

1 GENERAL

1.01 RELATED REQUIREMENTS

- .1 Section 06 10 00 - Rough Carpentry
- .2 Section 051223 - Structural Steel
- .2 Section 04 05 00 - Common Work Results For Masonry

1.02 REFERENCES

1. OSHA - Occupational Safety and Health Administration
 1. Part 1926.554 - Overhead Hoists
 2. Part 1910.179 - Overhead and Gantry Cranes
2. CMAA - Crane Manufacturer's Association of America
 1. Specifications for Top Running Bridge & Gantry Type Multiple
 2. Girder Electric Overhead Traveling Cranes - No. 70 (2015)
 3. Specifications for Top Running and Under Running Single Girder Electric Overhead Cranes Utilizing Under Running Trolley Hoist - No. 74 (2015)
3. ANSI / ASME
 1. American National Standards Institute /
 2. American Society of Mechanical Engineers
 3. ANSI / ASME HST-4 - 2016 Performance Standard for Overhead Electric Wire Rope Hoists
 4. ANSI / ASME B30.16 - 2017 Overhead Underhung and Stationary Hoists
 5. ANSI / ASME B30.2 - 2016 Overhead and Gantry Cranes
 6. (Top Running Bridge, Single or Multiple Girder, Top Running Trolley Hoist)
 7. ANSI / ASME B30.17 - 2015 Cranes and Monorails (with Underhung Trolley or Bridge)
 8. ANSI / ASME B30.30 - 2019 Ropes
4. NEMA National Electric Manufacturer's Association
5. CSA C22.1-2018 Canadian Electrical Code

1.03 ACTION AND INFORMATION SUBMITTALS

- .1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:
 - .1 Provide manufacturer's printed product literature and data sheets and include product characteristics, performance criteria, physical size, finish and limitations.
- .3 Shop Drawings:
 - .1 Submit drawings indicating size and description of components, base material, electrical requirements and overall weight of structure.
 - .2 Shop Drawings to include engineering calculations and stamped by an Engineer licensed to practice in Nova Scotia.

1.04 CLOSEOUT SUBMITTALS

- .1 Provide maintenance data for incorporation into manual specified in Section 01 78 00 - Closeout Submittals.
 - .1 Include list of sources for disposable supplies, replacement parts and service recommendations.

1.05 MAINTENANCE MATERIAL SUBMITTALS

- .1 Tools:
 - .1 Provide special tools required for assembly, disassembly or removal in accordance with requirements specified in Section 01 78 00 - Closeout Submittals.
 - .2 Deliver special tools to Departmental Representative.

1.06 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements and with manufacturer's written instructions.
- .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 indoors in dry location and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
 - .2 Store and protect toilet and bathroom accessories from nicks, scratches, and blemishes.
 - .3 Replace defective or damaged materials with new.

2 PRODUCTS

2.01 MATERIALS

1. CRANE SUMMARY: The Overhead Crane shall be supplied and installed as per the following;
 1. Span: 12,192mm from grid 1 to 5
 2. Capacity: 7000 kg
 3. Crane type: under running; double girder. Clearance to underside of crane hook must be 4629mm
 4. Trolley Type: Street type Street ZX36
 5. Hoist Type: Street ZX36-3FLLH
 6. Classification: Crane shall be designed and constructed to CMAA Specification # 70 or #74, as applicable, for Class "C" service requirements and operation in a non-hazardous environment.
 7. Crane speed: 38/10 meters per minute, infinitely variable
 8. Crane drive: Dual motor drive, 575V/ 3 phase/60Hz
 9. Trolley speed: 24/6 meters per minute, infinitely variable
 10. Trolley drive: Motorized
 11. End Truck Type: Street 160/2200-20SG
 12. Wheel Load maximum: R1, R2 - 4765 kg
 13. Rail size: 51x51mm
 14. Hoist speeds: 3.65 and 1.2 meters per minute, two speed
 15. Hoist type: Electric wire rope
 16. Hoist lift required: 4629mm
 17. Control: Pendant from independent track on bridge

3 EXECUTION

3.01 INSTALLATION AND INSPECTION

1. Inspect structure and crane rail erection for conformance with reviewed shop drawings and contract documents prior to installation of equipment. Bring nonconforming work to the attention of the customer prior to proceeding with crane installation. Non-conforming runway structure or installation must be corrected prior to load testing of crane system. Costs of delays or additional work due to nonconforming runway structure will be reimbursed by the Departmental Representative.
2. Bridge crane shall be installed in conformance with manufacturer's instructions and inspected by a manufacturer's representative. Provide all necessary accessories to make bridge crane complete, usable, and capable of meeting the operating requirements specified in the Operating Requirements. Test, adjust and clean equipment for acceptance by Departmental Representative.

3.02 TESTING

1. All crane equipment shall be operated through a complete lift and lowering cycle and through a complete travel of the bridge and trolley to determine that the equipment shall perform smoothly and safely and that pendant cable length is sufficient to permit operation from desired floor levels. All tests shall be carried out with the bridge crane equipment loaded at 125 percent of capacity. The bridge crane provider shall provide the test weight loads. Any defects shall be corrected by the bridge crane provider without any expense to the Departmental Representative.

3.03 USE BY CONTRACTOR

1. If crane is used by the Contractor, it shall be repaired, repainted, and otherwise refurbished to like new condition prior to its acceptance. The Contractor assumes all responsibility for operation and maintenance until the crane has been accepted by Departmental Representative.

3.04 CLEANUP

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OVERHEAD CRANE

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1. Upon completion of work, area shall be cleaned and restored to original condition, acceptable to the Departmental Representative.

END OF SECTION