

THE LAW OFFICE OF KORY SALOMONE, P.C.

118 NORTH BEDFORD ROAD, SUITE 100  
MOUNT KISCO, NEW YORK 10549  
Tel: (914) 219-0789  
Fax: (914) 709-4605  
ks@ksalomonelaw.com

December 14, 2020

Christopher Carthy, Chairman  
North Castle Planning Board  
17 Bedford Road  
Armonk, NY 10504

**Re: Lot Line Realignment  
8 Cole Drive and 24 Davis Drive  
Section 94.02, Bock 1, Lots 8 and 9**

Honorable Chairman and Members of the Planning Board:

As you know, this firm represents Nazar Massouh and Pudding Pie II LLC, the owners of the properties located at 8 Cole Drive and 24 Davis Drive, with respect to a proposed lot line realignment and driveway relocation. We have made several appearances before your Board, most recently at a joint work session with the Conservation Board on November 23, 2020.

During the November 23<sup>rd</sup> meeting, your Board and the Conservation Board requested additional information regarding the Geofoam blocks as well as a description and visual representation of what the re-located driveway and mitigation will look like.

Based on those discussions, we are pleased to submit herewith a narrative provided by IQ Landscape Architects, P.C., which generally describes existing conditions and the planned mitigation measures to be undertaken. We anticipate presenting a 3D visualization of the proposed relocated driveway and plantings to your Board on January 11, 2021.

With respect to the geofoam blocks, enclosed herewith please find the following information:

1. International Code Council-ES Evaluation Report;
2. Foam-Control Geofoam-Installation Guidelines; and
3. Foam-Control Geofoam – GeoGripper Plate.

We look forward to continuing our discussion of this project with your Board at its January 11<sup>th</sup> meeting. If you have any questions or concerns, please do not hesitate to contact me.

Very truly yours,

A handwritten signature in black ink, appearing to read "Kory Salomone", with a long, sweeping horizontal line extending to the right.

Kory Salomone



December 14,2020

Christopher Carthy, Chairman  
North Castle Planning Board  
17 Bedford Road  
Armonk, NY 10504

**Re: Existing Conditions and Proposed Mitigation Measures**  
**8 Cole Drive, Armonk NY 10504**

---

The existing site is an irregularly shaped property fronting on the northeast corner intersection of Cole Drive and Davis Drive. The existing topography is bedrock controlled terrain, with narrow valleys and rounded ridges with bedrock. The land slopes down in all directions from a high point in the central portion of the site. Non-Wetland woodlands cover much of the site which consists of a tall and shady canopy of Oak, Hemlock, Black Birch and Maple. The woodland understory vegetation is generally open and sparse due to the high shading tree canopy and over browsing from the whitetail deer population. There is presence of several invasive species including Multiflora rose, Barberry and Winged Euonymus, that are not browsed by deer and overtime will continue to thrive and dominate the understory.

*Imbiano • Quigley  
Landscape Architects, P.C.*

31 Mamaroneck Ave.  
White Plains, New York 10601  
p: 914-232-0200  
f: 914-232-0232

*www.iqlandarch.com*

The proposed driveway alignment will require some regrading measures and proposes some filling and cutting to meet the allowable driveway gradients standards. The proposed woodland restoration will incorporate a native deer tolerant planting palette of trees, shrubs and ground covers. All of the proposed side slopes of the proposed drive (which will not exceed 2:1) will be stabilized with a biodegradable jute mesh matting and seeded with a northeastern native slope stabilization seed mix. This will assure rapid germination eliminating any possibility of any soil erosion. The proposed side slope native plantings will be integrated with large on-site boulders to create a landscape that mirrors the surrounding rock outcropping landscape character. The slopes will have adequate topsoil depths to provide ideal planting conditions for the proposed plan. The overall planting mitigation measures will address native plant diversity which presently does not exist. The plantings will provide habitat for wildlife and once implemented will be a major improvement to what presently exists.

IQ LANDSCAPE ARCHITECTS, P.C.

A handwritten signature in black ink, appearing to read 'Richard P. Quigley', with a long horizontal line extending to the right.

By: Richard P. Quigley, ASLA  
Principal

**DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION**

**Section: 07 21 00—Thermal Insulation**

**Section: 07 22 00—Roof and Deck Insulation**

**REPORT HOLDER:**

AFM CORPORATION

**EVALUATION SUBJECT:**

**FOAM-CONTROL® BOARDS, FOAM-CONTROL® WITH PERFORM GUARD® BOARDS, FOAM-CONTROL® WITH PERFORM GUARD<sup>2</sup> BOARDS AND FOAM-CONTROL GEOFOAM BLOCKS**

**ADDITIONAL LISTEES:**

ATLAS MOLDED PRODUCTS, A DIVISION OF ATLAS ROOFING CORPORATION

BIG SKY INSULATIONS, INC.

BRANCH RIVER PLASTICS, INC.

HENRY PRODUCTS, INC.

PACIFIC ALLIED PRODUCTS, LTD.

POLIESTIRENO ALFA-GAMMA S.A. de C.V.

POWERFOAM LLC

THERMA FOAM, INC.

**1.0 EVALUATION SCOPE**

**Compliance with the following codes:**

- 2018, 2015 and 2012 *International Building Code*® (IBC)
- 2018, 2015 and 2012 *International Residential Code*® (IRC)
- 2018, 2015 and 2012 *International Energy Conservation Code*® (IECC)

For evaluation for compliance with codes adopted by Los Angeles Department of Building and Safety (LADBS), see [ESR-1006 LABC and LARC Supplement](#).

