Title: SOFFIT AND FASCIA SIDING SYSTEM

Abstract: A soffit and fascia system for use on an exterior of a building that includes a soffit member, a soffit flashing, a fascia member, and a fascia flashing. The soffit flashing is adapted to be secured to an exterior of the building and to retain the rear portion of the soffit member in a desired configuration with concealed fasteners. The fascia flashing may be adapted to be coupled to the fascia member in the lower portion thereof and adapted to at least partially retain the forward portion of the soffit member in the desired configuration. The soffit member may include two or more soffit segments. The soffit member may further include at least one soffit joint adapted to be disposed between a first soffit segment and a second soffit segment and to couple the first and second soffit segments together.
SOFFIT AND FASCIA SIDING SYSTEM

BACKGROUND

[0001] This disclosure relates generally to lap siding systems and apparatus for use on the exteriors of residential and commercial buildings. More particularly, the present disclosure relates to soffit and fascia systems that may be used to provide an exterior cover to soffit and fascia regions of a building.

[0002] Lap siding systems generally provide aesthetically pleasing, low maintenance exteriors to a variety of buildings by attaching overlapping horizontal or vertical boards or planks to the exterior of a building. For simplicity, the term "plank" includes boards, slats, and panels. Planks may be made of wood, cementitious material, plastic, metal, glass, various types of fiber and filler material, composites of these materials and other materials known in the art.

[0003] A common problem in construction is that of weatherproofing structural junctures in lap siding systems, such as between planks, at corners, at junctions between planks and other structural features such as windows and doors, and at junctions between planks and other decorative features such as trim, appliques, and similar features. Weatherproofing serves the goal of protecting the underlying structure of the building from the damage associated with water seepage that can result in flourishing termite, pest, and mold populations. Damage resulting from water seepage may also result in rotting, swelling, and warping of the planks of the lap siding system, the trim, appliques, and other features, and/or the underlying structure. Water seepage may also result in a reduction of the effectiveness of insulation, cracks in the masonry, loosening of the siding system from the underlying structure of the building, and the like.

[0004] The standard practice in weatherproofing is to seal and back the juncture with flashing. Typically, such flashing is made of metal or vinyl and positioned under the juncture and affixed to the underlying structure. This type of flashing is normally placed along the entire seam created by the juncture.

[0005] The flashing is usually sealed against the underlying structure with caulk. However, caulk tends to shrink over time. Additionally, the weathering and dissimilar thermal expansion and contraction of the flashing, siding, and caulk often leads to failure of the seal so that water seeps behind the siding and may result in water damage to the lap siding system.
and underlying structure. Furthermore, the exposed junctions, caulk, and flashing may be unsightly.

[0006] Another problem in the installation of a lap siding system on a building is the difficulty in evenly attaching each plank or other siding member of the siding system to the underlying structure. The conventional method of installation requires constant measuring of plank position and adjustment, which is time-consuming. With some lap siding systems, a clearance between the roof and the lap siding system of at least two inches may be required. Flashing and counter flashing may be installed and caulked to protect the gap from wind and water. However, this gap may be unsightly and, like the junctions discussed above, the caulk and flashing may fail so that water is able to seep behind the flashing.

[0007] Conventional lap siding relies heavily on attempts to weatherproof the structure by sealing the structure against the exterior elements, such as by caulking the joints between planks and at junctures where planks terminate at other structural or decorative features, such as windows, doors, trim, or changes in the contour of the underlying structure. However, time has shown that a perfect and complete seal of a structure against the elements is difficult and can have negative consequences for the structure and its occupants. As one example, it is generally accepted that homes need to breathe. Allowing a home to breathe is believed to improve the longevity of the structure and improve the living conditions in the home. In the attempts to seal a home against the exterior elements, siding planks are generally placed close together and caulking is applied between the siding planks and/or between siding planks and other materials forming the exterior of the structure. When these caulking seals are freshly applied, assuming the seals are done correctly, the home cannot breath. There is generally no air flow behind the siding planks or other features.

[0008] Additionally, when one of these caulked seals fails and allows a little bit of moisture to penetrate the exterior shell of the structure, the moisture is effectively trapped between the exterior shell and the underlying structure. As suggested above, moisture can penetrate the exterior shell in a number of ways, such as through the face nails and/or the joints between planks, particularly when the caulking ages and weathers. Once the moisture is trapped between the exterior shell and the underlying structure, the moisture can lead to several problems including rotting of the structure and/or siding planks, allowing mold to grow between the siding planks and the structure, and attracting a variety of pests. Because of the extremely limited airflow between the structure and the siding planks, the moisture will
not dry out very quickly. In many circumstances, the moisture may not sufficiently dry out in
time to prevent the negative consequences of the moisture.

[0009] The soffit and fascia systems of conventional lap siding systems have historically
been the most time-consuming and complicated aspects of the siding installation process,
particularly when these regions of the building are desirably waterproofed and aesthetically
pleasing. In the soffit and fascia region of the building, siding elements meet at a variety of
angles and typically in small work areas that complicate the installers’ efforts.

SUMMARY

[0010] The apparatus and system of the present disclosure has been developed in response
to the present state of the art, and in particular, in response to the problems and needs in the
art that have not been fully solved by currently available lap siding systems and apparatus.
Thus, the present disclosure provides a lap siding system and apparatus for providing an
aesthetically pleasing, low maintenance exterior to a variety of buildings.

[0011] In accordance with the technology as embodied and broadly described herein in the
preferred embodiment, a lap siding system is provided. The lap siding system may include a
soffit and fascia system adapted to be installed in the soffit and fascia region of the building.
The soffit and fascia siding system may include one or more flashings adapted to facilitate the
installation of the soffit and fascia siding. The one or more flashings of the present disclosure
may additionally be adapted to prevent, or at least limit, moisture seeping or otherwise getting
behind the soffit and fascia siding members. Additionally or alternatively, the soffit and fascia
siding system may include one or more ventilation features, which may be adapted to
cooperate with ventilation systems in other aspects of the lap siding system.

