DIVISION 8

DOORS & WINDOWS

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DIVISION 8 - DOORS

STEEL DOORS AND FRAMES

1. GENERAL

1.1 Related Work

.1 Section 07900 – Joint Sealers.

.2 Section 08710 – Door Hardware

.3 Section 09900 – Painting.

1.2 References

.1 American Society for Testing and Materials (ASTM).

.1 ASTM A 653/A 653M-00 653M-00, Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.

.2 Canadian General Standards Board (CGSB).

.1 CAN/CGSB-1.181-99, Ready-Mixed Organic Zinc-Rich Coating.

.2 CAN/CGSB-51.20-M87, Thermal Insulation, Polystyrene, Boards and Pipe Covering.

.3 Canadian Standards Association (CSA).

.1 CSA A101-M1983, Thermal Insulation, Mineral Fibre, for Buildings.

.2 CSA G40.21-98, Structural Quality Steels.

.3 CSA W59-M1989 (R1998) (R1998), Welded Steel Construction (Metal Arc Welding).

.4 Canadian Steel Door and Frame Manufacturers' Association, (CSDFMA).

.1 CSDFMA, Specifications for Commercial Steel Doors and Frames, 1990.

.2 SDFMA, Recommended Selection and Usage Guide for Commercial Steel Doors, 1990.

1.3 Design Requirements

.1 Design exterior frame assembly to accommodate to expansion and contraction when subjected to minimum and maximum surface temperature of -35°C to 35°C.

.2 Maximum deflection for exterior steel entrance screens under wind load of 1.2 kPa not to exceed 1/175th of span.

1.4 Shop Drawings

.1 Submit shop drawings in accordance with Section 01300 – Submittals.

.2 Maximum deflection for exterior steel entrance screens under wind load of 1.2 kPa not to exceed 1/175th of span.

.3 Indicate each type frame material, core thickness, reinforcements, glazing stops, location of anchors and exposed fastenings, reinforcing and firerating finishes where applicable.

.4 Include schedule identifying each unit, with door marks and numbers relating to numbering on drawings and door schedule.

.5 Submit test and engineering data, and installation instructions.

2. PRODUCTS

2.1 Materials

.1 Hot dipped galvanized steel sheet: to ASTM A 653/A 653M-00, ZF75, minimum base steel thickness in accordance with CSDFMA Table 1 – Thickness for Component Parts.

.2 Reinforcement channel: to CSA G40.21-98, Type 44W, coating designation to ASTM A 653/A 653M-00, ZF75.

2.2 Door Core Materials

.1 Honeycomb construction:

.1 Structural small cell, 24.5 mm maximum kraft paper 'honeycomb', weight: 36.3 kg per ream minimum, density: 16.5 kg/mn minimum sanded to required thickness.

.2 Stiffened: face sheets honeycomb insulated core.

.1 Expanded polystyrene: CAN/CGSB-51.20-M87, Type 1, density 16 to 32 kg/mn.

.2 Polyurethane: to CGSB 51-GP-21M rigid, modified poly/isocyanurate, closed cell board. Density 32 kg/mn.

.3 Temperature rise rated (TRR): core composition to limit temperature rise on unexposed side of door to 250°C at 30-60 minutes. Core to be tested as part of a complete door assembly, in accordance with CAN4-S104-1980(R1985), ASTM E 152-81a or ANSI/NFPA 252-1999, covering Standard Method of Tests of Door Assemblies and listed by nationally recognized testing agency having factory inspection service.

2.3 Primers

.1 Touch-up prime CAN/CGSB-1.181-99.

2.4 Paint

.1 Steel doors and frames shall be field painted in accordance with Section 09900. Weatherstrips shall be protected from paint. Finish shall be free of scratches or other blemishes.

2.5 Accessories

.1 Door silencers: single stud rubber/neoprene type.

.2 Exterior and interior top and bottom caps: rigid polyvinylchloride extrusion conforming to CGSB 41-GP-19Ma steel.

.3 Fabricate glazing stops as formed channel, minimum 16 mm height, accurately fitted, butted at corners and fastened to frame sections with counter-sunk oval head sheet metal screws.

.4 Metallic paste filler: to manufacturer's standard.

.5 Sealant: See Section 07900.

.6 Make provisions for glazing as indicated and provide necessary glazing stops.

