



Illinois Department of Transportation

2300 South Dirksen Parkway / Springfield, Illinois / 62764

April 10, 2013

SUBJECT: FAP Route 42 (IL 127)
Project ACF-0042(105)
Section 1-1BR-2
Clinton County
Contract No. 76479
Item No. 80, April 26, 2013 Letting
Addendum A

NOTICE TO PROSPECTIVE BIDDERS:

Attached is an addendum to the plans or proposal. This addendum involves revised and/or added material.

1. Replaced the Schedule of Prices.
2. Revised sheets 3, 4, 11, 14-18, 20, 72, 135-142, 144, 145, 150 and 151 of the Plans.
3. Revised page ii of the Table of Contents to the Special Provisions.
4. Added pages 242-246 to the Special Provisions.

Prime contractors must utilize the enclosed material when preparing their bid and must include any Schedule of Prices changes in their bidding proposal.

Bidders using computer-generated bids are cautioned to reflect any and all Schedule of Prices changes, if involved, into their computer programs.

Very truly yours,

John D. Baranzelli, P. E.
Acting Engineer of Design and Environment

A handwritten signature in black ink, appearing to read "Ted B. Walschleger" followed by a small "P.E." to the right.

By: Ted B. Walschleger, P. E.
Engineer of Project Management

cc: Jeffrey Keirn, Region 5, District 8; Mike Renner; D.Carl Puzey; Estimates

DB/ks

ILLINOIS DEPARTMENT OF TRANSPORTATION
 SCHEDULE OF PRICES
 CONTRACT
 NUMBER -

76479

State Job # - C-98-046-05

County Name - CLINTON - -

Code - 27 - -

District - 8 - -

Section Number - 1-1BR-2

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ACF-0042/105/

*REVISED: APRIL 08, 2013

Route

FAP 42

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
A2006516	T-QUERCUS BICOL 2	EACH	7.000				
A2007116	T-QUERCUS RUBRA 2	EACH	13.000				
B2001316	T-CORNUS FLOR TF 2	EACH	4.000				
X0321963	MICRO-PILES	EACH	94.000				
X0323433	MIC-PIL PRF LOAD TEST	EACH	4.000				
*ADD X0325110	BIAXIAL GEOGRID	SQ YD	162.000				
X0327568	TENSION MICROPILES	EACH	48.000				
X0327569	TENSION MICROPILE L T	EACH	4.000				
X5210180	HLMR BRG GUID EXP 550	EACH	12.000				
X5860110	GRANULAR BACKFILL STR	CU YD	374.000				
X6660410	REMOVE ROW MARKERS	EACH	2.000				
X6660445	ROW/PROPERTY CORNERS	EACH	7.000				
Z0004552	APPROACH SLAB REM	SQ YD	195.000				
Z0013798	CONSTRUCTION LAYOUT	L SUM	1.000				
Z0016702	DETOUR SIGNING	L SUM	1.000				

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FAP 42

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Z0018002	DRAINAGE SCUPPR DS-11	EACH	24.000				
Z0046304	P UNDR FOR STRUCT 4	FOOT	176.000				
Z0048665	RR PROT LIABILITY INS	L SUM	1.000				
Z0064505	SECTION CORNER MKRS	EACH	7.000				
Z0076600	TRAINEES	HOUR	3,500.000		0.800		2,800.000
Z0076604	TRAINEES TPG	HOUR	3,500.000		10.000		35,000.000
20100110	TREE REMOV 6-15	UNIT	48.000				
20100210	TREE REMOV OVER 15	UNIT	178.000				
20100500	TREE REMOV ACRES	ACRE	0.250				
20101100	TREE TRUNK PROTECTION	EACH	1.000				
*REV 20200100	EARTH EXCAVATION	CU YD	5,790.000				
*ADD 20201200	REM & DISP UNS MATL	CU YD	75.000				
*ADD 20400800	FURNISHED EXCAVATION	CU YD	75.000				
25000210	SEEDING CL 2A	ACRE	3.500				
25000400	NITROGEN FERT NUTR	POUND	315.000				