**Properties evaluated:**

Foam-Control Boards:

- Surface-burning characteristics
- Physical properties/thermal resistance (R-values)
- Attic and crawl space installation
- Fire resistance (D2D Foam-Control®)

Foam-Control with Perform Guard Boards and Foam-Control with Perform Guard<sup>2</sup> Boards:

- Surface-burning characteristics
- Physical properties/thermal resistance (R-values)
- Termite resistance

Foam-Control Geofoam Blocks:

- Surface-burning characteristics
- Physical properties/compressive resistance

**2.0 USES**

**2.1 Foam-Control Boards:**

Foam-Control boards are used as nonstructural insulation in wall cavities, door cavities, ceiling and floor assemblies, and roof covering assemblies, or on the outside faces of exterior walls. The insulation b walls in attics and crawl spaces without a covering when installation is in accordance with Section 4.2.2.

The insulation boards may be used as the core of sandwich panels when specifically recognized in a current evaluation report.

The insulation boards may be used as exterior perimeter insulation around concrete slab edges, on foundation walls, or under flat concrete slab on grade construction, except in areas where the probability of termite exposure is “very heavy” as defined in 2018 and 2015 IBC Section 2603.8, 2012 IBC Section 2603.9 and IRC Section R318.4.

The insulation boards may be used as components of Class A, B, and C roof covering systems installed on steel decks, when installation is in accordance with Section 4.4. The insulation boards may be used as a roof insulation when recognized in an ICC-ES evaluation report on the roof covering system.

**2.2 Foam-Control WSG Boards:**

Foam-Control WSG boards may be used as a component of a wall covering system when recognized in an ICC-ES report.

**2.3 Foam-Control D2D Boards:**

Foam-Control D2D boards may be used as components of a Class A, B, or C roof covering system installed directly to

steel decks, when installation is in accordance with Section 4.4 of this report.

#### 2.4 Foam-Control with Perform Guard Boards:

Foam-Control with Perform Guard boards is used as nonstructural insulation. The boards are recognized for installation below grade in areas subject to termites in accordance with Section 4.5 of this report. When installation is in areas where the probability of termite infestation is “very heavy” as described in 2018 and 2015 IBC Section 2603.8 (2012 IBC Section 2603.9), or IRC Section R316.7, use is limited to areas exposed to the *Reticulitermes* species.

The insulation boards may be used in wall cavities or on the outside faces of exterior walls. The insulation boards may be used as exterior perimeter insulation around concrete slab edges, on foundation walls, or under concrete slab on grade construction.

#### 2.5 Foam-Control with Perform Guard<sup>2</sup> Boards:

Foam-Control with Perform Guard<sup>2</sup> boards is used as nonstructural insulation. The boards are recognized for installation below grade in areas subject to termites in accordance with Section 4.6 of this report.

The insulation boards may be used in wall cavities or on the outside faces of exterior walls. The insulation boards may be used as exterior perimeter insulation around concrete slab edges, on foundation walls, or under concrete slab on grade construction.

#### 2.6 Foam-Control Geof foam Blocks:

Foam-Control Geof foam blocks are used as lightweight structural fill in floor cavities when installation is in accordance with Section 4.7 of this report.

### 3.0 DESCRIPTION

#### 3.1 General:

The Foam-Control EPS products described in Sections 3.2 through 3.7 are molded, closed-cell expanded polystyrene (EPS). The insulation boards described in Sections 3.2 through 3.6 comply with ASTM C578. The geof foam blocks described in Section 3.7 comply with ASTM D6817. All insulation boards and geof foam blocks have a flame-spread index not exceeding 25 and a smoke-developed index not exceeding 450 when tested at a thickness of 6 inches (152 mm) in accordance with ASTM E84, and have thermal resistance values noted in Table 1. The maximum thicknesses and requirements for installation of a thermal barrier for the specific insulation types are described in the applicable sections of Section 4.0.

#### 3.2 Foam-Control Boards:

Foam-Control 100, 130, 150, 250, 400, and 600 boards are manufactured at minimum densities of 0.90, 1.15, 1.35, 1.80, 2.40 and 3.00 pcf (14.4, 18.4, 21.6, 28.8, 38.4 and 48.0 kg/m<sup>3</sup>) and comply with ASTM C578 Type I, Type VIII, Type II, Type IX, Type XIV and Type XV, respectively.

#### 3.3 Foam-Control WSG Boards:

Foam-Control WSG boards are manufactured at a minimum density of 0.90 pcf (14.4 kg/m<sup>3</sup>) and comply with ASTM C578 Type I and ASTM E2430.

#### 3.4 Foam-Control EPS D2D Boards (Types I, VIII, II, IX, XIV and XV):

Foam-Control 100, 130, 150, 250, 400, and 600 D2D boards are manufactured at minimum densities of 0.90, 1.15, 1.35, 1.80, 2.40 and 3.00 pcf (14.4, 18.4, 21.6, 28.8, 38.4 and 48.0 kg/m<sup>3</sup>), and comply with ASTM C578 Type I, Type VIII, Type II, Type IX, Type XIV and Type XV, respectively.

