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DOVETAIL SLOT AND ANCHORS SPECIFICATION

SECTION 04085

MASONRY ANCHORS AND ACCESSORIES

PART 1 GENERAL

1.1 SECTION INCLUDES

NOTE: Delete items below not required for project.

- A. Masonry veneer anchors and ties.
- B. Stone veneer anchors and ties.
- C. Masonry accessories.

1.2 RELATED SECTIONS

- A. Section 04810 - Unit Masonry Assemblies.
- B. Section 04851 - Cut Stone Veneer.
- C. Section 04852 - Stone Masonry Veneer.

1.3 REFERENCES

NOTE: Delete references from the list below that are not actually required by the text of the edited section.

- A. ASCE/ACI 530.1 - Specifications for Masonry Structures;1995.
- B. ASTM A 153/A 153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware; 1998.
- C. ASTM A 167 - Standard Specification for Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip; 1996.

D. ASTM A 240/A 240M - Standard Specification for Heat-Resisting Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels; 1998b.

E. ASTM A 276 - Standard Specification for Stainless Steel Bars and Shapes; 1998b.

F. ASTM A 479/A 479M - Standard Specification for Stainless and Heat-Resisting Steel Bars and Shapes for Use in Boilers and Other Pressure Vessels; 1997a.

G. ASTM A 580/A 580M - Standard Specification for Stainless Steel Wire; 1998.

H. ASTM A 653/A 653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 1998.

I. ASTM B 633 : Standard Specification for Electrodeposited Coatings of Zinc on Iron and Steel; (Reapproved 1994).

1.4 SUBMITTALS

A. Submit under provisions of Section 01300.

B. Product Data: Manufacturer's data on each type of product furnished.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Manufacturer: Heckmann Building Products Inc., 1501 N. 31st Avenue Melrose Park IL 60160

Tel: (708) 865-2403. Fax: (708-865-2640

Email: Heckmann@worldnet.att.net.

Website: www.heckmannbuildingprods.com.

NOTE: Delete paragraph below; coordinate with Division 1 requirements.

B. Requests for substitutions will be considered in accordance with provisions of Section 01600.

C. Substitutions: Not permitted.

2.2 APPLICATIONS

A. Provide anchoring systems that comply with ACI 530.1/ASCE 6/TMS 602.

B: Dovetail Slots cast in forms.

1. Anchors to Concrete:

NOTE: Choose one of the following slot types

- A. No. 100 Standard Dovetail Anchor Slot
- B. No. 100-A Large Dovetail Anchor Slot
- C. No. 100-B Small Dovetail Anchor Slot

NOTE: The following masonry ties must be used with one or more of the anchor types listed above

D. Masonry Veneer Seismic Ties: Continuous wire in mortar joint, anchored to one of the following:

Note: Delete all of the following types that are not required.

- 1. For Use with Dovetail Slots: **No. 361 DOVETAIL SEISMIC ANCHOR** [gage] x 1 inch (25 mm) wide x [length from face of concrete]

E. Masonry Veneer Ties: Provide minimum 2 inches (50 mm) embedment in mortar.

Note: Delete all of the following types that are not required.

2. For Use With Dovetail Slots:

- 103 DOVETAIL TRIANGLE TIE** 12 gage clip factory assembled to a 3/16 inch (4.76 mm) diameter x [tie length]
- 104 DOVETAIL PARTITION ANCHOR** [gage] x [width] x [length from face of concrete]
- 105 DOVETAIL STANDARD BRICK ANCHOR** [gage] x 1 inch (25 mm) wide x 3-1/2 inch (89 mm) long.
- 106 DOVETAIL CORRUGATED ANCHOR** [gage] x 1 inch (25 mm) wide x [length from face of concrete]
- 107 DOVETAIL WIRE BRICK ANCHOR** 1/8 inch (3.17 mm) thick anchor furnished loose with No. 316 Triangle Ties 3/16 inch (4.76 mm) diameter x [tie length]
- 108 DOVETAIL CAVITY WALL ANCHOR** [gage] x [width] x [length from face of concrete]
- 109 DOVETAIL FLAT ANCHOR** [gage] x [width] x [length from face of concrete]
- 110 DOVETAIL FURRING ANCHOR** [gage] x [width] x 1-1/2 inches (38.1 mm) long from face of concrete.

- 115 DOVETAIL STONE ANCHOR [gage] x [width] x [length from face of concrete] x [i.d. bend length]
- 116 DOVETAIL SPLIT END ANCHOR [gage] x [width] x [length from face of concrete] x [i.d. split-bend length].
- 117 DOVETAIL SPLIT BEND ANCHOR [gage] x [width] x [length from face of concrete] x [i.d. split-bend length]
- 118 DOVETAIL STONE PIN ANCHOR [gage] x [width] x [length from face of concrete] with [welded][fixed][loose] pin [diameter] x [length] centered [length] from end of anchor
- 121 DOVETAIL THREADED ROD ANCHOR [gage] x [width] x [overall length from face of concrete] x [rod diameter]

3. Other Applications: Where details or installation conditions require, provide ties fabricated of shape and size to suit conditions and provide adequate anchorage.