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ACF-0042/105/

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FAP 42

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25000500	PHOSPHORUS FERT NUTR	POUND	315.000				
25000600	POTASSIUM FERT NUTR	POUND	315.000				
25100115	MULCH METHOD 2	ACRE	2.250				
25100630	EROSION CONTR BLANKET	SQ YD	1,688.000				
25100635	HD EROS CONTR BLANKET	SQ YD	1,749.000				
28000250	TEMP EROS CONTR SEED	POUND	1,400.000				
28000305	TEMP DITCH CHECKS	FOOT	360.000				
28000400	PERIMETER EROS BAR	FOOT	4,601.000				
28000500	INLET & PIPE PROTECT	EACH	5.000				
28100109	STONE RIPRAP CL A5	SQ YD	1,225.000				
28200200	FILTER FABRIC	SQ YD	1,225.000				
*ADD 30300112	AGG SUBGRADE IMPR 12	SQ YD	4,940.000				
*ADD 31102000	SUB GRAN MAT C	CU YD	82.000				
35101600	AGG BASE CSE B 4	SQ YD	4,063.000				
35102000	AGG BASE CSE B 8	SQ YD	2,566.000				

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District - 8 - -

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ACF-0042/105/

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FAP 42

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40200800	AGG SURF CSE B	TON	44.000				
40201000	AGGREGATE-TEMP ACCESS	TON	100.000				
40600200	BIT MATLS PR CT	TON	103.000				
40600300	AGG PR CT	TON	12.000				
40600982	HMA SURF REM BUTT JT	SQ YD	1,811.000				
40603087	HMA BC IL-19.0 FG N70	TON	2,106.000				
40603315	HMA SC "C" N70	TON	10,952.000				
40800050	INCIDENTAL HMA SURF	TON	306.000				
42001430	BR APPR PVT CON (FLX)	SQ YD	50.000				
44000100	PAVEMENT REM	SQ YD	6,596.000				
44003100	MEDIAN REMOVAL	SQ FT	37.000				
44201373	CL C PATCH T1 12	SQ YD	5.000				
44300200	STRIP REF CR CON TR	FOOT	61,198.000				
48101498	AGGREGATE SHLDS B 4	SQ YD	607.000				
48102100	AGG WEDGE SHLD TYPE B	TON	1,740.000				

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Project Number

ACF-0042/105/

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Route

FAP 42

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48203021	HMA SHOULDERS 6	SQ YD	5,897.000				
48203029	HMA SHOULDERS 8	SQ YD	1,469.000				
50100100	REM EXIST STRUCT	EACH	1.000				
50105220	PIPE CULVERT REMOV	FOOT	43.000				
50200100	STRUCTURE EXCAVATION	CU YD	1,725.000				
50300225	CONC STRUCT	CU YD	935.200				
50300255	CONC SUP-STR	CU YD	1,576.800				
50300260	BR DECK GROOVING	SQ YD	4,855.000				
50300280	CONCRETE ENCASEMENT	CU YD	13.100				
50300300	PROTECTIVE COAT	SQ YD	5,861.000				
50500105	F & E STRUCT STEEL	L SUM	1.000				
50500505	STUD SHEAR CONNECTORS	EACH	11,718.000				
50800105	REINFORCEMENT BARS	POUND	1,700.000				
50800205	REINF BARS, EPOXY CTD	POUND	515,290.000				
50800515	BAR SPLICERS	EACH	168.000				