#### 3.5 Foam-Control with Perform Guard Boards:

Foam-Control 100, 130, 150, 250, 400, and 600 with Perform Guard boards are factory-treated for termite resistance. The boards are manufactured at minimum densities of 0.90, 1.15, 1.35, 1.80, 2.40 and 3.00 pcf (14.4, 18.4, 21.6, 28.8, 38.4 and 48.0 kg/m<sup>3</sup>), and comply with ASTM C578 Type I, Type VIII, Type II, Type IX, Type XIV and Type XV, respectively.

#### 3.6 Foam-Control with Perform Guard<sup>2</sup> Boards:

Foam-Control 100, 130, 150, 250, 400, and 600 with Perform Guard<sup>2</sup> boards are factory-treated for termite resistance. The boards are manufactured at minimum densities of 0.90, 1.15, 1.35, 1.80, 2.40 and 3.00 pcf (14.4, 18.4, 21.6, 28.8, 38.4 and 48.0 kg/m<sup>3</sup>), and comply with ASTM C578 Type I, Type VIII, Type II, Type IX, Type XIV and Type XV, respectively.

#### 3.7 Foam-Control Geof foam Blocks:

Foam-Control EPS15, EPS19, EPS22, EPS29, EPS39, and EPS46 Geof foam blocks are manufactured at minimum densities of 0.90, 1.15, 1.35, 1.80, 2.40 and 2.85 pcf (14.4, 18.4, 21.6, 28.8, 38.4 and 45.7 kg/m<sup>3</sup>), and comply with ASTM D6817 Type EPS15, EPS19, EPS22, EPS29, EPS39 and EPS46, respectively.

### 4.0 INSTALLATION

#### 4.1 General:

Foam-Control boards, Foam-Control with Perform Guard boards, Foam-Control with Perform Guard<sup>2</sup> boards and Foam-Control Geof foam blocks are installed in accordance with the manufacturer's published installation instructions and this evaluation report. The manufacturer's published installation instructions and this report must be strictly adhered to, and a copy of the instructions must be available at all times on the jobsite during installation.

#### 4.2 Foam-Control Boards:

**4.2.1 General:** Foam-Control boards must be attached to supports in a manner that will hold the insulation securely in place. The insulation boards must not be used structurally to resist transverse, vertical or in-plane loads except when this is specifically recognized in a separate evaluation report. The boards must not be used as exterior stud wall bracing. Wall bracing must be provided in accordance with 2018 and 2015 IBC Section 2308.6 (2012 IBC Sections 2308.9.3 and 2308.12.4 or IRC Section R602.10).

The insulation boards must not be used as a nailing base for exterior finish materials. Fasteners used to attach exterior finish material over insulation boards must comply with a current ICC-ES evaluation report for proprietary wall covering materials, IBC Section 1404 or 1405, IRC Table 703.4, and the installation instructions from the finish manufacturer. For cementitious exterior wall coating applications, fasteners for insulation board thicker than 1½ inches (38 mm) must be considered for lateral resistance to ensure support for the exterior wall coatings. Finish materials over the insulation boards must be structurally adequate to resist the required horizontal forces perpendicular to the wall.

The interior of the building must be separated from the insulation boards with a thermal barrier as required by IBC Section 2603.4 or IRC Section R316.4, except when installation is in accordance with Section 4.2.2 of this report.

In areas where the probability of termite infestation is defined as “very heavy” and when foam plastic insulation is used with wood construction, the foam plastic must be installed in accordance with 2018 and 2015 IBC Section 2603.8 (2012 IBC Section 2603.9) or IRC Section R316.7.

Areas of very heavy termite infestation must be determined in accordance with 2018 and 2015 IBC Figure 2603.8 (2012 IBC Figure 2603.9) and 2018 IRC Figure R301.2 (7) (2015 and 2012 IRC Figure R301.2 (6)), as applicable.

Insulation boards for use as roof insulation must be installed in accordance with Section 4.4 or as recognized in an ICC-ES evaluation report on a roof covering system.

The insulation board may be used as the core material for doors that do not require a fire-resistance rating, when installed in accordance with IBC Sections 2603.4.1.7, 2603.4.1.8, and 2603.4.1.9 or IRC Sections R316.5.5 and R316.5.6.

#### 4.2.2 Special Use—Attics and Crawl Spaces:

When Foam-Control 100, Foam-Control 130, Foam-Control 150 and Foam-Control 250 boards, with a maximum nominal thickness of 2 inches (50.8 mm), are installed with mechanical fasteners on vertical walls and the underside of the surface above in attics and crawl spaces, the prescriptive ignition barrier required by IBC Section 2603.4.1.6 and IRC Sections R316.5.3 and R316.5.4 may be omitted, where the following conditions apply:

1. Attic ventilation is provided in accordance with 2018 IBC Section 1202.2 (2015 and 2012 IBC Section 1203.2) or IRC Section R806, as applicable, except unvented attic assemblies are permitted under the conditions prescribed in 2018, 2015 and 2012 IRC Section R806.5.
2. Under-floor (crawl space) ventilation is provided when required by 2018 IBC Section 1202.4, 2015 IBC Section 1203.4, 2012 IBC Section 1203.3 or IRC Section R408.1, as applicable, except unvented crawl spaces are permitted under the conditions prescribed in 2018, 2015 and 2012 IRC Section R408.3.
3. Combustion air is provided in accordance with Section 701 of the *International Mechanical Code*® (IMC).

