).
H372 - Causes damage to organs (lungs) through prolonged or repeated exposure (Inhalation).

Precautionary statements (GHS US) : P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P260 - Do not breathe dust.
P264 - Wash hands, forearms and face thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P280 - Wear eye protection, protective gloves, protective clothing, respiratory protection
P308+P313 - If exposed or concerned: Get medical advice/attention.
P314 - Get medical advice/attention if you feel unwell.
P405 - Store locked up.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
Silica: Crystalline, quartz	(CAS-No.) 14808-60-7	<= 6

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : If exposed or concerned, get medical attention/advice. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before re-use. Never give anything to an unconscious person.

First-aid measures after inhalation : IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if breathing is affected. If breathing is difficult, supply oxygen.

First-aid measures after skin contact : IF ON SKIN (or clothing): Remove affected clothing and wash all exposed skin with water for at least 15 minutes. If irritation develops or persists, get medical attention.

First-aid measures after eye contact : IF IN EYES: Immediately flush with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do so. Continue rinsing if pain, blinking, or irritation develops or persists, get medical attention. Continue rinsing.

First-aid measures after ingestion : IF SWALLOWED: rinse mouth thoroughly. Do not induce vomiting without advice from poison control center. Get medical attention if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects : May cause cancer. May cause damage to organs through prolonged or repeated exposure.

Symptoms/effects after inhalation : May cause respiratory irritation.

Symptoms/effects after skin contact : May cause skin irritation.

Symptoms/effects after eye contact : Direct contact with eyes is likely to be irritating.

Symptoms/effects after ingestion : May cause gastrointestinal irritation.

Chronic symptoms : May cause cancer. May cause damage to organs through prolonged or repeated exposure.

4.3. Immediate medical attention and special treatment, if necessary

No additional information available.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Carbon dioxide (CO_2). Dry chemical. Foam. Water spray.

Unsuitable extinguishing media : Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Specific hazards arising from the chemical

Fire hazard : Not flammable.

Explosion hazard : Product is not explosive.

Reactivity : No dangerous reactions known under normal conditions of use.

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Evacuate unnecessary personnel. Do not enter fire area without proper protective equipment, including respiratory protection.

Other information : Avoid breathing smoke, fumes, decomposition products.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Spill should be handled by trained cleaning personnel properly equipped with respiratory and eye protection.

6.1.1. For non-emergency personnel

Protective equipment : Wear Protective equipment as described in Section 8.

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Wear suitable protective clothing, gloves and eye or face protection. Approved supplied-air respirator, in case of emergency.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Contain and collect as any solid. Avoid dust formation.

Methods for cleaning up : Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal. Dispose of material in compliance with local, state, and federal regulations.

6.4. Reference to other sections

See Sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Handle in accordance with good industrial hygiene and safety procedures. Use only in well-ventilated areas. Avoid dust formation. Avoid contact with skin and eyes. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in dry, well-ventilated area. Protect against weather conditions.

Storage temperature : > 4 °C

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Silica: Crystalline, quartz (14808-60-7)		
ACGIH	ACGIH TWA (mg/m³)	0.025 mg/m³ (respirable fraction)
OSHA	OSHA PEL (TWA) (mg/m³)	(30)/(%SiO2 + 2) total dust; (10)/(%SiO2 + 2) respirable fraction
OSHA	OSHA PEL (TWA) (ppm)	(250)/(%SiO2 + 5) respirable fraction
OSHA	Remark (OSHA)	Table Z-3. For OSHA PEL (TWA): Use formulas: (250 / (%SiO2+5)) for mppcf and (10 mg/m3 / (%SiO2+2)) for mg/m3. CAS No. source: eCFR Table Z-1.
OSHA	Regulatory reference (US-OSHA)	OSHA Annotated Table Z-3 Mineral Dusts

8.2. Appropriate engineering controls

Appropriate engineering controls : Provide adequate general and local exhaust ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof equipment with flammable materials. Ensure adequate ventilation, especially in confined areas.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment symbol(s):

Personal protective equipment:

Gloves. Protective goggles. Protective clothing. Insufficient ventilation: wear respiratory protection.

Hand protection:

Use gloves chemically resistant to this material when prolonged or repeated contact could occur.

Eye protection:

Wear eye protection, including chemical splash goggles and a face shield when possibility exists for eye contact due to spraying liquid or airborne particles.

Skin and body protection:

Wear long sleeves, and chemically impervious PPE/coveralls to minimize bodily exposure.

Respiratory protection:

Use NIOSH (or other equivalent national standard) -approved dust/particulate respirator. Where vapour, mist, or dust exceed PELs or other applicable OELs, use NIOSH-approved respiratory protective equipment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Solid
Appearance	:	Paste.
Colour	:	Black Red Grey
Odour	:	Odourless
Odour threshold	:	No data available
pH	:	No data available
Melting point	:	No data available
Freezing point	:	No data available
Boiling point	:	No data available
Flash point	:	No data available
Relative evaporation rate (butylacetate=1)	:	No data available
Flammability (solid, gas)	:	No data available
Vapour pressure	:	0.00004 hPa
Relative vapour density at 20 °C	:	No data available
Relative density	:	No data available
Solubility	:	Water: Not soluble in water
Log Pow	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosive limits	:	No data available
Explosive properties	:	No data available
Oxidising properties	:	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of hazardous reactions

Hazardous polymerization does not occur.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

Strong oxidizers.

10.6. Hazardous decomposition products

None known.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	:	Not classified
Acute toxicity (dermal)	:	Not classified
Acute toxicity (inhalation)	:	Not classified

Silica: Crystalline, quartz (14808-60-7)	
LD50 oral rat	500 mg/kg

Skin corrosion/irritation	:	Not classified

Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: May cause cancer (Inhalation).

Silica: Crystalline, quartz (14808-60-7)	
IARC group	1 - Carcinogenic to humans

Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Causes damage to organs (lungs) through prolonged or repeated exposure (Inhalation).
Aspiration hazard	: Not classified
Viscosity, kinematic	: No data available
Symptoms/effects	: May cause cancer. May cause damage to organs through prolonged or repeated exposure.
Symptoms/effects after inhalation	: May cause respiratory irritation.
Symptoms/effects after skin contact	: May cause skin irritation.
Symptoms/effects after eye contact	: Direct contact with eyes is likely to be irritating.
Symptoms/effects after ingestion	: May cause gastrointestinal irritation.
Chronic symptoms	: May cause cancer. May cause damage to organs through prolonged or repeated exposure.

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

AVM Bentonite Sealant	
Persistence and degradability	Not expected to be readily bio-degradable.

12.3. Bioaccumulative potential

AVM Bentonite Sealant	
Bioaccumulative potential	This material is not expected to bioaccumulate.

12.4. Mobility in soil

AVM Bentonite Sealant	
Mobility in soil	Not mobile in soil

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not regulated

Transportation of Dangerous Goods

Not regulated

Transport by sea (IMDG)

Not regulated

Air transport (IATA)

Not regulated

SECTION 15: Regulatory information

15.1. US Federal regulations

AVM Bentonite Sealant	
All chemical substances in this product are listed in the EPA (Environment Protection Agency) TSCA (Toxic Substances Control Act) Inventory or are exempt.	
SARA Section 311/312 Hazard Classes	Health hazard - Carcinogenicity Health hazard - Specific target organ toxicity (single or repeated exposure)

15.2. International regulations

No additional information available

15.3. US State regulations

WARNING: This product can expose you to Silica: Crystalline, quartz, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Component	Carcinogenicity	Developmental toxicity	Reproductive toxicity male	Reproductive toxicity female	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
Silica: Crystalline, quartz(14808-60-7)	X					

Component	State or local regulations
Silica: Crystalline, quartz(14808-60-7)	U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List; U.S. - Massachusetts - Right To Know List

SECTION 16: Other information

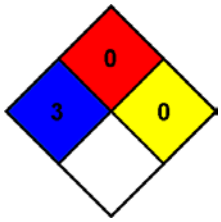
Revision date : 02/21/2019

Other information : Author: BCS.

NFPA health hazard : 3 - Materials that, under emergency conditions, can cause serious or permanent injury.

NFPA fire hazard : 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



HMIS Hazard Rating

Health : 3*

* - Chronic (long-term) health effects may result from repeated overexposure

Flammability : 0

Physical : 0

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

AVM Aussie Clay (All Versions)

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date: 04/29/2019 Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture

Product name : Aussie Clay (All Versions) Aussie Clay, Aussie Clay PL, Aussie Clay SW, Aussie Clay SW-PL.

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Vertical waterproofing of underground parts of buildings, horizontal waterproofing of base slabs, permanent waterproofing of excavation casings: Diaphragm walls, Berlin walls, steel piles, underground tunnels waterproofing.

1.3. Supplier

AVM Industries, Inc.

8245 Remmet Ave

Canoga Park, CA 91304

Tel: 818-888-0050

Fax: 818-888-0030

www.avmindustries.com

1.4. Emergency Contact

Chemtrec 800-424-9300 (USA, +(48)-223988029 Warsaw (Polish)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Carc. 1A H350
STOT RE 1 H372

2.2. GHS Label elements, including precautionary statements

GHS US labelling

Hazard pictograms (GHS US) :

Signal word (GHS US) : Danger

Hazard statements (GHS US) : H350 - May cause cancer (Inhalation).
H372 - Causes damage to organs (lungs) through prolonged or repeated exposure (Inhalation).

Precautionary statements (GHS US) : P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P260 - Do not breathe dust.
P264 - Wash hands, forearms and face thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P280 - Wear eye protection, protective gloves, protective clothing, respiratory protection
P308+P313 - If exposed or concerned: Get medical advice/attention.
P314 - Get medical advice/attention if you feel unwell.
P405 - Store locked up.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
Silica: Crystalline, quartz	(CAS-No.) 14808-60-7	<= 6

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : If exposed or concerned, get medical attention/advice. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before re-use. Never give anything to an unconscious person.

First-aid measures after inhalation : IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if breathing is affected. If breathing is difficult, supply oxygen.

First-aid measures after skin contact : IF ON SKIN (or clothing): Remove affected clothing and wash all exposed skin with water for at least 15 minutes. If irritation develops or persists, get medical attention.

First-aid measures after eye contact : IF IN EYES: Immediately flush with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do so. Continue rinsing if pain, blinking, or irritation develops or persists, get medical attention. Continue rinsing.

First-aid measures after ingestion : IF SWALLOWED: rinse mouth thoroughly. Do not induce vomiting without advice from poison control center. Get medical attention if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects : May cause cancer. May cause damage to organs through prolonged or repeated exposure.

Symptoms/effects after inhalation : May cause respiratory irritation.

Symptoms/effects after skin contact : May cause skin irritation.

Symptoms/effects after eye contact : Direct contact with eyes is likely to be irritating.

Symptoms/effects after ingestion : May cause gastrointestinal irritation.

Chronic symptoms : May cause cancer. May cause damage to organs through prolonged or repeated exposure.

4.3. Immediate medical attention and special treatment, if necessary

No additional information available.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Carbon dioxide (CO2). Dry chemical. Foam.

Unsuitable extinguishing media : Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Specific hazards arising from the chemical

Fire hazard : Not flammable.

Explosion hazard : Product is not explosive.

Reactivity : No dangerous reactions known under normal conditions of use.

5.3. Special protective equipment and precautions for fire-fighters

Precautionary measures fire : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Protection during firefighting : Evacuate unnecessary personnel. Do not enter fire area without proper protective equipment, including respiratory protection.

Other information : Avoid breathing smoke, fumes, decomposition products.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Spill should be handled by trained cleaning personnel properly equipped with respiratory and eye protection.

6.1.1. For non-emergency personnel

Protective equipment : Wear Protective equipment as described in Section 8.

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Wear suitable protective clothing, gloves and eye or face protection. Approved supplied-air respirator, in case of emergency.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Contain and collect as any solid. Avoid dust formation.

Methods for cleaning up : Dispose of material in compliance with local, state, and federal regulations.

6.4. Reference to other sections

See Sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Handle in accordance with good industrial hygiene and safety procedures. Use only in well-ventilated areas. Avoid dust formation. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in dry, well-ventilated area. Protect against weather conditions.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Silica: Crystalline, quartz (14808-60-7)		
ACGIH	ACGIH TWA (mg/m³)	0.025 mg/m³ (respirable fraction)
OSHA	OSHA PEL (TWA) (mg/m³)	(30)/(%SiO2 + 2) total dust; (10)/(%SiO2 + 2) respirable fraction
OSHA	OSHA PEL (TWA) (ppm)	(250)/(%SiO2 + 5) respirable fraction
OSHA	Remark (OSHA)	Table Z-3. For OSHA PEL (TWA): Use formulas: (250 / (%SiO2+5)) for mppcf and (10 mg/m3 / (%SiO2+2)) for mg/m3. CAS No. source: eCFR Table Z-1.
OSHA	Regulatory reference (US-OSHA)	OSHA Annotated Table Z-3 Mineral Dusts

8.2. Appropriate engineering controls

Appropriate engineering controls : Provide adequate general and local exhaust ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof equipment with flammable materials. Ensure adequate ventilation, especially in confined areas.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment symbol(s):

Personal protective equipment:

Gloves. Protective goggles. Protective clothing. Dust formation: dust mask.

Hand protection:

Use gloves chemically resistant to this material when prolonged or repeated contact could occur.

Eye protection:

Wear eye protection, including chemical splash goggles and a face shield when possibility exists for eye contact due to spraying liquid or airborne particles.

Skin and body protection:

Wear long sleeves, and chemically impervious PPE/coveralls to minimize bodily exposure.

Respiratory protection:

Not normally needed. If dust exceeds PELs or other applicable OELs, use NIOSH (or other equivalent national standard)-approved respiratory protective equipment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Solid
Colour	:	Various
Odour	:	Odourless
Odour threshold	:	No data available
pH	:	No data available
Melting point	:	No data available
Freezing point	:	No data available
Boiling point	:	No data available
Flash point	:	No data available
Relative evaporation rate (butylacetate=1)	:	No data available
Flammability (solid, gas)	:	No data available
Vapour pressure	:	No data available
Relative vapour density at 20 °C	:	No data available
Relative density	:	No data available
Solubility	:	Water: Not soluble in water
Log Pow	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosive limits	:	No data available
Explosive properties	:	No data available
Oxidising properties	:	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of hazardous reactions

Hazardous polymerization does not occur.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

Strong oxidizers.

10.6. Hazardous decomposition products

None known.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	:	Not classified
Acute toxicity (dermal)	:	Not classified
Acute toxicity (inhalation)	:	Not classified
Skin corrosion/irritation	:	Not classified

Serious eye damage/irritation	:	Not classified
Respiratory or skin sensitisation	:	Not classified
Germ cell mutagenicity	:	Not classified
Carcinogenicity	:	May cause cancer (Inhalation).

Silica: Crystalline, quartz (14808-60-7)	
IARC group	1 - Carcinogenic to humans

Reproductive toxicity	:	Not classified
STOT-single exposure	:	Not classified
STOT-repeated exposure	:	Causes damage to organs (lungs) through prolonged or repeated exposure (Inhalation).
Aspiration hazard	:	Not classified
Viscosity, kinematic	:	No data available
Symptoms/effects	:	May cause cancer. May cause damage to organs through prolonged or repeated exposure.
Symptoms/effects after inhalation	:	May cause respiratory irritation.
Symptoms/effects after skin contact	:	May cause skin irritation.
Symptoms/effects after eye contact	:	Direct contact with eyes is likely to be irritating.
Symptoms/effects after ingestion	:	May cause gastrointestinal irritation.
Chronic symptoms	:	May cause cancer. May cause damage to organs through prolonged or repeated exposure.

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not regulated

Transportation of Dangerous Goods

Not regulated

Transport by sea (IMDG)

Not regulated

Air transport (IATA)

Not regulated

SECTION 15: Regulatory information

15.1. US Federal regulations

AVM Bentonite	
All chemical substances in this product are listed in the EPA (Environment Protection Agency) TSCA (Toxic Substances Control Act) Inventory or are exempt.	
SARA Section 311/312 Hazard Classes	None

15.2. International regulations

No additional information available

15.3. US State regulations

WARNING: This product can expose you to Silica: Crystalline, quartz, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Component	Carcinogenicity	Developmental toxicity	Reproductive toxicity male	Reproductive toxicity female	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
Silica: Crystalline, quartz(14808-60-7)	X					

Component	State or local regulations
Silica: Crystalline, quartz(14808-60-7)	U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List, U.S. - Massachusetts - Right To Know List

SECTION 16: Other information

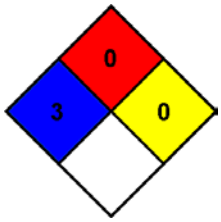
Revision date : 04/29/2019

Other information : Author: BCS.

NFPA health hazard : 3 - Materials that, under emergency conditions, can cause serious or permanent injury.

NFPA fire hazard : 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



HMIS Hazard Rating

Health : 3*

* - Chronic (long-term) health effects may result from repeated overexposure

Flammability : 0

Physical : 0

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

Aussie Swell Red

Safety Data Sheet

Prepared according to US 29 CFR 1910.1200 and Canadian HPR WHMIS 2015

Revision date: 04/25/2019 Supersedes: 12/11/2017 Version: 2.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name : Aussie Swell red

Product form : Mixture

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.3. Details of the supplier of the safety data sheet

AVM Industries, Inc.
8245 Remmet Ave
Canoga Park, CA 91304
Tel: 818-888-0050
Fax: 818-888-0030
www.avmindustries.com

1.4. Emergency Contact

Chemtrec (800) 424-0083 / Chemtrec Poland (Warsaw): +(48)-223988029 (Polish)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS classification

Acute Tox. 4 (Oral) H302

2.2. GHS Label elements, including precautionary statements

GHS labelling

Hazard pictograms (GHS) :

Signal word (GHS) : Warning

Hazard statements (GHS) : H302 - Harmful if swallowed.

Precautionary statements (GHS) : P264 - Wash hands, forearms and face thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P301+P312 - If swallowed: Call a POISON CENTER, a doctor if you feel unwell
P330 - Rinse mouth.
P501 - Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
Silica: Crystalline, quartz	(CAS-No.) 14808-60-7	Not Available

*In accordance with paragraph (i) of the OSHA Hazard Communication Standard (29 CFR §1910.1200), the specific chemical identity or exact weight % has been withheld as a trade secret

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : If exposed or concerned, get medical attention/advice. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before re-use. Never give anything to an unconscious person.

First-aid measures after inhalation : IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if breathing is affected. If breathing is difficult, supply oxygen.

First-aid measures after skin contact : IF ON SKIN (or clothing): Remove affected clothing and wash all exposed skin with water for at least 15 minutes. If irritation develops or persists, get medical attention.

First-aid measures after eye contact : IF IN EYES: Immediately flush with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do so. Continue rinsing if pain, blinking, or irritation develops or persists, get medical attention. Continue rinsing.

First-aid measures after ingestion : IF SWALLOWED: rinse mouth thoroughly. Do not induce vomiting without advice from poison control center. Get medical attention if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation : May cause respiratory irritation.

Symptoms/effects after skin contact : May cause skin irritation.

Symptoms/effects after eye contact : Direct contact with eyes is likely to be irritating.

Symptoms/effects after ingestion : Harmful if swallowed.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : carbon dioxide (CO_2). Dry chemical. Foam. Use extinguishing media appropriate for surrounding fire.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Not flammable.

Reactivity : No dangerous reactions known under normal conditions of use.

