PROTECTIVE COATING OF OVERHEAD SIGN SUPPORT SECTIONS

GENERAL

OVERHEAD SIGN SUPPORTS CAN BE SEPARATED INTO MAJOR SECTIONS SUCH AS END FRAMES, TRUSSES, VERTICAL POLES AND CANTILEVER ARMS. FOR THE IMPLEMENTATION OF THIS WORK ITEM IT WILL BE BENEFICIAL TO REFER TO THE MAJOR SECTIONS OF THE OVERHEAD SIGN SUPPORTS RATHER THAN THE WHOLE SUPPORT. MORE SPECIFIC INSTRUCTIONS AND FLEXIBILITY CAN BE GIVEN BASED UPON THE UNIT OF MEASURE AND PAYMENT PER MAJOR SUPPORT SECTION.

THE PROTECTIVE COATING OF OVERHEAD SIGN SUPPORT SECTIONS SHALL BE A FOUR PART PROCESS TO INCLUDE SURFACE PREPARATION FOLLOWED BY A THREE STEP COATING SYSTEM. THIS THREE STEP COATING SYSTEM SHALL CONSIST OF AN EPOXY PRIME COAT, AN EPOXY INTERMEDIATE COAT AND A URETHANE TOP COAT, WITH EACH COAT A DIFFERENT COLOR. FOR AN EXPLANATION OF THE MATERIALS TO BE USED SEE NOTE ENTITLED 'COATING SYSTEM.' THE PURPOSE OF THIS COATING IS TO PROVIDE PROTECTION FOR NEW (UNWEATHERED) AND OLDER GALVANIZED STEEL SUPPORT SECTIONS FROM CORROSIVE ELEMENTS IN THE ATMOSPHERE. COATING AND SURFACE PREPARATION OF NEW GALVANIZED SUPPORT SECTIONS SHOULD BE DONE BY THE MANUFACTURER.

THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO COMPLY WITH POLLUTION LAWS, RULES OR REGULATIONS OF FEDERAL, STATE OR LOCAL AGENCIES. THE COATING MATERIALS SPECIFIED FOR THE WORK CAN BE HAZARDOUS TO THE HEALTH OF THE APPLICATOR IF NOT APPLIED AS PER MANUFACTURER'S INSTRUCTIONS. THE CONTRACTOR SHALL FOLLOW THE DATA SHEET AND THE LABEL ON THE PAINT CONTAINERS. THESE PRECAUTIONS SHALL INCLUDE THE USE OF RESPIRATORS AND EYE AND SKIN PROTECTION AS SPECIFIED. THE CONTRACTOR SHALL ALSO INSURE THAT HIS PAINTING OPERATIONS AND LOCATIONS WILL NOT ENDANGER OR ADVERSELY AFFECT THE PUBLIC IN GENERAL.

THE PROPOSED CLEANING AND COATING OPERATIONS SHALL BE PERFORMED ONLY WHEN THE AMBIENT TEMPERATURE IS 50 DEGREES F OR ABOVE. ALL STEEL SURFACES OF TRUSSES AND END FRAMES INCLUDING THE WELDED AREAS, BALLAST ENCLOSURE MOUNTING BRACKET AND BASE PLATES ARE TO BE CLEANED AND COATED. BEFOR EACH COATING IS APPLIED, IT SHALL BE MIXED WITH AN APPROVED POWER MECHANICAL MIXER TO A UNIFORM CONSISTENCY WHICH SHALL BE MAINTAINED DURING ITS APPLICATION. EACH COAT SHALL BE APPLIED IN A WORKMANLIKE MANNER AS A CONTINUOUS FILM OF UNIFORM THICKNESS WHICH IS FREE OF HOLIDAYS, PORES, RUNS OR SAGS. ALL COATS SHALL BE APPLIED BY BRUSH. THINNING OF PAINT IS STRICTLY PROHIBITED. PAINT NOT CAPABLE OF BEING APPLIED AS SPECIFIED SHALL NOT BE USED. THE COATING SHALL PENETRATE ALL JOINTS AND CONNECTIONS. THE ENGINEER SHALL BE NOTIFIED 24 HOURS PRIOR TO ANY CLEANING OR COATING OPERATIONS SO THAT INSPECTION SERVICES CAN BE PROVIDED.