.1 Provide removable stainless steel glazing beads for use with glazing tapes and compounds and secured with countersunk stainless steel screws dry glazing of snap-on type.

.2 Design exterior glazing stops to be tamperproof.

2.6 Frames Fabrication General

.1 Fabricate frames in accordance with CSDFMA specifications.

.2 Fabricate frames to profiles and maximum face sizes as indicated.

.3 Exterior frames: 1.6welded thermally broken type construction.

.4 Interior frames: 1.2 mm knocked-down type construction.

.5 Blank, reinforce, drill and tap frames for mortised, templated hardware, using templates provided by finish hardware supplier. Reinforce frames for surface mounted hardware.

.6 Protect mortised cutouts with steel guard boxes.

.7 Prepare frame for door silencers, 3 for single door, 2 at head for double door.

.8 Manufacturer's nameplates on frames and screens are not permitted.

.9 Conceal fastenings except where exposed fastenings are indicated.

.10 Provide factory-applied touch up primer at areas where zinc coating has been removed during fabrication.

2.7 Frame Anchorage

.1 Provide appropriate anchorage to floor and wall construction.

.2 Locate each wall anchor immediately above or below each hinge reinforcement on hinge jamb and directly opposite on strike jamb.

.3 Provide 2 anchors for rebate opening heights up to 1520 mm and 1 additional anchor for each additional 760 mm of height or fraction thereof.

.4 Locate anchors for frames in existing openings not more than 150 mm from top and bottom of each jambs and intermediate at 660 mm o.c. maximum.

2.8 Welded Type

.1 Welding in accordance with CSA W59-1989 (R1998) (R1998).

.2 Accurately mitre or mechanically joint frame product and securely weld on inside of profile.

.3 Cope accurately and securely weld butt joints of mullions, transom bars, centre rails and sills.

.4 Grind welded joints and corners to a flat plane, fill with metalic paste and sane to uniform smooth finish.

.5 Securely attach floor anchors to inside of each jamb profile.

.6 Weld in 2 temporary jamb spreaders per frame to maintain proper alignment during shipment.

.7 Securely attach lead to inside of frame profile from return to jamb soffit (inclusive) on door side of frame only.

2.9 Door Fabrication General

.1 Doors: swing type, flush, with provision for glass and/or louvre openings as indicated.

.2 Exterior doors: honeycomb core construction. Interior doors: hollow steel construction.

.3 Fabricate doors with longitudinal edges welded. Seams: grind welded joints to a flat plane, fill with metallic paste filler and sand to a uniform smooth finish.

.4 Doors: manufacturers' proprietary construction, tested and/or engineered as part of a fully operable assembly, including door, frame, gasketing and hardware in accordance with ASTM E 330-97e1.

.5 Blank, reinforce, drill doors and tap for mortised and templated hardware.

.6 Factory prepare holes 12.7 mm diameter and larger except mounting and through-bolt holes, on site, at time of hardware installation.

.7 Reinforce doors where required, for surface mounted hardware. Provide flush steel top caps to exterior doors. Provide inverted, recessed, spot welded channels to top and bottom of interior doors.

.8 Provide factory-applied touch-up primer at areas where zinc coating has been removed during fabrication.

.9 Manufacturer's nameplates on doors are not permitted.

2.10 Hollow Steel Construction

.1 Form each face sheet for exterior doors from 1.6 mm sheet steel.

.2 Form each face sheet for interior doors from 1.2 sheet steel.

.3 Reinforce doors with vertical stiffeners, securely welded to each face sheet at 150 mm on centre maximum.

.4 Fill voids between stiffeners of exterior doors with polystyrene core.

2.11 Thermally Broken Doors and Frames

.1 Fabricate thermally broken doors by using insulated core and separating exterior parts from interior parts with continuous interlocking thermal break.

.2 Thermal break: rigid polyvinylchloride extrusion conforming to CGSB 41-GP-19Ma.

.3 Fabricate thermally broken frames separating exterior parts form interior parts with continuous interlocking thermal break.

.4 Apply insulation.

3. EXECUTION

3.1 Installation General

.1 Install labelled steel fire rated doors and frames to ANSI/NFPA 80-1998 except where specified otherwise.

.2 Install doors and frames to CSDFMA Installation Guide.

3.2 Frame Installation

.1 Set frames plumb, square, level and at correct elevation.

.2 Secure anchorages and connections to adjacent construction.