5.3. Advice for firefighters

Precautionary measures fire : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Do not dispose of fire-fighting water in the environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

Other information : Thermal decomposition generates : carbon oxides (CO and CO_2).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Spill should be handled by trained clean-up crews properly equipped with respiratory equipment and full chemical protective gear (see Section 8).

6.1.1. For non-emergency personnel

Protective equipment : Wear Protective equipment as described in Section 8.

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Wear suitable protective clothing, gloves and eye or face protection. Approved supplied-air respirator, in case of emergency.

6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

For containment : Contain and collect as any solid. Minimize generation of dust.

Methods for cleaning up : This material and its container must be disposed of in a safe way, and as per local legislation.

6.4. Reference to other sections

See Sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Do not handle until all safety precautions have been read and understood. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a dry place. Store in a closed container.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Inert or Nuisance dust	
ACGIH TWA (mg/m³)	3 mg/m³ (respirable particles) 10 mg/m³ (inhalable particles)
OSHA PEL (TWA) (mg/m³)	5 mg/m³ (respirable fraction) 15 mg/m³ (total dust)

*Exposure limits are for inert or nuisance dust. No specific exposure limits have been established for this activated carbon product by the ACGIH. No specific exposure limits have been established for inert or nuisance dust by Canadian HPR.

Silica: Crystalline, quartz (14808-60-7)	
ACGIH TWA (mg/m³)	0.025 mg/m³ (respirable fraction)
OSHA PEL (TWA) (µg/m³)	50 µg/m³ (respirable crystalline silica)
Alberta (TWA)	0.025 mg/m³ (respirable particulate)
British Columbia (TWA)	0.025 mg/m³ (respirable particulate)
Manitoba (TWA)	0.025 mg/m³ (respirable fraction)
New Brunswick (TWA)	0.025 mg/m³ (respirable fraction)
Newfoundland and Labrador (TWA)	0.025 mg/m³ (respirable fraction)
Northwest Territories (TWA)	0.05 mg/m³ (respirable fraction)
Nova Scotia (TWA)	0.025 mg/m³ (respirable particulate)
Nunavut (TWA)	0.05 mg/m³ (respirable fraction)
Ontario (TWA)	0.10 mg/m³ (respirable fraction)
Prince Edward Island (TWA)	0.025 mg/m³ (respirable fraction)
Quebec (TWA)	0.10 mg/m³ (respirable fraction)
Saskatchewan (TWA)	0.05 mg/m³ (respirable fraction)
Yukon (TWA)	300 Particles/mL

8.2. Exposure controls

Appropriate engineering controls : Provide adequate general and local exhaust ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof equipment with flammable materials. Ensure adequate ventilation, especially in confined areas.

Personal protective equipment : Gloves. Protective goggles.

Hand protection : Use gloves chemically resistant to this material when prolonged or repeated contact could occur. Gloves should be classified and selected according to regional or national standards. Suggested glove materials are: Neoprene, Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate PVC, or vinyl. Suitable gloves should be recommended by the glove supplier.

Eye protection : Wear eye protection, including chemical splash goggles and a face shield when possibility exists for eye contact due to spraying liquid or airborne particles.

Skin and body protection : Wear long sleeves, and chemically impervious PPE/coveralls to minimize bodily exposure.

Respiratory protection : Where vapor, mist, or dust exceed PELs or other applicable OELs, use NIOSH-approved respiratory protective equipment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid

Color : Red.

Odor : No data available.

Odor Threshold : No data available

pH : No data available

Relative evaporation rate (butylacetate=1) : No data available

Melting point : No data available

Freezing point : No data available

Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: 0.00004 hPa estimated
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

VOC content : 0 %

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

None known.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

Thermal decomposition generates : Carbon oxides (CO, CO_2).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed.

Silica: Crystalline, quartz (14808-60-7)	
LD50 oral rat	500 mg/kg

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Symptoms/effects after inhalation	: May cause respiratory irritation.
Symptoms/effects after skin contact	: May cause skin irritation.
Symptoms/effects after eye contact	: Direct contact with eyes is likely to be irritating.
Symptoms/effects after ingestion	: Harmful if swallowed.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Not expected to be ecotoxic.

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Obtain the consent of pollution control authorities before discharging to wastewater treatment plants.

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

In accordance with DOT/TDG

Not hazardous for transport

Additional information

Other information : No supplementary information available.

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

Aussie Swell	
All chemical substances in this product are listed in the EPA (Environment Protection Agency) TSCA (Toxic Substances Control Act) Inventory or are exempt	
SARA Section 311/312 Hazard Classes	Health hazard - Acute toxicity (any route of exposure)

15.2. Canada regulations

Aussie Swell
All chemical substances in this product are listed on the Canadian Domestic Substances List (DSL) or Non-Domestic Substances List (NDSL) or are exempt

15.3. US State regulations

WARNING! This product contains chemicals known to the state of California to cause cancer, birth defects, or other reproductive harm.

Silica: Crystalline, quartz (14808-60-7)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	No	No	No	Not available

Silica: Crystalline, quartz (14808-60-7)
U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Massachusetts - Right To Know List U.S. - Pennsylvania - RTK (Right to Know) List

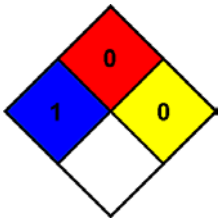
SECTION 16: Other information

Indication of changes : Revision 2.0

Revision date : 04/25/2019

Other information : Author: BCS.

NFPA health hazard	:	1 - Materials that, under emergency conditions, can cause significant irritation.
NFPA fire hazard	:	0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.
NFPA reactivity	:	0 - Material that in themselves are normally stable, even under fire conditions.



HMIS Hazard Rating		
Health	:	1
Flammability	:	0
Physical	:	0

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

MATERIAL SAFETY DATA SHEET

AVM Drain Boards 2000, 2200, 6000, 6020, 9000, 9020, 9080, XL, 9900 & SWD Series

AVM INDUSTRIES, INC.
8245 Remmet Ave
Canoga Park, CA 91304

Phone: (818) 888-0050
(888) 414-1041
Fax: (818) 888-0030

PRODUCT INDENTIFICATION:

AVM INDUSTRIES, INC. NAME: AVM Drain Boards

Components:
Non-woven polypropylene fabric: (AVM Drain Boards 2000, 2200, 6000, 6020 & SWD)
Woven monofilament fabric: (AVM Drain Boards 9000 & 9020)
Extruded high impact polystyrene sheet and/or polyethylene
D.O.T. Proper Shipping Name: Not a regulated material

HAZARDOUS INGREDIENTS:

This product does not meet the definition given in 29 CRF Part 1910.1200 (OSHA).
Information is furnished as a customer service.

OCCUPATIONAL CONTROL PROCEDURES:

Eye Protection:	As required by site-specific conditions. Not generally needed.
Skin Protection:	None required.
Respiratory Protection:	Not generally required unless needed to prevent respiratory irritation.
Ventilation:	Use adequate ventilation to control exposure below recommended levels.

EFFECTS OF OVEREXPOSURE:

Eyes:	Dust may cause mechanical irritation.
Skin:	No known effect.
Inhalation:	Dust may produce mechanical irritation to the mucous membranes of the nose, throat and upper respiratory tract.
Chronic:	No anticipated chronic effects.

Existing health conditions affected by exposure: No known effects.

MATERIAL SAFETY DATA SHEET

AVM Drain Boards 2000, 2200, 6000, 6020, 9000, 9020, 9080, XL, 9900 & SWD Series

EMERGENCY AND FIRST AID PROCEDURES:

Eyes:	Flush with water.
Skin:	Rinse with water.
Inhalation:	Remove from exposure.
Ingestion:	N/A.

FIRE PROTECTION:

Flash Point (Method):	Greater than 400 degrees (COC, ASTM D-92)
Fire Extinguishing Media:	Dry chemical, foam, carbon dioxide.
Special Fire Fighting Procedures:	For large fires in confined area use N10SH/MSHA

approved self-contained breathing apparatus: Use water fog or spray to exposed equipment and containers.

REACTIVITY DATA:

Stability:	Stable
Incompatibility:	None known
Hazardous Decomposition Products:	Will not occur.
Hazardous Polymerization:	Will not occur.

PHYSICAL DATA:

Physical State:	Solid
Odor:	Negligible
Viscosity:	N/A
Solubility in Water:	Negligible
Boiling Point:	N/A

SPILL, LEAK & DISPOSAL INFORMATION:

Spill or Leak Procedures:	Solid material, normal clean-up procedure.
Waste Disposal:	Insure conformity with all applicable disposal regulations. Product does not meet the definition of hazardous waste.

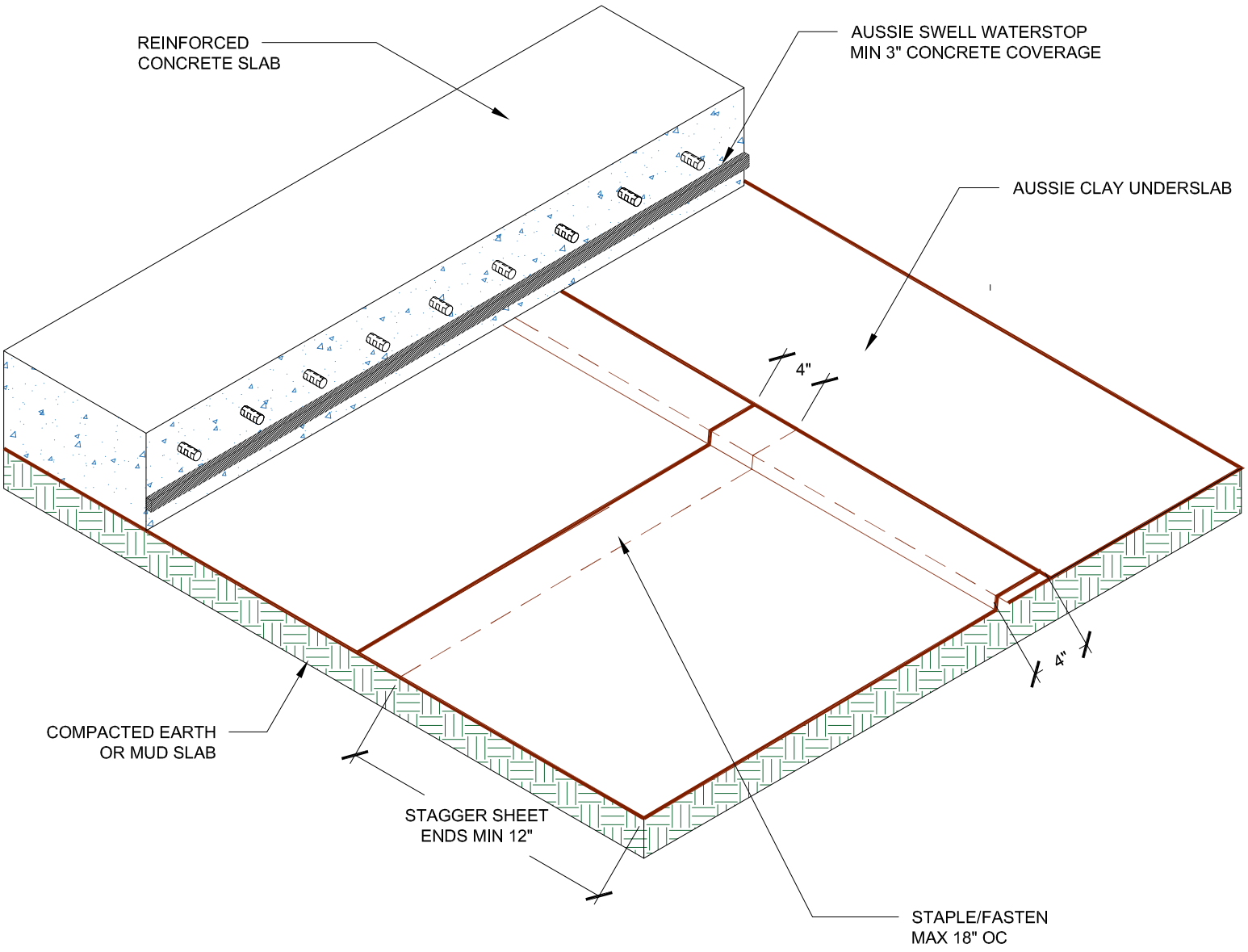
STORAGE:

No special requirements for storage.

DETAIL #:
0590-0001A
AVM System 590
Aussie Clay

Typical Under Slab Assembly and Overlap Spacing

AVM INDUSTRIES INC



Notes:

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2. Install Aussie Clay and Aussie Clay PL with gray geotextile facing installer
3. Overlap sheet edges 4" and stagger seams min 12"

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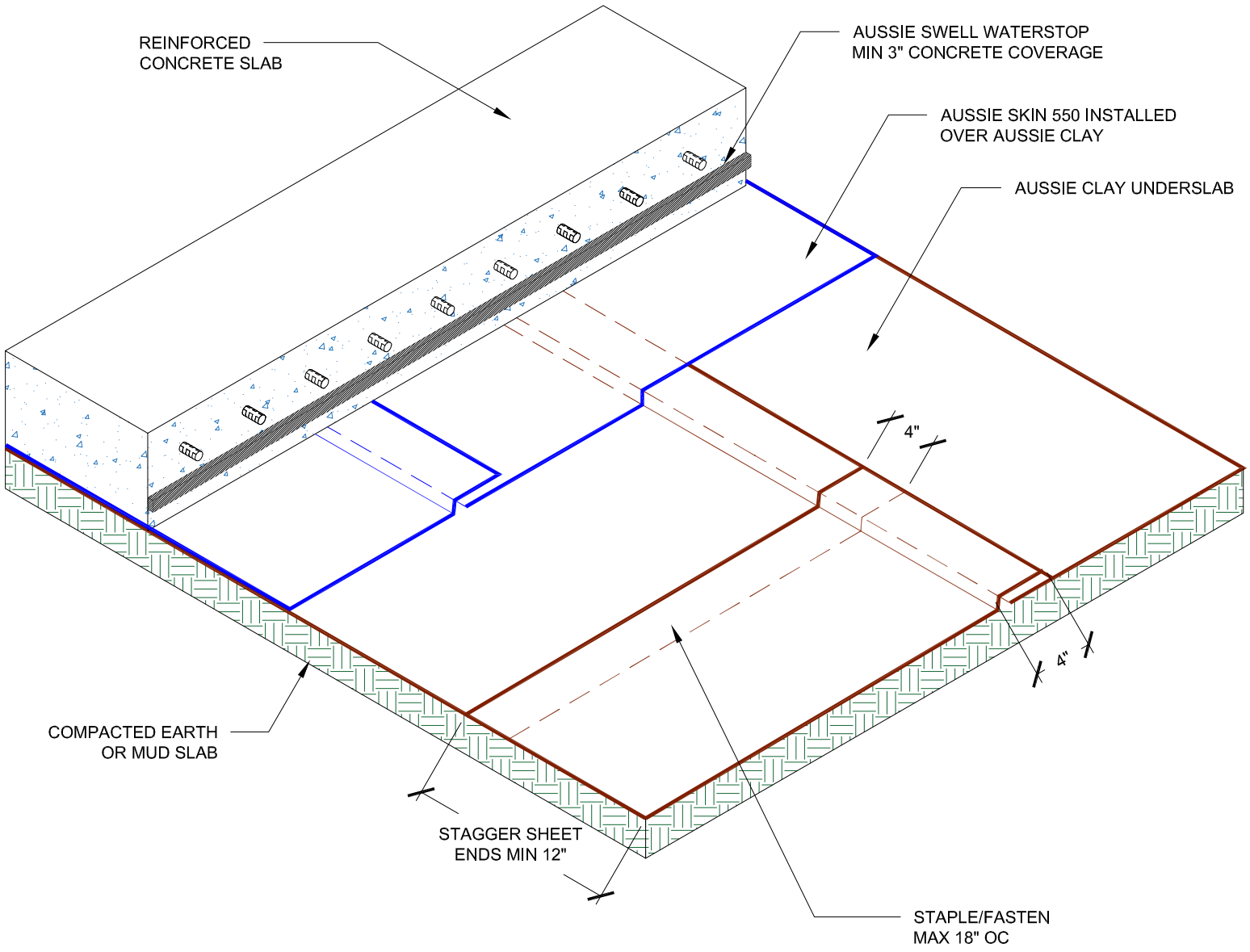
FILE NAME: 0590-0001A

DETAIL #:
0590-0001B
AVM System 590
Aussie Clay

Typical Under Slab Assembly and Overlap Spacing - Dual System

AVM INDUSTRIES INC



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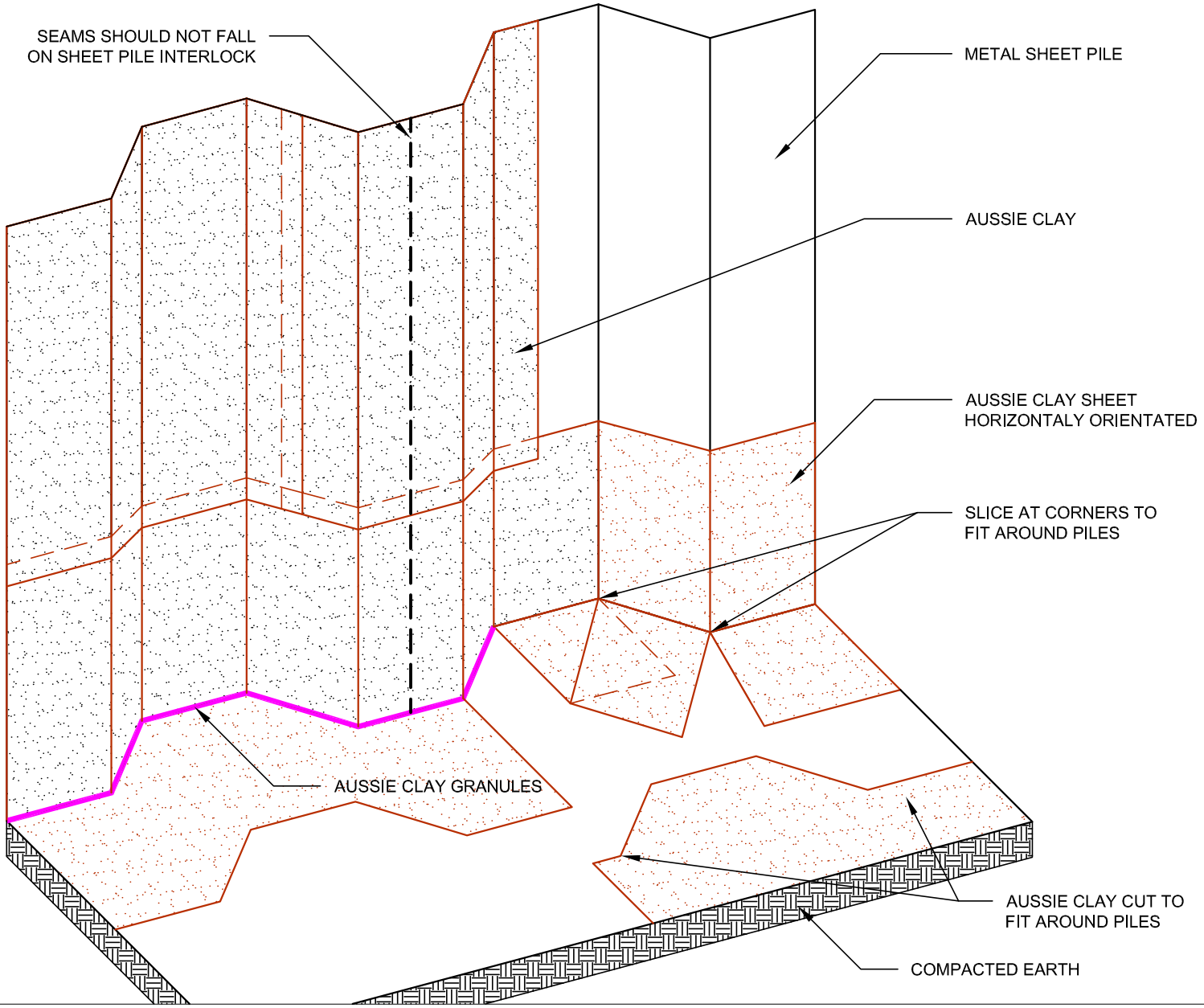
FILE NAME: 0590-0001B