[0012] These and other features and advantages of the present description will become
more fully apparent from the following description and appended numbered paragraphs, or
may be learned by the practice of the invention as set forth hereinafter.

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWINGS

[0013] In order that the manner in which the above-recited and other features and
advantages of the present disclosure are obtained will be readily understood, a more particular
description of the present systems and methods briefly described above will be rendered by
reference to specific embodiments thereof which are illustrated in the appended drawings.
Understanding that these drawings depict only typical embodiments of the systems and
methods and are not therefore to be considered to be limiting of its scope, the present
technology will be described and explained with additional specificity and detail through the use of the accompanying drawings in which:

[0014] Figure 1 is a perspective view of a building at least partially covered by a lap siding system;

[0015] Figure 2 is a side view of a soffit and fascia region of a building including soffit and fascia siding members;

[0016] Figure 3 is a side view of a soffit flashing;

[0017] Figure 4 is a side view of a fascia flashing;

[0018] Figure 5 is a side view of a roofline flashing;

[0019] Figure 6 is a perspective view of soffit members including a soffit vent connector;

[0020] Figure 7 is an end view of soffit members including soffit vent connectors;

[0021] Figure 8 is a side view of a soffit vent connector disposed between soffit members;

[0022] Figure 9 is a plan view of a soffit vent connector;

[0023] Figure 10 is a perspective view of a soffit vent connector; and

[0024] Figure 11 is a perspective view of an alternative soffit vent connector.

DETAILED DESCRIPTION

[0025] The presently preferred embodiments will be best understood by reference to the drawings. It will be readily understood that the components, as generally described and illustrated in the figures herein, could be arranged and designed in a wide variety of different configurations. Thus, the following more detailed description of the lap siding system, as represented in Figures 1 through 11, is not intended to limit the scope of the present disclosure, as described in the appended numbered paragraphs, but is merely representative of presently preferred embodiments.

[0026] Figure 1 presents a perspective view of a building 100, which is representative of the large diversity of buildings with which the soffit and fascia siding system of the present disclosure may be used. The soffit and fascia siding system may be used in cooperation with a lap siding system that covers some or all of the remaining exterior portions of the building 100. A diversity of lap siding systems may be used in cooperation with the present soffit and fascia siding systems. Exemplary aspects of lap siding systems that may be used in cooperation with the soffit and fascia systems of the present disclosure include those lap siding systems disclosed in U.S. Patent Application Serial No. 11/271,633, entitled WEATHERPROOF LAP SIDING SYSTEM and U.S. Provisional Patent Application
60/871,231, entitled VENTILATED LAP SIDING SYSTEM, which applications are incorporated herein by reference in their entirety for all purposes.

[0027] As used herein the terms building and structure will be used synonymously to identify an object to which a soffit and fascia siding system may be applied. For example, the structures and buildings may include residential homes, commercial buildings, schools and other non-residential buildings, sheds, garages, boat houses, dog houses, etc. The structures to which the soffit and fascia siding systems may be applied may comprise a variety of elements depending on the method of construction. For purposes of description, the structure 100 will be described as including a substructure at least part of which forms part or all of the exterior skeleton of building. The term substructure will be used herein to refer to that portion of the building to which one or more members of the soffit and fascia siding system is attached.

[0028] Figure 1 illustrates an exposed exterior 102 of a building 100 including a variety of components. As exemplary components, Figure 1 illustrates a door 104, a window 106, a foundation 108, and soffit and fascia elements 110. Additionally, the exposed exterior 102 includes a lap siding system 112. The lap siding system may include several component parts. As discussed above, the lap siding system may include conventional siding components and/or may include components described in one or more of the applications incorporated herein by reference. The door 104 and the window 106 illustrated in Figure 1 are representative of the variety of doors and windows that are or may become available for use. The foundation 108 is representative of the variety of circumstances in which a lap siding system may adjoin a different exterior material. For example, lap siding systems 112 may be applied on the exterior of a second level of a building while the first level of the building is covered by brick, stucco, or some other material.

[0029] The soffit and fascia elements 110 are similarly representative of the variety of circumstances in which an upper portion of a building may extend further than the lower portion of the building. Such a situation is most common at the roofline, which is the common application of the term fascia. However, as used herein, the term fascia may also be used to refer to the first horizontal siding piece above a soffit 128. For example, when a soffit 128 is created by an overhanging portion of a building, such as a bay window or an extending room, the term fascia may refer to the lowermost plank used in the siding applied to the upper portion of the building, which in some installations may be an apron, a siding plank, or other exterior member. The soffit and fascia siding system 142 of the present disclosure provides
components adapted to provide an exterior covering to the soffit 128 and to the fascia 130, or the lowermost vertical surface above the corresponding soffit 128.

[0030] With continued reference to Figure 1, lap siding systems 112 that may be used in cooperation with the soffit and fascia siding systems 142 of the present disclosure may include planks 114, which may be horizontal planks 116, vertical planks 118, or planks configured otherwise. The exact configuration of each plank 114 and its association with neighboring planks may vary based on its intended orientation and usage. Additionally, plank siding systems 112 may include one or more complimentary members 120 adapted to cooperate with the planks 114 to cover the exposed exterior 102 of the building 100. The complimentary members 120 may include such elements as corner trim members 122, door trim members 124, window trim members 126, soffit members 128, and fascia members 130. In some installations, it may be preferable to use a joint member 132 for decorative and/or functional purposes, which joint member may be configured as a complimentary member 120. The lap siding system 112 may include additional complimentary members 120 and/or additional planks 114.