E. Stone Ties: Custom strap ties, fabricated to suit details and installation requirements.

- 1. For Anchoring Into Edge of Dimension Stone Panels:
 - 115 DOVETAIL STONE ANCHOR [gage] x [width] x [length from face of concrete] x [i.d. bend length]
 - 116 DOVETAIL SPLIT END ANCHOR [gage] x [width] x [length from face of concrete] x [i.d. split-bend length].
 - 117 DOVETAIL SPLIT BEND ANCHOR [gage] x [width] x [length from face of concrete] x [i.d. split-bend length]
 - 118 DOVETAIL STONE PIN ANCHOR [gage] x [width] x [length from face of concrete] with [welded][fixed][loose] pin [diameter] x [length] centered [length] from end of anchor

2. Where not otherwise indicated, use anchoring method specified above.

Note: Select one of the following 3 combinations of materials: all stainless steel, all hot-dip galvanized, or hot-dip galvanized except for items completely embedded in mortar. Delete the inappropriate choices.

F. Material for Anchors and Ties in Exterior Walls: Stainless steel.

- 1. Exception: Structural Plates, Angles, and Bars: Hot-dip galvanized.

G. Material for Anchors and Ties in Exterior Walls: Hot-dip Galvanized After Fabrication.

H. Material for Anchors and Ties Exposed to Air in Exterior Walls: Hot-dip galvanized After Fabrication.

1. Exception: Dovetail Slots: Stainless steel.
2. Exception: Dovetail Slots: Mill galvanized steel.

I. Material for Ties Completely Embedded in Mortar Joints: Mill galvanized.

2.3 MATERIALS

A. Stainless Steel: Type 304.

1. Sheet Metal: ASTM A 167 or ASTM A 240/A 240M.
2. Wire: ASTM A 580/A 580M.
3. Bars: ASTM A 479/A 479M, annealed and ground.
4. Plates, Bars, and Shapes: ASTM A 167 or ASTM A 276.

B. Hot-Dip Galvanized Steel: Hot-dip galvanized after fabrication in accordance with ASTM A 153/A 153M, Class B-2.

1. Wire: Minimum 3/16 inch (4.76 mm) diameter.

C. Electro-Galvanized Steel: Electro-galvanized after fabrication in accordance with ASTM B 633, Service Condition 1.

1. Wire: Minimum 3/16 inch (4.76 mm) diameter.

D. Mill Galvanized Steel:

1. Sheet Metal: ASTM A 653/A 653M, G60 coating.
2. Wire: ASTM A 641, regular coating; minimum 3/16 inch (4.76 mm) diameter.

NOTE: Dovetail slots are available only in mill galvanized, hotdip galvanized, and stainless steel. Stainless steel available only in 26 gage For No. 100. Select one type of dovetail slot and delete the others.

E. Dovetail Slots: Heckmann No. **100 STANDARD DOVETAIL ANCHOR SLOT**

1. Size: 1 inch (25 mm) wide by 1 inch (25 mm) deep by 5/8 inch (16 mm) throat.
2. Metal Thickness: 20 gage (0.9 mm)
3. Metal Thickness: 22 gage (0.76 mm)
4. Metal Thickness: 24 gage (0.61 mm)

5. Metal Thickness: 26 gage (0.45 mm)

NOTE: Delete one of the following two paragraphs on ties. Be sure the tie style is listed above under Applications

- 1. Ties: 12 gage (2.6 mm) thick; style as indicated above.
- 2. Ties: 16 gage (1.5 mm) thick; style as indicated above.

E. Dovetail Slots: Heckmann No. **100-A LARGE DOVETAIL ANCHOR SLOT.**

- 1. Size: 2 inches (50 mm) wide by 1-1/2 inches (38 mm) deep by 1-3/8 inch (35 mm) throat.

Note: Delete all but one of the following metal thicknesss.

- 1. Metal Thickness: 16 gage (1.5 mm).
- 2. Metal Thickness: 18 gage (1.2 mm).
- 3. Metal Thickness: 20 gage (0.9 mm).

Note: Delete one of the following two paragraphs on ties. Be sure the style is listed above under Applications.

- 1. Ties: 12 gage (2.6 mm) thick; style as indicated above.
- 2. Ties: 16 gage (1.5 mm) thick; style as indicated above.

E. Dovetail Slots: Heckmann No. **100-B SMALL DOVETAIL ANCHOR SLOT.**

- 1. Size: 7/8 inch (22 mm) wide x 1/2" (13 mm) deep by 5/8 inch (16 mm) throat.
- 2. Metal Thickness: 20 gage (0.9 mm)

Note: Delete one of the following two paragraphs on ties. Be sure the style is listed above under Applications.

- 1. Ties: 12 gage (2.6 mm) thick; style as indicated above.
- 2. Ties: 16 gage (1.5 mm) thick; style as indicated above.

PART 3 EXECUTION

3.1 INSTALLATION

A: Dovetail Anchor Slot: Nail filler side down to concrete forms. Nails should be placed every 12 inches (305 mm). Space Slots [vertically][horizontally] every [specify distance between slots].

B: Anchors: Insert anchor at desired height into Dovetail Anchor Slot. Turn 90 degrees to lock into the slot. Place mortar above and below anchor in the mortar joint. [Specify spacing of anchors].

END OF SECTION