DETAIL #:
0590-0010
AVM System 590
Aussie Clay

Metal Sheet Piling
Cast in Place Walls

AVM INDUSTRIES INC



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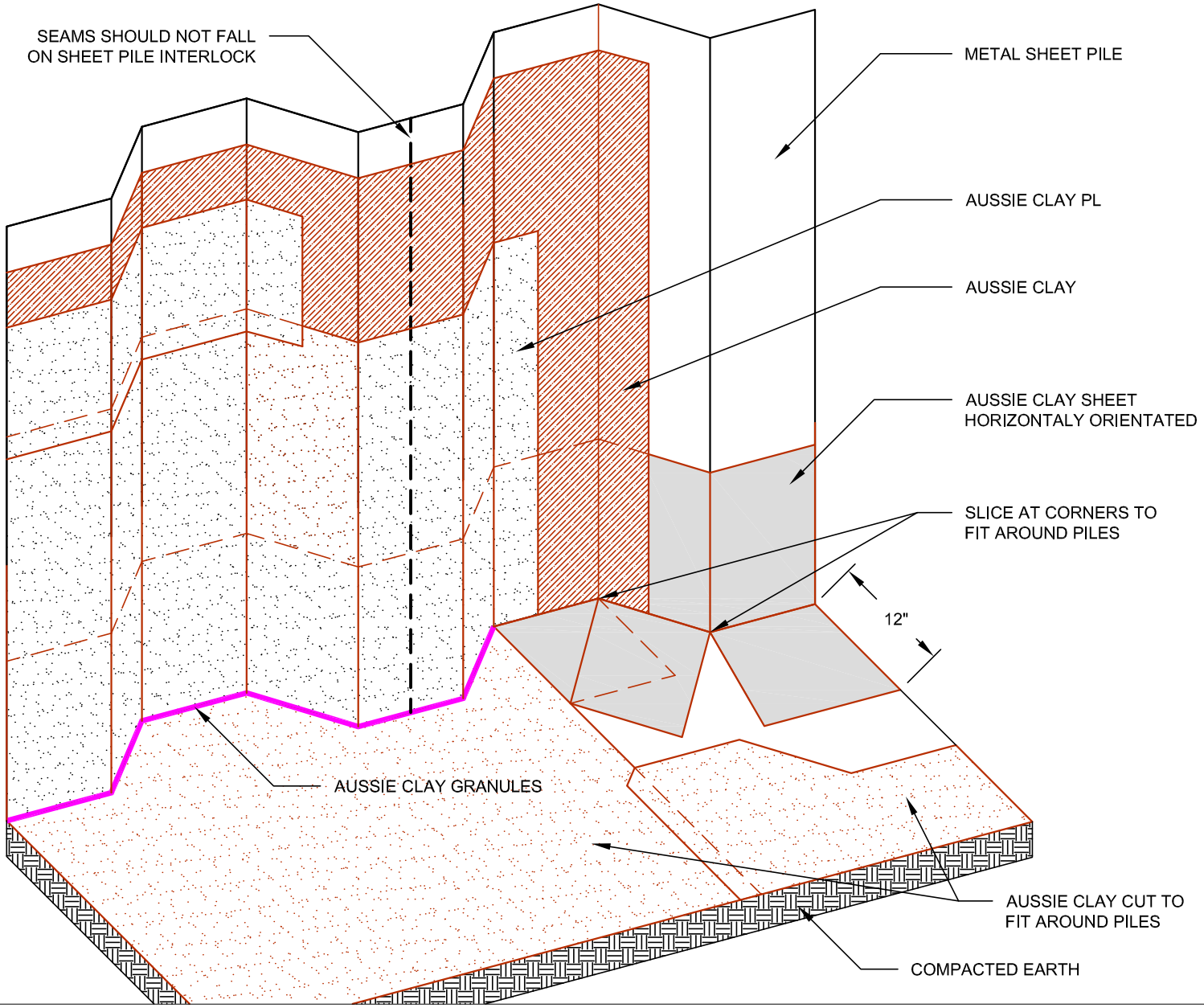
FILE NAME: 0590-0010

DETAIL #:
0590-0012
AVM System 590
Aussie Clay

Metal Sheet Piling
Shotcrete Walls

AVM INDUSTRIES INC



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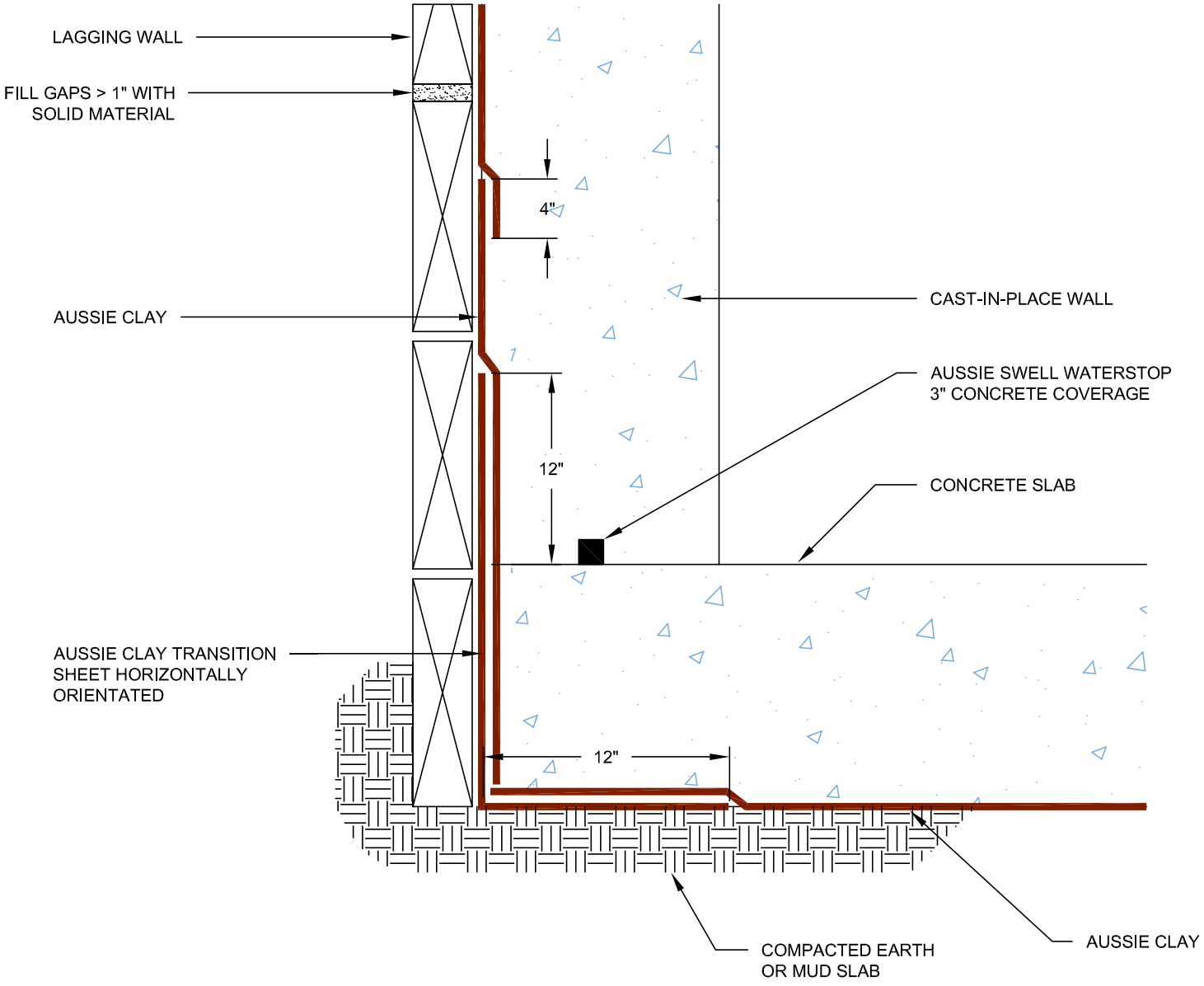
FILE NAME: 0590-0012

DETAIL #:
0590-0100
AVM System 590
Aussie Clay

Blind Side Waterproofing over Lagging Cast in Place Walls

AVM INDUSTRIES INC



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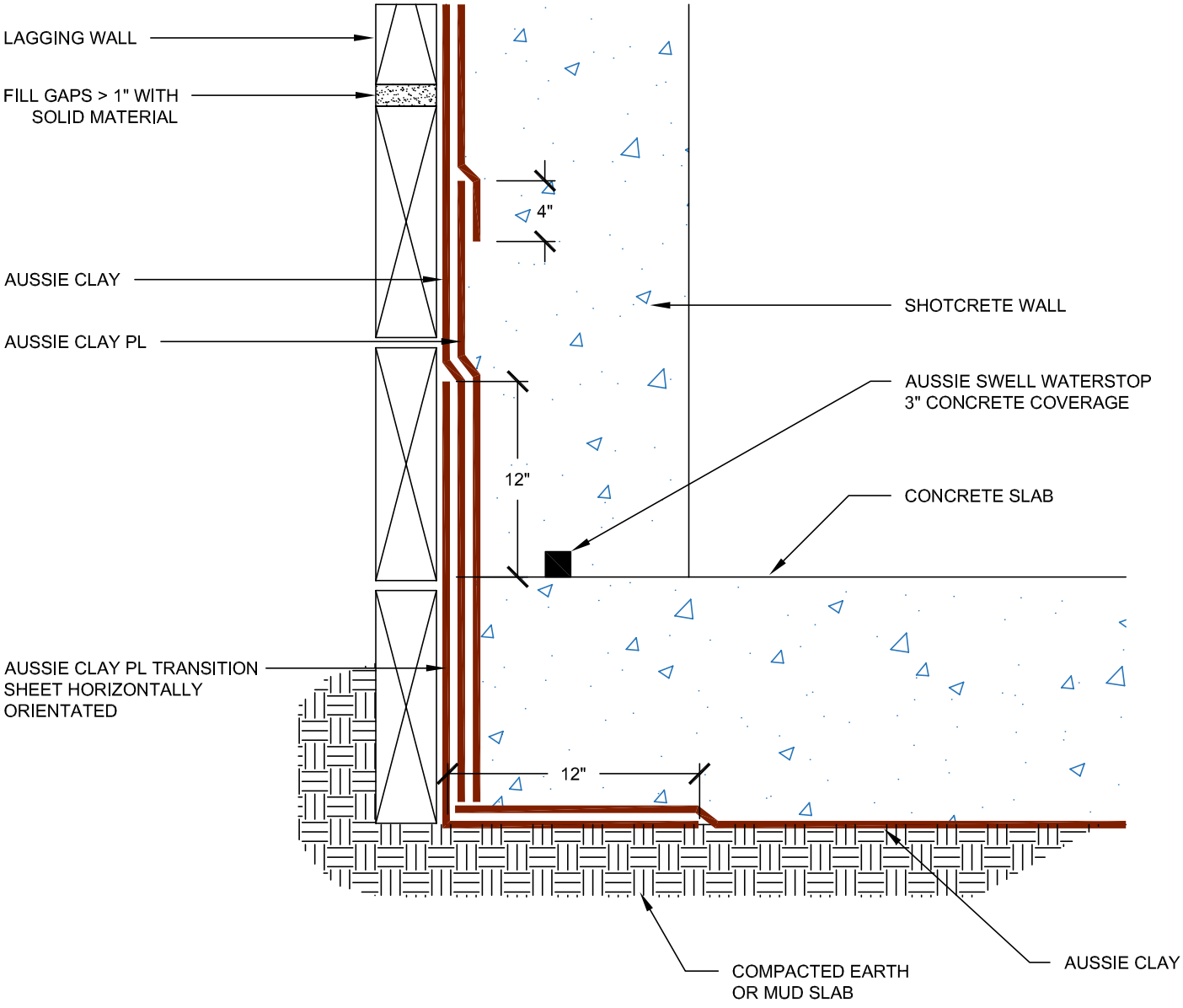
FILE NAME: 0590-0100

DETAIL #:
0590-0101
AVM System 590
Aussie Clay

Blind Side Waterproofing over Lagging Shotcrete Walls

AVM INDUSTRIES INC



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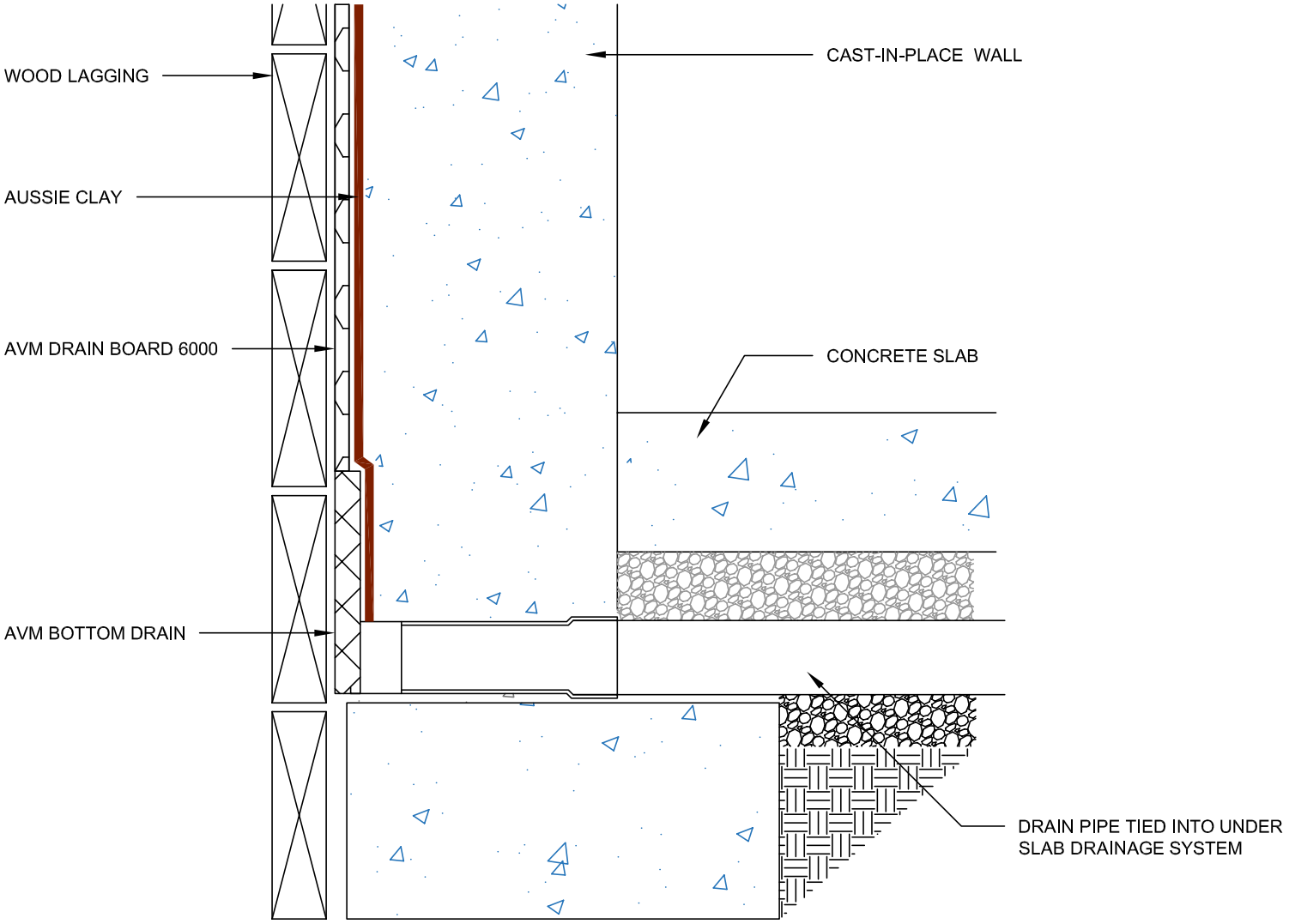
FILE NAME: 0590-0101

DETAIL #:
0590-0110
AVM System 590
Aussie Clay

Raised Slab with Drainage System
Non-Hydrostatic
Cast in Place Walls

AVM INDUSTRIES INC



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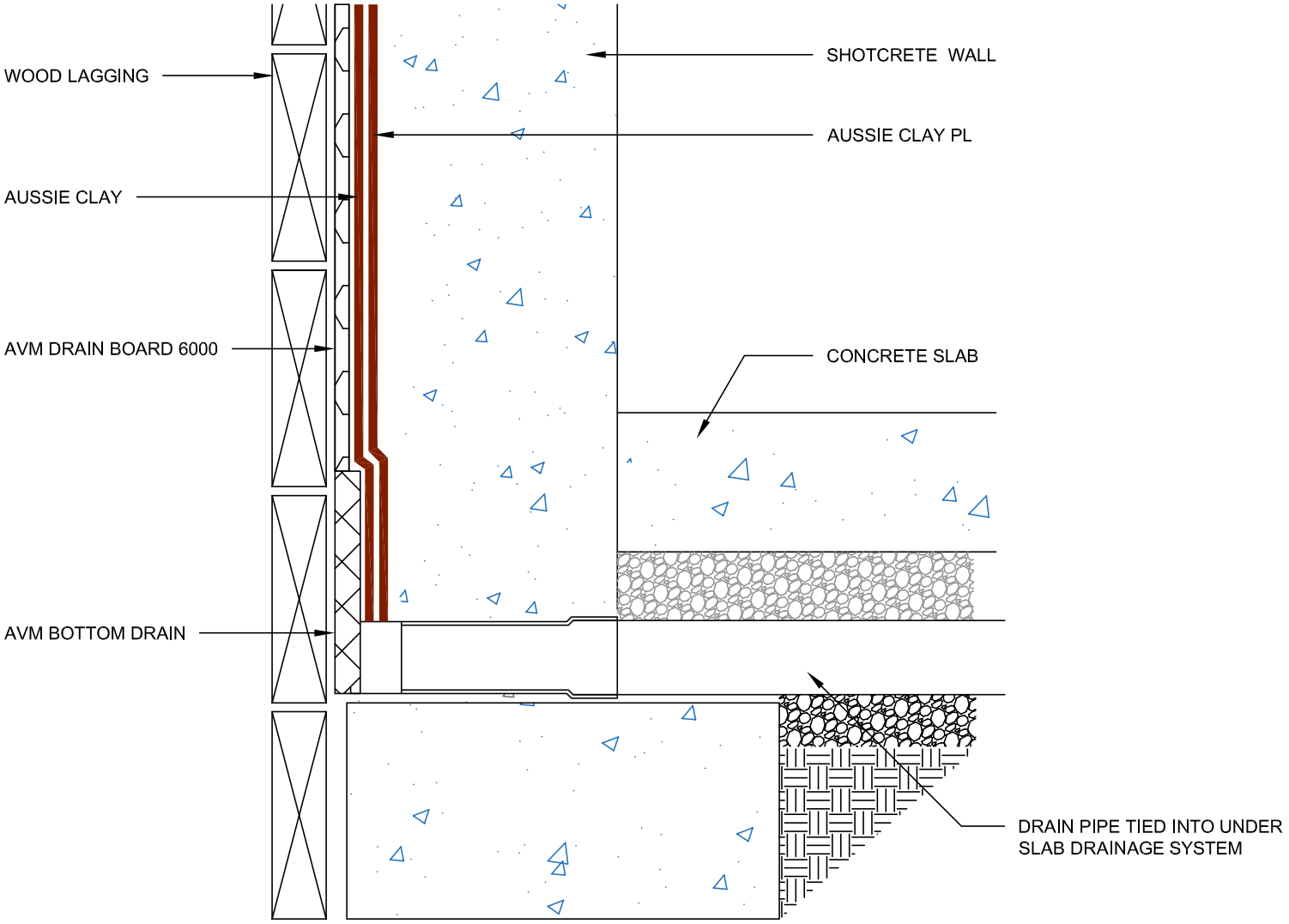
FILE NAME: 0590-0110

