GUIDELINE SPECIFICATIONS

GORDON SOFFIT-SHIELD™ - An Exterior Metal Soffit System
DIVISION 05 5800 or DIVISION 07 7700

Note To Specifier: SOFFIT-SHIELD should be installed by tradesmen that are experienced in handling finished products. SOFFIT-SHIELD shall be specified in Division 7-Thermal and Moisture Protection or Division 5-Metals.

PART 1: GENERAL

1.01 SUMMARY

A. Section includes: prefinished, prefabricated, through-fastened, concealed fastener soffit system and accessories.

B. Related Sections
1. Metal decking
2. Rough carpentry, plywood, and underlayment
3. Insulation
4. Membrane roofing
5. Flashing and sheet metal
6. Joint sealers: sealants and caulk
7. Structural framing.

1.02 REFERENCES

A. American Society for Testing and Materials (ASTM)
1. ASTM A 653: Steel Sheet, Zinc-Coated by the Hot Dip Process

2. ASTM A 792: Steel Sheet, Aluminum-Zinc Alloy Coated by the Hot Dip Process.

3. ASTM B 209: Aluminum and Aluminum Alloy Sheet and Plate.

B. Sheet Metal and Air Condition Contractors National Association, Inc. (SMACNA)
1. SMACNA Architectural Sheet Metal Manual, 1993 Edition.

C. American Iron and Steel Institute (AISI)
1. AISI Cold Formed Steel Design Manual

D. Aluminum Association
1. Aluminum Design Manual

E. Metal Construction Association (MCA)
1. Preformed Metal Wall Guidelines

F. Code references
1. ASCE, Minimum Loads for Buildings and Other Structures
2. BOCA National Building Code
3. UBC Uniform Building Code
4. SBC Standard Building Code
5. BOAF Florida Building Code

1.03 SYSTEM DESCRIPTION

A. Performance Requirements: Provide factory formed, prefinished, throughfastened, concealed fastener, soffit system, that has been pretested and certified by manufacturer to comply with specified requirements under installed conditions.

1. The metal soffit system including required trim members shall meet the specified requirements for wind loads.
2. The panel will have continuous integral ribbing. Adjacent panels shall interleave into place. Cover trims or sealant hide the screws.
3. The soffit panels are available in solid (non-perforated) form.

B. Structural Requirements: Engineer panels for structural properties in accordance with latest edition of American Iron and Steel Institute's *Cold Formed Steel Design Manual* using "effective width" concept and Aluminum Association's *Aluminum Design Manual*.

1.04 SUBMITTALS

A. Product Data: submit manufacturer's specifications, standard profile sheet, product data brochure and finish warranty.

B. Shop Drawings: shop drawings showing soffit with layout of panels, screws, underlayment and sections of each flashing/trim condition shall be submitted for approval prior to fabrication. Drawings shall contain material type, metal thickness and finish. Drawings shall distinguish between factory and field fabrication.

C. Samples:

1. Submit sample 12" long x full width panel, showing proposed metal gauge, seam profile and specified finish.
2. Submit manufacturer's standard colors for Architect's selection.

D. Certification: Submit manufacturer's certification that materials and finishes meet specification requirements.

1.05 QUALITY ASSURANCE

A. Panel manufacturer shall have a minimum of ten (10) years of experience in manufacturing exposed exterior soffit systems in a permanent stationary indoor facility and must have previously received Dade County Florida NOA.

B. Panel installer shall have a minimum of two (2) years experience in the installation of exposed exterior soffit systems and show evidence of successful completion of at least three (3) projects of similar size, scope, and complexity.

1.06 DELIVERY, STORAGE, and HANDLING

A. Panels and flashings shall be protected and properly packaged to protect against transportation damage in transit to the jobsite.

B. Upon delivery, exercise care in unloading, stacking, moving, storing, and erecting panels and flashings to prevent twisting, bending, scratching, or denting.

