

# LINK & LOCK SOFFIT

# **INSTALLATION GUIDELINES**

#### 1.0. GENERAL

#### **1.1. Product Description**

Longboard® Link & Lock Soffit is an extruded aluminum decorative baffle soffit system, installed directly to a conventionally framed soffit structure with a finished substrate. Available in standard lengths of 24' (7.3m) and depths of 4" (101.6mm), 6" (152.4mm) & 8" (203mm). End Caps with a matching finish are used to close off exposed ends.

#### 1.2. Installation Considerations

Depth of system (measured from substrate to finished face): Baffle (on edge) = 4" (101.6mm), 6" (152.4mm) or 8" (203.2mm) Batten (flat on soffit)= 1-5/8" (41.3mm) (See Appendix to access profile drawings)

#### 1.3. Cutting

Always be sure to wear appropriate PPE: eye & hearing protection. Use standard wood-cutting tools such as a Miter Saw with a carbide blade (60-80 tooth) for non-ferrous metals (aluminum).

Trim the taped/punched ends of all stock length material by 1/2" (12mm) each end and discard (see 1.5.).

# 1.4. Fastening

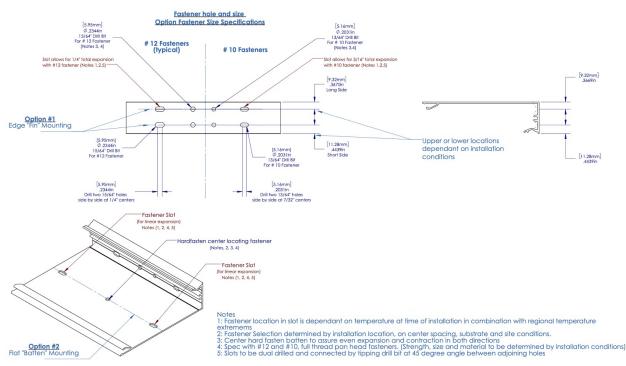
Longboard Link & Lock Soffit consists of two (2) matching L-shaped extrusions, snapped together to make a complete set. The back "L" is mechanically fastened to the substrate, using #12 (preferred) or #10 (min.) sharp-point (for wood substrates) or self-drilling (for metal substrates) zinc-plated or other corrosion resistant screws (not included) every 5'4" (1.63m) o.c. (typical) up to 6' (1.83m) o.c. (max.). Fastener types such as Pan Head, Hex Head or Truss Head are recommended.

All fasteners should be suitable for exterior use and be compatible with the substrate type.

Layout and predrill\* the back "L" at all fastener locations: a single hole at or near the center length of each section & double drilled/slotted holes at each location either side of center - refer to the fastener installation guide diagram for hole dimensions and details.

Where installations will be mounted outboard of Longboard T&G Soffit, it is good practice to mount Link & Lock onto blocks or sleeves (by others) that pass through the T&G Soffit with clearance\* around all sides to allow for thermal movement and give a slight standoff from surface contact which would otherwise restrict the thermal movement of the Soffit.

\*See table 1 & 2 to calculate the thermal movement for your project, to ensure adequate allowances have been made.



Link & Lock - Fastener Installation Guide

Fasten the center location at the single drilled hole, to prevent migration of the material over time. Fasten at the slotted locations to allow for expansion & contraction at each side of center.

At the time of installation, consider the current temperature as it relates to the expected annual high and low range, to place the fasteners at the slotted holes at either the:

- + center of the slot (at average annual)
- + toward end of plank (colder than average annual)
- + toward center of plank (warmer than average annual)

Example: winter typically experiences lows of -20°C (-4°F), summer typically experiences highs of +30°C (86°F) and it is +5°C (41°F) at the time of installation: Place fasteners at the center of the slotted holes.

Ensure all fasteners are anchored into solid-secure framing, blocking or furring strips. Snap the second "L" onto the first using a rubber mallet/hammer & block to protect the finish, then press end-caps in place at each end. Consider your application sequence of end caps before installing adjacent Link & Lock members, as they may limit the space needed to insert caps. All pieces are friction fit: If preferred, place a single small pea-sized spot of a structural grade silicone (not included) inside the connecting surface to prevent slippage (front "L") or ease of removal (end caps).

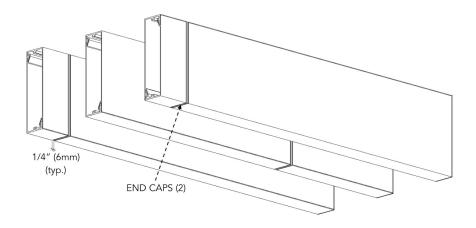
#### 1.4.1. Expansion & Contraction

In most climate zones, Link & Lock Soffit will expand & contract 1/4'' (6mm) over 24' (7.3m) measured over a 30°C (54°F) temperature range\*.