.3 Brace frames rigidly in position while building-in. Install temporary horizontal wood spreader at third points of door opening to maintain frame width. Provide vertical support at centre of head for openings over 1200 mm wide. Remove temporary spreaders after frames are built-in.

.4 Make allowances for deflection of structure to ensure structural loads are not transmitted to frames.

.5 Caulk perimeter of frames between frame and adjacent material.

.6 Maintain continuity of air barrier.

3.3 Door Installation

.1 Install doors and hardware in accordance with hardware templates and manufacturer's instructions and Section 08710 – Door Hardware

.2 Provide even margins between doors and jambs and doors and finished floor and thresholds as follows.

.1 Hinge side: 1.0 mm.

.2 Latchside and head: 1.5 mm.

.3 Finished floor and thresholds: 13 mm.

.3 Adjust operable parts for correct function.

3.4 Finish Repairs

.1 Touch up with primer finishes damaged during installation.

.2 Fill exposed frame anchors and surfaces with imperfections with metallic paste filler and sand to a uniform smooth finish.

END OF SECTION

DOOR HARDWARE

1. GENERAL

1.1 Related Work

.1 Section 08111 – Steel Doors and Frames.

1.2 References

.1 Standard hardware location dimensions in accordance with Canadian Metric Guide for Steel Doors and Frames (Modular Construction) prepared by Canadian Steel Door and Frame Manufactures' Association.

.2 Canadian General Standards Board (CGSB)

.1 CAN/CGSB-69.17-[M86], Bored and Preassembled Locks and Latches.

.2 CAN/CGSB-69.18-[M90] / ANSI/BHMA A156.1-2000, Butts and Hinges.

.3 CAN/CGSB-69.20-[M90] / ANSI/BHMA A156.4-2000, Door Controls (Closers).

.4 CAN/CGSB-69.29-[93] / ANSI/BHMA A156.13-1994, Mortise Locks and Latches.

.5 CAN/CGSB-69.33-[M90] / ANSI/BHMA A156.17-1999, Self-closing Hinges and Pivots.

.6 CAN/CGSB-69.36-[M90] / ANSI/BHMA A156.20-1989 R1996, Strap and Tee Hinges and Hasps.

1.3 Hardware List

.1 Submit contract hardware list in accordance with Section 01300 – Submittals.

.2 Indicate specified hardware, including make, model, material, function, size, finish and other pertinent information.

1.4 Closeout Submittals

.1 Provide operation and maintenance data for door closers, locksets, door holders and fire exit hardware for incorporation into manual specified in Section 01730.

.2 Brief maintenance staff regarding proper care, cleaning, and general maintenance.

1.5 Delivery, Storage, Handling

.1 Deliver, store, handle and protect materials in accordance with Division 1 Requirements.

.2 Store finishing hardware in locked, clean and dry area.

.3 Package each item of hardware including fastenings, separately or in like groups of hardware, label each package as to item definition and location.

2. PRODUCTS

2.1 Hardware Items

.1 Only door locksets and latchsets listed on CGSB Qualified Products List are acceptable for use on this project.

.2 Use one manufacturer's products only for all similar items.

.3 Locks and latches:

.1 Bored and preassembled locks and latches: to CAN/CGSB-69.17-M86.

.2 Interconnected locks and latches: to CAN/CGSB-69.28-M90.

.3 Mortise locks and latches: to CAN/CGSB-69.29-9.

.4 Lever handles: plain design.

.5 Escutcheons: round.

.6 Normal strikes: box type, lip projection not beyond jamb.

.7 Cylinders: key into keying system designated for City of Iqaluit.

.4 Butts and hinges:

.1 Butts and hinges: to CAN/CGSB-69.18-M90, designated by letter A and numeral identifiers, followed by size and finish, listed in Hardware Schedule.

.2 Self-closing hinges and pivots: to CAN/CGSB-69.33-M90, designated by letter K and numeral identifiers listed in Hardware Schedule.

.3 Strap and tee hinges and hasps: to CAN/CGSB-69.36-M90, designated by letter A and numeral identifiers listed in Hardware Schedule, size in accordance with CAN/CGSB-69.36-M90, table I, finished to 602 cadmium plated.

.5 Door closers: to CAN/CGSB-69.20-M90, designated by letter C and numeral identifiers listed in Hardware Schedule, size in accordance with CAN/CGSB-69.20-M90, table A1.