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ACF-0042/105/

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FAP 42

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50800530	MECHANICAL SPLICERS	EACH	148.000				
51201900	FUR STL PILE HP14X89	FOOT	1,248.000				
51202305	DRIVING PILES	FOOT	1,248.000				
51500100	NAME PLATES	EACH	1.000				
51603000	DRILLED SHAFT IN SOIL	CU YD	141.600				
51604000	DRILLED SHAFT IN ROCK	CU YD	55.800				
52000110	PREF JT STRIP SEAL	FOOT	38.000				
52000208	FINGER PLT EXP JT 3	FOOT	36.000				
52000212	FINGER PLT EXP JT 4	FOOT	36.000				
52000600	FAB REINF ELAS TROUGH	FOOT	84.000				
52100020	ELAST BEARING ASSY T2	EACH	24.000				
52100520	ANCHOR BOLTS 1	EACH	72.000				
52100530	ANCHOR BOLTS 1 1/4	EACH	36.000				
52100540	ANCHOR BOLTS 1 1/2	EACH	12.000				
542A0223	P CUL CL A 1 18	FOOT	86.000				

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 CONTRACT
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76479

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District - 8 - -

Section Number - 1-1BR-2

Project Number

ACF-0042/105/

*REVISED: APRIL 08, 2013

Route

FAP 42

Item Number	Pay Item Description	Unit of Measure	Quantity	x	Unit Price	=	Total Price
542D0223	P CUL CL D 1 18	FOOT	16.000				
54213453	END SECTIONS 18	EACH	8.000				
58700300	CONCRETE SEALER	SQ FT	2,128.000				
59100100	GEOCOMPOSITE WALL DR	SQ YD	179.000				
63000001	SPBGR TY A 6FT POSTS	FOOT	537.500				
63100085	TRAF BAR TERM T6	EACH	3.000				
63100167	TR BAR TRM T1 SPL TAN	EACH	1.000				
63100169	TR BAR TRM T1 SPL FLR	EACH	2.000				
63200310	GUARDRAIL REMOV	FOOT	660.000				
63500105	DELINEATORS	EACH	9.000				
64300260	IMP ATTEN FRD NAR TL3	EACH	1.000				
64301090	ATTENUATOR BASE	SQ YD	8.000				
66600105	FUR ERECT ROW MARKERS	EACH	37.000				
66700205	PERM SURV MKRS T1	EACH	15.000				
66700305	PERM SURV MKRS T2	EACH	1.000				

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 SCHEDULE OF PRICES
 CONTRACT
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FAP 42

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66900200	NON SPL WASTE DISPOSL	CU YD	17.000				
66900450	SPL WASTE PLNS/REPORT	L SUM	1.000				
66900530	SOIL DISPOSAL ANALY	EACH	1.000				
67000400	ENGR FIELD OFFICE A	CAL MO	30.000				
67100100	MOBILIZATION	L SUM	1.000				
70100450	TRAF CONT-PROT 701201	L SUM	1.000				
70100455	TRAF CONT-PROT 701206	L SUM	1.000				
70100460	TRAF CONT-PROT 701306	L SUM	1.000				
70106800	CHANGEABLE MESSAGE SN	CAL MO	100.000				
70300100	SHORT TERM PAVT MKING	FOOT	4,016.000				
70301000	WORK ZONE PAVT MK REM	SQ FT	1,339.000				
72000100	SIGN PANEL T1	SQ FT	121.000				
72000200	SIGN PANEL T2	SQ FT	12.000				
72400100	REMOV SIN PAN ASSY TA	EACH	13.000				
72800100	TELES STL SIN SUPPORT	FOOT	26.000				

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Route

FAP 42

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73000100	WOOD SIN SUPPORT	FOOT	219.000				
78000100	THPL PVT MK LTR & SYM	SQ FT	124.000				
78000200	THPL PVT MK LINE 4	FOOT	95,512.000				
78000500	THPL PVT MK LINE 8	FOOT	293.000				
78000600	THPL PVT MK LINE 12	FOOT	159.000				
78000650	THPL PVT MK LINE 24	FOOT	138.000				
78001100	PT PVT MK LTRS & SYMB	SQ FT	5.000				
78001130	PAINT PVT MK LINE 6	FOOT	192.000				
78009004	MOD URETH PM LINE 4	FOOT	3,990.000				
78100100	RAISED REFL PAVT MKR	EACH	823.000				
78100105	RAISED REF PVT MKR BR	EACH	31.000				
78200410	GUARDRAIL MKR TYPE A	EACH	8.000				
78200520	BAR WALL MKR TYPE B	EACH	64.000				
78201000	TERMINAL MARKER - DA	EACH	3.000				
78300100	PAVT MARKING REMOVAL	SQ FT	257.000				