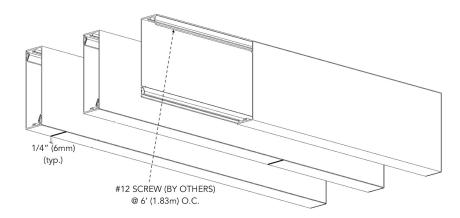
\*See table 1 & 2 to calculate the thermal movement for your project.

Baffles/Battens should be installed with staggered butt-joints, leaving a 1/4" (6mm)(min.) gap between the ends of each set, every 24' (7.3m) or less (see Detail A). Alternatively, staggered lap-joints are an option for a continuous appearance (see Detail B) however 1/4" (6mm) gaps should be left at each joint to allow for thermal movement. Be sure to lap joints by 2' (610mm) minimum over the back "L".

Detail A: BUTT-JOINTS



Detail B: LAP JOINTS



L&L SOFFIT 3

	°C	-50	-40	-30	-20	-10	0	10	20	30	40	50
	°F	-58	-40	-22	-4	14	32	50	68	86	104	122
°C	°F	EXPANSION OR CONTRACTION (INCH/FOOT)										
-50	-58	0.000	-0.003	-0.005	-0.008	-0.011	-0.014	-0.016	-0.019	-0.022	-0.024	-0.027
-40	-40	0.003	0.000	-0.003	-0.005	-0.008	-0.011	-0.014	-0.016	-0.019	-0.022	-0.024
-30	-22	0.005	0.003	0.000	-0.003	-0.005	-0.008	-0.011	-0.014	-0.016	-0.019	-0.022
-20	-4	0.008	0.005	0.003	0.000	-0.003	-0.005	-0.008	-0.011	-0.014	-0.016	-0.019
-10	14	0.011	0.008	0.005	0.003	0.000	-0.003	-0.005	-0.008	-0.011	-0.014	-0.016
0	32	0.014	0.011	0.008	0.005	0.003	0.000	-0.003	-0.005	-0.008	-0.011	-0.014
10	50	0.016	0.014	0.011	0.008	0.005	0.003	0.000	-0.003	-0.005	-0.008	-0.011
20	68	0.019	0.016	0.014	0.011	0.008	0.005	0.003	0.000	-0.003	-0.005	-0.008
30	86	0.022	0.019	0.016	0.014	0.011	0.008	0.005	0.003	0.000	-0.003	-0.005
40	104	0.024	0.022	0.019	0.016	0.014	0.011	0.008	0.005	0.003	0.000	-0.003
50	122	0.027	0.024	0.022	0.019	0.016	0.014	0.011	0.008	0.005	0.003	0.000

### TABLE 1 & 2: MATERIAL THERMAL MOVEMENT RELATING TO AMBIENT TEMPERATURE

TABLE 2 - METRIC AVERAGE TEMPERATURE AT TIME OF CUTTING & INSTALLATION													
		°C	-50	-40	-30	-20	-10	0	10	20	30	40	50
		°F	-58	-40	-22	-4	14	32	50	68	86	104	122
c °C °F EXPANSION OR CONTRACTION (MM/METE								1ETER)		ia			
TEMP.	-50	-58	0.000	-0.230	-0.460	-0.690	-0.920	-1.150	-1.380	-1.610	-1.840	-2.070	-2.300
	-40	-40	0.230	0.000	-0.230	-0.460	-0.690	-0.920	-1.150	-1.380	-1.610	-1.840	-2.070
CONSTRUCTION	-30	-22	0.460	0.230	0.000	-0.230	-0.460	-0.690	-0.920	-1.150	-1.380	-1.610	-1.840
NG	-20	-4	0.690	0.460	0.230	0.000	-0.230	-0.460	-0.690	-0.920	-1.150	-1.380	-1.610
IST	-10	14	0.920	0.690	0.460	0.230	0.000	-0.230	-0.460	-0.690	-0.920	-1.150	-1.380
õ	0	32	1.150	0.920	0.690	0.460	0.230	0.000	-0.230	-0.460	-0.690	-0.920	-1.150
POST	10	50	1.380	1.150	0.920	0.690	0.460	0.230	0.000	-0.230	-0.460	-0.690	-0.920
	20	68	1.610	1.380	1.150	0.920	0.690	0.460	0.230	0.000	-0.230	-0.460	-0.690
AAX	30	86	1.840	1.610	1.380	1.150	0.920	0.690	0.460	0.230	0.000	-0.230	-0.460
MIN/MAX	40	104	2.070	1.840	1.610	1.380	1.150	0.920	0.690	0.460	0.230	0.000	-0.230
Σ	50	122	2.300	2.070	1.840	1.610	1.380	1.150	0.920	0.690	0.460	0.230	0.000

#### 1.5. Surface Finish

The Longboard Link & Lock Soffit system is available in a range of Woodgrain, Solid & Specialty Finishes with custom\* solid colors available upon request. *\*Additional lead times apply.* Longboard Woodgrains have a repeat pattern, shipped in sets. Install these as they come out of the box, as an A&B pattern staggering each set approx. 1-2' (305-610mm) from the previous set to achieve a random pattern aesthetic.

