SECTION 055000

METAL FABRICATIONS

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**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.*

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PART 1 – GENERAL

1.1. SUMMARY

1. Miscellaneous steel that is not covered in Section 051200.
2. Door frames for special doors.
3. Stairs, landing sand associated guardrails and handrails.
4. Ladders.
5. Loose lintels and shelf angles.
6. Pipe bollards.
7. Metal joint covers.
8. Interior pedestrian guardrails
9. Pipe bollard plastic covers

1.2 SUBMITTALS

1. Shop Drawings: Required
2. Samples: Required
3. Product Data: Required

1.3 QUALITY ASSURANCE

1. Quality Standards: Comply with ASTM and AISC requirements.
2. Regulatory Requirements:

1. Design stair assembly to support live load of 100 pounds per square foot with deflection of stringer or landing framing not to exceed 1/240 of span.

2. Design guardrail system for the following loads applied to the top rail:

* 1. Uniform load of 50 pounds per linear foot applied horizontally and concurrently with uniform load of 100 pounds per linear foot applied vertically downward.
  2. Concentrated load of 250 pounds applied at any point and in any direction.
  3. Concentrated and uniform loadings shall not be applied simultaneously.

3. Design handrails for the following loads:

* 1. Uniform load of 50 pounds per linear foot applied in any direction.
  2. Concentrated load of 250 pounds applied at any point and in any direction.
  3. Concentrated and uniform load shall not be applied concurrently.

4. Conform to applicable Building Code and OSHA requirements.

PART 2 – PRODUCTS

2.1 MATERIALS

1. Structural Steel Members: Conform to ASTM A 36.
2. Tubing, Pipe: Conform to ASTM A 53.
3. Sheet: Conform to ASTM A 568.
4. Welding: Conform to AWS D1.1 “Structural Welding Code.”
5. Bolts, Nuts and Washers: Conform to ASTM A 307.
6. Handrail Fittings: Cast or Machined steel.
7. Pipe Bollard: 6” dia., Schedule 40 pipe, concrete filled with end cap.
8. Extruded Aluminum: ASTM B 221
9. Interior Pedestrian Guardrail: W beam rail elements fabricated from corrugated sheet steel conforming to AASHTO M 180, Type 3, Class A with W6 x 9 post and base plate for bolted connection to slab.
10. Anchors and Fasteners for Aluminum: Stainless Steel, ASTM A 304
11. Pipe Bollard Plastic Covers: Exterior shell cover of low density polyethylene and interior steel sleeve. Covers are to be 1/4 inch nominal wall thickness with ultraviolet and anti-static additives and a dome top. Install over steel pipe posts as indicated on Drawings. Subject to compliance with project requirements, manufacturers offering Products which may be incorporated in the Work include the following:
    1. Ideal Shield, L.L.C., Detroit, MI (313) 842-7290, (800) 731-1722.
    2. Liberty Equipment Sales, Houston, TX (281) 987-8708, (888) 987-8708.

2.2 FABRICATION

A. Stairs and Landings:

1. Closed risers and concrete filled metal pan treads construction.
2. Form treads, landings, and riser of sheet steel stock.
3. Form stringers with rolled steel channels or rectangular hollow sections.

B. Handrails:

1. Form posts and railings from steel pipe sections.

C. Shop/Factory Finishing:

1. Interior components: Prime painted.
2. Exterior components: Galvanized.

2.3 FIELD QUALITY CONTROL

1. Field Test: If required by Local codes.
2. Field Inspection: If required by Local codes.

2.4 SCHEDULES

A. Door Frames for Exterior Overhead Door Openings: Channel sections; galvanized finish.

B. Frames for Interior Impact, Overhead Coiling and Rapid Roll-up Doors: Channel sections; primed finish.

C. Dock leveler edge angles: Galvanized finish.

D. Dock edge channels: Galvanized finish.

E. Pipe bollards: Primed finish for interior and galvanized finish for exterior.

F. Interior Pedestrian Guardrails: primed finish with safety yellow top coat.

G. Interior ladders: Primed finish.

H. Exterior ladders: Galvanized finish.

I. Stair nosings at concrete stairs: Provide cast non-corrosive metal safety nosing (minimum 3” x 3/8”) with cross-hatched abrasive surface and integrally cast anchors at each exposed concrete stair tread.

J. Expansion joint covers: Extruded aluminum clear anodized finish.

K. Loose steel lintels in masonry openings: Galvanized finish, exterior; primed finish, interior.

L. Shelf angles: Galvanized finish.

PART 3 – EXECUTION

3.1 Install all products in accordance with manufacturer’s guidelines and printed instructions.

END OF SECTION

USPS MPF Specification Last Revised: 10/1/2022