Construction of Office/Garage Renovations and Storage Building 1539 Waverley Street The City of Winnipeg

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Part 1 General

1.1 RELATED SECTIONS

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- .1 Cast-In-Place Concrete: Section 03300.
- .2 Concrete Unit Masonry: Section 04220.
- .3 Joint Sealers: Section 07900.

1.2 REFERENCES

- .1 Reference is made to spec standards produced by various organizations to conform to edition of standards specified, or, if not specified, to last edition as amended and revised to date of contract.
- .2 Cure Rate (at 25°C) allow: 4 5 hours for tack free surface

24 hours for normal operations

- .3 Fire Resistance of Dry Film: Self Extinguishing
- .4 Heat Resistance Limitation: 60°C (for continuous exposure)

93°C (for intermittent exposure)

- .5 Percent Solids: 100%
- .6 Pot Life @ 25°C: 35 minutes

1.3 SUBMITTALS

- .1 Product Data: Submit manufacturer's technical data, installation instructions, and general recommendations for each epoxy flooring material required.
- .2 Samples: Submit, for verification purposes, 300 mm x 300 mm (12" x 12") square sample of each type of epoxy flooring required, applied to a rigid backing, in colour and finish indicated.

1.4 QUALITY ASSURANCE

- .1 Single Source Responsibility: Obtain primary epoxy flooring materials including primers, resins, hardening agents, finish or sealing coats from a single manufacturer with not less than ten years of successful experience in manufacturing and installing principal materials described in this section. Contractor must have completed at least five projects of similar size and complexity. Stonhard or approved equal. Provide secondary materials only of type and from source recommended by manufacturer of primary materials.
- .2 Arrange a meeting not less than thirty days prior to starting work.

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1.5 DELIVERY, STORAGE, AND HANDLING

- .1 Deliver material to job site. Flooring contractor will check material for completeness and shipping damage prior to job start.
- .2 All materials must be factory pre-weighed and pre-packaged in single, easy to manage batches to eliminate on-site mixing errors. No on-site weighing or volumetric measurements allowed.
- .3 Store material in a dry, enclosed area protected from exposure to moisture. Temperature of storage area shall be maintained between 16°C and 32°C.

1.6 MOCK-UP

.1 At site, under manufacturer's supervision, apply for approval 9 m² of complete floor finish in area designated, to match submitted samples. When approved, site applied sample to be standard for appearance, colour, texture, workmanship, etc., and all work to conform to this sample.

1.7 PROJECT CONDITIONS

- .1 Environment Requirements:
 - .1 Concrete substrate must be properly cured for a minimum of 30 days.
 - .2 Temperature: Utilities, including electric, water, heat (air temperature between 16°C and 32°C) and finished lighting to be supplied by General Contractor. Maintain ambient temperature of not less than 18°C and a floor temperature of not less than 16°C from seven (7) days before installation to at least 48 hours after completion of work and maintain relative humidity not higher than 40% during same period.
 - .3 Moisture: Ensure substrate is within moisture limits prescribed by flooring manufacturer.
 - .4 Safety: Comply with requirements of Workplace Hazardous Materials Information System (WHMIS) regarding the use, handling, storage, and disposal of hazardous materials.
 - .5 Job area to be free of other trades during, and for a period of 24 hours, after floor installation.
 - .6 Protection of finished floor from damage by subsequent trades is the responsibility of the General Contractor.
 - .7 Manufacturer's representative must be on job site at start of installation.

Part 2 Products

2.1 COLOURS

.1 As selected by Contract Administrator from manufacturer's standard colours.

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2.2 EPOXY FLOOR COATING

.1 100% solids, 0 VOC, two-component general service epoxy coating. Acceptable manufacturer: Stonhard, STONKOTE GS4

Part 3 Execution

3.1 PREPARATION

.1 Substrate: Prepare concrete by mechanical means by using a shot blast machine for removal of bond inhibiting materials such as curing compounds or laitance.

3.2 APPLICATION

- .1 Coating: Mix coating according to manufacturer's recommended procedures. Squeegee apply and backroll first coat. When surface is tack free, apply second coat to an actual dry film thickness of 200 250 microns (8 10 mil). Manufacturer: Stonhard, STONKOTE GS4.
- .2 Cove base: Height: 100mm; trowelled epoxy coving.

3.3 FIELD QUALITY CONTROL

- .1 The right is reserved to invoke the following material testing procedure at any time, and any number of times during period of flooring application.
- .2 The City will engage the service of an independent testing laboratory to sample materials being used on the jobsite. Samples of material will be taken, identified and sealed, and certified in the presence of the Contractor.
- .3 Testing laboratory will perform tests for any of the characteristics specified, using applicable testing procedures referenced herein, or if non referenced, in manufacturer's product data.
- .4 If test results show materials being used do not comply with specified requirements, Contractor may be directed by the City to stop work; remove non-complying materials; pay for testing; reapply flooring materials to properly prepared surfaces which had been previously coated with unacceptable materials.

3.4 CURING, PROTECTION, AND CLEANING

- .1 Cure epoxy flooring materials in compliance with manufacturer's directions, taking care to prevent contamination during stages of application and prior to completion of curing process. Close area of application for a minimum of 24 hours.
- .2 Protect epoxy flooring materials from damage and wear during construction operation. Where temporary covering is required for this purpose, comply with manufacturer's recommendations for protective materials and methods of application. General Contractor is responsible for protection and cleaning of surfaces after final coats.

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Cleaning: Remove temporary covering and clean epoxy flooring just prior to final inspection. Use cleaning materials and procedures recommended by epoxy flooring manufacturer.

END OF SECTION