COATING SYSTEM

THE COATING SYSTEM SHALL CONSIST OF A POLYAMIDE-CURED EPOXY PRIME COAT, A POLYAMIDE-CURED INTERMEDIATE COAT AND AN ALIPHATIC POLYURETHANE TOP COAT. THE COATING MATERIALS USED SHALL BE THOSE AS LISTED FROM ONE OF THE FOLLOWING MANUFACTURERS OR AN APPROVED EQUAL.

1. AMERON
   210 NORTH BERRY STREET
   BREA, CALIFORNIA 92621
   LOCAL TELEPHONE CONTACT: (216) 896-3602
   PRIME COAT: AMERCOAT 71
   INTERMEDIATE COAT: AMERLOCK 400 (LIGHT GREY)
   TOP COAT: AMERCOAT 450 HS (MEDIUM GREY)

2. GLIDDEN COATINGS AND RESINS
   801 CANTERBURY ROAD
   WESTLAKE, OHIO 44145
   LOCAL TELEPHONE CONTACT: (216) 835-7167
   PRIME COAT: GLID-GUARD EPOXY CHROMATE METAL PRIMER NO. 5251/5252 (OLIVE GREEN)
   INTERMEDIATE COAT: GLID-GUARD EPOXY CHEMICAL RESISTANT FINISH NO. 5240 SERIES (LIGHT GREY)
   TOP COAT: GLID-THANE ONE ALIPHATIC POLYURETHANE COATINGS NO. 6100 SERIES (MEDIUM GREY)

3. PORTER PAINT CO.
   400 SOUTH 13TH STREET
   LOUISVILLE, KY. 40201
   LOCAL TELEPHONE CONTACT: (216) 562-6709
   PRIME COAT: PORTER PAINTS MCR 4300
   INTERMEDIATE COAT: PORTER PAINTS MCR 4300
   TOP COAT: PORTER PAINTS HYTHANE

4. POLY-CARB
   33095 BAINBRIDGE ROAD
   P. O. BOX 39278
   SOLON, OHIO 44139
   LOCAL TELEPHONE CONTACT: (216) 248-1223
   PRIME COAT: MARK-60 (ULTRAPOX)
   INTERMEDIATE COAT: MARK-60 (ULTRAPOX) (LIGHT GREY)
   TOP COAT: MARK-73 (ULTRA-KOTE) (MEDIUM GREY)

5. SHERWIN WILLIAMS COMPANY
   761 BETA DRIVE
   MAYFIELD VILLAGE, OHIO 44143
   LOCAL TELEPHONE CONTACT: (216) 461-8287
   PRIME COAT: TILE-CLAD II HI-BILD PRIMER
   INTERMEDIATE COAT: HI-SOLIDS CATALYZED EPOXY (PURE WHITE) (SLATE GREY)
   TOP COAT: HI-BILD ALIPHATIC POLYURETHANE ENAMEL

ALL THREE COATS OF THE SYSTEM SHALL BE MANUFACTURED BY THE SAME COMPANY TO INSURE COMPATIBILITY AMONG COATS.