DETAIL #:
0590-0112
AVM System 590
Aussie Clay

Raised Slab with Drainage System
Non-Hydrostatic
Shotcrete Walls

AVM INDUSTRIES INC



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FILE NAME: 0590-0112

DETAIL #:
0590-0200
AVM System 590
Aussie Clay

Pipe Penetration
Cast in Place Walls

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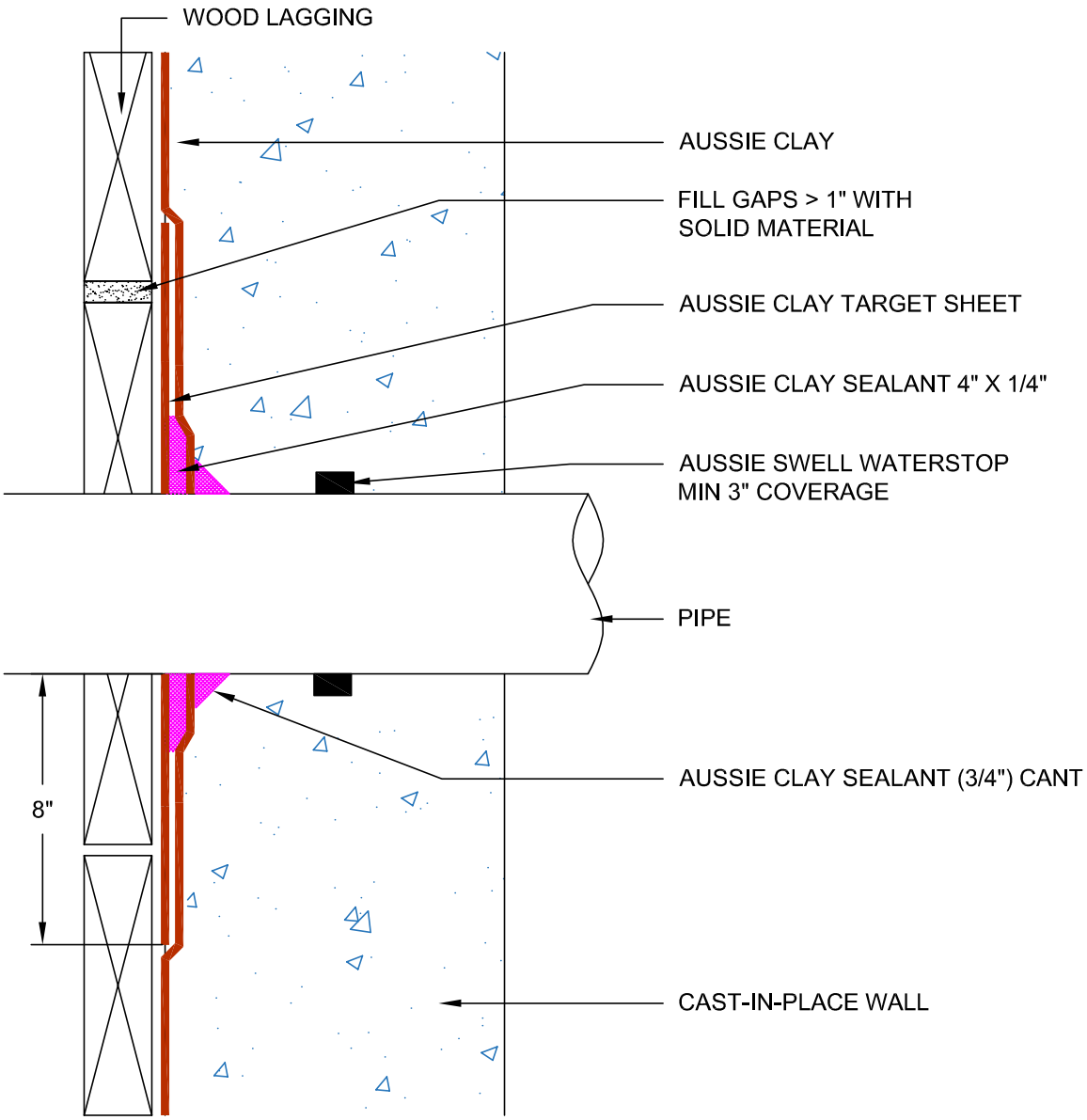

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2. Install Aussie Clay and Aussie Clay PL with gray geotextile facing installer
3. All gaps around penetrations must be filled with solid material (grout or expanding spray foam)

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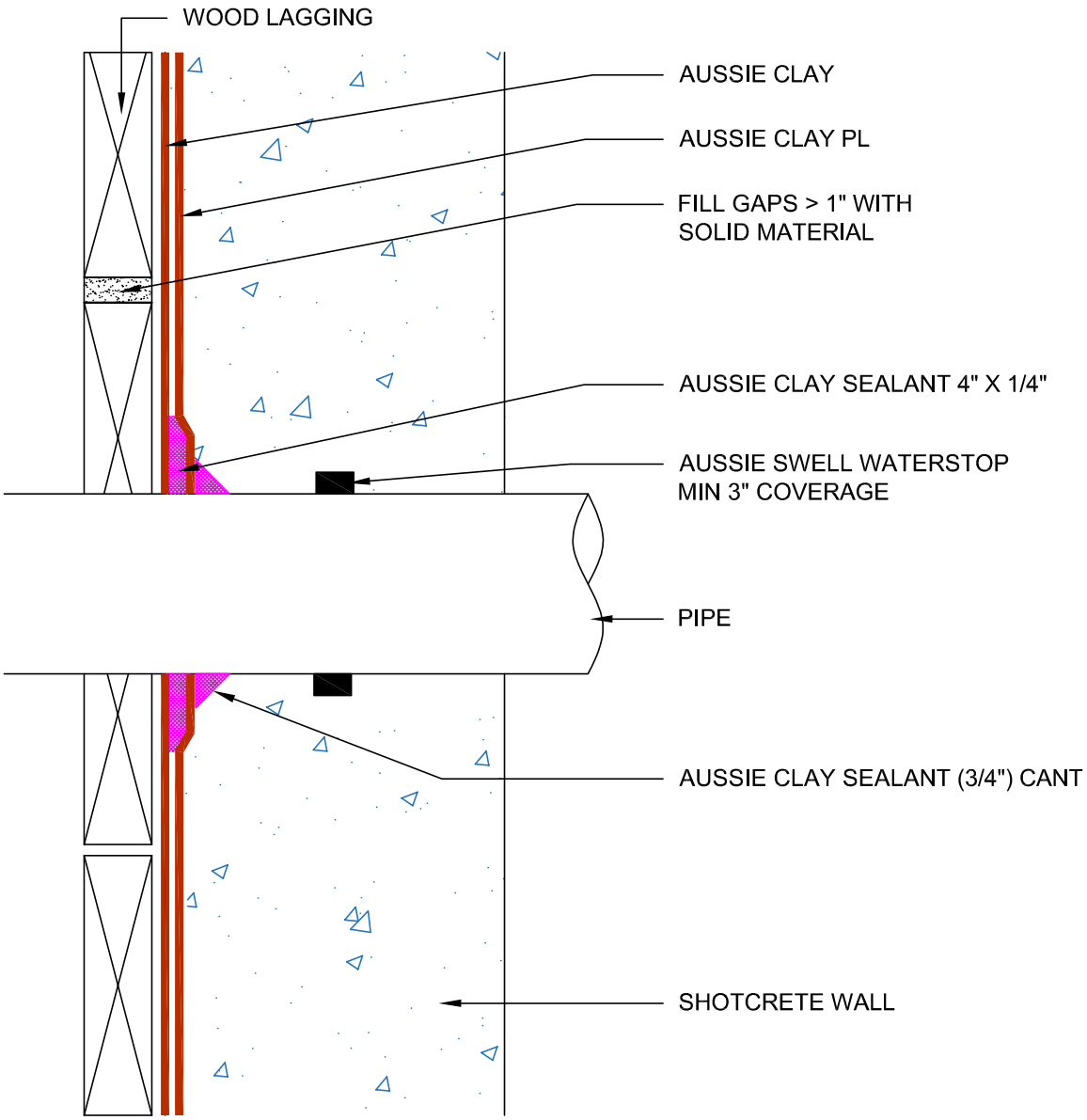
FILE NAME: 0590-0200

DETAIL #:
0590-0202
AVM System 590
Aussie Clay

Pipe Penetration
Shotcrete Walls

AVM INDUSTRIES INC



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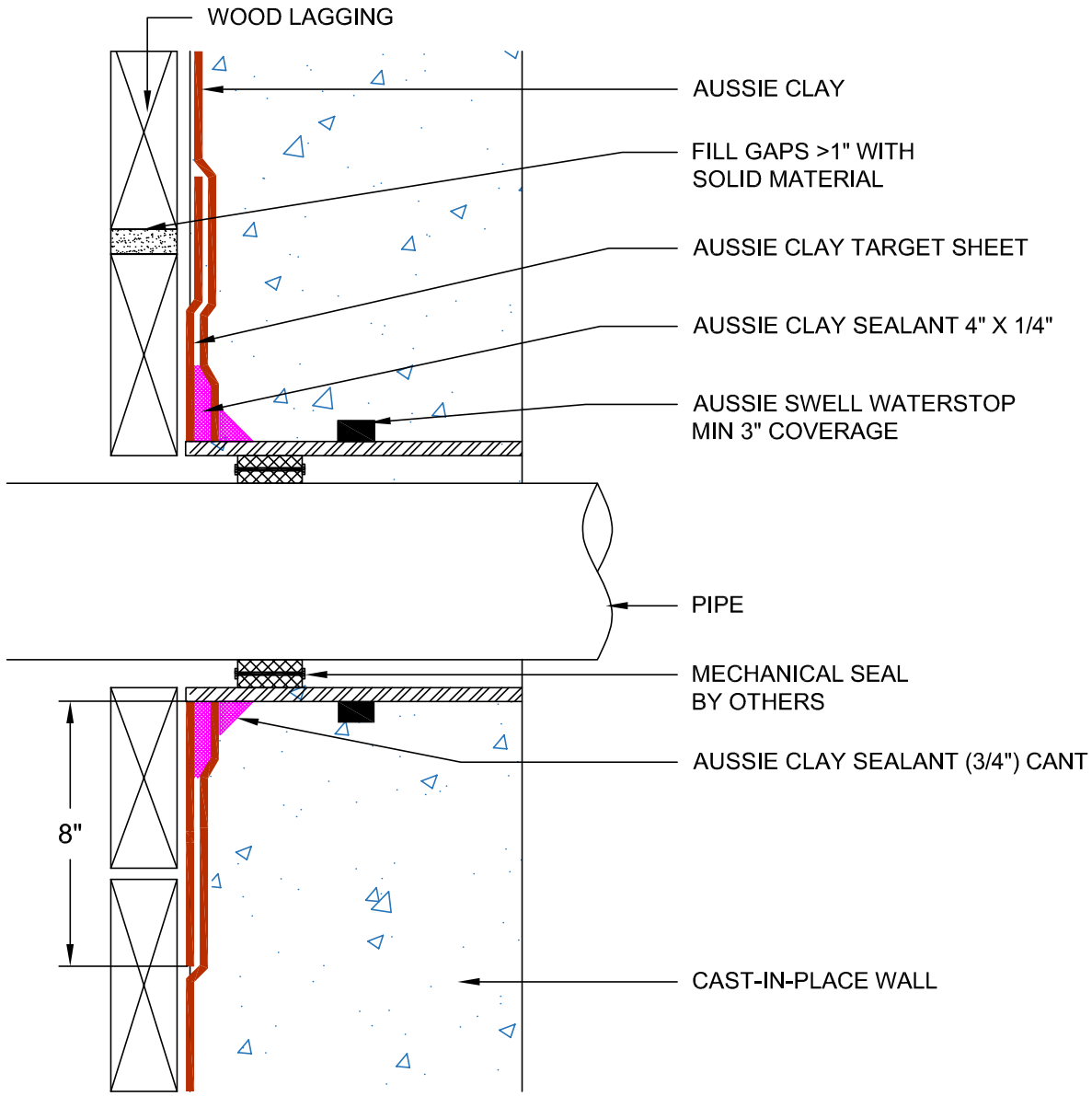
FILE NAME: 0590-0202

DETAIL #:
0590-0206
AVM System 590
Aussie Clay

Sleeved Pipe Penetration
Cast in Place Walls

AVM INDUSTRIES INC



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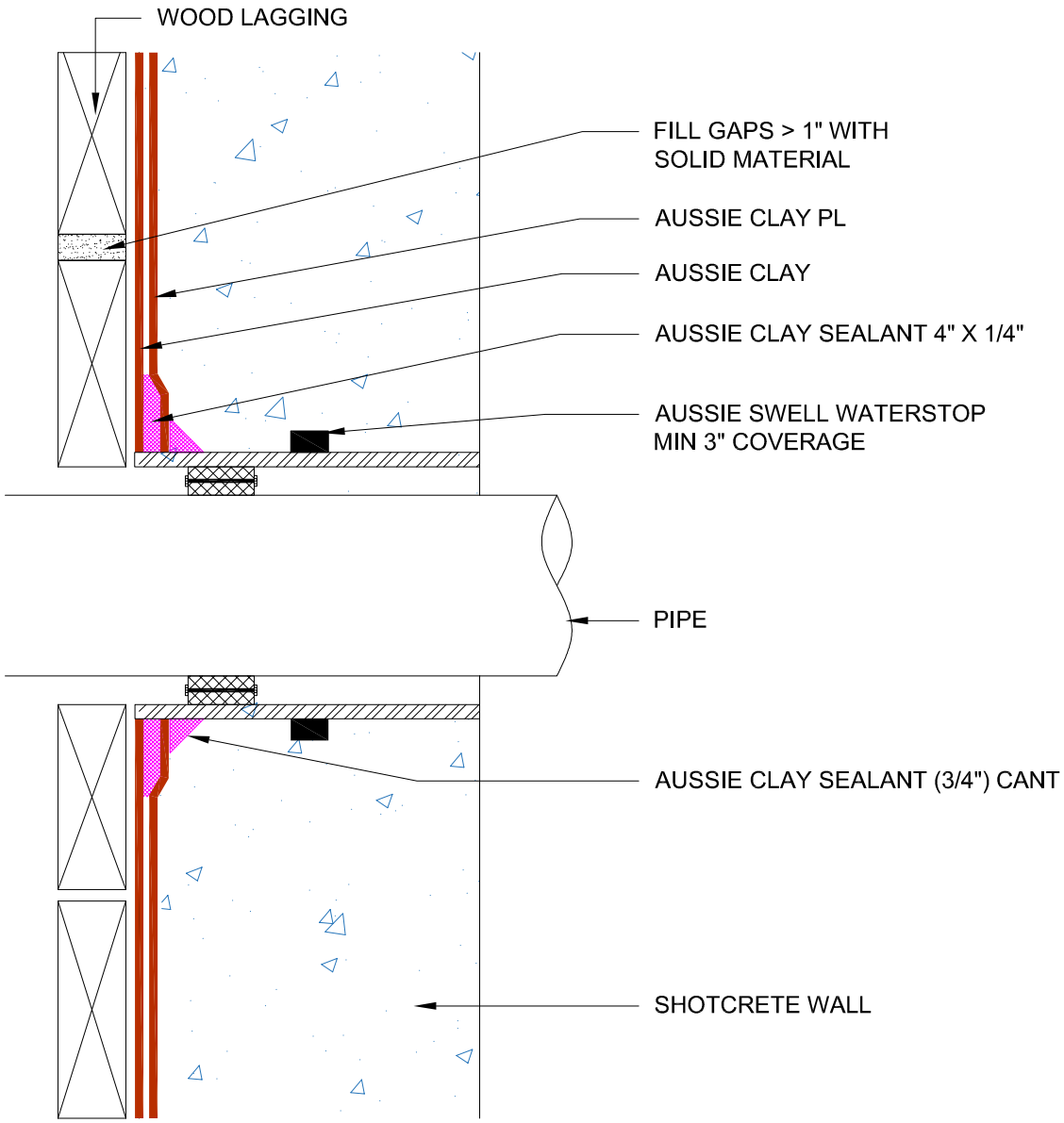
FILE NAME: 0590-0206