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 FAP 42

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78300200	RAISED REF PVT MK REM	EACH	767.000				

MODIFIED URETHANE PAVEMENT MARKING (BDE) 85
 PAVEMENT MARKING REMOVAL (BDE) 92
 PAVEMENT PATCHING (BDE) 92
 PAVEMENT REMOVAL (BDE) 93
 PAYMENTS TO SUBCONTRACTORS (BDE) 93
 PLACING AND CONSOLIDATING CONCRETE (BDE)..... 94
 PLANTING WOODY PLANTS (BDE) 97
 PORTLAND CEMENT CONCRETE (BDE) 98
 QUALITY CONTROL/QUALITY ASSURANCE OF CONCRETE MIXTURES (BDE) 137
 RAILROAD PROTECTIVE LIABILITY INSURANCE (BDE) 152
 REMOVAL AND DISPOSAL OF REGULATED SUBSTANCES 153
 REMOVAL AND DISPOSAL OF SURPLUS MATERIALS (BDE) 157
 SAFETY EDGE (BDE) 158
 SUBCONTRACTOR MOBILIZATION PAYMENTS (BDE) 158
 TEMPORARY EROSION AND SEDIMENT CONTROL (BDE) 159
 TRACKING THE USE OF PESTICIDES (BDE)..... 159
 TRAFFIC CONTROL DEFICIENCY DEDUCTION (BDE) 159
 TRAINING SPECIAL PROVISIONS (BDE) 160
 IDOT TRAINING PROGRAM GRADUATE ON-THE-JOB TRAINING SPECIAL PROVISION (TPG)..... 162
 UTILITY COORDINATION AND CONFLICTS (BDE)..... 164
 WARM MIX ASPHALT (BDE) 169
 WEEKLY DBE TRUCKING REPORTS (BDE)..... 174
 BITUMINOUS MATERIALS COST ADJUSTMENTS (BDE) (RETURN FORM WITH BID) 175
 FUEL COST ADJUSTMENT (BDE) (RETURN FORM WITH BID) 178
 STEEL COST ADJUSTMENT (BDE) (RETURN FORM WITH BID) 182
 404 PERMIT..... 186
 STORM WATER POLLUTION PREVENTION PLAN..... 217
 PROJECT LABOR AGREEMENT - QUARTERLY EMPLOYMENT REPORT 225
 PROJECT LABOR AGREEMENT 226
 METALLIZING STRUCTURAL STEEL..... 242

Revised 4-10-13

METALLIZING STRUCTURAL STEEL

Effective: September 19, 1996

Revised: January 25, 2013

Description: This work shall consist of surface preparation, application of a thermal sprayed metal coating (metallizing) and all other work described herein. All work shall be done at the steel fabrication shop unless otherwise noted.

Contractor Prequalification. The Metallizing Contractor shall have satisfactorily performed three (3) previous projects involving the preparation of steel surfaces or other large structural members for metallizing, and then thermally spraying various metals or alloys onto them. The Metallizing Contractor shall have performed at least one similar project within the past two (2) years, and provide documentation of successful completion of projects that incorporated the use of thermal spraying. Prior to the pre-construction meeting or the beginning of any work on this project, The Contractor shall provide to the Department a list of previous clients, including the names, addresses and telephone numbers of successfully completed projects done by the Contractor or Subcontractor. Suitability of the Metallizing Contractor's qualifications and prior experience will be considered by the Department before granting approval to proceed.

