

ADDENDUM No. 5

The following changes to the tender documents are effective immediately and will form part of the contract documents:

1. GENERAL

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| 1.1 | The Bidding Documents are amended as noted in this Addendum, which consists of one (1) page plus the following attachments: 1. Section 05 50 00 – Metal Fabrications. |
| 1.2 | This Addendum is issued prior to bid closing to incorporate revisions noted herein. Include in the Bid price all such revisions which will become part of the Work. Perform all such Work in accordance with the Contract Documents. |
| 1.3 | All affected drawings, schedules and panel changes shall be reflected in final as-built and manual submissions. |

2. ANSWERS TO BIDDERS' QUESTIONS

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| 2.1 | <p><u>Question #1:</u> Drawing A0.2 , Paint note is calling up sandblast removal of any rust on existing materials, Div 05 metal fabrications 05 50 00 page 2 clause 2.3 says Galvanizing, is sandblasting SSPC SP6 required before galvanizing is applied?</p> <p><u>Answer to Question #1:</u> Follow the requirements of CAN/CSA-G164 in regards to the preparation of items requiring galvanizing under Section 05 50 00. Insofar as Drawing A0.2 is concerned, sandblast to SSPC SP6 requirements and then paint with the two galvanizing touch-up products that are indicated (see revised 'Paint' note below). Refer to 'New Construction Fence Legend' and 'Gate Legend' on Drawing A0.2 for items needing sandblasting.</p> |
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3. SPECIFICATIONS

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| 3.1 | Section 05 50 00 – Metal Fabrications: See attached revised section complete with new articles covering bollards and revisions to Article 2.3 – Finishes. |
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4. DRAWINGS

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| 4.1 | <p>A0.2 - Site Construction Plan: Revise 'PAINT' note on Drawing A0.2 to read: <u>'Touch-Up paint for any site welding and after sandblast removal of any rust on existing materials to be reused/sandblasting of surfaces to meet SSPC SP6 requirements.</u></p> <p>1. Zinc-Rich Primer (SPRAYON S00740) 2. Spray Finish Paint Coat (KRYLON INDUSTRIAL SILVER ZINC).</p> |
| 4.2 | <p>All architectural drawings: Revise all indicated bollards (also shown as pipe posts) to be shop-primed HSS sections painted safety yellow down to 50 mm below grade and to MPI EXT 5.1S-gloss level 6 requirements. Bollard dimensions to remain as indicated.</p> |

END OF ADDENDUM NO. 5

Part 1 General

1.1 REFERENCES

- .1 ASTM International
 - .1 ASTM A307-07b, Standard Specification for Carbon Steel Bolts and Studs, 60,000 PSI Tensile Strength.
- .2 CSA International
 - .1 CSA G40.20/G40.21-04(R2009), General Requirements for Rolled or Welded Structural Quality Steel/Structural Quality Steel.
 - .2 CAN/CSA G164-M92(R2003), Hot Dip Galvanizing of Irregularly Shaped Articles.
 - .3 CSA W48-06, Filler Metals and Allied Materials for Metal Arc Welding (Developed in co-operation with the Canadian Welding Bureau).
 - .4 CSA W59-M03(R2008), Welded Steel Construction (Metal Arc Welding) Metric.
- .3 Health Canada / Workplace Hazardous Materials Information System (WHMIS)
 - .1 Material Safety Data Sheets (MSDS).

1.2 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:
 - .1 Submit manufacturer's instructions, printed product literature and data sheets for sections, plates, and bolts and include product characteristics, performance criteria, physical size, finish and limitations.
 - .2 Submit [two] copies of WHMIS MSDS in accordance with Section 01 35 29.06 - Health and Safety Requirements.
 - .1 For finishes, coatings, primers, and paints applied on site: indicate VOC concentration in g/L.
- .3 Shop Drawings:
 - .1 Submit drawings stamped and signed by professional engineer registered or licensed in Province of Saskatchewan, Canada.
 - .2 Indicate materials, core thicknesses, finishes, connections, joints, method of anchorage, number of anchors, supports, reinforcement, details, and accessories.

1.3 QUALITY ASSURANCE

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

1.4 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements.
- .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3 Storage and Handling Requirements:
 - .1 Store materials off ground and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
 - .2 Replace defective or damaged materials with new.
- .4 Packaging Waste Management: remove for reuse of pallets, crates, padding, packaging materials as specified in Construction Waste Management Plan in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.