All Longboard Products are produced 1" (25mm) oversized, as one end is hole-punched (all finishes) and both ends have 1/2" (12mm) of masking tape (woodgrains only) which must be cut off for best results.



# 1.6. Material Ordering & Delivery

Link & Lock Soffit is sold by the set (pair), end caps are sold by the box: 20 caps/bx. Lead time is 3-4 weeks\* (*\*subject to change*), delivered on 24' (7.3m) long skids weighing up to 2000 lbs. A mechanical lift with forks is required on site to receive the order.

Always inspect the delivery for damage and contact LB ASAP if there are any issues: <u>info@longboardproducts.com</u> or 1-800-604-0343 and include your PO# and any pictures if possible. Mark the delivery receipt as "damaged" and accept the delivery as-is. Longboard is not responsible for the installation of blemished or damaged material.

# 1.8. Storage & Handling

Be sure to store the material flat, keep it dry, safe & secure and remain in unopened cartons until ready to be installed. Ensure proper care when handling, to avoid damage on site.

#### 2.0. FRAMING REQUIREMENTS

#### 2.1. General

Always consult the local building authority and follow local building code requirements.

#### 2.2. Load Capacity

The Longboard Link & Lock Soffit system weighs approx. 1.3 up to 1.9 lbs/LF\*. \*see profile drawings for individual item weights.

#### 2.3.1. Wood-Framing

Traditional soffit framing at 16" (406mm) o.c. with or without solid secure blocking running perpendicular to the Link & Lock Soffit orientation.

#### 2.3.2. Metal Framing

16ga. (minimum) galvanized steel framing at 16" (406mm) O.C.

#### 2.3.3. Concrete

Wood or metal furring strips (see 2.3.1. and 2.3.2. for standard requirements).

#### 2.3.4. Posts & Other Structures

Solid, secure structure of material designed to support loading (see 2.2.), spaced at 6' (1.83m) o.c. max.

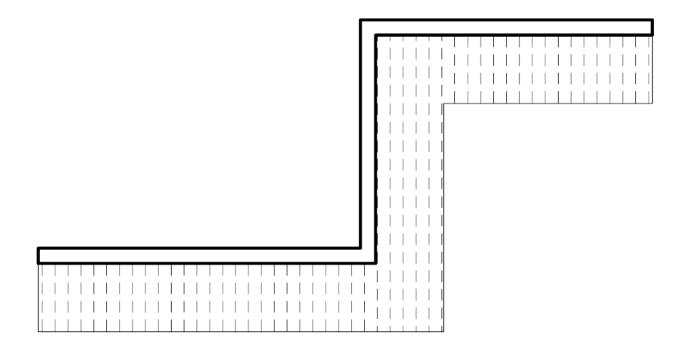
#### 2.4. Framing Layout

Provide solid secure framing and/or blocking at 16" (406mm) o.c. for material support and fasten at 5'4" (1.63m).

# 3.0. SYSTEM INSTALLATION

# 3.1. Layout

Measure and layout your soffit area to consider baffle/batten alignment with lighting fixtures, penetrations and adjacent walls, for the desired appearance. (drawing shown as reflected ceiling plan)



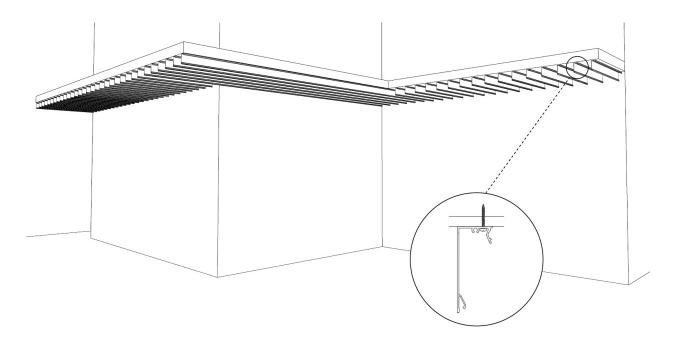
#### 3.2. Installation

Baffles/Battens should be installed with staggered butt-joints in applications with longer lengths, leaving a 1/4" (6mm)(minimum) gap between each member to allow for expansion & contraction. See 1.4.1.Expansion & Contraction.