[0031] The lap siding system 112 of the present disclosure may provide numerous benefits to the building 100 it covers. For example, the present lap siding system 112 may promote the weatherproofing of the building through the use of flashings at junctures between the planks 114 and between the planks 114 and other elements of the plank siding system 112. Additionally, the present lap siding system may facilitate the installation of the planks 114 and other elements through the use of interlocking members between the planks 114. Some aspects of these features will be described herein; other aspects have been previously described in United States Patent Application entitled WEATHERPROOF LAP SIDING SYSTEM, Application Serial Number 11/271,633, filed November 10, 2005, which is incorporated herein by reference in its entirety for all purposes.

[0032] As described above, a persistent problem in weatherproofing buildings is the possibility for moisture to wick, seep, or otherwise get behind the exterior materials and to become trapped between the exterior materials and the substructure of the building. Prior efforts have attempted to seal the exterior completely through the use of caulking and sealing between the various exterior materials. However, as discussed in the above incorporated application, such weatherproofing efforts have been less than fully successful, particularly when elements of aesthetics and the impact of time are considered.
The lap siding systems 112 may additionally or alternatively be adapted to utilize air, and particularly the possibility of moving air, to increase the opportunities for any moisture trapped between the exterior materials and the substructure to be dried out before leading to the problems identified above, such as rot, mold, and pests. Examples of such ventilated lap siding systems are provided in U.S. Provisional Patent Application entitled VENTILATED LAP SIDING SYSTEM, Application Number 60/871,231, filed December 21, 2006. In some aspects of the present disclosure, the soffit and fascia siding system 142 disclosed herein may include one or more components adapted to cooperate with the ventilation features of the remaining lap siding system components. Additionally or alternatively, the present soffit and fascia systems 142 may be adapted to provide for ventilation in the soffit 128 of the building 100 while limiting or preventing moisture accumulation in the soffit 128.

Turning now to Figure 2, a side view of a soffit region 140 is illustrated to show one exemplary configuration of the relationship between various components of a soffit and fascia siding system 142, which may be used in cooperation with a lap siding system 112. The illustrated soffit and fascia siding system 142 includes a soffit member 128 and a fascia member 130. The illustrated soffit and fascia siding system 142 further includes a soffit flashing 144, a fascia flashing 146, and an L-flashing 148. While some implementations of soffit and fascia siding systems within the scope of the present disclosure may include each of these components, implementations including any one or more of these components are also within the scope of this disclosure.

For example, some implementations may omit the L-flashing 148 in circumstances where the fascia member 130 is not positioned adjacent to the roofline. Additionally or alternatively, some implementations may include a soffit flashing 144 while omitting the fascia flashing 146. Other such combinations of components are within the scope of the present disclosure as well.

As can be seen in Figure 2, the soffit member 128 extends from proximate a first vertical wall 150 of the building 100 to proximate a second vertical wall 152 of the building. As will be seen in more detail in connection with Figures 6 and 7, the soffit member 128 may be provided in a variety of widths (i.e., the distance between the first and second walls of the building), a variety of thicknesses, and a variety of lengths (i.e., the extension of the soffit member perpendicular to the plane of Figure 2 and better shown in Figures 6 and 7).
As seen in Figure 2, the soffit member 128 may be disposed in association with a frieze board 154 positioned below the soffit member. Alternatively, other exterior covering members may be disposed below the soffit member 128. In installations including a frieze board 154, the frieze board 154 may be coupled to the first vertical wall 150 of the building through any conventional means or may be coupled through the use of one or more flashings 158. Additionally or alternatively, the frieze board 154 may be coupled to another member of the substructure 156 of the building 100.

As illustrated, the frieze board 154 is coupled to the first vertical wall 150 through the use of one or more flashings 158, such as the soffit flashing 144 and or the frieze flashing 160. The frieze flashing 160 is described in more detail in U.S. Provisional Patent Application entitled Ventilated Lap Siding System, as previously mentioned. For purposes of description here, the frieze flashing 160 may facilitate the installation of the frieze board 154 without nails or other fasteners 166 through the exterior face thereof. As illustrated, the frieze flashing 160 is coupled to the frieze board 154 at the rear-side of the frieze board via a fastener 166. The frieze flashing 160 then may be coupled to the substructure 156 of the building 100 by fasteners 166 associated with the frieze flashing extension 162 or some other element of the frieze flashing 160. Additionally or alternatively, the frieze flashing 160 may provide weatherproofing and/or ventilation features to the siding system 112 and/or the soffit and fascia system 142. For example, the one or more ventilation channels 260 may be provided through the support portion 164 of the frieze flashing 160 to promote ventilation behind the frieze board 154.

Figure 2 further illustrates that the frieze board 154 may be coupled to the substructure 156 of the building by a soffit flashing 144. The soffit flashing 144, similar to the frieze flashing 160, be coupled to the rear side of the frieze board 154 with a fastener 166. The soffit flashing 144 then may be coupled to the substructure 156 via a fastener 166 through the soffit flashing extension 172. A variety of suitable fasteners 166 may be used to couple the soffit flashing to the frieze board and/or the substructure, including staples, nails, screws, adhesives and pressure-fitted fasteners.

Referring now to Figure 3, an enlarged view of the region surrounding the soffit flashing 144 is shown for convenient view of the elements therein, which elements are numbered with the same reference numerals as the overall view shown in Figure 2. The soffit flashing 144 may also be provided with a support portion 164, which may be similar to the
support portion of the frieze flashing 160, which may be adapted to properly position the frieze board 154 and/or to provide additional features, such as ventilation channels 260.