DETAIL #:
0590-0208
AVM System 590
Aussie Clay

Sleeved Pipe Penetration
Shotcrete Walls

AVM INDUSTRIES INC



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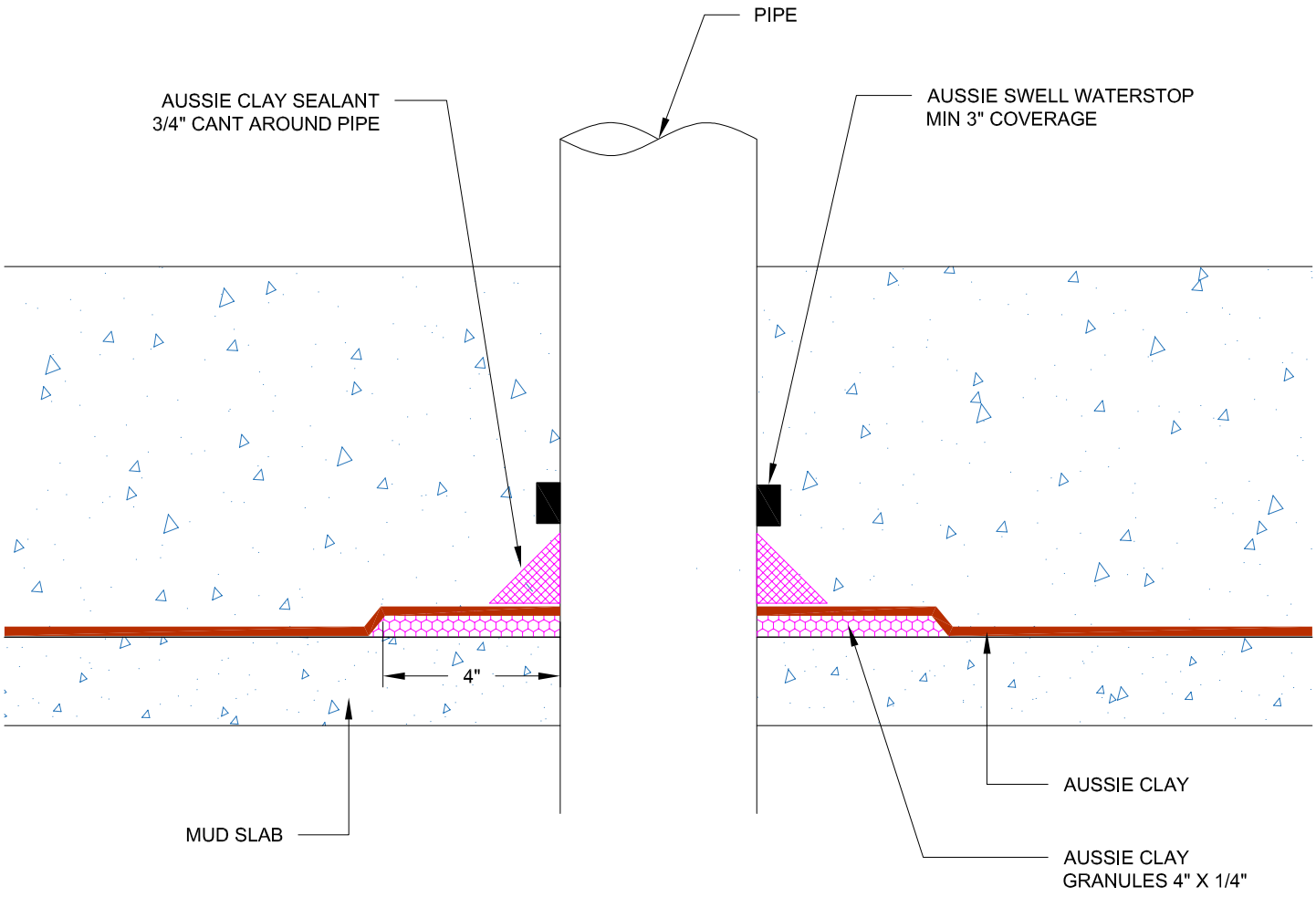
FILE NAME: 0590-0200

DETAIL #:
0590-0210
AVM System 590
Aussie Clay

Slab Penetration Over Mud Slab

AVM INDUSTRIES INC



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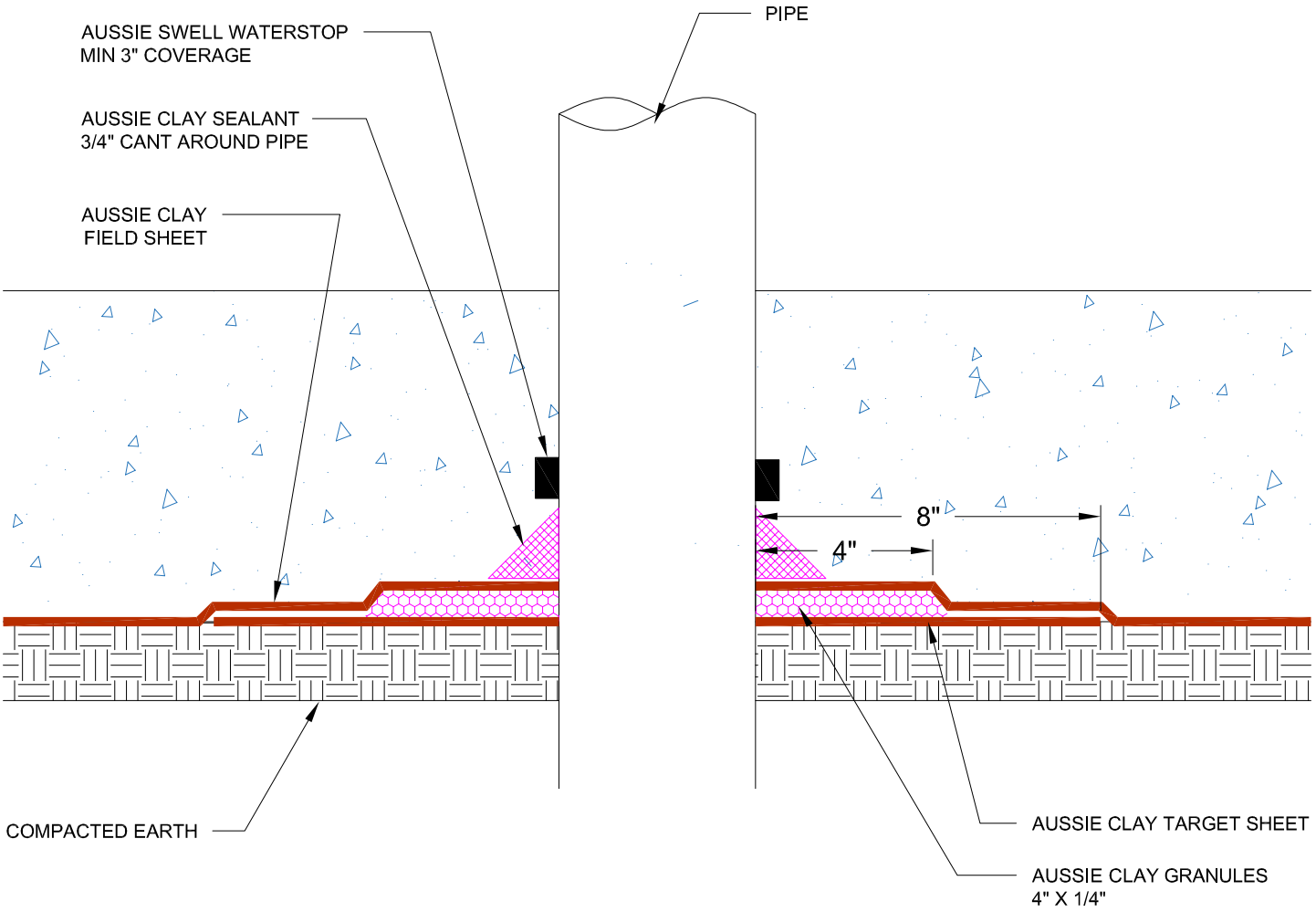
FILE NAME: 0590-0210

DETAIL #:
0590-0215
AVM System 590
Aussie Clay

Slab Penetration Over Compacted Earth

AVM INDUSTRIES INC



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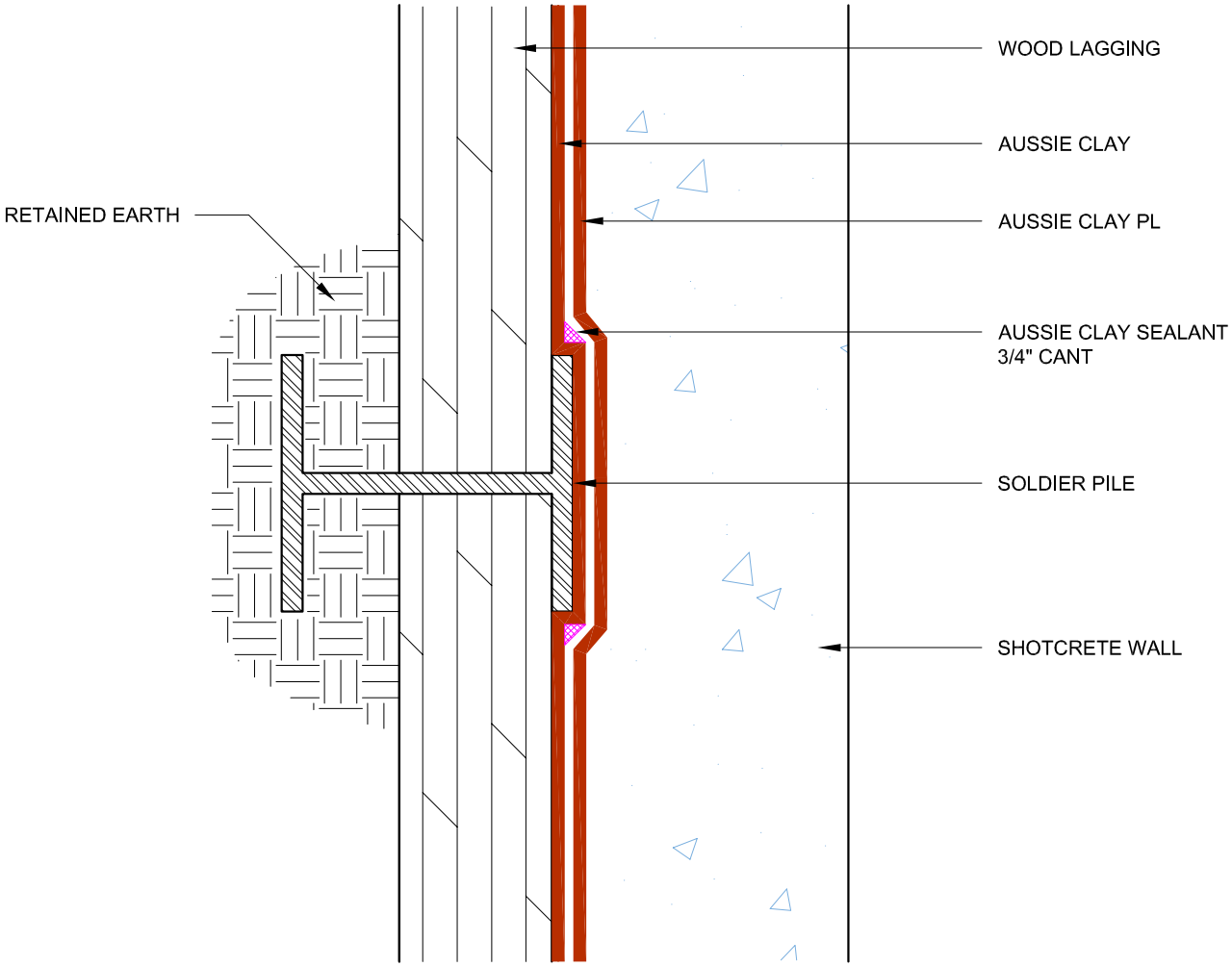
FILE NAME: 0590-0215

DETAIL #:
0590-0220
AVM System 590
Aussie Clay

Typical Soldier Pile Shotcrete Walls

AVM INDUSTRIES INC



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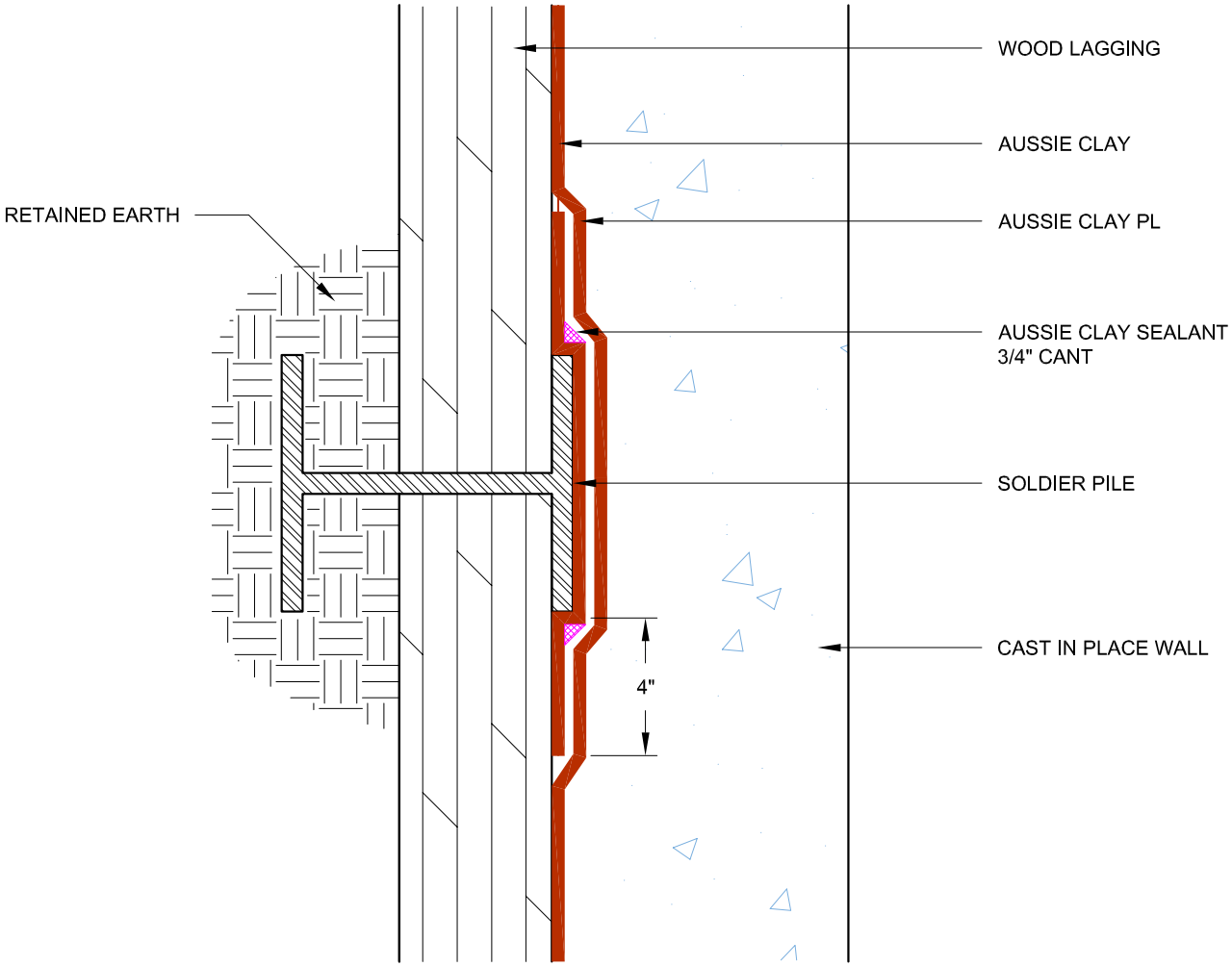
FILE NAME: 0590-0220

DETAIL #:
0590-0222
AVM System 590
Aussie Clay

Typical Soldier Pile Cast in Place Walls

AVM INDUSTRIES INC



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2. Fasten Aussie Clay with pneumatic staples or 1" washer-head fasteners placed maximum 24" on center
3. Install Aussie Clay and Aussie Clay PL with gray geotextile facing installer.
4. Overlap sheet edges 4" and stagger seams min 12"

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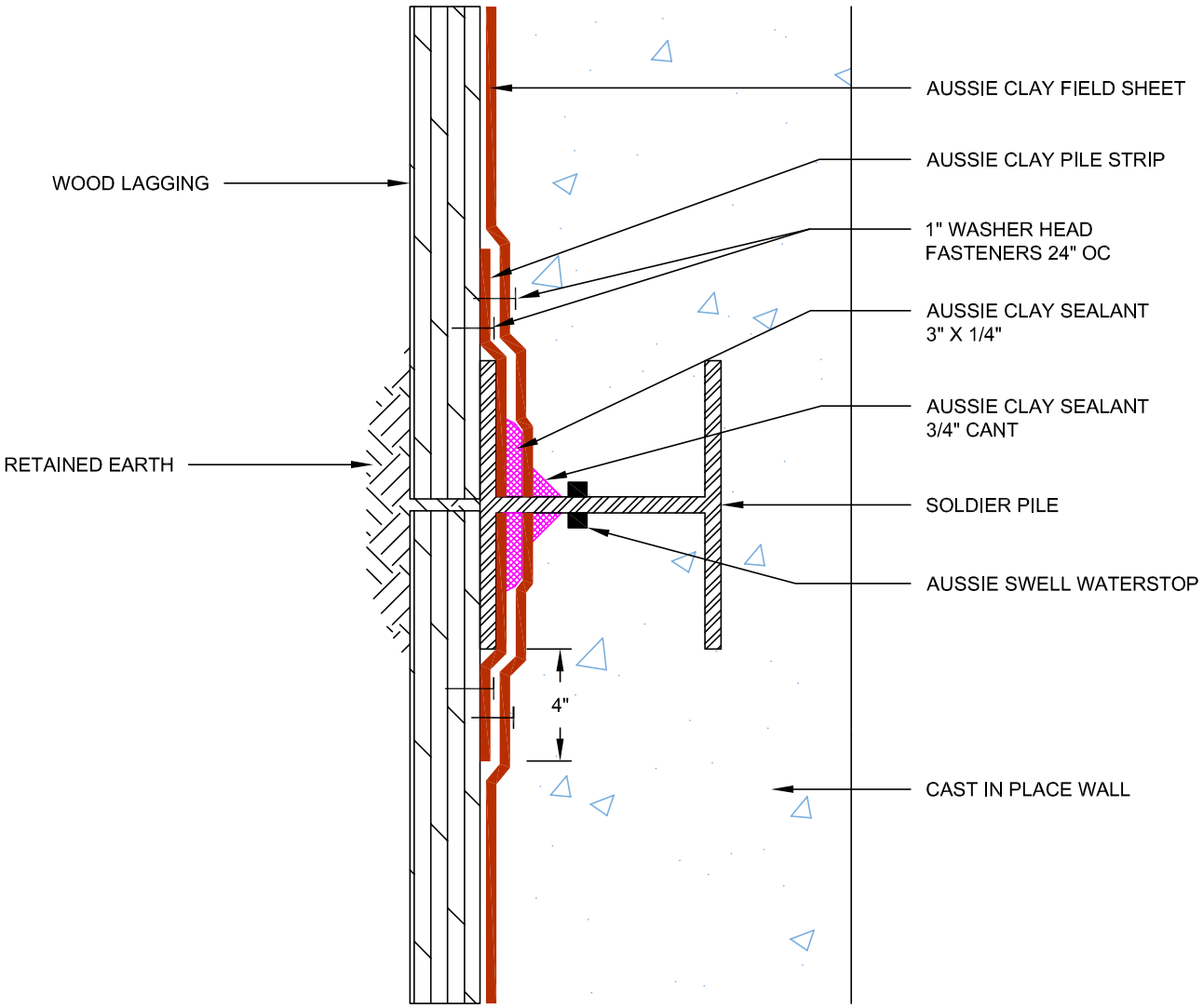
FILE NAME: 0590-0222