C. Store panels and flashings in a safe dry environment under a waterproof covering, to prevent water damage and allow adequate ventilation to prevent condensation. Panels and flashings with strippable film shall not be stored in direct sunlight.

D. Upon installation immediately remove strippable film from panels and flashings. Protect panels and flashings from foot traffic and from all other trades.

1.07 PROJECT CONDITIONS

A. Field dimensions shall be taken prior to fabrication to verify jobsite conditions.

B. This panel should be installed as a soffit only.

C. Maximum panel length is 8' (contact the factory for longer panels).

1.08 WARRANTIES

A. Panel manufacturer shall provide a five (5) year warranty on the paint finish covering chalking, cracking, checking, chipping, blistering, peeling, flaking, and fading.

B. Applicator shall furnish written warranty for a five (5) year period from date of substantial completion of building covering repairs required to maintain roof and flashings in watertight conditions.

Part 2 PRODUCTS

2.01 PRODUCT DESCRIPTION

A. SOFFIT-SHIELD™ soffit panel system as manufactured by Gordon Exterior Specialties Division, Gordon, Inc., 5023 Hazel Jones Road, Bossier City, LA 71111, (800) 747-8954, Fax (800) 877-8746, www.gordonexteriors.com , sales@gordonexteriors.com.

B. The SOFFIT-SHIELD™ panel shall have a maximum coverage of 30". Continuous integral steel rib panel bonded to the surface panel. Bonding agent performs to stress of 245 psi tensile and 360 psi shear. Total height of panel shall be 7/8".

C. Panels shall be directly fastened to the substrate.

D. The fasteners shall be hidden when screw covers or sealant is installed.

E. The panel shall have an overlapping sidelap feature that maintains panel-to-panel flatness.

2.02 PRODUCT SUBSTITUTIONS

A. Requests to use alternate systems shall be submitted in writing to the project designer at least ten (10) days prior to bid date. Request shall demonstrate proposed substitution meets or exceeds specified performance requirements. Certified statements, samples and descriptive data shall be included in this submittal request.

B. Manufacturers listed in this section are prequalified manufacturers. Substitution of manufacturer's products for those specified shall not be allowed at anytime during construction.

2.03 MATERIALS AND FINISHES

A. Soffit panel materials

1. Corrugated Backer Panel – 24 gauge (0.0276” +/- 0.004”), Grade 40 (40 ksi yield strength) structural steel with G90 (0.90 oz./ft2) hot dipped galvanized coating, both conforming to ASTM A 653.
2. Optional: Corrugated Backer Panel – 24 gauge (0.0276” +/- 0.004”), Grade 40 (40 ksi yield strength) structural steel with AZ50 (0.50 oz./ft.2) aluminum-zinc alloy coating, both conforming to ASTM A 792.
3. Face Panel – 0.090" +/- 0.006”, 3003-H14 or equivalent (20 ksi yield strength) aluminum alloy conforming to ASTM B 209.

B. Texture: panels shall be smooth.

C. Finish: Refer to manufacturer's standard color card to determine appropriate finish and

color. All panels shall receive a factory-applied Kynar® 500/Hylar® 5000*coating conforming to the following:

1. Metal preparation: all metal shall have the surfaces carefully prepared for painting on a continuous process coil coating line by alkali cleaning, hot water rinsing, application of chemical conversion coating, cold water rinsing, sealing with an acid rinse, and thorough drying.
2. Prime coating: a base coat of epoxy paint, specifically formulated to interact with the top-coat, shall be applied to the prepared surfaces by roll coating to a dry film thickness of 0.20 ± 0.05 mils. This prime coat shall be oven cured prior to application of finish coat.
3. Exterior coating: a Kynar® 500/Hylar® 5000 coating shall be applied over the primer by roll coating to a dry film thickness of 0.80 ± 0.05 mils for a total dry film thickness of 1.00 ± 0.10. This finish coating shall be ovencured.
4. Interior coating: a washcoat shall be applied on the reverse side over the primer by roll coating to a dry film thickness of 0.30 ± 0.05 mils for a total dry film thickness of 0.50 ± 0.10 mils. The washcoat shall be oven-cured.
5. Color: the color of the exterior finish shall be chosen from the manufacturer's standard color chart.
6. Physical properties: the coating shall conform to the manufacturer's standard performance criteria as listed by certified test reports for fade, chalk, abrasion, humidity, adhesion, pollution resistance, and others as required and standard within the industry.