SURFACE PREPARATION, EXISTING SUPPORT SECTIONS

EXISTING, WEATHERED GALVANIZED SUPPORT SECTIONS SHOULD HAVE THEIR SURFACE PREPARATION AS WELL AS THEIR PROTECTIVE COATING DONE UNDER CONDITIONS OF TEMPERATURE AND HUMIDITY WITHIN THE SAME RANGE AS SPECIFIED BY THE MANUFACTURER OF THE EPOXY-PRIME COAT MATERIAL TO BE USED IMMEDIATELY AFTER THIS CLEANING OPERATION. THE SUPPORT SECTIONS SHALL BE PREPARED FOR COATING BY SSPC-SP1 FOLLOWED BY SSPC-SP10 (SOLVENT CLEANING FOLLOWED BY A COMMERCIAL BLAST CLEANING). BEFORE THE PREPARED SURFACE DEGRADES FROM THE PRESCRIBED STANDARDS, THE PRIME COAT SHALL BE APPLIED. IN EVERY CASE, THE SURFACE SHALL BE COATED WITH EPOXY PRIME COAT ON THE SAME DAY AS THE SURFACE PREPARATION. CAREFUL HANDLING AND STORAGE WILL BE REQUIRED TO PREVENT ANY SCRAPING, MARRING, OR OTHER DAMAGE TO THE PREPARED SURFACE.
PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT, HANDLING, TRANSPORTATION COSTS AND MATERIALS NECESSARY TO ACCOMPLISH THIS ITEM OF WORK PER MAJOR SUPPORT SECTION.

BASIS OF PAYMENT WILL BE AS FOLLOWS:

ITEM SPECIAL- SURFACE PREPARATION, EXISTING SUPPORT SECTIONS AT CONTRACT BID PRICE PER EACH MAJOR SUPPORT SECTION.

SURFACE PREPARATION, NEW SUPPORT SECTIONS

NEW, UNWEATHERED GALVANIZED SUPPORT SECTIONS SHALL HAVE THEIR SURFACE PREPARATION AS WELL AS THEIR PROTECTIVE COATING APPLIED AT THE PROJECT SITE.

THE SUPPORT SECTIONS SHALL BE PREPARED FOR COATING BY SSPC-SP1 FOLLOWED BY SSPC-SP7 (SOLVENT CLEANING FOLLOWED BY A BRUSH BLAST). BEFORE THE PREPARED SURFACE DEGRADES FROM THE PRESCRIBED STANDARDS, THE PRIME COAT SHALL BE APPLIED. IN EVERY CASE, THE SURFACE SHALL BE COATED WITH THE EPOXY PRIME COAT ON THE SAME DAY OF SURFACE PREPARATION. CAREFUL HANDLING AND STORAGE WILL BE REQUIRED TO PREVENT ANY SCRAPING, MARRING, OR OTHER DAMAGE TO THE PREPARED SURFACE.
PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT, HANDLING, TRANSPORTATION COSTS AND MATERIALS NECESSARY TO ACCOMPLISH THIS ITEM OF WORK PER MAJOR SUPPORT SECTION.

BASIS OF PAYMENT WILL BE AS FOLLOWS:

ITEM SPECIAL- SURFACE PREPARATION, NEW SUPPORT SECTIONS AT CONTRACT BID PRICE PER EACH MAJOR SUPPORT SECTION.

COATING, EPOXY-PRIME COAT, SUPPORT SECTIONS

THIS ITEM SHALL CONSIST OF THE APPLICATION OF ONE (1) COAT OF AN EPOXY PRIMER TO SUPPORT SECTIONS. THE TOTAL DRY FILM THICKNESS OF THIS COAT SHALL BE BETWEEN 1.5 TO 2.0 MILS. IF MORE THAN ONE PASS IS NECESSARY TO OBTAIN THE REQUIRED THICKNESS, THAT COST SHALL BE BORNE BY THE CONTRACTOR. THE COLOR OF THIS COAT SHALL BE NOTICEABLY DIFFERENT FROM THE BASE MATERIAL AND OTHER PROPOSED COATS.
THIS COAT SHALL IN ALL CASES BE APPLIED OVER SURFACES THAT WERE PREPARED EARLIER THAT SAME DAY. THE THINNING OF THE EPOXY MATERIAL IS STRICTLY PROHIBITED. MATERIAL NOT CAPABLE OF BEING APPLIED AS SPECIFIED SHALL NOT BE USED.
WHEN THE AVERAGE DRY FILM THICKNESS OF THIS COAT OVER THE ENTIRE SUPPORT SECTION IS LESS THAN THE SPECIFIED 1.5 TO 2.0 MILS BUT IS AT LEAST 1.25 MILS, THE CONTRACT BID PRICE FOR THIS ITEM SHALL BE REDUCED IN DIRECT PROPORTION TO THE PERCENT DEFICIENCY OF COATING UP TO 16-2/3%. IF THE DEFICIENCY OF COATING IS MORE THAN THAT 16-2/3% (I.E., THE AVERAGE DRY FILM THICKNESS IS LESS THAN 1.25 MILS) THE WORK FOR THIS ITEM SHALL BE CONSIDERED UNSATISFACTORY AND SHALL BE RECOATED AT THE FULL EXPENSE OF THE CONTRACTOR, INCLUDING ALL LABOR, EQUIPMENT AND MATERIAL.
THE EPOXY PRIME COAT CHOSEN BY THE CONTRACTOR SHALL BE ONE OF THE FOLLOWING TWO-COMPONENT COMPOSITIONS CONFORMING TO ITS LISTED PROPERTIES:

AMERCOAT 71:
% SOLIDS BY VOLUME: 47% +/- 3%
POT LIFE: 8 HRS. @ 77 DEGREES F (25 DEGREES C)
DRYING TIME: 4 HRS. @ 77 DEGREES F

EPOXY CHROMATE METAL PRIMER NO. 5251/5252:
% SOLIDS BY VOLUME: 35.1% +/- 2%
POT LIFE: 24 HRS. @ 80 DEGREES F, 5 HRS. @ 100 DEGREES F.
DRYING TIME: 1 HR. TO TOUCH, 3-4 HRS. RECOAT
VISCOSITY: BASE 67-72 KU (STORMER)
CURING AGENT 53-57 KU (STORMER)
% SOLIDS BY WEIGHT: 47.9% +/- 2%

MCR-4301 EPOXY PRIMER::
% SOLIDS BY VOLUME 48.0% +/- 2%
POT LIFE: 30 HRS. @ 50-60 DEGREES F.
16 HRS. @ 80-100 DEGREES F.
DRYING TIME: 4-6 HRS. @ 50-60 DEGREES F.

MARK-60 (ULTRAPOX):
% SOLIDS BY WEIGHT: 50% +/- 5%
POT LIFE: 6 HRS. @ 75 DEGREES F.
DRYING TIME: 2-3 HRS. INITIAL SET @ 75 DEGREES F.
VISCOSITY: 300-500 CPS @ 75 DEGREES F.

TILE-CLAD II HI-BILD PRIMER:
% SOLIDS BY VOLUME: 48% +/- 2%
% SOLIDS BY WEIGHT: 63% +/- 2%
POT LIFE: 8 HRS. @ 77 DEGREES F.
DRYING TIME: 1 HR. TO TOUCH, 6 HRS. TO RECOAT @ 77 DEGREES F.

FOR NEW SUPPORT SECTIONS THIS PRIME COAT SHALL BE APPLIED AT THE PROJECT SITE. VERIFICATION BY THE MANUFACTURER OF THE COATING MATERIAL FOR THE PRIME COAT PROCEDURES WILL BE REQUIRED. CAREFUL HANDLING AND STORAGE WILL BE REQUIRED TO PREVENT ANY SCRAPING, MARRING OR OTHER SURFACE DAMAGE TO THE PRIME COAT.

PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT, HANDLING COSTS AND MATERIALS NECESSARY TO ACCOMPLISH THIS ITEM OF WORK.
THIS PRIME COAT SHALL BE MANUFACTURED BY THE SAME COMPANY SUPPLYING THE INTERMEDIATE AND TOP COATS. A PROPERLY CALIBRATED DRY FILM THICKNESS INSTRUMENT WILL BE USED TO CHECK THE COATING.

BASIS OF PAYMENT WILL BE AS FOLLOWS:
ITEM SPECIAL- COATING, EPOXY PRIME COAT, SUPPORT SECTIONS AT CONTRACT BID PRICE PER EACH MAJOR SUPPORT SECTION.