#### 4.3 Foam-Control Boards (Type I-WSG):

Foam-Control WSG boards must be installed as part of an exterior cementitious wall covering, an EIFS system or other proprietary wall system, when installation is in accordance with an ICC-ES evaluation report on the wall covering system

#### 4.4 Foam-Control D2D Boards:

**4.4.1 Application Directly to Steel Roof Decks without a Thermal Barrier:** Foam-Control D2D roof insulation may be used as a component of a Class A, B, or C roof covering installed on steel decks without a thermal barrier, when installation is in accordance with Sections 4.4.2, 4.4.3 and 4.4.4.

#### 4.4.2 Materials:

**4.4.2.1 Steel Deck:** Steel roof decking must be minimum No. 22 MSG [0.030 inch (0.76 mm)], 1<sup>1</sup>/<sub>2</sub>-inch-deep (38 mm), unperforated, painted or galvanized steel decking, with flutes spaced a maximum of 6 inches (152 mm) on center. The deck must be welded or mechanically fastened to structural supports in accordance with the applicable code.

**4.4.2.2 Foam Plastic Insulation:** The Foam-Control D2D insulation boards may have a maximum thickness as follows: up to 9.0 inches (229 mm) for Foam-Control 100, 7.2 inches (183 mm) for Foam-Control 130, 6.0 inches (152 mm) for Foam-Control 150, and 4.5 inches (114 mm) for Foam-Control 250, 3.6 inches (91 mm) for Foam-Control 400 and 3.0 inches (76 mm) for Foam-Control 600.

**4.4.2.3 Cover Board:** When used, the cover board in the roof covering assembly is 1/4-inch-thick (6.4 mm) Dens-Deck® Roof Board, manufactured by Georgia-Pacific Corporation, or 1/2-inch-thick (12.7 mm) wood-fiber board complying with ASTM C208.

**4.4.2.4 Roof Covering:** The roof covering membrane must be a mechanically attached, fully adhered or ballasted EPDM or thermoplastic membrane listed in an ICC-ES evaluation report as part of a Class A, B, or C roof covering assembly. Thermoplastic membranes include polyvinyl chloride (PVC), modified PVC, chlorosulphonated polyethylene (CSPE), and thermoplastic polyolefin (TPO). The membrane is limited to a maximum nominal thickness of 0.045 inch (1.1 mm). The evaluation report on the roof covering assembly must specify one of the following assemblies as the only components of the classified roof covering assembly permitted under the conditions of this report:

- a. A generic EPS insulation board having the same density and installed thickness as the Foam-Control roof insulation listed in Table 1 of this report, the cover board described in Section 4.4.2.3, and the roof covering membrane described in this section (Section 4.4.2.4), installed over a steel deck as described in Section 4.4.2.1.
- b. A generic EPS insulation board having the same density and installed thickness as the Foam-Control roof insulation listed in this report, the roof covering membrane described in this section (Section 4.4.2.4), and stone ballast, installed over a steel deck as described in Section 4.4.3 of this report.

**4.4.3 Installation:** The Foam-Control roof insulation boards are loosely laid directly over the steel deck in single or multiple layers, to a maximum total thickness and density as noted in Section 4.4.2.2. The top layer of insulation must be placed so that the labeling required in Section 7.0 is facing up. Tapered EPS foam boards may be installed, provided the maximum allowable thickness is not exceeded. The cover board described in Section 4.4.2.3, when required, is laid over the insulation.

The method of attaching the roof covering, cover boards, and insulation boards to the steel roof deck must be in accordance with the ICC-ES evaluation report on the roof covering membrane, and as described in Section 4.4.2.4 of this report.

**4.4.4 Reroofing:** New roofing must not be applied over existing roof covering assemblies. Additional EPS foam insulation may be added over the existing EPS foam insulation, provided inspection in accordance with 2018 and 2015 IBC Section 1511 (2012 IBC Section 1510) or 2018 and 2015 IRC Section R908 (2012 IRC Section R907) indicates the existing EPS is sound material, the density of the EPS being added is equal to the density of the existing EPS, the existing EPS meets the requirements of this report, and the total thickness of the existing EPS plus the new EPS being added conforms to Section 4.4.2.2. The existing roof covering and, if necessary, the cover board must be removed before new roofing materials, having characteristics specifically described in this report, can be installed.

#### 4.5 Foam-Control with Perform Guard Boards:

Foam-Control with Perform Guard boards is installed as specified in Section 4.2.1 of this report, except that use is not restricted in areas where the probability of termite infestation is defined as "very heavy" under 2018 and 2015 IBC Section 2603.8 (2012 IBC Section 2603.9) or IRC Section R316.7.

#### 4.6 Foam-Control with Perform Guard<sup>2</sup> Boards:

Foam-Control with Perform Guard<sup>2</sup> is installed as specified in Section 4.2.1 of this report, except that use is not restricted in areas where the probability of termite infestation is defined as “very heavy” under 2018 and 2015 IBC Section 2603.8 (2012 IBC Section 2603.9) or IRC Section R316.7.

#### 4.7 Foam-Control Geofoam Blocks:

Foam-Control Geofoam blocks must be in accordance with the manufacturer’s installation instructions and as noted in Section 5.8. The insulation blocks must not be used structurally to resist loads except as provided for in Section 5.8.2 and 5.8.3.