[0041] With continued reference to Figures 2 and 3, the soffit flashing 144 will be described in greater detail. The soffit flashing 144 shown in Figures 2 and 3 are exemplary of other soffit flashings that may be used in the soffit and fascia systems 142 of the present disclosure. Suitable variations within the scope of the present disclosure may vary the dimensions of one or more subcomponents of the soffit flashing and/or modify the relative dimensions and/or relationships between the subcomponents. For example, the support portion 164 may include support legs 174 of greater or lesser lengths and/or of different shapes and configurations.

[0042] Soffit flashings 144 may include a soffit channel 176 disposed between a soffit support arm 178 and a soffit retention arm 180. The soffit support arm 178 may be an extension of the support portion 164 and may provide a surface on which the soffit member 128 may rest once the soffit member is installed. The soffit support arm 178 and the soffit retention arm 180 may cooperate to provide a soffit channel 176 adapted and sized to receive a soffit member 128.

[0043] Additionally, the soffit channel 176 may provide an expansion gap 254 located between the soffit member 128 and the soffit flashing 144. The expansion gap 254 is provided to allow for the natural expansion and contraction of the soffit member 128 due to changes in the climate and temperature. In addition to providing ventilation, the expansion gap 254 provides a physical space between the soffit member 128 and the soffit flashing 144. During expansion, the expansion gap 254 provides a space into which the soffit member 128 may expand rather than buckling and/or dislodging from the substructure 152, the fascia flashing 146 and/or the fascia member 130. The expansion gap 254 in conjunction with the soffit flashing 144 and the fascia flashing 146 provide sufficient clearance between the soffit member 128, the substructure 156 whereby the soffit member 128 may expand and contract without undesirable binds and/or rubbing on other components of the soffit and fascia siding system 142.

[0044] For example, the soffit retention arm 180 may be spaced from the soffit support arm 178 a distance approximating the thickness of the soffit member 128. Additionally or alternatively, the soffit retention arm 180 and the soffit support arm 178 may be spaced apart slightly more or slightly less than the thickness of the soffit member 128.
In one embodiment, and as illustrated, the soffit retention arm 180 further comprises a soffit retention prong 182 for aiding in reception and retention of a rearmost edge 206 of the soffit member 128. The soffit retention prong 182 may be made of a flexible material and/or may comprise a biasing material. The soffit retention prong 182 may be adapted to be bent into a biased position 182a upon the insertion of a soffit member 128. When the soffit member 128 is thinner than the height of the soffit retention channel 176, the soffit retention prong 182 may be adapted to apply a biasing pressure on the soffit member 128 to press the soffit member 128 against the soffit support arm 178. The soffit retention prong 182 may cooperate with the soffit retention arm 180 to retain the soffit member 128 in a desired position, such as to prevent the soffit member from falling. The soffit retention prong 182 may be implemented with a rigid or semi-rigid soffit retention arm 180 and/or may be advantageously incorporated in soffit flashings 144 having a flexible and/or biasing soffit retention arm 180.

In addition to the soffit retention arm 180 as illustrated, additional configurations may be utilized within the scope of the invention. For example, the soffit retention arm 180 may be constructed of a flexible material that may be moved away from resting position by the insertion of a soffit member 128 to accommodate the soffit member 128. In such configurations, the soffit retention arm 180 may be biased to the initial resting position, which creates a soffit channel somewhat narrower than the soffit member 128, to thereby grip and enhance the retention of the soffit member 128. The flexible soffit retention arm 180 may also be preferred to allow for slight variations in the thickness of the soffit member 128.

Additionally or alternatively, soffit retention arm 180, as well as some or all of the remaining components of the soffit flashing 144, may be made of a rigid material, such as a metal, plastic, and/or composite material. When the soffit retention arm 180 is comprised of a substantially rigid material, the spacing for the soffit channel 176 may be adapted to easily accommodate predetermined soffit members 128. For example, if a soffit member 128 to be used with the soffit flashing 144 is about 0.75 inches thick, the soffit retention arm 180 and the soffit support arm 178 may be adapted to be spaced apart by about 0.8125 inches. In some installations of the soffit flashing 144 and the soffit and fascia siding system 142 of the present disclosure, the soffit flashing 144 may not need to grip or otherwise secure the soffit member 128 within the soffit flashing 144.

For example, in some implementations, the soffit member 128 may be simply sandwiched between the soffit flashing 144 and the fascia flashing 146 with the space
between the two flashings being sufficiently small to retain the soffit member 128 under most circumstances. Additionally or alternatively, the soffit flashing 144 may include one or more soffit retention prongs 182, as illustrated and previously discussed.

[0049] With continuing reference to Figures 2 and 3, the soffit flashing 144 can be seen to include a frieze lip 184. The frieze lip 184 may be made of any suitable material and is preferably made of the same materials as the remainder of the soffit flashing. The frieze lip 184 may be configured as a rounded lip, as shown, or in other suitable configurations. Similarly, the frieze lip 184 may be short, such as less than 0.5 inches, or may be any suitable length.

[0050] The frieze lip 184 may provide at least one functional and/or aesthetic benefit to the soffit and fascia system 142. For example, the frieze lip 184 may be adapted to provide a fitting to hold the frieze board 154 in place as the soffit flashing 144 is coupled to the frieze board 154. For example, the frieze lip 184 may include a tab 138 configured to engage a frieze groove 136 comprising a portion of the outer surface of the frieze board 154. Additionally or alternatively, the interaction of the tab 138 and the frieze groove 136 may provide additional weatherproofing between the frieze board 154 and the soffit member 128.