.6 Door bottom seal: door seal of extruded aluminum frame and solid closed cell neoprene seal, recessed in door bottom, closed ends, adjustable, clear anodized finish.

.7 Thresholds: full width of door opening, extruded aluminum, mill finish, serrated surface, with thermal break of rigid PVC.

.8 Weatherstripping:

.1 Head and jamb seal:

.1 Extruded aluminum frame and hollow closed cell neoprene insert, clear anodized finish.

.2 Adhesive backed neoprene foam material.

.1 Door bottom seal.

.2 Extruded aluminum frame and closed cell neoprene, clear anodized finish.

.9 Astragal: adjustable, extruded aluminum frame with vinyl insert, finished to match doors.

2.2 Fastenings

.1 Supply screws, bolts, expansion shields and other fastening devices required for

.2 Satisfactory installation and operation of hardware.

.3 Exposed fastening devices to match finish of hardware.

.4 Where pull is scheduled on one side of door and push plate on other side, supply fastening devices, and install so pull can be secured through door from reverse side. Install push plate to cover fasteners.

.5 Use fasteners compatible with material through which they pass.

2.3 Keying

.1 Prepare detailed keying schedule in conjunction with Engineer.

.2 Provide keys in duplicate for every lock in this Contract.

.3 Provide construction cores.

.4 Provide all permanent cores and keys to Engineer at turnover.

2.4 Door Hardware

.1 Acceptable manufacturers:

.1 Hinges – Hager

.2 Locksets – Yale

.3 Cylinders – Schlage

.4 Closers – Norton

.5 Flatware – Gallery

.6 Weatherstrip – Draftseal.

3. EXECUTION

3.1 Installation Instructions

.1 Furnish metal door and frame manufacturers with complete instructions and templates for preparation of their work to receive hardware

.2 Install hardware to standard hardware location dimensions in accordance with Canadian Metric Guide for Steel Doors and Frames (Modular Construction) prepared by Canadian Steel Door and Frame Manufacturers' Association.

.3 Adjust for proper function.

END OF SECTION

DIVISION 9

FINISHES

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DIVISION 9 - FINISHES

PAINTING

1. GENERAL

1.1 References

.1 Canadian General Standards Board (CGSB)

.1 CAN/CGSB-1.38- M91, Interior Enamel Undercoater.

.2 CGSB 1-GP-48M- 78, Primer, Marine, for Steel.

.3 CAN/CGSB-1.57- 96, Alkyd, Interior, Semigloss, Enamel.

.4 CAN/CGSB-1.68- M91, Solvent Type Primer-Sealer for Interior Walls.

.5 CAN/CGSB-1.73- 97, Exterior and Interior Enamel for Floors.

.6 CAN/CGSB-1.100- 95, Interior Latex Type, Flat Paint.

.7 CAN/CGSB-1.153- M90, High Build, Gloss, Epoxy Coating.

.8 CGSB 85-GP-10M- 79, Shop Painting Structural Steel.

.2 Canadian Painting Contractors' Association (CPCA)

.1 Painting Specifications Manual 1993.

.3 National Fire Code of Canada 1995.

.4 Steel Structures Painting Council (SSPC)

.1 Systems and Specifications Manual 1989.

1.2 Product Data

.1 Submit product data in accordance with Division 01.

.2 Submit full records of all products used. List each product in relation to finish formula and include the following:

.1 Finish formula designation.

.2 Product type and use.

.3 CGSB number.

.4 Manufacturer's product number.

.5 Colour number(s).

.6 Manufacturer's Material Safety Data Sheets (MSDS).

.7 Maximum VOC classification.

.3 Submit manufacturer's application instructions for each product specified.

1.3 Quality Assurance

.1 Retain purchase orders, invoices and other documents to prove that all materials utilized in this contract meet requirements of the specifications. Produce documents when requested by Engineer.

.2 Standard of Acceptance:

.1 Walls: No defects visible from a distance of 1000 mm at 90 degrees to surface.

.2 Ceilings: No defects visible from floor at 45 degrees to surface when viewed using final lighting source.

.3 Final coat to exhibit uniformity of colour and uniformity of sheen across full surface area.

1.4 Delivery, Storage and Handling

.1 Deliver and store materials in original containers, sealed, with labels intact.

.2 Indicate on containers or wrappings:

.1 Manufacturer's name and address.

.2 Type of paint.

.3 Compliance with applicable standard.

