

Part 1 General

1.1 RELATED REQUIREMENTS

- .1 Section 04 05 00 – Common work results for masonry
- .2 Section 04 05 12 – Masonry mortar and grout
- .3 Section 04 05 23 – Masonry accessories
- .4 Section 04 22 00 – Concrete masonry unit
- .5 Masonry connectors and reinforcing – Engineer's drawings and specifications

1.2 REFERENCES

- .1 ASTM International Inc.
 - .1 ASTM A307-04, Standard Specification for Carbon Steel Bolts and Studs, 60 000 PSI Tensile Strength.
 - .2 ASTM A641/A641M-03, Standard Specification for Zinc-Coated (Galvanized) Carbon Steel Wire.
- .2 Canadian Standards Association (CSA International)
 - .1 CAN/CSA-A23.1/A23.2-04, Concrete Materials and Methods of Concrete Construction/Methods of Test and Standard Practices for Concrete.
 - .2 CAN/CSA A179-04, Mortar and Grout for Unit Masonry.
 - .3 CAN/CSA A371-04, Masonry Construction for Buildings.

1.3 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:
 - .1 Provide manufacturer's printed product literature, specifications and datasheets illustrating products to be incorporated into project for specified products.

1.4 QUALITY ASSURANCE

- .1 Test Reports: certified test reports showing compliance with specified performance characteristics and physical properties.
 - .2 Certificates: product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements.
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1.5 FIELD MEASUREMENTS

- .1 Make field measurements necessary to ensure proper fit of members.

1.6 DELIVERY, STORAGE, AND HANDLING

- .1 Deliver, store and handle masonry anchorage and reinforcing materials in accordance with Section 01 61 00 - Common Product Requirements, supplemented as follows:
 - .1 Deliver reinforcement and connectors, identified in shop and placement drawings.

1.7 PACKAGING WASTE MANAGEMENT

- .1 Separate and recycle waste materials in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.

Part 2 Products

2.1 MATERIALS

- .1 Bar reinforcement: Steel to CAN/CSA A371 and CAN/CSA G30.18.
- .2 Connectors: to CAN/CSA A370 and CSA-S304.1.
- .3 Corrosion protection: to CSA-S304.1 and CAN/CSA A370, for any steel items be installed in exterior work.
- .4 Fasteners: installed post-construction:
 - .1 Screw Shields and Plugs: plastic or lead, vibration-resistant, chemical-resistant, water-resistant. Install in mortar joints.
 - .2 Bolts and Screws: size and type to suit application, locate where indicated.
 - .3 Nails: case-hardened cut or spiral nails, size and type to suit fastening application.
 - .4 Powder-Driven Fasteners: pin styles and lengths to suit fastening application in accordance with manufacturers use, load and hold recommendations.
 - .5 Adhesives: epoxies, mastics and contact cements for fastening applications, use in accordance with manufacturers' recommendations.
- .5 Ties: hot dip galvanized to CAN/CSA A370 Table 5.2 steel finish:
 - .1 Corrugated to CAN/CSA A370.
 - .2 Unit ties, to CAN/CSA A370: rectangular Z style, fabricated from cold-drawn steel, size to suit application.
 - .3 Adjustable Unit Ties: to CAN/CSA A370: proprietary type ties, type, style and size to suit application in accordance with manufacturer's recommendations.

- .6 Anchors: to CAN/CSA A370:
 - .1 Conventional Anchors: type steel bolts with bent bar anchors, plate anchors, through bolts, shape L, sized to suit application.
 - .2 Wedge Anchors: expansion anchors type wedge and bolt, sized to suit application.
 - .3 Sleeve Anchors: type sleeve and bolt, sized to suit application.
 - .4 Self-Contained Anchors: type double-glass/plastic vial system, with epoxy resin and hardener.
 - .5 Dovetail Anchors: bent steel strap, 25 mm x 19 mm x 3 mm thick, galvanized to CAN/CSA A370 Table 5.2 finish.
 - .6 Anchor Bolts: proprietary (patented) anchors, steel galvanized to CAN/CSA A370 Table 5.2 finish.
- .7 Conventional Bolts:
 - .1 Bolts: to ASTM A36, bar stock shop threaded, straight bolts with square or hex-headed nuts shaped.
 - .2 Plate anchors: steel to ASTM A36, weld square of circular steel plate perpendicular to axis of steel bar threaded on opposite end.
 - .3 Through bolt rods: to ASTM A307 threaded rod or threaded ASTM A36 bar stock.
- .8 Adhesive Anchors: proprietary systems, pre-mixed, self-contained system with double glass vial system to contain epoxy, consisting of resin, hardener and aggregate measure.

Part 3 Execution

3.1 MANUFACTURER'S INSTRUCTIONS

- .1 Comply with manufacturer's written recommendations, including product technical bulletins, handling, storage and installation instructions, and datasheets.

3.2 PREPARATION

- .1 Direct and coordinate placement of metal anchors for masonry supplied to other Sections.

3.3 INSTALLATION

- .1 Supply and install masonry anchors in accordance with CAN/CSA A370, CAN/CSA A371, CAN/CSA-A23.1 and CSA-S304.1 unless indicated otherwise.
- .2 Tie masonry veneer to backing in accordance with NBC, CSA-S304.1, CAN/CSA A371 and as indicated.
- .3 Supply and install additional reinforcement to masonry as indicated.

3.4 **GROUTING**

- .1 Grout masonry in accordance with CSA-S304.1, CAN/CSA A371 and CAN/CSA A179 and as indicated.

3.5 **ANCHORAGE**

- .1 Supply and install metal anchors in accordance with CAN/CSA A370 and CAN/CSA A371 as indicated.

3.6 **CLEANING**

- .1 Clean in accordance with Section 01 74 11 - Cleaning.

END OF SECTION