Surface Preparation: The surface preparation shall be accomplished in accordance with the requirements of Steel Structures Painting Council (SSPC) Surface Preparation Specifications SP1 for Solvent Cleaning and SP10 for Near White Blast Cleaning. Unless otherwise specified, the surface preparation shall result in 2 to 4 mil (50 to 100 microns) blast profile as determined by the Engineer.

Abrasive shall be hard and sharp in order to produce an angular surface profile. Acceptable abrasives include but are not limited to, angular aluminum oxide, angular steel grit and angular crushed slag. Silica sand shall not be used. Steel shot and other abrasives producing a rounded surface profile are not acceptable. However, the steel can be preblasted with shot provided that the entire surface is reblasted with angular abrasive. A sample of the abrasive shall be submitted to the Engineer two weeks prior to surface preparation for testing and approval.

Prior to surface preparation, the Contractor shall prepare a test section on a representative section of the structural steel. The test section shall be prepared using the same equipment, materials and procedures as the production preparation. The Contractor shall prepare the test section surface to the specified level in accordance with the SSPC visual standards supplied by the Engineer. Only after a test section area has been approved shall the Contractor proceed with surface preparation operations. The test section shall be 10 square feet (1 sq. m).

The average surface profile produced by the Contractor's surface preparation procedures will be determined at the beginning of the work and as required by the Engineer using a profile depth tape and micrometer. Profile depth tape measurements shall be retained and included with QA documents. Single measurements less than 2 mil (50 microns), or greater than the specified maximum for the metallizing system used will be considered unacceptable. Areas having unacceptable measurements will be further tested to determine the limits of the deficient area. If unacceptable profiles are provided, work will be suspended. The Contractor shall submit a plan for the necessary adjustments to insure the correct surface profile on all surfaces. The Contractor shall not resume work until notified in writing by the Engineer.

Added 4-10-2013

The visual standards shall be used in addition to the plans and specifications to determine the degree of conformance with the appearance requirements and to determine acceptance of surface preparation. Additional compensation will not be allowed the Contractor for preparation of test sections.

Abrasive suppliers shall certify that abrasives are not oil contaminated and shall have a water extract pH value within the range of 6 to 8. All surfaces prepared with abrasives which are oil contaminated or have a pH outside the specified range shall be cleaned with solvent cleaner or low pressure water as directed by the Engineer and reblasted by the Contractor at his/her expense.

If the surface is degraded or contaminated subsequent to surface preparation and prior to metallizing, the surface shall be reblasted before metallizing. All surface cleaning shall be approved by the Engineer prior to metallizing.

Metallizing Structural Steel: This procedure governs the methods, requirements and procedures for applying thermal sprayed metal onto new steel surfaces. The process consists of melting metal and spraying it onto a prepared surface by means of compressed gas. All steel surfaces shall be metallized unless otherwise noted. High strength steel bolts, nuts, and washers shall be mechanically galvanized according to Article 1006.08(a) of the Standard Specifications. The top of the top flange shall be metallized as outlined in Article 506.09(j) of the Standard Specifications.

The thickness of the metallizing shall be 8 - 10 mils (200-250 microns) measured as specified by SSPC-PA2.

The wire used for metallizing shall be zinc or 85/15 zinc/aluminum per ASTM B-833, Standard Specification for Zinc Wire for Thermal Spraying (Metallizing). The metallizing material shall satisfy the requirements for Class B or better slip coefficient and creep resistance per Appendix A of the "Specification for Structural Joints Using High-Strength Bolts" by the Research Council on Structural Connections. The test results shall be provided to the Engineer by the Contractor prior to the start of work.

The requirements as outlined in the Joint Standard SSPC-CS 23.00/AWS C2.23M/NACE No. 12 "Specification for the Application of Thermal Spray Coatings (Metallizing) of Aluminum, Zinc, and Their Alloys and Composites for the Corrosion Protection of Steel" shall be followed and considered as part of this specification.

