

Part 1 General

1.1 REFERENCES

- .1 Architectural Painting Specifications Manual, Master Painters Institute (MPI).
- .2 Systems and Specifications Manual, SSPC Painting Manual, Volume Two, Society for Protective Coatings (SSPC).
- .3 Test Method for Measuring Total Volatile Organic Compound Content of Consumer Products, Method 24 (for Surface Coatings) of the Environmental Protection Agency (EPA).
- .4 National Fire Code of Canada.
- .5 Correctional Service Canada (CSC) Technical Criteria, 2015.

1.2 WASTE MANAGEMENT AND DISPOSAL

- .1 Separate and recycle waste materials in accordance with Section 01 74 19 - Construction/Demolition Waste Management And Disposal
- .2 Paint, stain and wood preservative finishes and related materials (thinners, solvents, etc.,) are regarded as hazardous products and are subject to regulations for disposal. Information on these controls can be obtained from Provincial Ministries of Environment and Regional levels of Government.
- .3 Material which cannot be reused must be treated as hazardous waste and disposed of in an appropriate manner.
- .4 Place materials defined as hazardous or toxic waste, including used sealant and adhesive tubes and containers, in containers or areas designated for hazardous waste.
- .5 To reduce the amount of contaminants entering waterways, sanitary/storm drain systems or into ground the following procedures shall be strictly adhered to:
 - .1 Retain cleaning water for water-based materials to allow sediments to be filtered out.
 - .2 Retain cleaners, thinners, solvents and excess paint and place in designated containers and ensure proper disposal.
 - .3 Return solvent and oil soaked rags used during painting operations for contaminant recovery, proper disposal, or appropriate cleaning and laundering.
 - .4 Dispose of contaminants in an approved legal manner in accordance with hazardous waste regulations.
 - .5 Empty paint cans are to be dry prior to disposal or recycling (where available).
- .6 Where paint recycling is available, collect waste paint by type and provide for delivery to recycling or collection facility.
- .7 Close and seal tightly partly used sealant and adhesive containers and store protected in well-ventilated fire-safe area at moderate temperature.

1.3 SAMPLES

- .1 Submit samples in accordance with Section 013300 - Submittals.
- .2 Submit samples in duplicate of each colour selected in 300 mm x 300 mm sizes.

1.4 QUALITY ASSURANCE

- .1 Do not apply paint finish in areas where dust is being generated.
- .2 The Contractor shall have a minimum of five (5) years proven satisfactory experience and shall show proof before commencement of work that he will maintain a qualified crew of painters throughout the duration of the work. When requested, the Contractor shall provide a list of the last three comparable jobs including, name and location, specifying authority/project manager, start/completion dates and value of the painting work.
- .3 Only qualified journeypersons, as defined by local jurisdiction, shall be engaged in painting and decorating work. Apprentices may be employed provided they work under the direct supervision of a qualified journeyperson in accordance with trade regulations.
- .4 All materials, preparation and workmanship shall conform to requirements of the LATEST EDITION of the Architectural Painting Specification Manual by Master Painters Institute (MPI), hereafter referred to as the MPI Painting Manual) as issued by the local MPI Accredited Quality Assurance Association having jurisdiction.
- .5 All paint manufacturers and products used shall be as listed under the Approved Product List section of the **MPI** Painting Manual.

1.5 MAINTENANCE MATERIALS

- .1 At project completion provide 1 gallon of each type and colour of paint from the same production run (batch mix) in unopened cans, properly labelled and identified for Departmental Representative's later use in maintenance.

1.6 GUARANTEE

- .1 Provide a two (2) year guarantee on material and labour

Part 2 Products

2.1 MATERIALS

- .1 Paint materials: Only materials listed in the latest edition of the **MPI** Approved Product (APL) are acceptable for use on this project. All such material shall be a single manufacturer for each system used.
- .2 Acceptable Products – Paint Materials
 - .1 Low VOC in accordance with the **MPI** Approved Product (APL) as follows:
 - .1 Maximum VOC limits must comply with Green Seal's Standard GS-11 and Green Seals's Standard GC-03 and SCAQMD Rule 1113.
 - .2 Colour to match existing. Allow for one colour.
- .4 Other material such as linseed oil, shellac, thinners, solvents, etc. shall be the highest quality product of an **MPI** listed manufacturer and shall be compatible with paint materials being used as required.
- .5 All materials used shall be lead and mercury free and shall have low VOC content where possible.
- .6 Use only materials having a minimum MPI "Environmentally Friendly" E2 or E3 rating based on VOC (EPA Method 24) content levels.
- .7 Use only MPI listed materials having an "L" rating designation.

