SECTION 072100

THERMAL INSULATION

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

**NOTE TO SPECIFIER**

*Use this Specification Section for Mail Processing Facilities.*

***This is a Type 1 Specification with completely editable text; therefore, any portion of the text can be modified by the A/E preparing the Solicitation Package to suit the project.***

*For Design/Build projects, do not delete the Notes to Specifier in this Section so that they may be available to Design/Build entity when preparing the Construction Documents.*

*For the Design/Build entity, this specification is intended as a guide for the Architect/Engineer preparing the Construction Documents.*

*The MPF specifications may also be used for Design/Bid/Build projects. In either case, it is the responsibility of the design professional to edit the Specifications Sections as appropriate for the project.*

*Text shown in brackets must be modified as needed for project specific requirements.* *See the “Using the USPS Guide Specifications” document in Folder C for more information.*

*The last date that USPS revised this standard specification section occurs in two places, at the end of this section and in the Table of Contents. If the date in this section matches the date in the Table of Contents, then you are using the latest version. Do not delete or revise the “last revised” date at the end of the section during the development of the Project Manual.*

*The footer in this section should be edited to replace the text, “USPS MPF SPECIFICATION” with the project name, and the blank date in the center should be replaced with the submission date, for interim design reviews, or the issue date of the completed Project Manual.*

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

PART 1 – GENERAL

1.1 SUMMARY

1. Perimeter and cavity wall insulation.
2. Loose insulation.
3. Batt insulation.
4. Fiberglass board insulation

1.2 SUBMITTALS

1. Product Data: Required.
2. Samples: Required.

1.3 QUALITY ASSURANCE

1. Regulatory Requirements: Conform to ASTM E 119 and ASTM E 84 for Fire-Resistance Ratings and Surface Burning Characteristics respectively.
2. Products containing Urea- Formaldehyde are prohibited.

PART 2 – PRODUCTS

2.1 MANUFACTURERS

* 1. Source: Celotex, Certainteed, Owens-Corning or approved equal.

1. Perimeter and Cavity Wall Insulation: Extruded cellular type polystyrene insulation board complying with ASTM C578 Type 25PSI R valve 5.0 (per inch of thickness).
2. Loose Insulation: No CFCs allowed.
   * 1. Granular Insulation: Vermiculite perlite type, water repellent, fire resistant.
     2. Beaded Polystyrene: Loose polystyrene beads.
     3. Insulation Inserts: Rigid Polysterene inserted in factory.
3. Batt Fiberglass Insulation with 25% recycled glass: Foil faced glass fiber batts complying with ASTM C-578 Type III R of 11.0 (per 3-inch thickness).
4. Fiberglass Board Insulation: Thermal insulation complying with ASTM C612, Type IA or Type IA and IB, nominal density of 4 lb./cu. ft.

Adhesive: Type recommended by insulation manufacturer.

PART 3 – EXECUTION

3.1 INSTALLATION

A. Foundation perimeter-board insulation:

1. Install boards on foundation perimeter with adhesive.
2. Tape insulation board joints.

B. Exterior walls - board insulation:

* 1. Install boards on wall surface.
  2. Tape insulation board joints.

C. Exterior walls - loose fill insulation:

1. Place in lifts not exceeding 6 feet pouring height.

D. Perimeter Insulation: Extruded polystyrene, adhesive application, plus ½ inch (13 mm) thick protection board or applied interior without protection.

E. Vermiculite or polystyrene insulation is to be placed in masonry cores when required to meet the minimum U - Value requirements.

END OF SECTION

USPS MPF Specification Last Revised: 10/1/2022