#### 3.2.①. BACK "L"

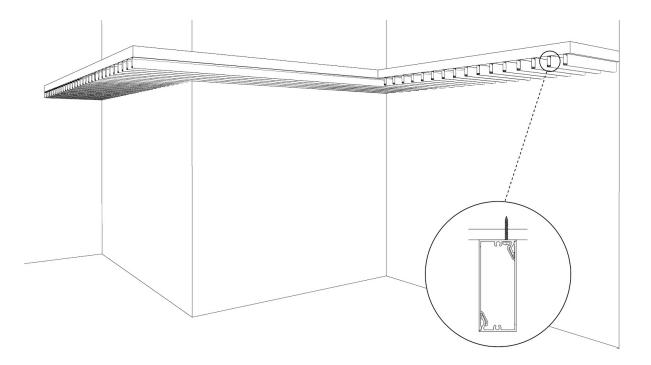
Install the back "L" throughout (see 1.4. Fastening). Install end caps (see: 3.3.③.) where access will be restricted upon installation.

**TIP!** It is good practice to check your installation every 2-3 rows for alignment and flat/straight, for best results.



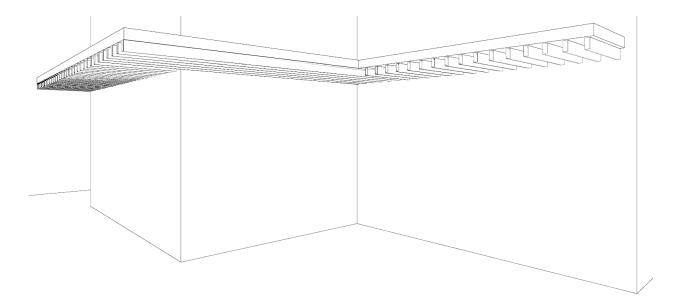
# 3.2.②. FRONT "L"

Install the front "L" onto the base "L" (see 1.4.1. Expansion & Contraction).



# 3.2.③. End Caps

Upon completion of installed area(s), install end caps at open ends (see: 3.3.(3).).



# 3.3.3. END CAPS



#### 4.0. Cleaning Recommendations

\*see Cleaning Guide for full requirements longboardproducts.com

While Longboard finishes require zero maintenance, we do recommend periodic cleaning to keep the product looking its best. Our finish is tested to withstand corrosion, fading and normal wear, however, neglect and rough conditions could have negative effects on the surface finish. These effects will not negate the structural performance of the product, but prolonged exposure to these conditions may result in permanent markings or surface damage.

Cleaning should be done in mild weather, and never in direct sunlight. Always complete a test patch on an inconspicuous area to ensure your detergent is suitable for the surface.

Your Longboard products should be cleaned immediately after installation. This is to remove any construction soils such as oils or dust. How to complete this initial cleaning depends on the level of dirt and the nature of the soil. See the cleaning guide for our suggestions based on soil level. Basic methods use a combination of moderate water pressure, soft sponge/brush and a mild detergent.

▲ NEVER use aggressive acid or alkaline cleaners on Longboard finishes. Do not use cleaners containing Trisodium Phosphate, Phosphoric Acid, Hydrochloric Acid, Hydrofluoric Acid, Fluorides or any other compound that is known to react with metal.

Always follow the product instructions for dilution. Cleaning the surface with a cleanser that is not diluted may result in damage to the coating.

#### 5.0. WARRANTY

Upon substantial completion of the project, register for warranty online here: <u>longboardproducts.com/warranty</u> <u>A</u> Pagistration is required for the warranty to be in offect

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INSTRUCTION STEP #	IMAGE	DESCRIPTION	TYPICAL USE	SECTION DETAIL (scan or click)
12		4" LINK & LOCK, 24' (7.3m) LENGTHS, WOODGRAIN, SOLID, SPECIALTY, CUSTOM SOLID	SOFFIT BAFFLE	
12		6" LINK & LOCK, 24' (7.3m) LENGTHS, WOODGRAIN, SOLID, SPECIALTY, CUSTOM SOLID	SOFFIT BAFFLE	
12		8" LINK & LOCK, 24' (7.3m) LENGTHS, WOODGRAIN, SOLID, SPECIALTY, CUSTOM SOLID	SOFFIT BAFFLE	
3		4" END CAP, WOODGRAIN, SOLID, SPECIALTY, CUSTOM SOLID	BAFFLE END CAP	
3		6" END CAP, WOODGRAIN, SOLID, SPECIALTY, CUSTOM SOLID	BAFFLE END CAP	
3		8" END CAP, WOODGRAIN, SOLID, SPECIALTY, CUSTOM SOLID	BAFFLE END CAP	

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