-
- .8 All paint materials shall have good flowing and brushing properties and shall dry or cure free of blemishes, sags, air entrapment, etc.
 - .9 Where required, paints and coatings shall meet flame spread and smoke developed ratings designated by local Code requirements and/or authorities having jurisdiction.
 - .10 Unless otherwise specified herein, all painting work shall be in accordance with **MPI Premium Grade** finish requirements.

Part 3 Execution

3.1 CONDITION OF SURFACES

- .1 Prior to commencement of the work in this section, thoroughly examine (and test as required) all conditions and surfaces scheduled to be painted and report in writing to the Contractor and Departmental Representative any conditions or surfaces that will adversely affect work of this section.
- .2 No painting work shall commence until all such adverse conditions and defects have been corrected and surfaces and conditions are acceptable to the Painting Subcontractor, Departmental Representative.
- .3 Commencement of the work shall not be held to imply acceptance of surfaces except as qualified herein. Such surfaces as concrete, masonry, structural steel and miscellaneous metal, wood, gypsum board and plaster, shall not be the responsibility of the Painting Subcontractor.
- .4 The Painting Subcontractor shall not be responsible for the condition of the substrate or for correcting defects and deficiencies in the substrate which may adversely affect the painting work except for minimal work normally performed by the Painting Sub-trade and as indicated herein. It shall always, however, be the responsibility of the Painting Sub-trade to see that surfaces are properly prepared before any paint or coating is applied.

3.2 PREPARATION OF SURFACES

- .1 Prepare all surfaces in accordance with MPI requirements. Refer to the MPI Painting Manual in regard to specific requirements.
- .2 All galvanized surfaces receiving paint to be cleaned, dry, and free of contaminants. Surface to be prepared in accordance with CAN/CSA-S16-09 to the SSPC.SP level recommended by the finish manufacturer. Apply wash primer if required by manufacturer's instructions. Apply test patch to confirm adhesion
- .3 Sand, clean, dry, etch, neutralize and/or test all surfaces under adequate illumination, ventilation and temperature requirements.
- .4 Remove and securely store all miscellaneous hardware and surface fittings/fastenings (e.g. electrical plates, mechanical louvers, door and window hardware (e.g. hinges, knobs, locks, trim, frame stops), removable rating/hazard/instruction labels, washroom accessories, light fixture trim, etc., from wall and ceiling surfaces, doors and frames, prior to painting. Carefully clean and replace all such items upon completion of painting work in each area. Do not use solvent or reactive cleaning agents on items that will mar or remove finishes (e.g. lacquer finishes). Doors shall be removed before painting to paint bottom and top edges and then re-hung.
- .5 Protect all adjacent interior surfaces and areas, including rating and instruction labels on doors, frames, equipment, piping, etc., from painting operations and damage by drop cloths, shields, masking, templates, or other suitable protective means and make good any damage caused by failure to provide such protection.
- .6 Substrate defects shall be made good and sanded by others ready for painting, particularly after the first coat of paint. Start of finish painting of defective surfaces (eg gypsum board) shall indicate acceptance of substrate and any costs of making good defects shall be borne by the painter, including repainting of entire defective surface (no touch-up painting).

- .7 Confirm preparation and primer used with fabricator of steel items. Refer to Quality Assurance.