DETAIL #:
0590-0223
AVM System 590
Aussie Clay

Back-Lagged Soldier Pile
Cast in Place Walls

AVM INDUSTRIES INC



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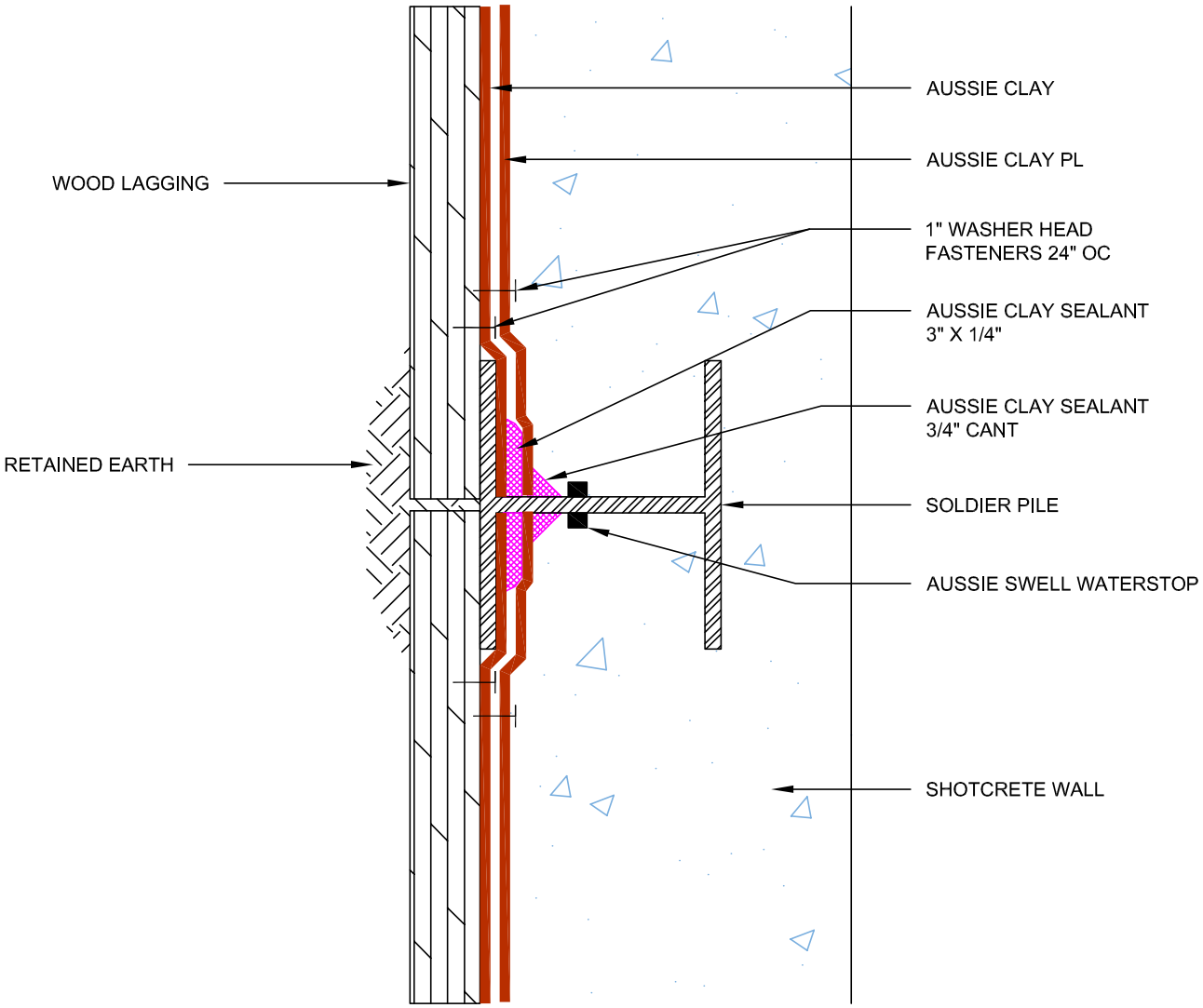
FILE NAME: 0590-0223

DETAIL #:
0590-0224
AVM System 590
Aussie Clay

Back-Lagged Soldier Pile Shotcrete Walls

AVM INDUSTRIES INC



Notes:

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4. Overlap sheet edges 4" and stagger seams min 12"

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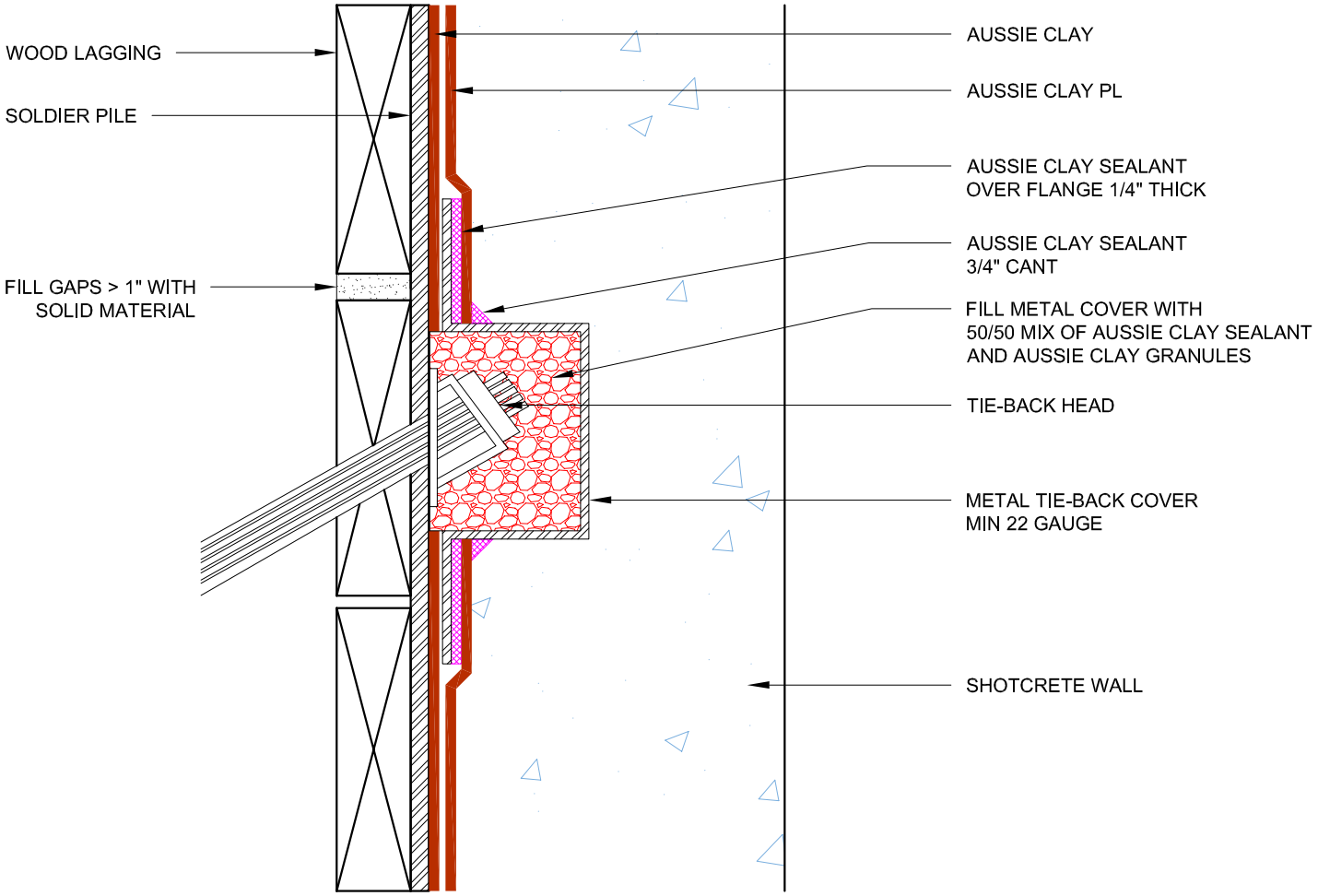
FILE NAME: 0590-0224

DETAIL #:
0590-0225
AVM System 590
Aussie Clay

Metal Tie-Back Cover
Shotcrete Walls

AVM INDUSTRIES INC



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4. Overlap sheet edges 4" and stagger seams min 12"

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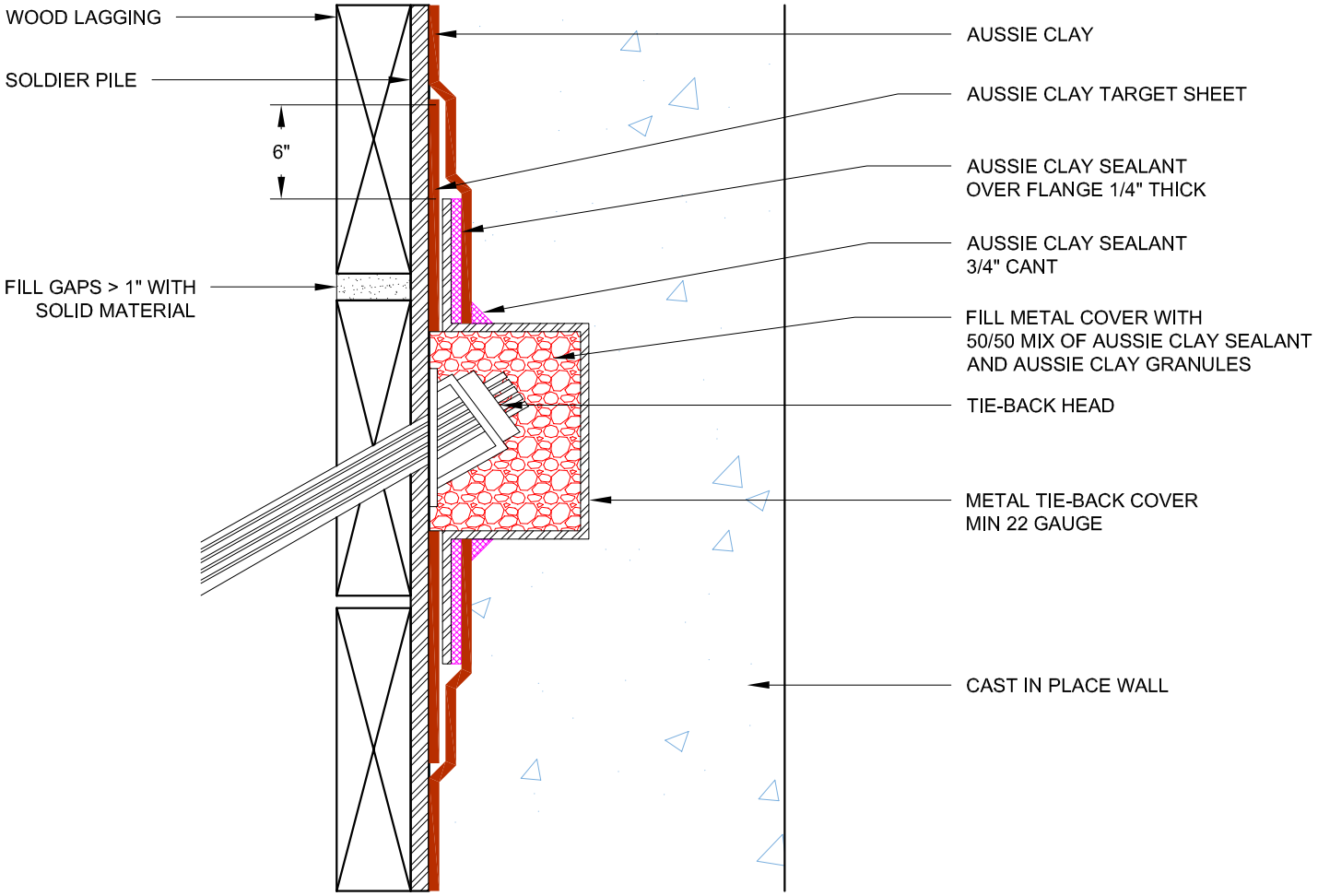
FILE NAME: 0590-0225

DETAIL #:
0590-0230
AVM System 590
Aussie Clay

Metal Tie-Back Cover
Cast in Place Walls

AVM INDUSTRIES INC



Notes:

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4. Overlap sheet edges 4" and stagger seams min 12"

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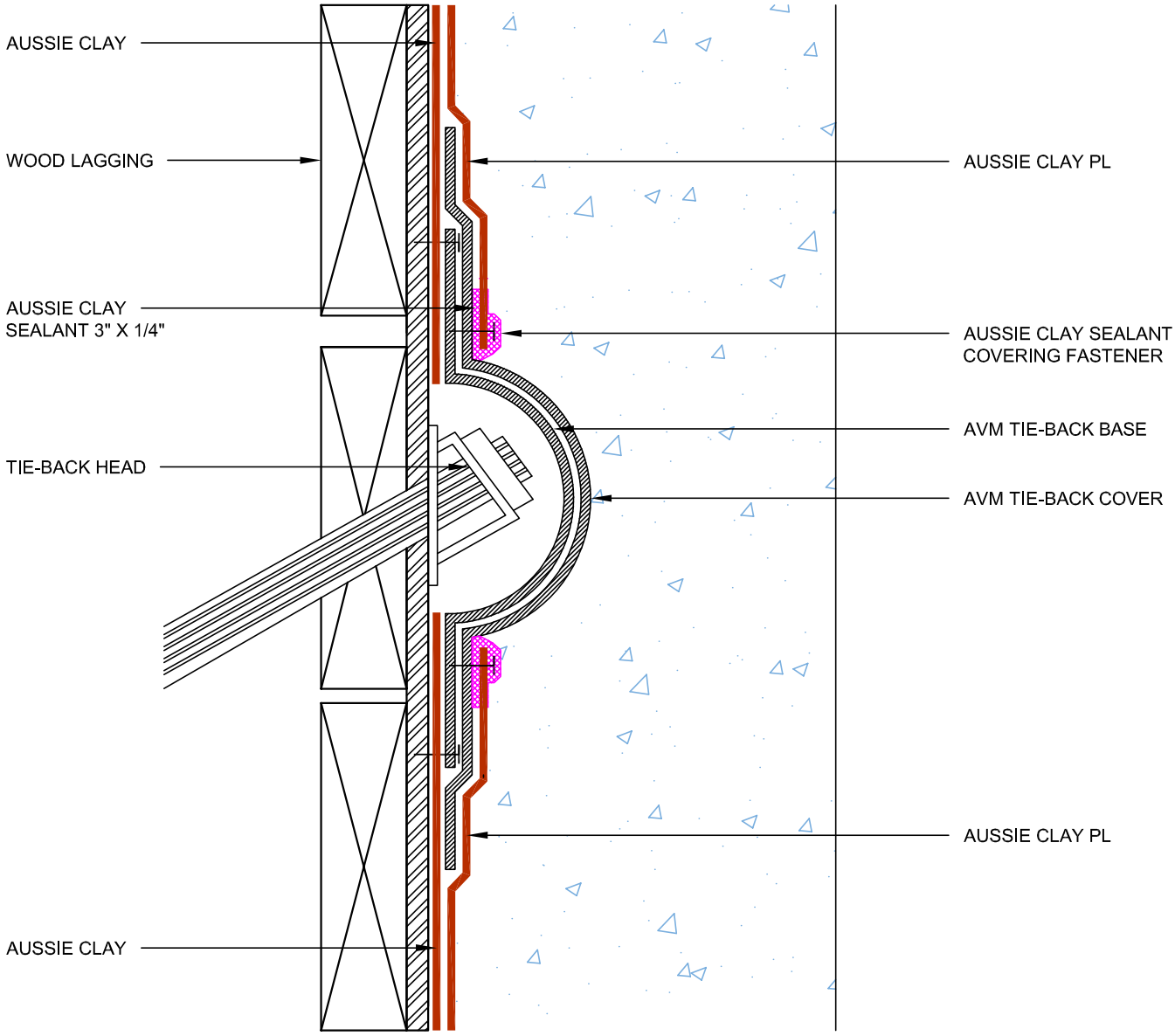
FILE NAME: 0590-0225

DETAIL #:
0590-0235
AVM System 590
Aussie Clay

Tie-Back Cover

AVM INDUSTRIES INC



Notes:

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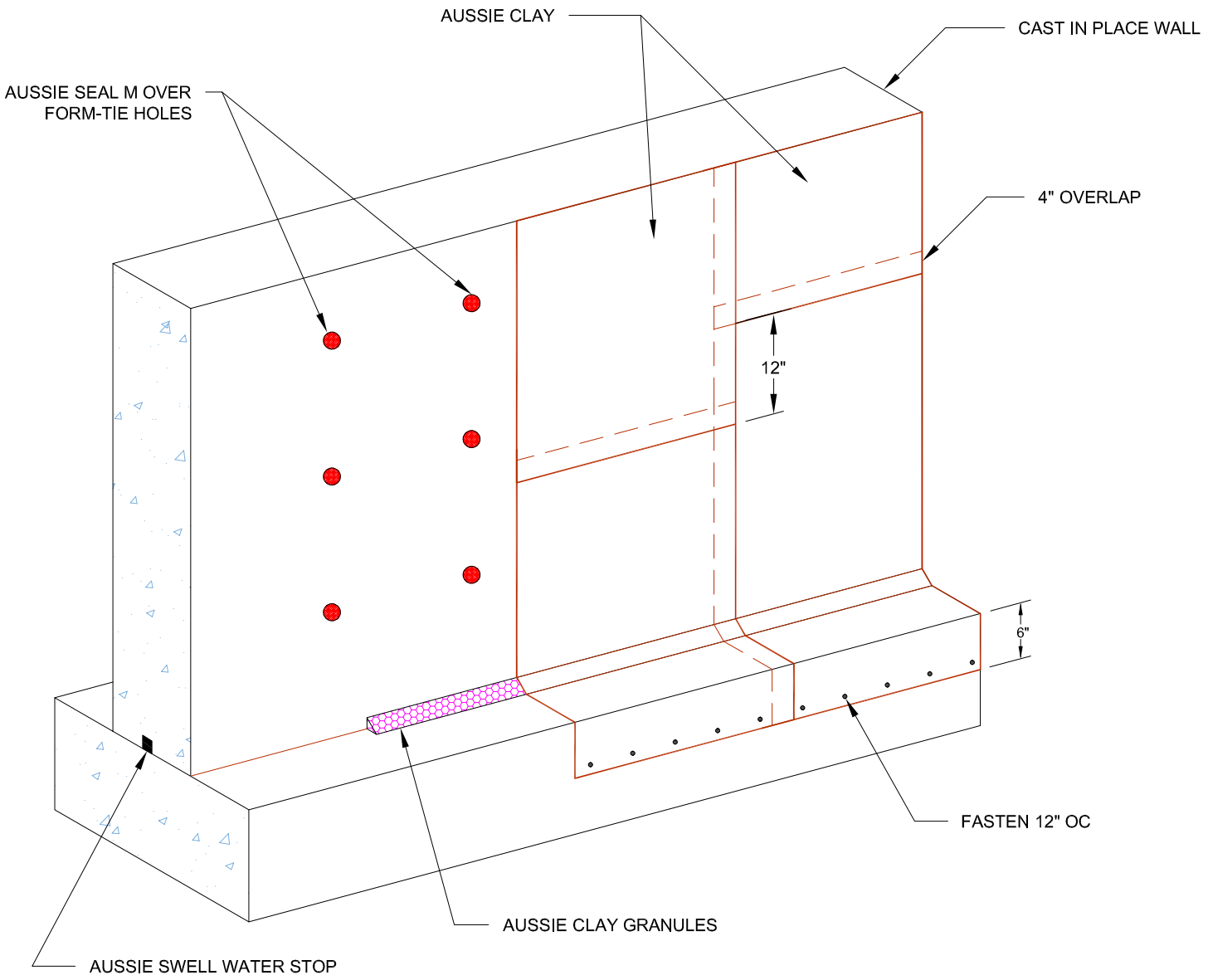
FILE NAME: 0590-0235

DETAIL #:
0590-0002
AVM System 590
Aussie Clay

Backfilled Wall Installation - Option 1

AVM INDUSTRIES INC



Notes:

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2. Fasten Aussie Clay with washer-head fasteners placed maximum 24” on center
3. Install Aussie Clay with gray geotextile against concrete. Install Aussie Clay PL with poly liner facing installer
4. Overlap sheet edges 4” and stagger seams min 12”