[0051] Additionally or alternatively, the frieze lip 184 may configure the soffit flashing 144 to act as a cap on the frieze board 154 while the flashing is being attached to the frieze board 154. Finally, the frieze lip 184 may be configured to extend beyond the frieze groove 136 thereby providing additional weatherproofing as well as aesthetic shielding of the frieze groove 136. As illustrated in Figures 2 and 3, the frieze lip 184 may be adapted to provide a rounded and smoothed appearance to the joint between the frieze board 154 and the soffit member 128. The frieze lip 184 may be configured with alternative shapes and dimensions to provide a custom joint appearance, such as scalloped, wavy, etc.

[0052] Figures 2 and 3 additionally illustrate that the soffit flashing 144 may include one or more support ribs 186, such as illustrated in cooperation with the soffit retention arm 180. The support ribs 186 may be disposed in cooperation with any of the members of the soffit flashing to provide structural strength to the flashing. In some implementations of the present disclosure, the soffit flashing 144, as well as the other flashings described herein, may be provided for elongate flashings having lengths of one foot, three feet, five feet, or any other suitable length for the installation location, including lengths shorter than one foot or of lengths between these exemplary lengths. The support ribs 186 may promote rigidity along the length of the soffit flashing 144 or any other flashing 158.

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For example, for purposes of transportation of the flashings 158 and/or to facilitate the installation of a flashing 158 on a wall or other member, it may be desirable to have a rigid or substantial rigid flashing 158. While the support ribs 186 may promote rigidity, the soffit flashing 144 may remain somewhat flexible along the length thereof depending on the materials selected. Suitably configured and sized support ribs 186 may be disposed in cooperation with any of the flashings 158 described herein, whether or not illustrated as such.

Turning now to Figure 4 and with continuing reference to Figure 2, the soffit and fascia system 142 of the present disclosure also includes a fascia flashing 146 that may be used in cooperation with one or more of the components described herein. The fascia flashing 146 may provide a fascia channel 188 defined by a sub-fascia backing arm 190 and a fascia backing arm 192. The sub-fascia backing arm 190 and the fascia backing arm 192 may extend above a sub-fascia base member 194 extending between the two backing arms 190, 192. The sub-fascia backing arm 190 may be configured to comprise a support portion 164 to provide spacing between the fascia member 130 and the sub-fascia member 196. Additionally or alternatively, the spacing provided by the support portion 164 may provide a ventilation channel 260 between the fascia member 130 and the sub-fascia member 196. The sub-fascia base member 194 may also be configured to comprise ventilation channels 260 to provide airflow between the sub-fascia member 196 and the soffit member 128.

The sub-fascia backing arm 190 and the fascia backing arm 192 may have substantially the same lengths or may be provided with different lengths as illustrated. The relative locations and heights of the sub-fascia backing arm 190, the fascia backing arm 192, and the sub-fascia base member 194 may be varied to accommodate sub-fascias 196 of various dimensions. For example, the height of one or more of the backing arms 190, 192 and/or the spacing between the backing arms 190, 192 may be selected to enable the fascia flashing 146 to at least temporarily grip a sub-fascia member 196, such as to facilitate the installation of the fascia flashing 146 on a sub-fascia member 196.

With reference to Figures 2 and 4, it can be seen that the fascia member 130 may be provided with one or more grooves and cuts 134 adapted to accommodate the fascia flashing 146. The grooves 134 in the fascia member 130 may be two-tiered as illustrated or may be of any suitable configuration, including one or more tiers. The grooves 134 in the fascia member 130 additionally may be adapted to cooperate with the soffit member 128.

As shown in Figures 2 and 4, the fascia flashing 146 further provides a soffit channel 198 defined below the sub-fascia base member 194. To provide the soffit channel
198, the fascia flashing 146 may further include a soffit support arm 200. The soffit support arm 200 may have any suitable length and may be constructed of any suitable material. In some configurations, the soffit support arm 200 may be shorter than the thickness of the fascia member 130. The soffit support arm 200 may have a length sufficient to provide a retention surface to maintain the soffit member 128 in the horizontal position and to prevent the soffit member 128 from falling.

[0058] With continuing reference to Figures 2 and 4, the soffit channel 198 is illustrated as being backed by a support rib 186. In addition to the rigidifying effect of the support rib 186 as previously described, the support rib 186 in the soffit channel may additionally or alternatively providing a spacing function to prevent the soffit member 128 from contacting the back wall 202 of the soffit channel 198. The spacing provided by the support rib 186 may provide a ventilation channel 260 between the soffit member 128 and the fascia member 130. The support rib 186 may be any suitable configuration and/or may be omitted entirely.

[0059] Figures 2 and 4 further illustrate that the fascia flashing 146 may include a soffit lip 204 adapted to modify the appearance and/or the functional features at the joint between the soffit member 128 and the fascia member 130. For example, the soffit lip 204 may provide a cleaner joint appearance and/or may reduce moisture seepage into the joint. Additionally, the fascia member 130 may be configured to include a groove (not shown) for engaging the terminal end of the soffit lip 204 in a manner similar to the frieze groove 136 and the tab 138 of the soffit flashing 144.

[0060] With reference now to Figures 2-4, a method of installing the soffit and fascia system 142 is described. As suggested by the foregoing discussion, the frieze board 154 may be coupled to the frieze flashing 160 and the soffit flashing 144 prior to coupling the frieze board to the first wall 150. The use of the soffit and frieze flashings 144, 160 may allow the frieze board 154 to be installed without the use of fasteners 166 through the face of the frieze board 154. Similarly, as suggested above, the fascia flashing 146 may be coupled to the fascia member 130 by suitable fasteners 166, as previously discussed.