3.3 APPLICATION

- .1 Do not paint unless substrates are acceptable and/or until all environmental conditions (heating, ventilation, lighting and completion of other subtrade work) are acceptable for applications of products.
- .2 Apply paint or stain in accordance with MPI Painting Manual Premium Grade finish requirements.
- .3 Apply paint and decorating material in a workmanlike manner using skilled and trade qualified applicators as noted under Quality Assurance.
- .4 Apply paint and coatings within an appropriate time frame after cleaning when environmental conditions encourage flashing-rusting, rusting, contamination or the manufacturer's paint specifications require earlier applications.
- .5 Painting coats specified are intended to cover surfaces satisfactorily when applied at proper consistency and in accordance with manufacturer's recommendations.
- .6 Unless otherwise approved by the Departmental Representative, apply a minimum of four coats of paint where deep or bright colours are used to achieve satisfactory results.
- .7 Sand and dust between each coat to provide an anchor for next coat and to remove defects visible from a distance up to 1000 mm (39").
- .8 Do not apply finishes on surfaces that are not sufficiently dry. Unless manufacturer's directions state otherwise, each coat shall be sufficiently dry and hard before a following coat is applied.
- .9 Prime coat of stain or varnish finishes may be reduced in accordance with manufacturer's directions.
- .10 Paint finish shall continue through behind all wall-mounted items.

3.5 FIELD QUALITY CONTROL AND STANDARD OF ACCEPTANCE

- .1 All surfaces, preparation and paint applications shall be inspected.
- .2 Painted exterior and interior surfaces shall be considered to lack uniformity and soundness if any of the following defects are apparent to the Painting Inspection Agency inspector:
 - .1 brush/roller marks, streaks, laps, runs, sags, drips, heavy stippling, hiding or shadowing by inefficient application methods, skipped or missed areas, and foreign materials in paint coatings.
 - .2 evidence of poor coverage at rivet heads, plate edges, lap joints, crevices, pockets, corners and re-entrant angles.
 - .3 damage due to touching before paint is sufficiently dry or any other contributory cause.
 - .4 damage due to application on moist surfaces or caused by inadequate protection from the weather.
 - .5 damage and/or contamination of paint due to blown contaminants (dust, spray paint, etc.).
- .3 Painted surfaces shall be considered unacceptable if any of the following are evident under natural lighting source for exterior surfaces and final lighting source (including daylight) for interior surfaces:
 - .1 visible defects are evident on vertical surfaces when viewed at normal viewing angles from a distance of not less than 1000 mm (39").
 - .2 visible defects are evident on horizontal surfaces when viewed at normal viewing angles from a distance of not less than 1000 mm (39").
 - .3 visible defects are evident on ceiling, soffit and other overhead surfaces when viewed at normal viewing angles.

.4 when the final coat on any surface exhibits a lack of uniformity of colour, sheen, texture, and hiding across full surface area.

.4 Painted surfaces rejected by the inspector shall be made good at the expense of the Contractor. Small affected areas may be touched up; large affected areas or areas without sufficient dry film thickness of paint shall be repainted. Runs, sags of damaged paint shall be removed by scraper or by sanding prior to application of paint.

3.6 PROTECTION

.1 Protect all exterior surfaces and areas, all adjacent surfaces (including glass, etc.) and equipment and any labels and signage from painting operations and damage by drop cloths, shields, masking, templates, or other suitable protective means and make good any damage caused by failure to provide such protection.

.3 Erect barriers or screens and post signs to warn of or limit or direct traffic away or around work area as required.

3.7 CLEAN-UP

.1 Remove all paint where spilled, splashed, splattered or sprayed as work progresses using means and materials that are not detrimental to affected surfaces.

.2 Keep work area free from an unnecessary accumulation of tools, equipment, surplus materials and debris.

.3 Remove combustible rubbish materials and empty paint cans each day and safely dispose of same in accordance with requirements of authorities having jurisdiction.

.4 Clean equipment and dispose of wash water/solvents as well as all other cleaning and protective materials (e.g. rags, drop cloths, masking papers, etc.), paints, thinners, paint removers/strippers in accordance with the safety requirements of authorities having jurisdiction.

3.8 REPAINTING OF EXISTING FINISHES

.1 Refer to *MPI* Maintenance Repainting Manual for repainting of existing finishes.

.2 Use finish coat of respective new surface paint system for minor repair of existing finishes. Use system primer where existing finishes are damaged down to bare surface.

3.9 SCHEDULE

.1 Paint all surfaces to match existing colours.

END OF SECTION