Part 2 Products

2.1 MATERIALS

- .1 Steel sections and plates: to CSA G40.20/G40.21, Grade 300W.
- .2 Welding materials: to CSA W59.
- .3 Welding electrodes: to CSA W48 Series.
- .4 Bolts and anchor bolts: to ASTM A307.

2.2 FABRICATION

- .1 Fabricate work square, true, straight and accurate to required size, with joints closely fitted and properly secured.
- .2 Use self-tapping shake-proof flat headed screws on items requiring assembly by screws or as indicated.
- .3 Where possible, fit and shop assemble work, ready for erection.
- .4 Ensure exposed welds are continuous for length of each joint. File or grind exposed welds smooth and flush.

2.3 FINISHES

- .1 Galvanizing: hot dipped galvanizing with zinc coating 600 g/m² to CAN/CSA-G164.
- .2 Galvanizing Touch-up Paint: Make good corrosive protection after welding where burnt by welding operations and where removed to facilitate welding operations, using zinc touch-up primer conforming to CAN/CGSB-1.181-99 and finish coat. Use as per manufacturer's instructions.
 - .1 Acceptable products:
 - .1 Primer Coat: Sprayon S00740 or equal.
 - .2 Finish Coat: Krylon Industrial Silver Zinc or equal.
- .3 Shop coat primer (bollards only): in accordance with MPI- EXT 5.1S.

2.4 CLOSURE ANGLES

- .1 Fabricate closure angles used to close up space between perimeter wall and new sallyport gate structures: galvanized, sizes as indicated.

**2.5 MISCELLANEOUS STEEL ITEMS AROUND WALL OPENING AT GATE
VMG 1**

- .1 Fabricate as indicated.

2.6 BOLLARDS

- .1 Fabricate bollards complete with clip angles as indicated. Set in concrete and fill with concrete as indicated.
- .2 Concrete bases:
 - .1 Dimensions as indicated.
 - .2 Refer to Section 03 30 00 – Cast-in-Place Concrete and structural drawing notes for piling concrete specifications.

2.7 MISCELLANEOUS ITEMS

- .1 Fabricate all other metal fabrication items or miscellaneous metal items required to complete the project.

Part 3 Execution

3.1 EXAMINATION

- .1 Verification of Conditions: verify conditions of substrates previously installed under other Sections or Contracts are acceptable for metal fabrications installation in accordance with manufacturer's written instructions.
 - .1 Visually inspect substrate in presence of Departmental Representative.
 - .2 Inform Departmental Representative of unacceptable conditions immediately upon discovery.
 - .3 Proceed with installation only after unacceptable conditions have been remedied and after receipt of written approval to proceed from Departmental Representative.

3.2 ERECTION

- .1 Do welding work in accordance with CSA W59 unless specified otherwise.
- .2 Erect metalwork square, plumb, straight, and true, accurately fitted, with tight joints and intersections.
- .3 Provide suitable means of anchorage acceptable to Departmental Representative such as dowels, anchor clips, bar anchors, expansion bolts and shields, and toggles.
- .4 Exposed fastening devices to match finish and be compatible with material through which they pass.

- .5 Supply components for work by other trades in accordance with shop drawings and schedule.
- .6 Weld field connections.
- .7 Deliver items over for casting into concrete and building into masonry together with setting templates to appropriate location and construction personnel.
- .8 Touch-up galvanized surfaces with zinc rich primer where burned by field welding.

3.3 CLOSURE ANGLES

- .1 Install closure angles as indicated.

3.4 MISCELLANEOUS STEEL ITEMS AROUND WALL OPENING AT GATE VMG 1

- .1 Install as indicated.

3.5 BOLLARDS

- .1 Install bollards as indicated.
- .2 Concrete work to be done by Division 03.

3.6 MISCELLANEOUS ITEMS

- .1 Install all other metal fabrication items or miscellaneous metal items required to complete the project as indicated.

3.7 CLEANING

- .1 Progress Cleaning: clean in accordance with Section 01 74 11 - Cleaning.
 - .1 Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11 - Cleaning.
- .3 Waste Management: separate waste materials for reuse in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.
 - .1 Remove recycling containers and bins from site and dispose of materials at appropriate facility.

3.8 PROTECTION

- .1 Protect installed products and components from damage during construction.
- .2 Repair damage to adjacent materials caused by metal fabrications installation.

END OF SECTION