[0061] The fascia flashing 146 coupled to a fascia member 130 may be coupled to a sub-fascia member 196 by sliding the sub-fascia member into the fascia channel 188. As suggested above, the fascia channel 188 may be adapted to at least temporarily hold the fascia 130 and fascia flashing 146 in place. The fascia flashing 146 may then be coupled to the sub-fascia member 196, through any suitable fastener 166. The coupling of the fascia flashing 146 to the fascia member 130 and the coupling of the fascia flashing 146 to the sub-fascia
member 196 may be sufficient to couple the fascia member 130 to the sub-fascia member 196. Additionally or alternatively, the fascia member 130 may be further coupled to the sub-fascia member 196 by an additional fastener 168 through the fascia member 130 and into the sub-fascia member 196, as shown in Figures 2 and 4.

[0062] With the frieze board 154 coupled to the first vertical wall 150 and the fascia member 130 coupled to the second vertical wall 152, the soffit member 128 may then be positioned between the two to complete the soffit and fascia coverings 128, 130. As illustrated in Figures 2-4, the soffit member 128 may be installed by inserting the rearmost edge 206 of the soffit member 128 into the soffit channel 176 of the soffit flashing 144. The soffit channel 176 may be sufficiently deep to allow the soffit member 128 to be inserted beyond the final installation depth. Accordingly, the soffit member 128 may be inserted into the soffit channel 176 a distance sufficient to allow the forward-most edge 208 of the soffit member 128 to clear the fascia member 130. The soffit member 128 may then be moved into the horizontal position, or whatever other desired angle is needed, and the forward-most edge 208 may be inserted into the soffit channel 198 of the fascia flashing 146.

[0063] Following insertion of the forward-most edge 208 into the soffit channel 198, the soffit member 128 may be moved forward in the soffit channel 198 of the fascia flashing 146 to abut the support rib 186 or to some other distance sufficient to rest within the soffit channel 198. The soffit member 128 may then be suitably positioned between the first vertical wall 150 and the second vertical wall 152.

[0064] For example, the configuration of the soffit flashing 144 and the fascia flashing 146 may be adapted to provide sufficient retention strength on the soffit member 128 to not require additional fasteners. Additionally or alternatively, the soffit member 128 may be more permanently installed through the use of one or more fasteners 166 through the soffit member 128 and into the sub-fascia member 196. As illustrated in Figures 2 and 4, the fastener 168 securing the soffit member 128 to the sub-fascia member 196 may be countersunk a suitable distance and may be capped by a suitable plug 210, which may be configured to resemble the soffit member 128 or which may be merely caulking or similar material.

[0065] While the installation of a soffit and fascia system 142 according to the present disclosure may proceed substantially as described above, appropriate variations may be made depending on the components used. For example, one or more of the components of the present disclosure may be used independent of the other components, which may allow for
variations in the equipment and steps used to couple the soffit member 128 and the fascia member 130 to the building 100. However, such variations are within the scope of the present disclosure.

[0066] Turning now to Figure 5, an additional flashing 158, shown as an L-flashing 148, may be used in cooperation with the soffit and fascia system 142 of the present disclosure. As illustrated in Figure 2, some installations of the soffit and fascia systems 142 may be at the roofline of a building 100. In such configurations, it may be desirable to provide a roofline flashing 212 at the top of the fascia member 130 to protect the materials of the fascia member 130. The L-flashing 148 may provide such a protective flashing.

[0067] The L-flashing 148 is one example of a suitable flashing 158 that may be used at the top of the fascia member 130. Other flashing configurations may be used depending on the relationship between the fascia member 130 and the adjacent members of the building 100. For example, the L-shaped flashing 148 includes a horizontal leg 214 and a vertical leg 216 joined at a 90° angle to form an L-shape.

[0068] Alternative flashings may include two or more legs or portions joined at any suitable angle. Figures 2 and 5 further illustrate that the bottom region 198 of the roofline flashing 212 may be adapted to divert water away from the fascia member 130, such as by the inclusion of a foot portion 218. The foot portion 218 may extend away from the vertical leg 216 at any suitable angle 220, such as an angle between about 100° and about 170°. The roofline flashing 212 may be made of any suitable material including metal, plastic, and/or composite material and may be secured to the substructure 156 with a fastener 166.

[0069] As discussed above, each of the flashings 158, the soffit member 128, and the fascia member 130 discussed above may have a suitable length extending in the direction perpendicular to the plane of the illustrations shown in Figures 2-5. Figure 6 provides a perspective view of a portion of a soffit member 128. As seen in Figure 6, the soffit member 128 may have a length extending in the direction of arrows 222 and a width extending in the direction of arrows 224. The soffit member 128 may be provided in multiple soffit segments 226 coupled together by a soffit joint 228.

[0070] Figures 6-8 illustrates an example of two soffit segments 226 coupled by a soffit joint 228. Each of the soffit segments 226 may be of identical lengths or may be provided in varied lengths to accommodate different installation spaces. Soffit segments 226 may be provided in lengths 222 ranging from about 1 foot to about 4 feet long or more. Conventionally, the soffit segments will have a width 224 ranging from about 12 inches to
about 30 inches, with more common lengths ranging from about 18 inches to about 24 inches, depending on the dimensions of the installation location. Similarly, the soffit segments may have a thickness 230, which may range from about 0.5 inches thick to about 1.0 inches thick.

[0071] In some implementations, the soffit segments 226 may be provided with one or more grooves 232. The grooves 232 may be provided in the side of the soffit segment 226 that will be exposed after installation to provide the look of a lap siding system, similar to the appearance shown in Figure 1. Figure 7 provides a plan view from the front and/or rear of a soffit member 128 illustrating the appearance of a soffit segment 226 after it is installed in a horizontal position. As suggested above, the present soffit and fascia systems 142 may be adapted to allow the soffit member 128 to be disposed at orientations other than horizontal, however, horizontal will likely be the most common orientation. As shown in Figure 7, the soffit segment 226 is divided into four substantially equal soffit portions 234 by the soffit grooves 232. Additionally, as illustrated in Figures 6-8, each soffit segment 226 may be coupled to an adjacent soffit segment 226 by a soffit joint 228, which is better illustrated and described in connection with Figures 6-11.

