

## SECTION 05 53 00

## METAL GRATING

## PART 1 GENERAL

## 1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

## ASTM INTERNATIONAL (ASTM)

ASTM A36/A36M (2014) Standard Specification for Carbon Structural Steel

ASTM A510 (2018) Carbon Steel Wire Rods

## NATIONAL ASSOCIATION OF ARCHITECTURAL METAL MANUFACTURERS (NAAMM)

ANSI/NAAMM MBG 532 (2009) Heavy Duty Metal Bar Grating Manual

## 1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

## SD-02 Shop Drawings

## Metal Grating; G

Submit for approval shop drawings for the fabrication and erection of all gratings, based on construction drawings of current issue. Include plans, elevations, and details of sections required.

## 1.3 QUALITY ASSURANCE

- a. Manufacturer Qualification: A company specializing in the manufacture of metal bar gratings with not less than 10 years of documented experience.
- b. Fabrication tolerances shall be in accordance with applicable provisions and recommendations of ANSI/NAAMM MBG 532 Heavy Duty Metal Bar Grating Manual

## PART 2 PRODUCTS

## 2.1 METAL GRATING

- a. Type 38-W-4 Heavy Duty Carbon Steel Grating with Mill finish. Fabricated by welding heavy duty cross bars perpendicular to heavy duty main bearing bars.
  - 1. Main Bearing Bar Spacing: 2-3/8" on center
  - 2. Bearing bar thickness: 1/4" as shown
  - 3. Main Bearing Bar depth is 4"
  - 4. Cross Bar Spacing: 4" on center
  - 5. Top of main bearing bars are to be smooth.
- b. Banding ends is not required.
- c. Main Bearing bars and rectangular cross bars are to be type ASTM A36/A36M Carbon Steel. Round Cross bars are to be per ASTM A510. Banding is to be Carbon Steel type ASTM A36/A36M.
- d. Fabrication Tolerances shall be in accordance with ANSI/NAAMM MBG 532-09 Metal Bar Grating Manual.
- e. Gratings shall be a mill finish or powder coat painted black as shown.

## PART 3 EXECUTION

## 3.1 FIELD VERIFICATION

Provide field measurements prior to preparation of final shop drawings and fabrication where required to ensure proper fitting of the work.

## 3.2 SETTING AND ALIGNMENT

The metal grating sections are to be installed in the uncured concrete embeded flush with or just below the top of the concrete with the general alignment as indicated. Metal grating is to be installed in the presence of the contracting officer.

-- End of Section --