The interior of the building must be separated from the geofoam blocks with a thermal barrier as required by IBC Section 2603.4, except when installation is in accordance with Section 5.8.1.

### 5.0 CONDITIONS OF USE

The Foam-Control boards, Foam-Control with Perform Guard boards, Foam-Control with Perform Guard<sup>2</sup> boards and Foam-Control Geofoam blocks described in this report comply with, or are suitable alternatives to what is specified in, those codes listed in Section 1.0 of this report, subject to the following conditions:

- 5.1 The insulation boards must be produced, identified, and installed in accordance with the manufacturer’s published installation instructions. If there is a conflict between this report and the manufacturer’s instructions, this report governs.
- 5.2 The insulation boards must be separated from the building interior with a thermal barrier complying with the applicable code, such as 1/2-inch (12.7 mm) gypsum wallboard installed in accordance with the applicable code, except as described in Sections 4.2.2, 4.4 and 4.7 of this report.
- 5.3 Exterior walls must be protected by a water-resistive barrier complying with IBC Section 1404.2 or IRC Section R703.2, and by wall coverings that provide the necessary structural resistance to wind and seismic forces in spanning between wall framing members.
- 5.4 In areas where the probability of termite infestation is defined as “very heavy”, the foam plastic must be installed in accordance with 2018 and 2015 IBC Section 2603.8 (2012 IBC Section 2603.9) or IRC Section R316.7, except as permitted for Foam-Control Perform Guard EPS in Section 4.5 or for Foam-Control Perform Guard EPS<sup>2</sup> in Section 4.6.
- 5.5 Walls on which the boards are applied must be braced in accordance with the applicable code.
- 5.6 When Foam-Control D2D insulation boards are installed directly to a steel roof deck without a thermal barrier for structures regulated under the IBC, the following conditions apply:
  - 5.6.1 The insulation boards must be part of a Class A, B, or C roof covering system as described in Section 4.4 of this report. The insulation boards may be installed without a thermal barrier as addressed in IBC Section 2603.4.1.5.
  - 5.6.2 Reroofing must be in accordance with Section 4.4.4.
  - 5.6.3 Permanent placards bearing the following words are attached to roof hatches and where other roof access is located: “This roof covering includes foam plastic insulation applied directly to a steel deck. The existing roofing membrane, slip sheets, and cover boards must be removed before reroofing. Limits

also exist for cover boards and membranes. See ICC-ES evaluation report ESR-1006 before reroofing.”

- 5.7 Maximum thickness is as noted in Section 3.1 of this report, except where noted otherwise in Section 4.0.
  - 5.8 When geofoam blocks are installed, the following conditions of use apply:
    - 5.8.1 The geofoam blocks must be separated from the building interior with a minimum 1-inch-thick (25.4 mm) layer of concrete or masonry on all faces as required by IBC Section 2603.4.1.1, except in buildings of Type V construction where separation may be by a minimum nominally 1/2-inch-thick wood structural panel when installation is in accordance with IBC Section 2603.4.1.14. Where the thermal barrier consists of a minimum 1-inch-thick (25.4 mm) layer of concrete or masonry, the thickness of the geofoam blocks in the floor assembly may exceed 4 inches (102 mm). The design of the concrete or masonry covering is outside the scope of this report and must comply with all applicable code requirements for the occupancy and type of construction for the specific project
    - 5.8.2 The design loads to be resisted by the geofoam blocks must be determined in accordance with the IBC. The compressive resistance of the geofoam blocks at 1 percent strain is listed in Table 2 as determined in accordance with ASTM D6817. The use of the geofoam blocks is limited to floor applications where the uniform and localized loading does not exceed the compressive resistance of the geofoam blocks at 1 percent strain.
    - 5.8.3 Design calculations and details for the specific applications, verifying compliance with this report and applicable codes, must be furnished to the code official. The documents must be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed.
    - 5.8.4 Use of the geofoam blocks is limited to applications where the geofoam will not be subject to direct exposure to hydrocarbons.
    - 5.8.5 Penetrations through the thermal barrier described in Section 5.8.1 shall be subject to approval by the code official. When the geofoam blocks are used in a fire-resistance-rated floor assembly, penetrations through the assembly must be protected in accordance with 2018 IBC Section 714.5 or 2015 and 2012 IBC Section 714.4. If used, through-penetration firestop systems must be tested in accordance with ASTM E814 or UL 1479, as required by 2018 IBC Section 714.5.1.2, 2015 IBC Section 714.4.1.2 or 2012 IBC Section 714.4.1.1.2
  - 5.9 The products are manufactured by the listees at the locations specified in Table 3 under a quality-control program with inspections by ICC-ES.
- ### 6.0 EVIDENCE SUBMITTED
- #### 6.1 Foam-Control Boards:
- 6.1.1 Data in accordance with the ICC-ES Acceptance Criteria for Foam Plastic Insulation (AC12), dated June 2015 (Editorially revised October 2017), including reports of tests in accordance with Appendix B.
  - 6.1.2 Data in accordance with UL1256.

6.1.3 Test reports of room corner fire tests in accordance with UBC Standard 26-3.

6.1.4 Test report in accordance with NFPA 286.

**6.2 Foam-Control with Perform Guard and Foam-Control with Perform Guard<sup>2</sup>:**

6.2.1 Data in accordance with the ICC-ES Acceptance Criteria for Foam Plastic Insulation (AC12), dated June 2015 (Editorially revised October 2017).

