

STANDARD SPECIFICATION
JANUARY 2010

DIVISION 7

SECTION 7E SHEET METAL WORK AND STANDING SEAM ROOF

7E.01 GENERAL: Comply with all of the Contract Documents.

7E.02 SCOPE OF WORK:

Refer to "Division Scope of Work" to include and/or coordinate with related work specified elsewhere.

7E.03 MATERIALS

A. Materials shall be as follows:

1. Aluminum .019" thick (for flashing).
2. Aluminum gauge .040 (factory formed metal panel for standing seam roof) with continuous integral locking system. Provide all necessary accessories, ridges, hips, valleys, eaves, rakes, corners, miscellaneous flashing, closure members and fasteners to ensure a weather-tight installation.
3. Reglet and Counter-flashing (cap flashing): Reglet frame shall be extruded aluminum and counter-flashing shall be roll formed aluminum .032" mill finish. Spring clips shall be stainless steel, 16" O.C. Reglet and counter-flashing shall be Type RC-2 as manufactured by MM Systems Corp. or approved equal as determined by Architect/Engineer. (Installed under Section 7B)
4. Aluminum sheet to conform to Federal Specification QQ-A-359, Alloy 3003.
5. Extruded aluminum shall be 6063 TS alloy.
6. Solder to conform to ASTM-B-32, composition, equal parts of tin and lead.
7. Galvanized steel shall be hot dipped process - 1.25 oz. per square feet.
8. Flux shall be muriatic acid, cut into zinc or an approved suitable soldering paste.
9. Nails and wood screws shall be flat headed, threaded, not less than No. 12 stubs of sufficient lengths to penetrate wall of metal base and/or ground.
10. Sealer for "lapping" conditions shall be non-drying mastic. Where sheet metal abuts other materials, sealing shall be as specified in Section 7D, Caulking.
11. Leaders shall be .025" thick aluminum.

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12. Leader heads shall be .025" thick aluminum.
13. Scuppers shall be .025" thick aluminum.
14. Aluminum louvers shall be model 6100 as manufactured by Construction Specialties Inc. or as approved by Architect/Engineer.

7E.04 SHOP DRAWINGS AND CERTIFICATIONS

- A. Shop drawings and certifications shall be submitted to the Architect/Engineer, for approval of items in this Section.
- B. Submittals for standing seam roof:
 1. Produce Data:

Submit manufacturer's current specifications and installation instructions.
 2. Shop Drawing:

Submit shop drawings showing small scale roof plan and/or elevations as required. Show details of all trim and flashing conditions, fastening and anchoring method, weatherproofing, terminations and penetrations of metal roofing work. Panel installation shall not start until shop drawings are approved by Architect/Engineer.
 3. Samples:

Submit actual panel sample along with sample of gauge of material and color.
 4. Quality Control Submittals:
 - a. Submit actual test documentation where applicable.
 - b. Submit preliminary material and finish warranty.
 5. Regulatory Requirement:

All local building code requirements are to be followed for both design and installation of metal roof system.
 6. Pre-Installation Conference:

A meeting between panel installer, general contractor, and Architect/Engineer shall be held prior to actual installation of material to review the following: acceptable substrates, materials, colors, gauges changes in scope of work, etc.

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7E.05 WORKMANSHIP AND INSTALLATION

- A. All surfaces to receive sheet metal work and related work shall be cleared of rubbish, dirt etc.
- B. Sheet metal work shall be water and weather-tight with lines, arises and angles sharp and true and surfaces free from wave and buckle, to complete satisfaction of the Architect/Engineer.

Roof panel shall be installed with no transverse seam.

- C. Aluminum flashing shall be installed as indicated including flashing at plumbing vent stacks, roof drains and roof curbs. All flashing shall extend 4" onto roofing and 12" vertically and sealed.
- D. Sheet metal work shall be joined with 3/4" lock seams.
- E. Install aluminum gutters and leaders for roof bulkheads. The gutters shall be equal to Alcoa 5 inch O.G. Gutters shall be baked enamel finish of color as selected by the Architect/Engineer. Gutters shall be .032", leaders 2" x 3", .025" and end caps .027" thick. All work to be properly supported with non-corrosive nails and straps.
- F. Leader heads shall be fabricated of aluminum, a minimum of .025" in thickness. Leader heads to be properly secured and anchored. When leader heads are used in conjunction with scuppers they shall be closed at the top with removable, heavy copper bird screens. New scuppers shall be .025" thick aluminum.
- G. Aluminum louver frames and blades to be 6063-T52 alloy, minimum .081 inch thick with reinforcing bosses. Head, sill and jambs to be one piece structural extruded members as detailed and to have integral caulking slot and retaining bead. All fastenings to be stainless steel or aluminum. All louvers furnished with 1/2" mesh .063 diameter wire inter-crimp bird screen secured to removable extruded aluminum frames. All louvers to be free of scratches and blemishes. The manufacturer shall furnish standard 20 year guarantee against defects in the super clad 1100 or the Kynar 500 Finish.

7E.06 PROJECT SITE CONDITIONS

Field measurements should be taken by the installer for verification of dimensional correctness in relationship to original plans, prior to providing manufacturer with a bill of material.

7E.07 SHOP PAINTING

- A. All non-galvanized ferrous metal work shall be given a coat of Rust-Oleum 1386 gray primer.

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- B. For standing seam roof finish: Fluoropolymer, PVDF, KYNAR 500(R) or HYLAR 5000(R) coating.

Test: Nubelar Coating System as manufactured by: The Glidden Co.

Gloss	- ASTM D 532.80
Salt Spray	- ASTM B 117.85
Abrasion	- ASTM 4060.84
Pencil Hardness	- ASTM D3363.74

7E.08 GUARANTEES

- A. Upon final completion, the contractor shall furnish guarantee in writing to the Architect/Engineer, for all workmanship and materials against defects in same for the period of five (5) years after completion and acceptance of the work, replacing or making good such defects they may become apparent during this period, at no cost to Architect/Engineer.
- B. Contractor shall furnish Standing seam roof manufacturer's standard twenty (20) year finish warranty for fluoropolymer KYNAR 500® or HYLAR 5000® finish system.
- C. All guarantees to be from the date, when **Final Certificate of Occupancy** is issued from Department of Buildings.

END OF SECTION