C. Finish: Other finishes are available dependent on the application and project conditions. Contact factory for more details - 800.747.8954.

2.04 ACCESSORIES

A. Flashing and Trim

1. All flashing and trim shall be of the same material, gauge, finish, and color as the soffit panels and fabricated in accordance with standard SMACNA procedure and details.

B. Fasteners

1. All screws shall be plated steel or stainless steel. They shall have a combination steel and EPDM washer.
2. Screws for flashings and sidelaps shall be #12 x ¾" sheet metal stitch screws. All sidelaps shall be fastened 6" o.c.

C. Caulking shall be a polyurethane where it is exposed and there is no thermal movement. All caulking or sealing shall be done in a neat manner with excess caulking or sealant removed from exposed surfaces.

D. Caulking shall be non-skinning, non-hardening gun grade butyl sealant or butyl sealant tape with a minimum thickness of .125" where it is concealed and where thermal movement must be accommodated. All caulking or sealing shall be done in a neat manner with excess caulking or sealant removed from exposed surfaces.

E. Vapor Retarder:

1. Retarder with a permeance of 0.05 or less as determined by ASTM E 98.

2.05 RELATED MATERIALS

A. Refer to other sections listed in Related Sections paragraph for related materials.

2.06 FABRICATION

A. Panels are lappable.

B. Panels shall be formed on a stationary forming tool to shape the sheet metal. Portable rollformers, rented or owned by the installer, are not acceptable.

C. Fabricate flashings from the same material as the soffit system.

2.07 SOURCE QUALITY

A. Source Quality: obtain metal panels and accessories from a single manufacturer.

B. Fabrication tolerances

1. Rib height: 3/8" ± 1/64".
2. Panel shearing length: ± 1/8" maximum.
3. Follow tolerances in MCA's Preformed Metal Wall Guidelines.

C. Tests and inspections

D. Verification of performance

PART 3 EXECUTION

3.01 MANUFACTURER'S INSTRUCTIONS

A. Compliance: Comply with manufacturer's product data, including product technical bulletins, product catalog installation instructions, and product cartons for installation.

3.02 EXAMINATION

A. Installer shall:

1. Inspect substrate to verify deck layout complies with shop drawing layout and is smooth, even, sound, and free of depressions.
2. Report variations and potential problems in writing to the architect.

3.03 INSTALLATION

A. Conform to the standard set forth in the SMACNA architectural sheet metal manuals and the approved shop drawings detailed for the project.

B. Install panels plumb, level, and straight with the ribs parallel, conforming to the design as indicated.

C. Install panel system so it is watertight, without waves, warps, buckles or distortions, and allow for thermal movement considerations.

D. Abrasive devices shall not be used to cut on or near roof or wall panel system.

E. Apply sealant tape or caulking as necessary at flashing and panel joints to prevent water penetration.

F. Remove any strippable film immediately upon exposure to direct sunlight.

G. Vapor retarder: The joints, perimeter, and all openings shall be sealed per the manufacturer's instructions to provide a continuous vapor retarder.

3.04 CLEANING

A. Dispose of excess materials and debris from jobsite.

B. Remove filings, grease, stains, marks, or excess sealants from roof panel system to prevent staining.

C. Protect work from damage from other trades until final acceptance.

* Kynar® 500 is a registered trademark of Elf Atochem North America, Inc.
Hylar® 5000 is a registered trademark of Ausimont USA, Inc.