6.2.2 Data in accordance with the ICC-ES Acceptance Criteria for Termite-resistant Foam Plastics (AC239), dated October 2008 (Editorially revised February 2018).

**6.3 Foam-Control Geof foam Blocks:**

Data in accordance with the ICC-ES Acceptance Criteria for Rigid Cellular Polystyrene (RCPS) Geof foam Used in Interior Floor Applications (AC452), dated October 2013 (Editorially revised February 2018).

**7.0 IDENTIFICATION**

7.1 Foam-Control Boards, Foam-Control with Perform Guard boards, Foam-Control with Perform Guard<sup>2</sup> boards and Foam-Control Geof foam blocks are marked on each board with the report holder’s name (AFM); the plant ID number; the ASTM type or product name; and the evaluation report number (ESR-1006). Additionally, an inspection agency certificate, including the flame-spread index, the smoke-developed index, and the thermal-resistance (*R*- value) (for insulation complying with ASTM C578), and compressive

resistance (for insulation complying with ASTM D6817), is provided with each shipment of insulation boards.

Bundles of Foam-Control insulation board include instructions regarding *R*-value required by ASTM C578.

In addition to the marking noted above, each Foam-Control D2D insulation board has the following wording: “When used in reroofing applications, limits exist for cover board and membrane. See ICC-ES evaluation report ESR-1006 before reroofing.”

In addition to the foam plastic board markings noted above, Foam-Control insulation boards for use under Section 4.2.2, in attics and crawl spaces, are labeled with one of the following: “Styropek,” “Flint Hills,” “Nova,” or “StyroChem”.

7.2 The report holder’s contact information is as follows:

**AFM CORPORATION**  
**17645 JUNIPER PATH, SUITE 260**  
**LAKEVILLE, MINNESOTA 55044**  
[www.foam-control.com](http://www.foam-control.com)

**TABLE 1—FOAM-CONTROL INSULATION BOARD THERMAL RESISTANCE VALUES<sup>1,2</sup>**

Product	ASTM TYPE	MINIMUM DENSITY (pcf)	THERMAL RESISTANCE (per 1 inch thickness) (°F-ft <sup>2</sup> -h/Btu)
Foam-Control 100	Type I	0.90	3.6
Foam-Control 130	Type VIII	1.15	3.8
Foam-Control 150	Type II	1.35	4.0
Foam-Control 250	Type IX	1.80	4.2
Foam-Control 400	Type XIV	2.40	4.2
Foam-Control 600	Type XV	3.00	4.2

For **SI**: 1 pcf = 16.018 kg/m<sup>3</sup>, 1°F-ft<sup>2</sup>-h/Btu = 0.176 m<sup>2</sup>-K/W.

<sup>1</sup>Thermal resistance (*R*) values are based on tested values between 1 and 4 inches and must be multiplied by the installed thickness for thicknesses greater than 1 inch (25 mm). Maximum foam plastic thickness recognized in this report is 9 inches.

<sup>2</sup>The values listed are the minimum required by ASTM C578.



**TABLE 2—FOAM-CONTROL GEOFOAM INSULATION BLOCK COMPRESSIVE RESISTANCE VALUES<sup>1</sup>**

Product	ASTM TYPE	MINIMUM DENSITY (pcf)	COMPRESSIVE RESISTANCE (at 1% strain) (psi)
Foam-Control EPS15	Type EPS15	0.90	3.6
Foam-Control EPS19	Type EPS19	1.15	5.8
Foam-Control EPS22	Type EPS22	1.35	7.3
Foam-Control EPS29	Type EPS29	1.80	10.9
Foam-Control EPS39	Type EPS39	2.40	15.0
Foam-Control EPS46	Type EPS46	2.85	18.6

For **SI**: 1 pcf = 16.018 kg/m<sup>3</sup>, 1 psi = 6.894757 kPa.

<sup>1</sup>The values listed are the minimum required by ASTM D6817.

**TABLE 3—MANUFACTURING LOCATIONS**

LISTEE	LOCATION	PLANT ID NO.
Atlas Molded Products, A Division of Atlas Roofing Corporation	5250 North Sherman Street Denver, Colorado 80216	U-1
Atlas Molded Products, A Division of Atlas Roofing Corporation	111 West Fireclay Avenue Murray, Utah 84107	U-2
Atlas Molded Products, A Division of Atlas Roofing Corporation	2731 White Sulfur Road Gainesville, Georgia 30503	U-4
Atlas Molded Products, A Division of Atlas Roofing Corporation	1400 North 3rd St. Kansas City, Kansas 66101	U-8
Atlas Molded Products, A Division of Atlas Roofing Corporation	90 Trowbridge Drive Fond Du Lac, Wisconsin 54936-0669	U-37
Atlas Molded Products, A Division of Atlas Roofing Corporation	13695 Mt. Anderson St. Reno, Nevada 89506	U-53
Atlas Molded Products, A Division of Atlas Roofing Corporation	809 East 15th Street Washington, Iowa 52353	U-55
Atlas Molded Products, A Division of Atlas Roofing Corporation	445 Industrial Park Drive Ridgeway, Virginia 24148	U-69
Big Sky Insulations, Inc.	15 Arden Drive Belgrade, Montana 59714	U-30
Branch River Plastics, Inc.	15 Thurber Boulevard Smithfield, Rhode Island 02917	U-6
Henry Products, Inc.	302 South 23 <sup>rd</sup> Avenue Phoenix, AZ 85009	U-62
Pacific Allied Products, Ltd.	91-110 Kaomi Loop Kapolei, Hawaii 96707	U-17
Poliestireno Alfa-Gamma S.A. de C.V.	Maquiladoras #331 Int A y B Tijuana, Baja California Mexico	U-60
Poliestireno Alfa-Gamma S.A. de C.V.	Boulevard México Km. 2.5 exejido Aquiles Serdan C.P. 35080 Gómez Palacio, Durango México	U-67
PowerFoam, LLC	550 Murray Street Midlothian, Texas 76065	U-71
Therma Foam, LLC	1240 Hwy 77 N Hillsboro, Texas 76645	U-25