[0072] The soffit and fascia system 142 of the present disclosure may include soffit members 128 according to the description provided above or any other suitable soffit members. As discussed above, the soffit member 128 may be provided by one or more soffit segments 226, which may be joined by soffit joints 228. In some aspects of the present disclosure, conventional soffit joints 228 may be used to couple two soffit segments together. Additionally or alternatively, ventilated soffit joints 236 may be used in aspects of the present disclosure, such as shown in perspective view in Figure 6.

[0073] Ventilated soffit joints 236 according to the present disclosure may be configured in any suitable manner. One exemplary configuration is shown in Figures 6-8. Figures 6-8 illustrate a ventilated soffit joint 236 disposed between two adjacent soffit segments 226a, 226b. The ventilated soffit joint 236 is also shown in Figure 9, where it is shown in a top and/or bottom plan view separate from the soffit segments 226. These figures will be described together to illustrate at least some of the features of the exemplary ventilated soffit joint 236.

[0074] As illustrated, ventilated soffit joints 236 may include a body segment 238 extending between coupling flanges 240. The body segment 238 may have a length adapted to coordinate with the width 224 of the soffit segments 226, such as within the range of from about 18 inches to about 36 inches or any other suitable length depending on the soffit 128 in
which the soffit vent 236 will be installed. The body segment 238 may similarly have a width 200 between the coupling flanges 240 of any suitable dimension, such as from about one inch to about three inches. The body segment 238 may have a single thickness across its length and width or it may be configured to have varied thicknesses, such as greater thickness at the edges near the coupling flanges 240 as illustrated in Figures 7 and 8. Exemplary thicknesses may range from about 0.1 inches to about 0.5 inches and may be selected based on the conditions in which the ventilated soffit joint 236 will be installed, based on the dimensions of the soffit segments 226 it will be coupling, or based on other factors.

[0075] With reference to Figures 6 and 9, it can be seen that an exemplary ventilated soffit joint 236 includes a plurality of vent holes 242 through the body segment 238. The vent holes 242 may be oval in shape as illustrated or of any other suitable shape or configuration. For example, in some implementations, the ventilated soffit joint 236 may include vent holes adapted to allow air flow through the soffit joint while preventing the passage of other materials, such as branches, rocks, or other substances that may be carried by wind. The relative size of and spacing between the vent holes 242 may similarly be adapted and customized according to various parameters to provide a ventilation channel 260 within the soffit members 128.

[0076] With continuing reference to Figures 6, 8 and 9, the ventilated soffit joints 236 may additionally include coupling wings 244 extending outwardly from the coupling flanges 240. The coupling wings 244 may be semi-circular coupling rings 246 as best illustrated in Figures 6 and 8, or may be any other suitable configuration. With more particular reference to Figures 6 and 8, the relationship between the coupling wings 244 and the soffit segments 226 illustrates the coupling function of the ventilated soffit joint 236. As illustrated, the ends of the soffit segments 226a, 226b include a triangular-shaped coupling groove 248, which is adapted to accommodate the coupling rings 246. The coupling groove 248 and/or the coupling wings 244 may be adapted to accommodate and/or fit within the other. Accordingly, the configuration of the coupling groove 248 and/or the coupling wings 244 may vary and still be within the scope of the present disclosure.

[0077] The semi-circular coupling rings 246 may be configured to be installed into the soffit member 128 by sliding the coupling ring 246 lengthwise into the coupling groove 248. Additionally or alternatively, the semi-circular coupling rings 246 may be adapted to be somewhat flexible to allow the ring to pass directly into the coupling groove through laterally applied coupling force along arrow 250. In such configurations, the coupling ring 246 may
resist insertion and removal to a degree such that consider coupling force must be applied
along a particular direction, or series of directions to facilitate the insertion and to complicate
the removal, thereby significantly reducing the chance for unintentional decoupling of the
soffit joint 228 from the soffit segment 226 once installed. Similarly, coupling wings 244 of
other configurations may facilitate the coupling of the components while rendering the
decoupling relatively difficult so as to avoid unintentional decoupling.

[0078] Figures 10 and 11 illustrate schematic perspective views of exemplary ventilated
soffit joints 236 showing at least two variations that may be incorporated in the coupling
wings 244 while staying within the present disclosure. Figure 10 illustrates a perspective
view of the ventilated soffit joint 236 of Figures 6-9 including the semi-circular coupling
rings 246. Figure 11 illustrates a substantially similar ventilated soffit joint 236 having
coupling wings 244 configured as an alternating series of arched coupling arms 252. Similar
to the soffit joint 236 including semi-circular coupling rings 246, the ventilated soffit joint
236 of Figure 11 may be adapted to be installed by sliding the coupling arms length-wise
through a coupling groove 248 in the edge of the soffit segments 226. Additionally or
alternatively, the coupling arms 252 may provide coupling wings 244 of greater flexibility,
allowing for easier insertion into the coupling groove via the laterally applied coupling force
250.

[0079] For example, the ventilated soffit joint 236 may be installed into the coupling
groove 248 of a soffit segment 226 from one end to the other such that only one coupling arm
252 is being compressed into the coupling groove 248 at a time. Once the coupling arms 252
are all inserted into the groove 248, it is much more difficult for a series of winds or other
unintentionally applied forces to apply the same sequential forces to effect the removal of the
coupling arms 252 one at a time.