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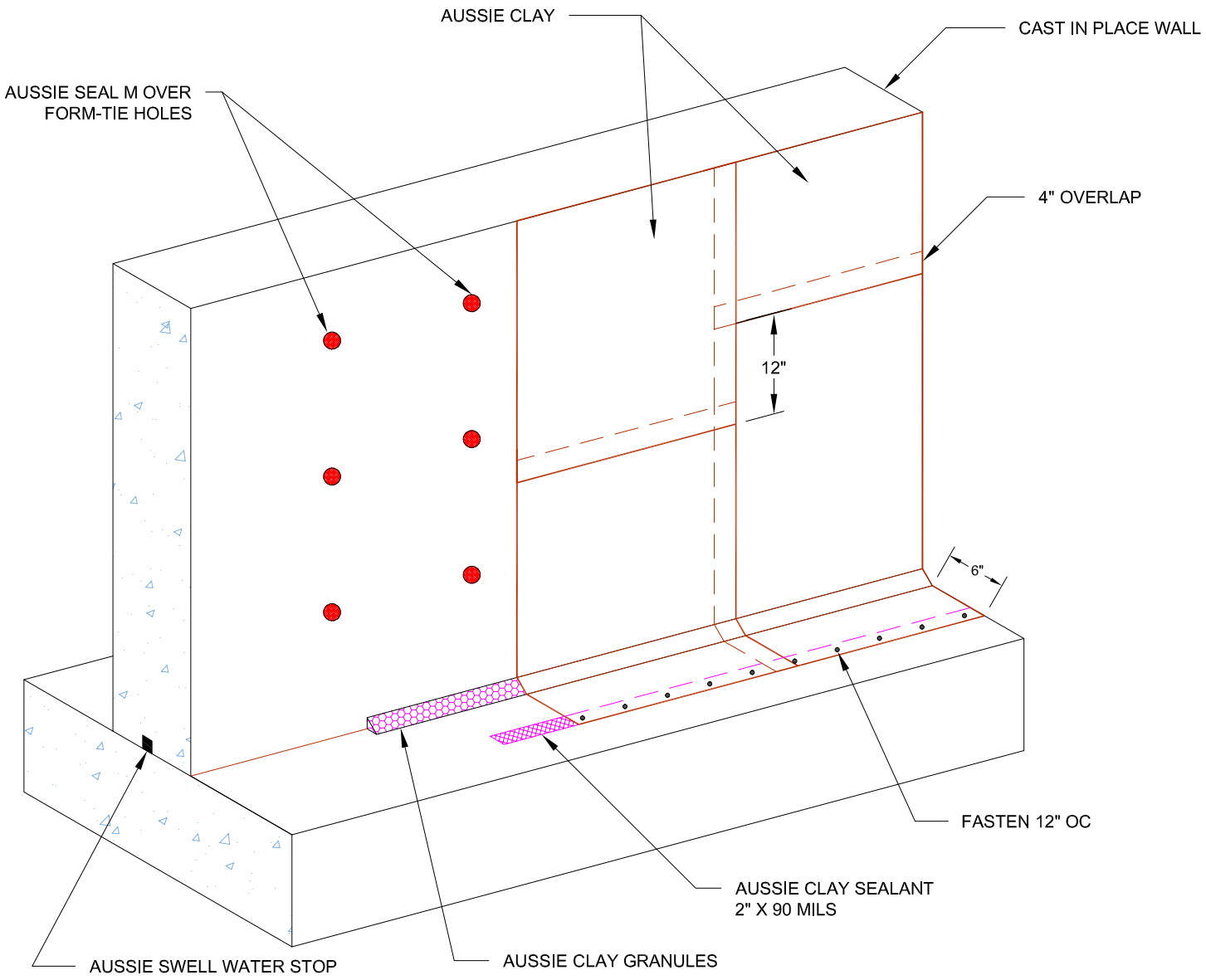
FILE NAME: 0590-0002

DETAIL #:
0590-0003
AVM System 590
Aussie Clay

Backfilled Wall Installation - Option 2

AVM INDUSTRIES INC



Notes:

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4. Overlap sheet edges 4” and stagger seams min 12”

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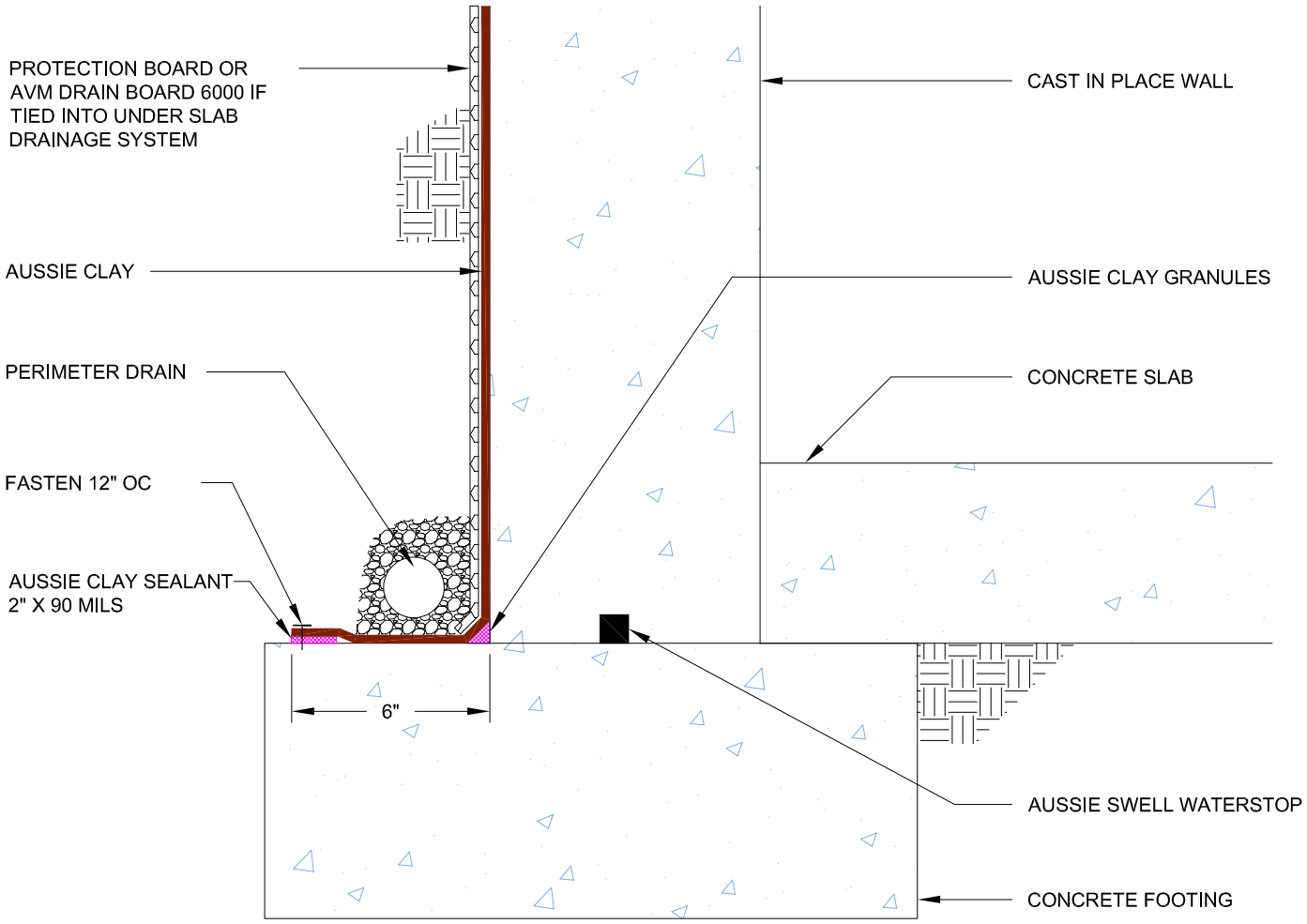
FILE NAME: 0590-0003

DETAIL #:
0590-0102A
AVM System 590
Aussie Clay

Backfilled Wall - Option 1
Non-Hydrostatic

AVM INDUSTRIES INC



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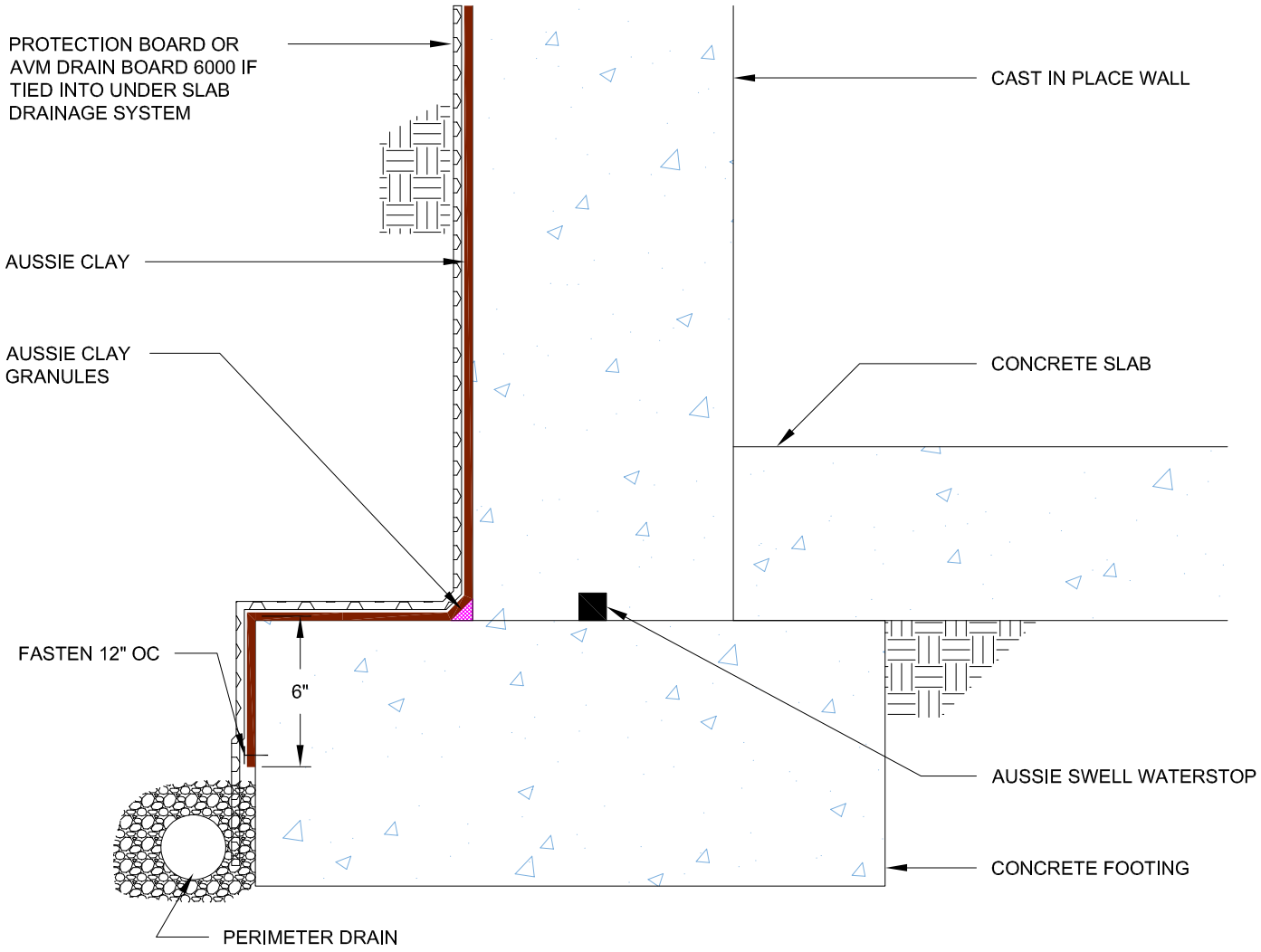
FILE NAME: 0590-0102A

DETAIL #:
0590-0102B
AVM System 590
Aussie Clay

Backfilled Wall - Option 2
Non-Hydrostatic

AVM INDUSTRIES INC



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FILE NAME: 0590-0102B

DETAIL #:
0590-0103
AVM System 590
Aussie Clay

Backfilled Wall - Option 3
Non-Hydrostatic

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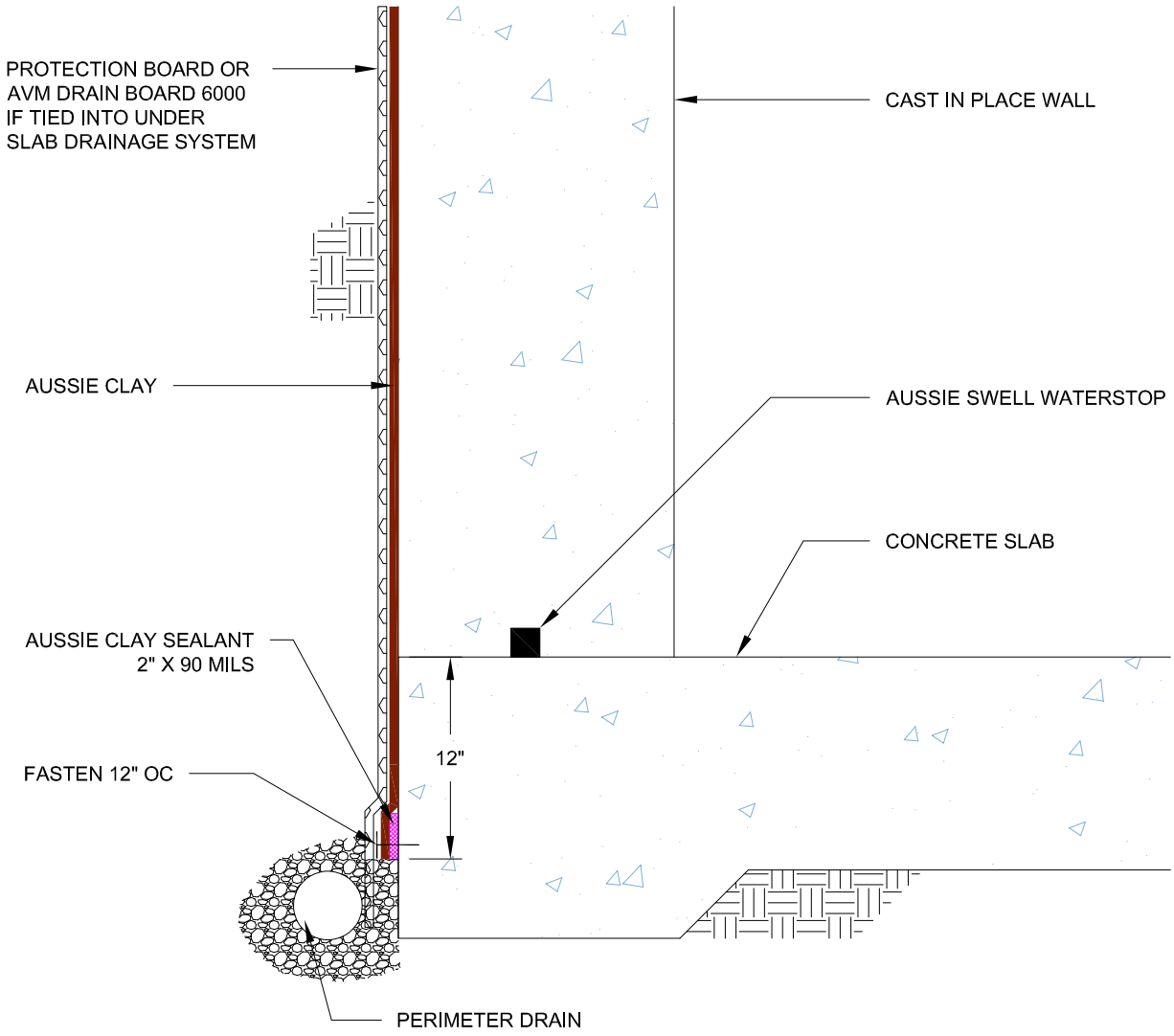

Notes:

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4. Overlap sheet edges 4" and stagger seams min 12"

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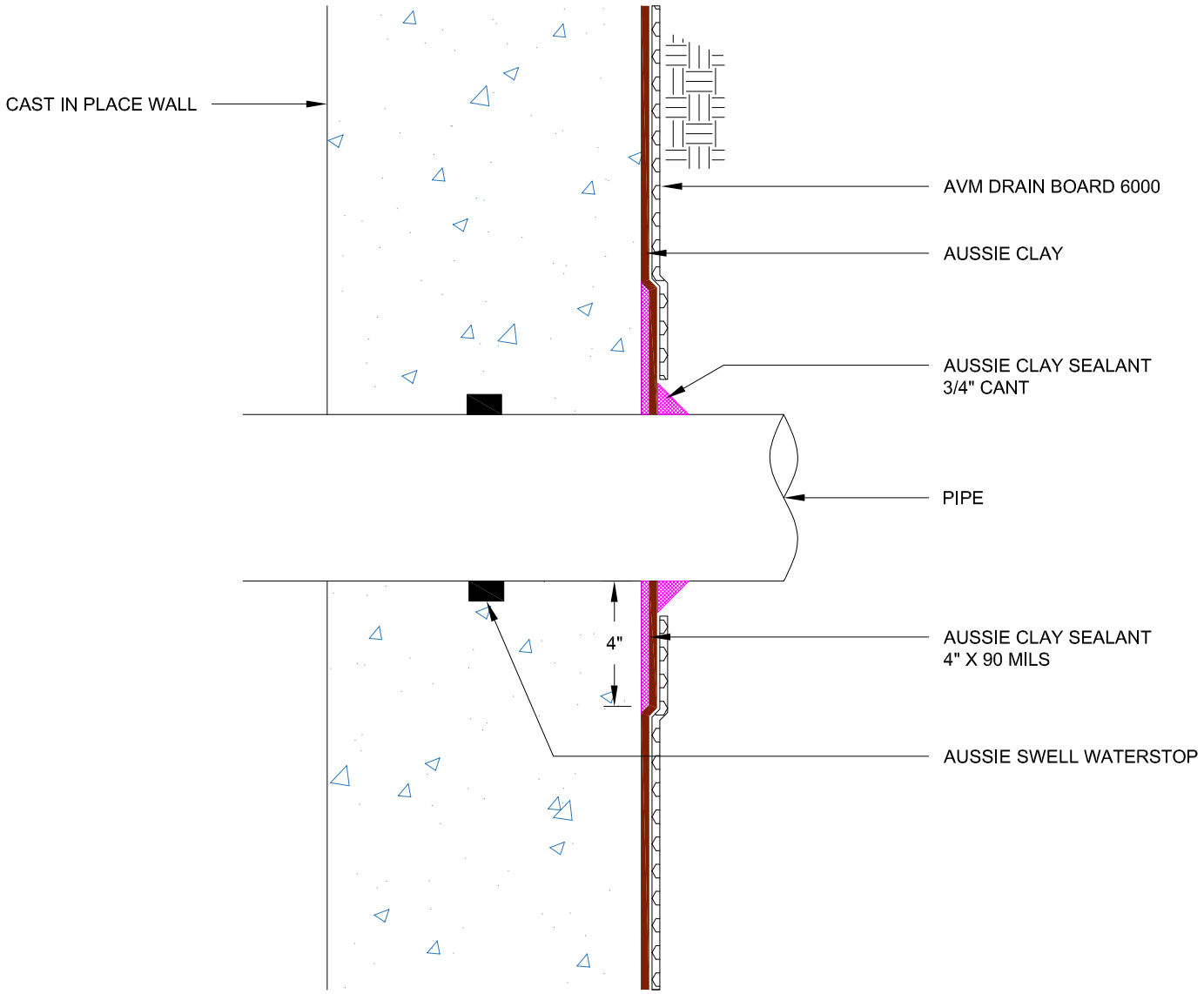
FILE NAME: 0590-0103