DIVISION: 07 00 00—THERMAL AND MOISTURE PROTECTION

Section: 07 21 00—Thermal Insulation

Section: 07 22 00—Roof and Deck Insulation

## REPORT HOLDER:

AFM CORPORATION

## EVALUATION SUBJECT:

FOAM-CONTROL® BOARDS, FOAM-CONTROL® WITH PERFORM GUARD® BOARDS, FOAM-CONTROL® WITH PERFORM GUARD² BOARDS AND FOAM-CONTROL GEOFOAM BLOCKS

## 1.0 REPORT PURPOSE AND SCOPE

## Purpose:

The purpose of this evaluation report supplement is to indicate that Foam-Control Boards, Foam-Control® with Perform Guard® Boards, Foam-Control® with Perform Guard² Boards and Foam-Control Geofoam Blocks described in ICC-ES evaluation report ESR-1006, have also been evaluated for compliance with the codes noted below as adopted by the Los Angeles Department of Building and Safety (LADBS).

## Applicable code editions:

- 2017 *City of Los Angeles Building Code* (LABC)
- 2017 *City of Los Angeles Residential Code* (LARC)

## 2.0 CONCLUSIONS

The Foam-Control Boards, Foam-Control® with Perform Guard® Boards, Foam-Control® with Perform Guard² Boards and Foam-Control Geofoam Blocks, described in Sections 2.0 through 7.0 of the evaluation report [ESR-1006](#), comply with the LABC Chapters 7, 14, 15 and 26, the LARC Sections R316 and R318 and LARC Chapters 6 and 9, and are subjected to the conditions of use described in this supplement.

## 3.0 CONDITIONS OF USE

The Foam-Control Boards, Foam-Control® with Perform Guard® Boards, Foam-Control® with Perform Guard² Boards and Foam-Control Geofoam Blocks, described in this evaluation report must comply with all of the following conditions:

- All applicable sections in the evaluation report [ESR-1006](#).
- The design, installation, conditions of use and identification are in accordance with the 2015 *International Building Code*® (2015 IBC) and 2015 *International Residential Code*® (2015 IRC) provisions noted in the evaluation report [ESR-1006](#).
- The design, installation and inspection are in accordance with additional requirements of LABC Chapters 16 and 17, as applicable.
- Reroofing applications must comply with Section 4.4.4 of the evaluation report [ESR-1006](#) and LABC Section 1511 or LARC Section R908, as applicable.

This supplement expires concurrently with the evaluation report, reissued April 2022 and revised November, 2020.

## INSTALLATION

---

Please refer to ASTM D7180, "Standard Guide for use of Expanded Polystyrene (EPS) Geofoam in Geotechnical projects."  
For most applications utilizing solid subgrades the following guidelines apply.

## SUBGRADE PREPARATION

---

1. Clear and grub site.
2. Excavate existing soil if required.
3. At design engineer's discretion, place geotextile over graded surface, i.e., soft soils, etc.
4. Dewater site as required.
5. Place a sand pad/leveling course over the prepared surface, 2" (50 mm) thickness minimum. Level to  $\pm 1/2"$  per 10' (10 mm per 3 meters) horizontal. Sand pad surfaces should be above ground water level at time of Foam-Control Geofoam placement.

## PLACEMENT

---

1. At time of material delivery, verify identification marks on face of the product. Use material of proper Type only and as specified. Field sampling and testing of the Foam-Control Geofoam will be as specified by the Engineer. Properties of density and compressive resistance shall be verified in accordance with the specification.
2. Material is placed as required by the engineer and as shown on the drawings.
3. Blocks of Foam-Control Geofoam should be placed tightly on the prepared sand pad/leveling course (sand must not be frozen). If multiple layers of Foam-Control Geofoam are required, orient successive layers of blocks at 90° to previous layer. Offset block joints between layers.
4. Geofoam must receive temporary ballast during all phases of construction to prevent displacement by wind or high water conditions.
5. In order to facilitate construction during precipitation or when frost or icing is encountered, horizontal restraint between layers of Foam-Control Geofoam may be desired. Use of GeoGripper Plates placed between horizontal layers of blocks should occur. Consult GeoGripper Plate literature for plate specifications.
6. Commence with the placement of permanent overlying materials as quickly as practical.
7. In pavement design for cold regions where differential icing may occur, provide an adequate thickness of a well graded (must contain a high degree of fines) subbase mix which will retain moisture. Most designs are adequate with sub-base thickness of 20" to 32" (500 mm to 800 mm) placed over the Foam-Control Geofoam.