.4 Colour number in accordance with established colour schedule.

.3 Remove damaged, opened and rejected materials from site.

.4 Provide and maintain dry, temperature controlled, secure storage.

.5 Observe manufacturer's recommendations for storage and handling.

.6 Store materials and supplies away from heat generating devices.

.7 Store temperature sensitive products above minimum temperature as recommended by manufacturer.

.8 Keep areas used for storage, cleaning and preparation, clean and orderly to approval of Engineer. After completion of operations, return areas to clean condition to approval of Engineer.

.9 Provide minimum one 9 kg Type ABC fire extinguisher adjacent to storage area.

.10 Remove only in quantities required for same day use.

.11 Fire Safety Requirements:

.1 Store oily rags, waste products, empty containers and materials subject to spontaneous combustion in ULC approved, sealed containers and remove from site on a daily basis.

.2 Handle, store, use and dispose of flammable and combustible materials in accordance with the National Fire Code of Canada.

1.5 Environmental Requirements

.1 Apply paint finishes only when temperature at location of installation can be satisfactorily maintained within manufacturer's recommendations.

.2 Provide temporary heating where permanent facilities are not available to maintain minimum recommended temperatures.

.3 Apply paint finish only in areas where dust is no longer being generated by related construction operations such that airborne particles will not affect the quality of the finished surface.

.4 Apply paint only when surface to be painted is dry, properly cured and adequately prepared.

1.6 Extra Materials

.1 Submit maintenance materials in accordance with Division 01.

.2 Submit one 4-litre can of each type and colour of finish coating. Identify colour and paint type in relation to established colour schedule and finish formula.

.3 Deliver to Owner and store where directed.

2. PRODUCTS

2.1 Materials

.1 Qualified products: only paint materials listed on the CGSB Qualified Products List are acceptable for use on this project.

.2 Paint materials for each coating formula to be products of a single manufacturer.

.3 Low odour products: Whenever possible, select products exhibiting low odour characteristics. If two products are otherwise equivalent, select the product with the lowest odour.

2.2 Colours

.1 Selection of colours will be from manufacturer's full range of colours.

.2 Where specific products are available in a restricted range of colours, selection will be based on the limited range.

.3 Perform all colour tinting operations prior to delivery of paint to site.

.4 Second coat in a three coat system to be tinted slightly lighter colour than top coat to show visible difference between coats

.5 Colours shall be as follows:

.1 Fire protection piping: red.

.2 Piping: see Mechanical (Division 15).

.3 Valves: see Mechanical (Division 15).

.4 Pipe supports: silver.

.5 Handrails, ladders, guardrails: safety yellow.

.6 Interior walls: tan.

.7 Structural steel: blue.

.8 Grating: black primer.

2.3 Paint Finishes

.1 One primer coat: approved products are:

.1 Cloverdale, Clovaprime 21.

.2 Two top coats: approved products are:

.1 Cloverdale, Clovacoat 300.

3. EXECUTION

3.1 General

.1 Perform all painting operations in accordance with CAN/CGSB-85.100 except where specified otherwise.

.2 Apply all paint materials in accordance with paint manufacturer's written application instructions.

3.2 Preparation

.1 Remove electrical cover plates, light fixtures, surface hardware on doors, door stops, bath accessories and all other surface mounted fittings and fastenings prior to undertaking any painting operations. Store for re-installation after painting is completed.

.2 As painting operations progress, place "WET PAINT" signs in occupied areas to approval of Engineer.

3.3 Protection

.1 Protect existing building surfaces not to be painted from paint spatters, markings and other damage. If damaged, clean and restore such surfaces as directed by Engineer.

.2 Cover or mask floors, windows and other ornamental hardware adjacent to areas being painted to prevent damage and to protect from paint drops and splatters. Use non-staining coverings.

.3 Protect items that are permanently attached such as Fire Labels on doors and frames.

.4 Protect factory finished products and equipment.

3.4 Existing Conditions

.1 Investigate existing substrates for problems related to proper and complete preparation of surfaces to be painted. Report to Engineer all damage, defects, unsatisfactory or unfavourable conditions before proceeding with work.

3.5 Cleaning

.1 Clean all surfaces to be painted as follows:

.1 Remove all dust, dirt, and other surface debris by vacuuming, wiping with dry, clean cloths.

