

SECTION 053100**METAL DECKING****PART 1 - GENERAL****1.1 GENERAL PROVISIONS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions of the Specifications and Addenda apply to work of this section.
- B. The Contractor shall cooperate with and coordinate all other trades in executing the work described in this section.
- C. Work of this section includes all labor, materials, equipment and services necessary to complete the metal deck work as shown on the drawings as specified herein, including the following:
 - 1. Floor deck
 - 2. Cell closures, closure plates and sheet metal required to contain concrete.
 - 3. Ceiling hanger tabs where new suspended ceilings are required.
- D. Quality Assurance: Codes and Standards: Conform to New York City Building Code, as amended; American Iron and Steel Institute (AISI) "Specification for the Design of Cold-Formed Steel Structural Members"; American Welding Society (AWS), D1.1 "Structural Welding Code" and D1.3 "Structural Welding Code-Sheet Steel"; Steel Deck Institute (SDI) "Design Manual for Composite Decks, Form Decks, and Roof Decks.

1.2 SHOP DRAWINGS

- A. Shop drawings for all installations showing gauges, type of deck, where located, welding details necessary for fabrication to fit in place, and all accessories. Do not use reproductions of the Design Drawings.

1.3 COORDINATION REQUIREMENTS

- A. If the supporting beams are not properly aligned or sufficiently level to permit proper bearing of the steel decking units, the steel decking contractor shall bring the matter to the attention of the contractor for corrective action. The steel decking units are not to be placed until the necessary corrections are made.

PART 2 PRODUCTS**2.1 MATERIALS**

- A. Galvanized Composite Steel Decking: ASTM A653, Coating ASTM A653 G90. Deck shall have deformations specifically designed to produce composite action between the deck and the concrete slab by mechanical bond. The Contract Documents indicate required section profile and minimum gauge. Contractor shall provide heavier gauge if the minimum gauge indicated is not sufficient to support construction loads as unshored forms and/or total load as indicated in load schedule based on the composite section.

- B. Anchor clips, vent clips, welding washers, flashing, saddle plates, and other accessories shall be those types, sizes, and configurations recommended by the decking manufacturer, and shall be of the same material and finish as the deck units.
- C. Provide metal closure strips at edges of all slabs and openings which serve as pour stops for concrete. Gauge shall be sufficient to span or cantilever from steel beams.

2.2 MANUFACTURE

- A. Supply manufactured deck units in accordance with the applicable requirements of the Steel Deck Institute's "Design Manual for Floor Decks and Roof Decks".
- B. Deck shall be manufactured by one of the following:
Inland Steel Company.
Wheeling Corrugating Company.
Cyclops Steel Corporation.
United Steel Deck, Incorporated.

2.3 FABRICATION

- A. Fabricate deck units in accordance with the AISI's "Specification for the Design of Cold-Formed Steel Structural Members" and accepted shop drawings. Fabricate deck units to the sizes and configurations indicated and cut to lengths which will span not fewer than three supporting members; use only full length units at overhang where indicated in a manner that laps fit tightly. Locate openings for penetrations where indicated and provide support framing and edge reinforcement for all openings.

PART 3 EXECUTION

3.1 INSPECTION

- A. Inspection of the metal deck installation will be performed by an inspection agency approved by the City of New York and provided by the contractor.

3.2 ERECTION

- A. Erection of the steel decking shall be performed according to the manufacturer's standards. Erection shall closely follow the erection of structural steel.
- B. The steel decking units shall be placed on the supporting steel framework and adjusted to final position before being permanently fastened. Each unit shall be brought to proper bearing on the supporting beams.
- C. Decking units shall be fastened to the steel framework at ends of units and at all intermediate supports by 3/4-inch-diameter puddle welds spaced not more than 12 inches on center across width of unit. Deck shall, where possible, span 3 or more supports.
- D. The side laps of adjacent units shall be fastened by approved method (to be shown on shop drawings) between supports at intervals of 3 feet between supporting beams. End laps of sheets shall be a minimum of 2 inches.
- E. Metal hanger tabs shall be installed at all panel sidelaps 24 inches on center, longitudinally 24 inches on center to create a grid nominally 24 inches by 24 inches. Tabs shall be 18 gauge, capable of supporting the specified ceiling, and other load requirements of the building Code, and shall be adjustable.

3.3 CLEANING UP

- A. Remove all equipment, unused materials and debris from the site immediately upon the completion of this work.

END OF SECTION 053100

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