[0080] Figure 11 is one example of the variations that may be applied to the coupling
wings 244 to facilitate the coupling of the soffit joints to the soffit segments while still
providing sufficient coupling strength to avoid unintentional decoupling of the soffit
segments. Other suitable variations and combinations of the elements discussed in
connection with Figures 6-11 are contemplated whether in the soffit joints 228, such as in the
coupling wings 244, or in the soffit segments 226, such as in the coupling grooves 248.

[0081] It is believed that the disclosure set forth above encompasses multiple distinct
inventions with independent utility. While each of these inventions has been disclosed in its
preferred form, the specific embodiments thereof as disclosed and illustrated herein are not to
be considered in a limiting sense as numerous variations are possible. The subject matter of the inventions includes all novel and non-obvious combinations and subcombinations of the various elements, features, functions and/or properties disclosed herein. The principles of the present disclosure may be embodied in other specific forms without departing from its structures, methods, or other essential characteristics as broadly described herein. The described embodiments are to be considered in all respects only as illustrative, and not restrictive. The scope of the disclosure is, therefore, indicated by the appended numbered paragraphs, rather than by the foregoing description. All changes that come within the meaning and range of equivalency of the numbered paragraphs are to be embraced within their scope. Similarly, where the description and/or the following numbered paragraph recites "a" or "a first" element or the equivalent thereof, such description should be understood to include incorporation of one or more such elements, neither requiring nor excluding two or more such elements.
CLAIMS

1. A modular siding system for covering a substructure of a building, the modular siding system comprising:
   a plurality of flashing members;
   a plurality of soffit members;
   a plurality of fascia members; and
   a plurality of trim members;
   wherein the plurality of flashing members coordinate the plurality of soffit members, the plurality of fascia members and the plurality of trim members to cover an exposed soffit and fascia region of the substructure.

2. The modular siding system of claim 1, wherein the plurality of flashing members are affixed to at least one of the substructure, the plurality of soffit members, the plurality of fascia members and the plurality of trim members with at least one fastener.

3. The modular siding system of claim 2, wherein the at least one fastener is concealed.

4. The modular siding system of claim 1, wherein the siding system provides weatherproofing to the soffit and fascia region of the substructure.

5. The modular siding system of claim 1, wherein the siding system provides a plurality of ventilation channels between the plurality of flashing members, the plurality of soffit members, the plurality of fascia member and the plurality of trim members.

6. The modular siding system of claim 1, wherein the plurality of soffit members further comprise a soffit joint between adjoining soffit members.

7. The modular siding system of claim 6, wherein the soffit joint comprises at least one ventilation port.

8. The modular siding system of claim 7 wherein the ventilation port allows for expansion and contraction on at least one of the soffit members.
9. The modular siding system of claim 6, wherein a coupling wing of the soffit joint engages a coupling groove of a soffit member.

10. The modular siding system of claim 2, wherein the plurality of flashing members includes an L-flashing.

11. The modular siding system of claim 10, wherein the L-flashing provides weatherproofing to an upper portion of a fascia member and diverts water away from an outer surface of the fascia member.

12. The modular siding system of claim 2, wherein the plurality of flashing members provides a transition between the plurality of soffit members, the plurality of fascia members and the plurality of trim members.

13. The modular siding system of claim 12, wherein the transition is aesthetically pleasing.

14. A method for covering a soffit and fascia region of a substructure of a building, comprising:

   providing a plurality of flashing members;
   providing a plurality of soffit members;
   providing a plurality of fascia members; and
   providing a plurality of trim members;

   wherein the plurality of flashing members coordinate the plurality of soffit members, the plurality of fascia members and the plurality of trim members to cover an exposed soffit and fascia region of the substructure.

15. The method of claim 14, wherein the plurality of flashing members are affixed to at least one of the substructure, the plurality of soffit members, the plurality of fascia members and the plurality of trim members with at least one fastener.

16. The method of claim 15, wherein the at least one fastener is concealed.
17. The modular siding system of claim 14, wherein the siding system provides weatherproofing to the soffit and fascia region of the substructure.

18. The method of claim 14, wherein the siding system provides a plurality of ventilation channels between the plurality of flashing members, the plurality of soffit members, the plurality of fascia member and the plurality of trim members.

19. The method of claim 14, wherein the plurality of soffit members further comprise a soffit joint between adjoining soffit members.

20. The method of claim 19, wherein the soffit joint comprises at least one ventilation port.

21. The method of claim 20 wherein the ventilation port allows for expansion and contraction on at least one of the soffit members.

22. The method of claim 19, wherein a coupling wing of the soffit joint engages a coupling groove of a soffit member.

23. The method of claim 14, wherein the plurality of flashing members includes an L-flashing.

24. The method of claim 23, wherein the L-flashing provides weatherproofing to an upper portion of a fascia member and diverts water away from an outer surface of the fascia member.

25. The method of claim 14, wherein the plurality of flashing members provides a transition between the plurality of soffit members, the plurality of fascia members and the plurality of trim members.

26. The modular siding system of claim 25, wherein the transition is aesthetically pleasing.
27. An apparatus for installing a series of soffit panels comprising:
   a first flashing fastened to a first substructure of a building;
   a second flashing fastened to a second substructure of the building;
   a first soffit panel deposited between the first flashing and the second flashing;
   a second soffit panel deposited between the first flashing and the second flashing; and
   a soffit joint deposited between the first soffit panel and the second soffit panel;
   wherein the soffit joint links the first soffit panel and the second soffit panel.

28. The apparatus of claim 27, wherein the first and second flashing comprise a channel
    for receiving and retaining a portion of the first and second soffit panels.

29. The apparatus of claim 27, wherein the soffit joint comprises at least one ventilation
    port.
FIG. 2