Before any metallizing is done, the Contractor shall prepare a test section for each batch or lot of wire supplied. The Contractor shall submit to the Engineer a steel plate approximately 12 inch x 12 inch (300 mm x 300 mm) to which the metal has been deposited to the specified thickness, as checked with a magnetic or Eddy Current Gage, for acceptance by the Engineer as to grain size and texture of the sprayed metal. The test plate will be used to determine the acceptance of the finished job.

The Engineer will perform the following test for adhesion on the metallized surface of the test plate. He/she will cut through the coating with a knife or chisel, if the metallizing or any part of it can be lifted from the base metal 1/4 inch (6 mm) or more ahead of the cutting blade without actually cutting the metal, the surface preparation will be deemed improper and the coating will

Added 4-10-2013

be considered unsatisfactory. Each spray operator shall be qualified to metallize according to ANSI/AWS C2.18-93. Any operator who does not show evidence of qualification shall not be allowed to spray.

Two locations on each beam shall also be tested for adhesion as outlined above. All areas tested shall be repaired and metallized according to this specification. In the event the Contractor's coating is inferior to the sample, he shall be required to correct the coating by an acceptable repair method to produce a surface comparable to the approved test section.

The metallizing unit shall be a gun manufactured by an established domestic company. The gas or arc type is acceptable and recommended. The equipment shall be used according to manufacturer's recommendations. No surface shall be sprayed which shows any sign of rust, scale or moisture. All metallizing shall be applied within a maximum of four hours of the blasting. Spraying shall be done in a block pattern not to exceed 2 ft (600 mm) on a side with overlapping passes to ensure uniform coverage.

To produce the required thickness and uniformity, a minimum of two passes are required, overlapping and at right angles to each other. The gun shall be held at such a distance from the work surfaces that the metal is still plastic on impact 5 to 9 inches (125 mm - 230 mm). The coating shall be firmly adherent and free from uncoated spots, lumps or blisters, and have a fine sprayed texture.

The Contractor is required to provide facilities to protect the finished metallized surface from damage during the blasting and thermal spraying work operations on adjacent areas. All damaged coated areas shall be properly repaired and metallized by the Contractor. Surfaces not intended to be metallized shall be suitably protected from the effects of cleaning and metallizing operations.

To the maximum extent practicable, metallizing shall be applied as a continuous film of uniform thickness free of pores. All thin spots or areas missed in the application shall be re-metallized.

The Engineer shall be notified a minimum of one week prior to starting surface preparation and/or metallizing. The Engineer will inspect completed sections of metallizing prior to acceptance. The coatings shall be checked for thickness by means of an approved thickness gauge. The Contractor shall be required to add metallizing to any areas failing to register minimum thickness before any oxidation of the surface occurs.

Weather Conditions: The surfaces to be metallized after surface preparation must remain free of moisture and other contaminants. The Contractor shall control his/her operations to insure that dust, dirt or moisture do not come in contact with surfaces prepared that day. In addition to the metallizing system's manufacturer's written instructions for surface preparation, and metallizing, the following conditions shall apply. (When in conflict, the most restrictive conditions shall govern).

- (1) The minimum steel and air temperatures shall be 40° F (4° C). Metallizing shall not be applied to steel which is at a temperature that will cause blistering, porosity or otherwise detrimental to the life of the metallizing. Metallizing shall not be applied in rain, wind, snow, fog or mist, or when the steel surface temperature is less than 5° F (3° C) above the dew point. Metallizing shall not be applied to wet, damp or frosted surfaces. Metallizing shall not be applied when the relative humidity is above 85%.

- (2) Metallizing will not be permitted when wind velocities are greater than 15 MPH (24 kph).

These conditions will be verified by the Engineer at locations representative of the surfaces to be cleaned, and metallized. Work accomplished under unfavorable weather conditions will be considered unacceptable and complete recleaning and metallizing of these areas will be required at the Contractor's expense.