DETAIL #:
0590-0205
AVM System 590
Aussie Clay

Pipe Penetration Backfilled Wall
Non-Hydrostatic

AVM INDUSTRIES INC



Notes:

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2. Install Aussie Clay with gray geotextile against concrete. Install Aussie Clay PL with poly liner facing installer
3. Overlap sheet edges 4" and stagger seams min 12"
4. All gaps around penetrations must be filled with solid material (grout or expanding spray foam)

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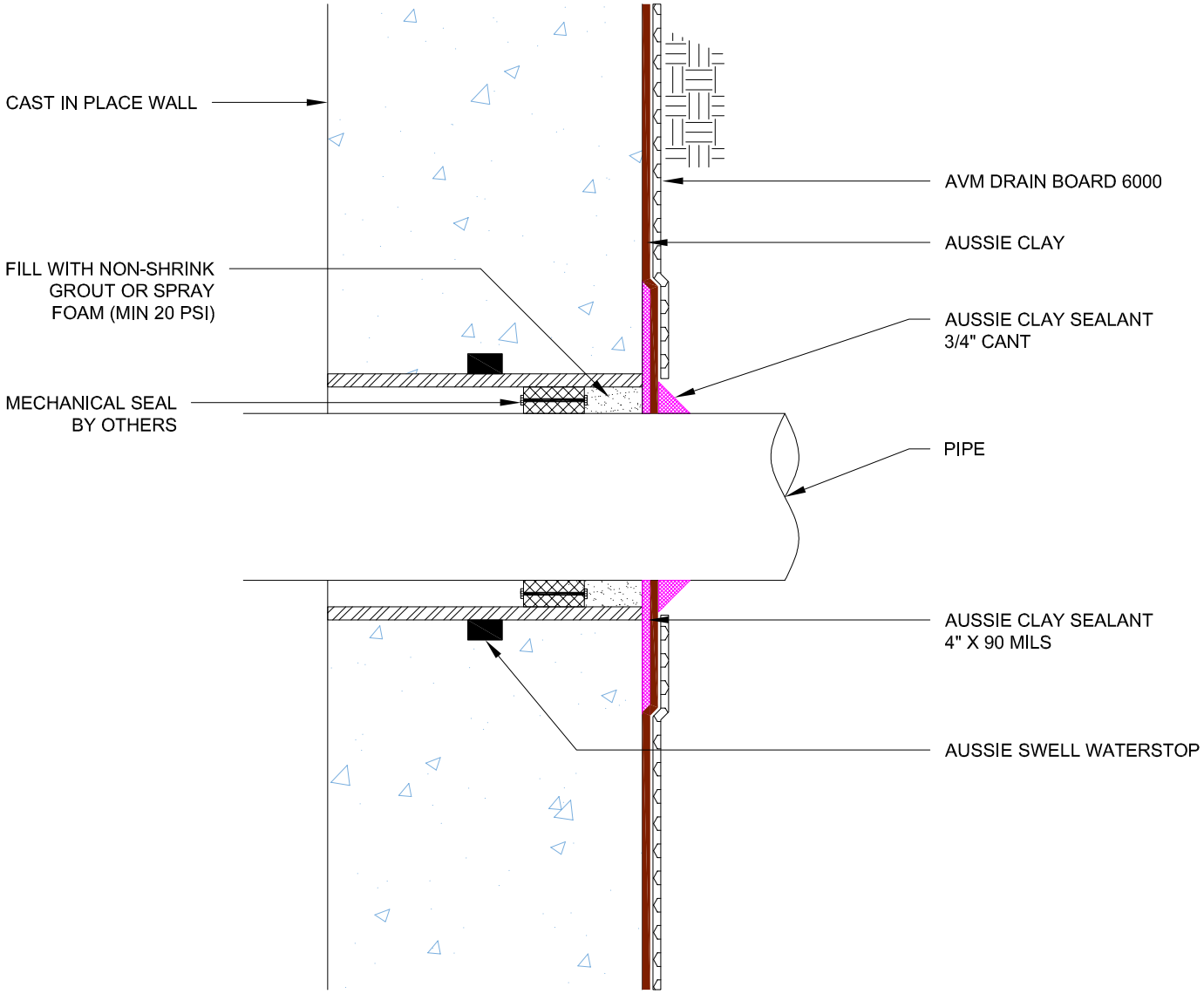
FILE NAME: 0590-0205

DETAIL #:
0590-0207
AVM System 590
Aussie Clay

Sleeved Pipe Penetration Backfilled Wall
Non-Hydrostatic

AVM INDUSTRIES INC



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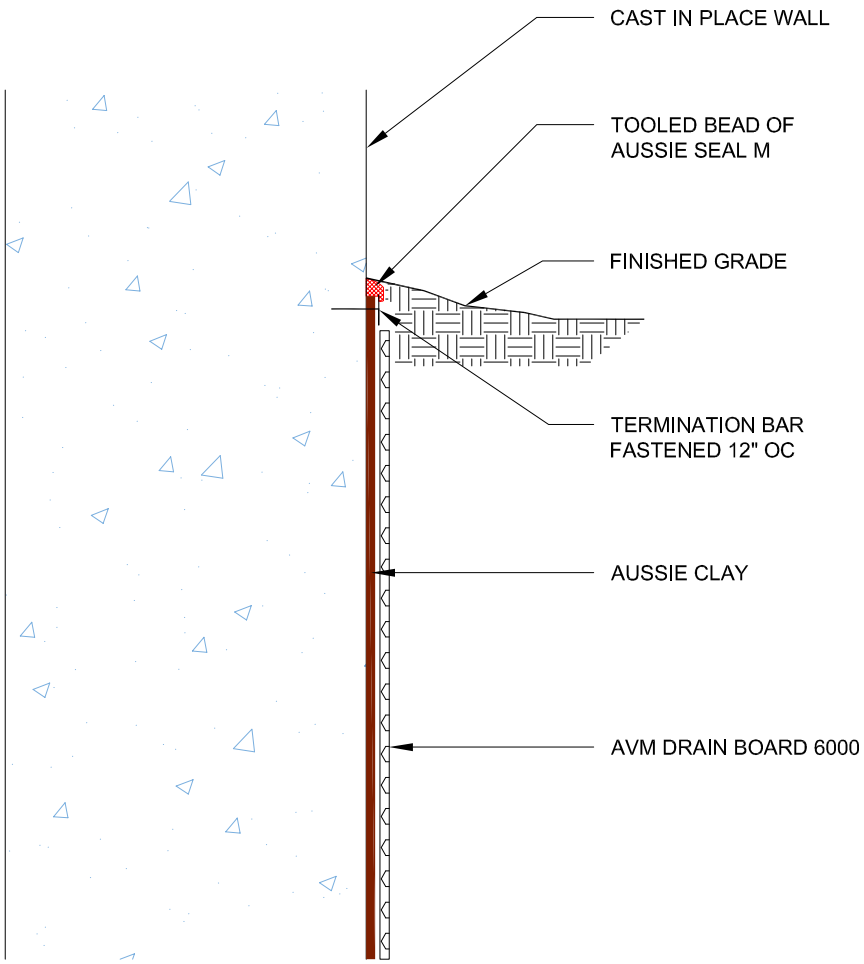
FILE NAME: 0590-0207

DETAIL #:
0590-0302
AVM System 590
Aussie Clay

Grade Termination Backfilled Wall
Option 1
Non-Hydrostatic

AVM INDUSTRIES INC



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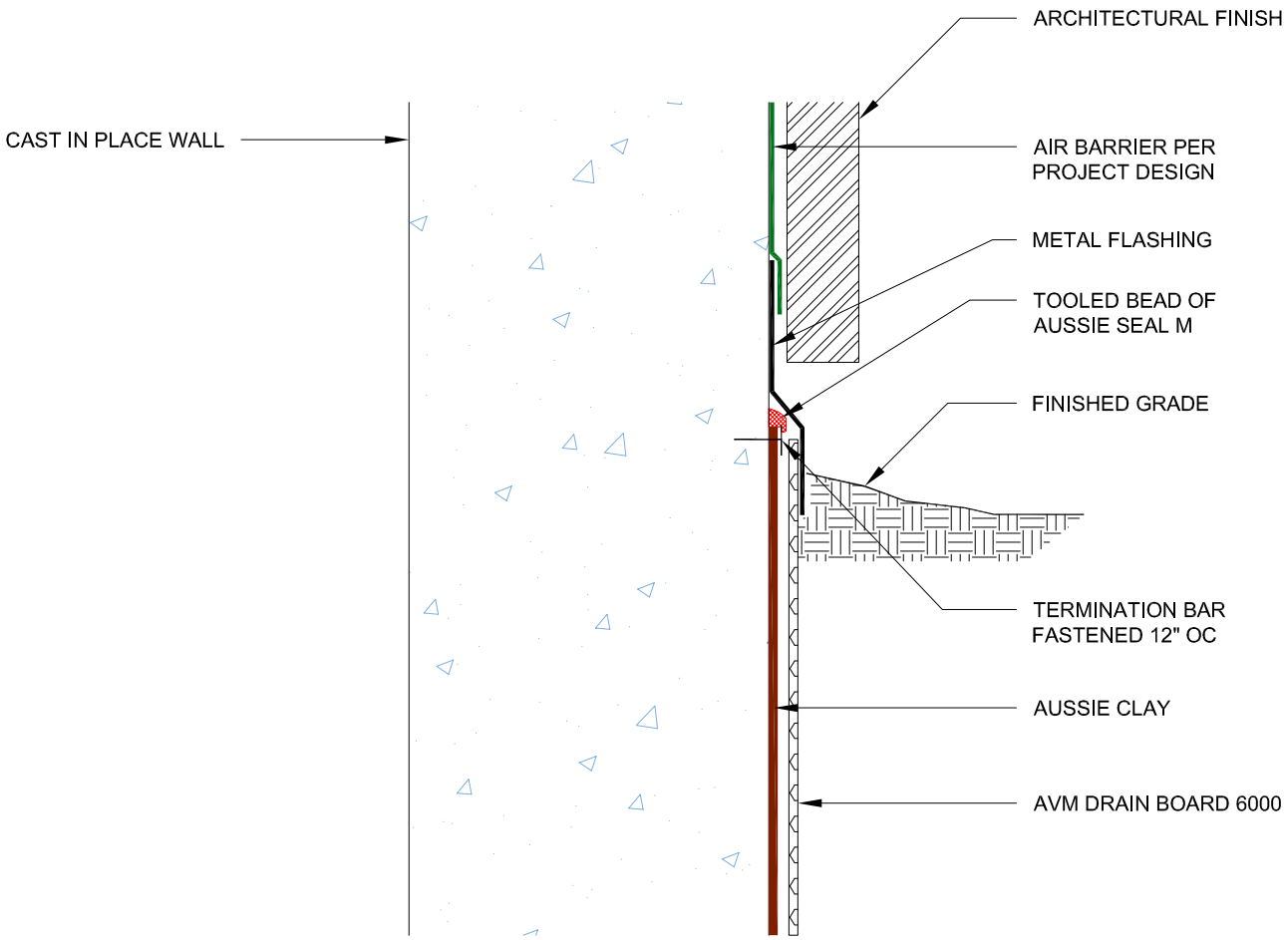
FILE NAME: 0590-0302

DETAIL #:
0590-0304
AVM System 590
Aussie Clay

Grade Termination Backfilled Wall
Option 2
Non-Hydrostatic

AVM INDUSTRIES INC



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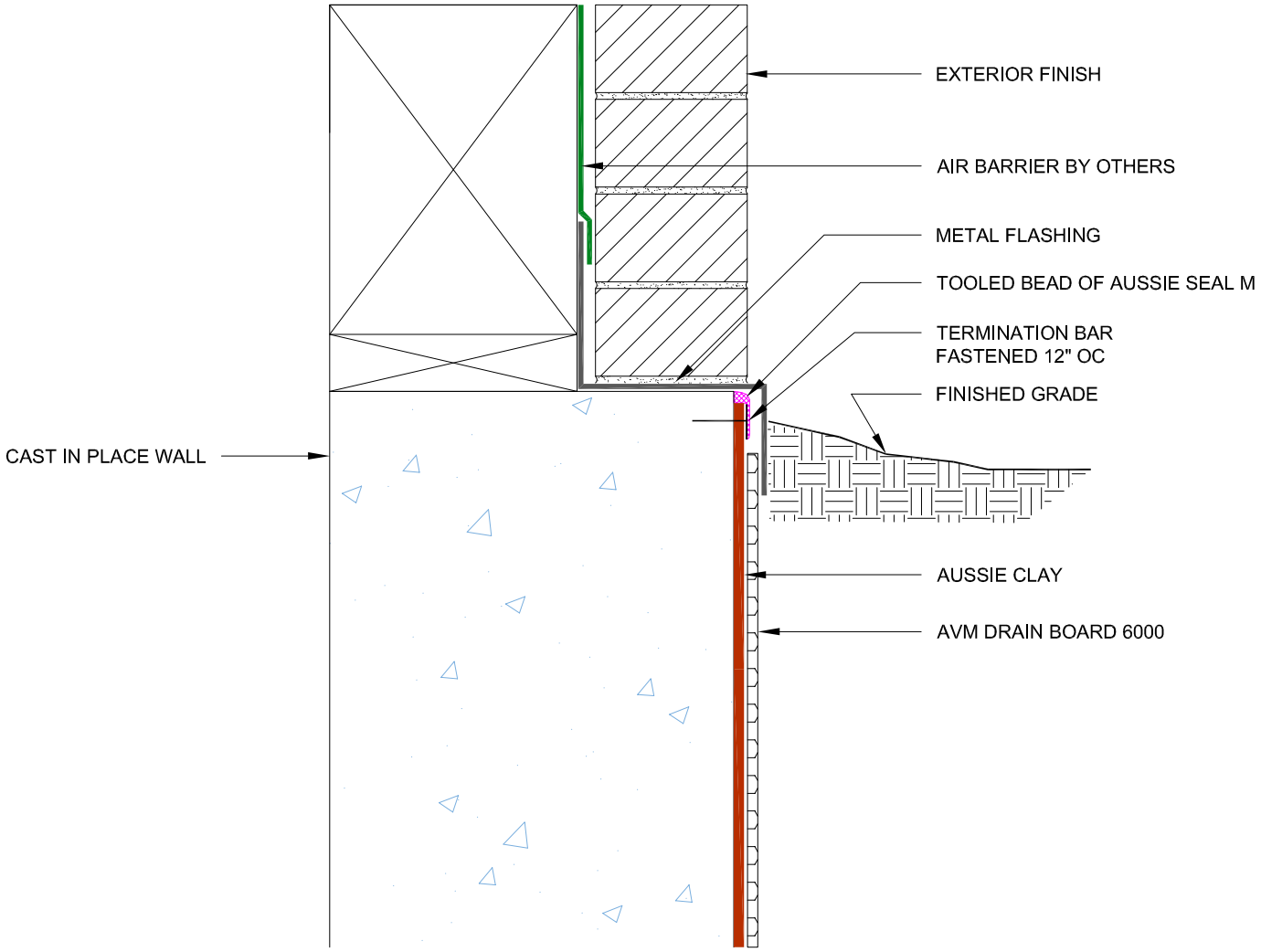
FILE NAME: 0590-0302

DETAIL #:
0590-0306
AVM System 590
Aussie Clay

Grade Termination Backfilled Wall
Brick Ledge - Option 1
Non-Hydrostatic

AVM INDUSTRIES INC



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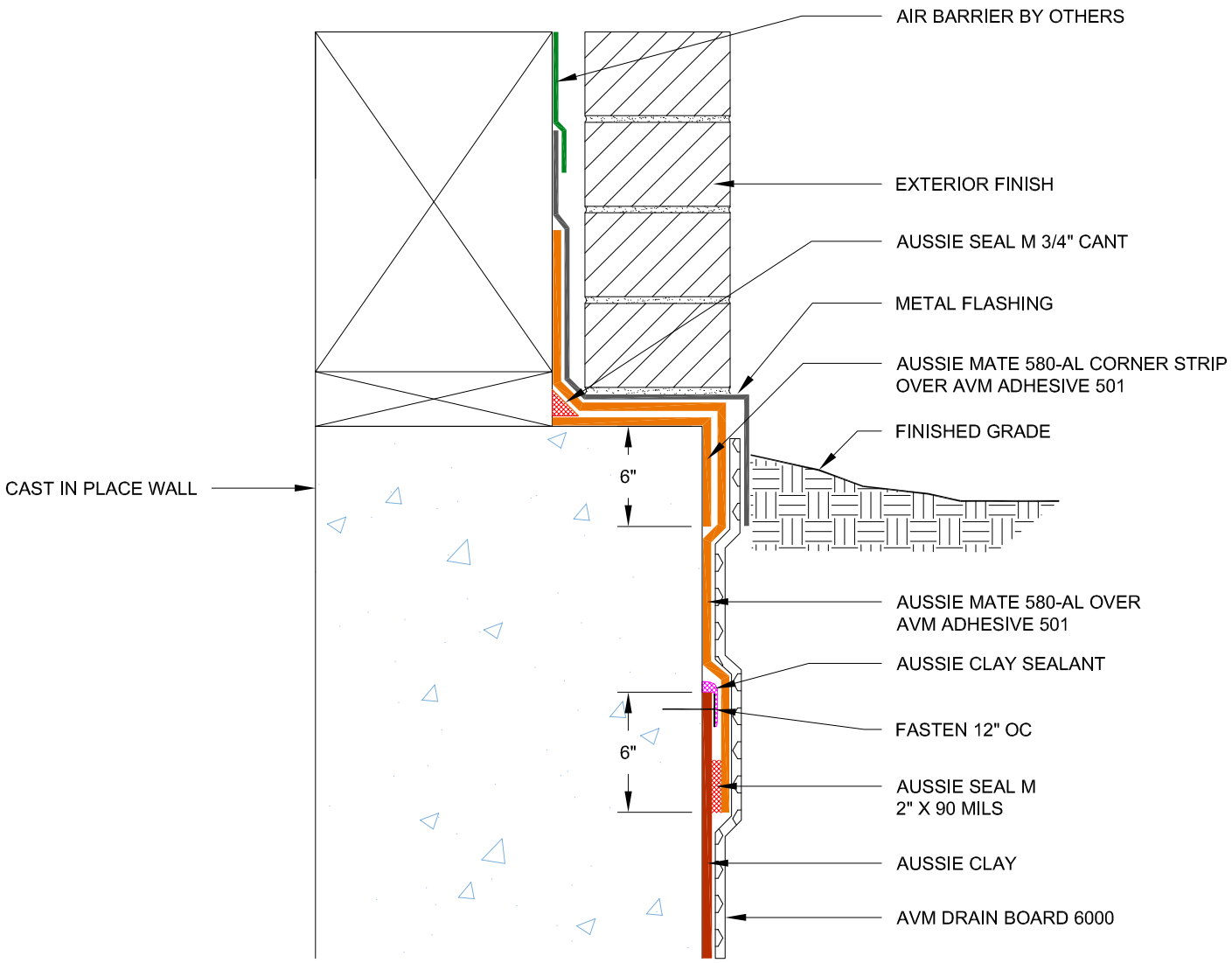
FILE NAME: 0590-0306

DETAIL #:
0590-0308
AVM System 590
Aussie Clay

Grade Termination Backfilled Wall
Brick Ledge - Option 2
Non-Hydrostatic

AVM INDUSTRIES INC



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FILE NAME: 0590-0308