## Disclaimer

Guidelines provided herein give basic information and illustrate examples of Foam-Control Geofoam installation. The basic information provided herein is not intended to cover every potential use and application of the Foam-Control Geofoam. It is the responsibility of the installer to become familiar with his specific application and determine if the Foam-Control Geofoam is suitable. By commencing work, the installer accepts full responsibility for the proper and safe installation of Foam-Control Geofoam at his job site. Furthermore, it is the sole responsibility of the installer to meet all federal and local regulatory requirements for job site safety for himself, his workers and any others on the job site while in the execution of all phases of the Foam-Control Geofoam installation.

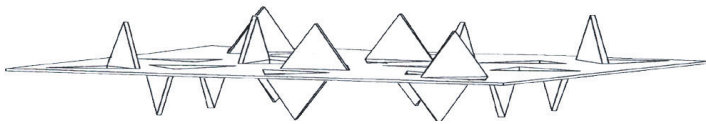
# GeoGripper® Plate

The Foam-Control® GeoGripper® Plate is a galvanized steel multi-barbed connector. It is used to restrain Foam-Control Geofoam from moving laterally in multi-layer applications. Its single piece two-sided design allows for excellent connection between layers in a one-step application.

- Single Piece, Double Barbed Design
- Galvanized Steel for Durability
- Easy Fast Installation at Site
- Strong Lateral Hold
- Cost Effective

## Material and Size

- 4" x 4"
- 0.60" high two sided barbs
- 20 gauge
- G-60 galvanized steel



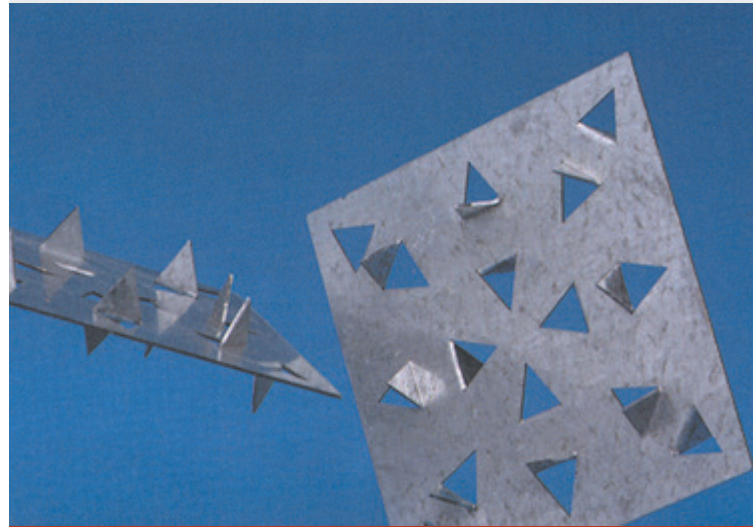
The GeoGripper Plate is made of galvanized steel for strength and durability. It is sized for easy handling and job site installation. The barbs are sized to pierce the rigid foam and hold tight, yet not create a significant danger to the applicator.

## Applications

The sharp barbs pierce quickly and firmly into rigid foams. The unique barb pattern locks the plate into place. The succeeding Geofoam material seats firmly over the gripper plate. The Geofoam is now held against horizontal movement and work activities can proceed over top of the in-place layers.

**FOAM-CONTROL**  
**GEOFOAM**

TM



## FOAM FACTS:

**Foam-Control GeoGripper Plates are engineered and manufactured to give you control over your project installation.**

- Small size for easy handling
- Prevents block sliding during installation
- Works in all weather
- Quick and easy installation
- Galvanized for durability

## Design

Each plate has a design lateral holding strength of 60 lbs (tested with ASTM D6817 Type EPS15 Geofoam, with a safety factor of two).

Each project is unique. Therefore, it is the responsibility of the designer/applicator to calculate the load requirements of the project for determining the proper number of GeoGripper plates needed.

Two GeoGripper plates for each 4' x 8' section of rigid foam material is a minimum recommendation.

## Installation

Place GeoGripper Plates as shown on plans and specifications. Press firmly into the rigid foam until the plate is flush with the surface. A 1" dowel rod can be used as a cost-effective setting tool. Position the top layer of rigid foam as specified. Walk on the top layer of rigid foam material, seating it firmly downward before other work commences.

## Proven to meet, or exceed, building codes.

Foam-Control Geofoam is manufactured under an industry leading quality control program monitored by UL and further recognized in UL Evaluation Report UL ER11812-01. Foam-Control meets ASTM D6817, "Standard Specification for Rigid, Cellular Polystyrene Geofoam."



## Ready to take control? Start here.

If you're ready to have Foam-Control contribute to your next project, just contact your nearest Foam-Control manufacturer and Technical Sales Representative. They will be happy to give you design consultation, information about Foam-Control products, pricing, and answers to all of your questions.

BRANCH  RIVER  
PLASTICS, INC.

401-232-0270 phone  
401-231-3434 fax  
www.branchriver.com



Foam-Control products are manufactured by AFM Corporation licensees.

Copyright © 2019 AFM Corporation. All rights reserved. Printed in USA. Foam-Control is a registered trademark of AFM Corporation, Lakeville, MN. The Foam-Control Geofoam logo and The Trusted Lightweight Fill Material are trademarks of AFM Corporation, Lakeville, MN.

UL logo is a registered trademark of UL LLC.

GF02-01/19



www.geofoam.com

THE TRUSTED  
LIGHTWEIGHT  
FILL MATERIAL™