.2 Wash surfaces with solution of T.S.P. [bleach] and clean warm water using a stiff bristle brush to remove dirt, oil and other surface contaminants.

.3 Rinse scrubbed surfaces with clean water until foreign matter is flushed from surface.

.4 Allow surfaces to drain completely and allow to dry thoroughly.

.5 To prepare surfaces for water-based painting, water-based cleaners should be used in place of organic solvents.

.6 Use trigger operated spray nozzles for water hoses.

.7 Many water-based paints cannot be removed with water once dried. However, minimize the use of kerosene or any such organic solvents to clean up water-based paints.

3.6 Surface Preparation: Metal

.1 Clean new metal surfaces to be painted by: removing rust, loose mill scale, welding slag, dirt, oil, grease and other foreign substances in accordance with the following:

.1 Solvent cleaning: SSPC-SP-1.

.2 Hand tool cleaning: SSPC-SP-2.

.3 Power tool cleaning: SSPC-SP-3.

.4 Commercial blast cleaning: SSPC-SP-6.

.5 Brush-off blast cleaning: SSPC-SP-7

.2 Remove traces of blast products from surfaces, pockets and corners to be painted by brushing with clean brushes, blowing with clean dry compressed air, or vacuum cleaning.

.3 Touch up shop primer to CGSB 85-GP-10M with primer as specified in applicable section. Touch-up to include cleaning and painting of field connections, welds, rivets, nuts, washers, bolts, and damaged or defective paint and rusted areas.

.4 Prepare galvanized steel and zinc coated steel surfaces to CGSB 85-GP-16M.

3.7 Mixing Paint

.1 Mix ingredients in container before and during use and ensure breaking up of lumps, complete dispersion of settled pigment, and uniform composition.

.2 Thin paint for spraying according to manufacturer's instructions. If directions are not on container, obtain instructions in writing from manufacturer and provide copy of instructions to Engineer.

3.8 Application

.1 Conform to manufacturer's application instructions.

.2 Brush application.

.1 Work paint into cracks, crevices and corners. Paint surfaces not accessible to brushes by spray, daubers or sheepskins.

.2 Brush out runs and sags.

.3 Remove runs, sags and brush marks from finished work and repaint.

.3 Spray application.

.1 Provide and maintain equipment that is suitable for intended purpose, capable of properly atomizing paint to be applied, and equipped with suitable pressure regulators and gauges.

.2 Keep paint ingredients properly mixed in containers during paint application either by continuous mechanical agitation or by intermittent agitation as frequently as necessary.

.3 Apply paint in a uniform layer, with overlapping at edges of spray pattern.

.4 Brush out immediately all runs and sags.

.5 Use brushes to work paint into cracks, crevices and places which are not adequately painted by spray.

.4 Use dipping, sheepskins or daubers only when no other method is practical in places of difficult access and only when specifically authorized by Engineer.

.5 Apply each coat of paint as a continuous film of uniform thickness. Repaint thin spots or bare areas before next coat of paint is applied.

.6 Allow surfaces to dry and properly cure after cleaning and between subsequent coats for minimum time period as recommended by manufacturer.

3.9 Mechanical / Electrical Equipment

.1 In finished areas: paint exposed conduits, piping, hangers, ductwork and other mechanical and electrical equipment.

.2 In boiler room, mechanical and electrical rooms: paint exposed conduits, piping, hangers, ductwork and other mechanical and electrical equipment.

.3 In other unfinished areas: leave exposed conduits, piping, hangers, ductwork and other mechanical and electrical equipment in original finish and touch up scratches and marks.

.4 Do not paint over nameplates.

.5 Paint all fire protection piping red.

.6 Paint all natural gas piping yellow.

.7 Paint both sides and edges of backboards for telephone and electrical equipment before installation. Leave equipment in original finish except for touch-up as required, and paint conduits, mounting accessories and other unfinished items.

3.10 Restoration

.1 Clean and re-install all hardware items that were removed before undertaken painting operations.

.2 Remove protective coverings and warning signs as soon as practical after operations cease.

.3 Remove paint splashings on exposed surfaces that were not painted. Remove smears and spatter immediately as operations progress, using compatible solvent.

.4 Protect freshly completed surfaces from paint droppings and dust to approval of Engineer. Avoid scuffing newly applied paint.

.5 Restore areas used for storage, cleaning, mixing and handling of paint to clean condition as approved by Engineer.

END OF SECTION