Equipment: All cleaning equipment shall include gauges capable of accurately measuring fluid and air pressures and shall have valves capable of regulating the flow of air and or water as recommended by the equipment manufacturer. The equipment shall be maintained in proper working order.

Metallizing and surface preparation equipment shall utilize filters, traps or separators recommended by the manufacturer of the equipment and shall be kept clean to prevent oil, water, dried paint and other foreign materials from being deposited on the surface. The filters, traps and separators shall be cleaned or drained by means, and at intervals, recommended by the manufacturer of the equipment.

Pressure type abrasive air blasting equipment shall be capable of supplying a minimum of 100 psi (690 kPa) pressure and 250 CFM (120 L/S) capacity with all air blast nozzles being used. If blast nozzle orifice sizes larger than 3/8 inch (9.5 mm) are being used, the minimum capacity of the equipment shall be increased in accordance with the recommendations of SSPC Good Painting Practice, Volume 1, Chapter 2.4, Table 1. The pressure will be measured at the blast nozzle. The equipment shall be capable of providing the minimum required pressure and volume, free of oil, water and other contaminants.

Diesel or gasoline powered equipment shall be positioned or vented in a manner to prevent deposition of combustion contaminants on any part of the structure.

Prior to beginning all metallizing operations, air equipment shall pass the requirements of ASTM D 4285. This test will be repeated as determined by the Engineer.

Quality Control: The Contractor shall conduct a quality control program which ensures that the work accomplished complies with these specifications. The quality control program shall consist of:

1. Qualified personnel to manage the program and conduct quality control tests.
2. Proper quality measuring instruments.
3. Quality Control Plan.
4. Condition and quality recording procedures.

The personnel managing the quality control program shall have considerable experience and knowledge of metallizing and industrial coatings and the measurements needed to assure quality work. The personnel performing the quality control tests shall be trained in the use of the quality control instruments. These personnel shall not perform metallizing and surface preparation.

Added 4-10-2013

The Contractor shall supply all necessary equipment to perform quality control testing of weather conditions, equipment, surface preparation and profile, metallizing thickness. These instruments shall be calibrated by the Contractor's personnel in accordance with the equipment manufacturer's recommendations.

The Contractor shall implement a Quality Control Plan approved by the Engineer including; a schedule of required measurements and tests as outlined herein, procedures for correcting unacceptable work and procedures for improving surface preparation, and metallizing quality as a result of quality control findings. The Contractor shall use forms supplied by the Engineer to record the results of quality control tests. These reports shall be available at the work site for review by the Engineer.

The purpose of the quality control program is to assist the Contractor in the proper performance of the work. Quality control tests performed by the Contractor will not be used as the sole basis for acceptance of the work.

Painting Metallized Structural Steel: When Painting all or portions of the metallized structural steel is specified it shall be done as noted on the plans and according to Article 506.10.

Special Instructions:

Metallizing Date. At the completion of the work, the Contractor shall stencil in contrasting color paint the date of metallizing the bridge. The letters shall be capitals, not less than 2 inches (50 mm) and not more than 3 inches (75 mm) in height.

The stencil shall contain the word "METALLIZED" and shall show the month and year in which the coating was completed followed by "CODE" and the appropriate code number for the paint system applied. "W" is the code for Shop applied metalizing and field applied Epoxy/Polyurethane and "AC" for Shop applied metalizing and field applied Acrylic/Acrylic. This shall be stenciled on the outside face of an outside stringer near one end of the bridge, or at some equally visible surface near the end of the bridge, as designated by the Engineer. If multiple systems are being applied to the structure then multiple Stencils are appropriate.

Removal of all debris, rust and waste generated by this work from the job site is the Contractor's responsibility and included in the Lump Sum Price.

It is understood and agreed that the cost of all work outlined above, unless otherwise specified, has been included in the bid, and no extra compensation will be allowed.

Basis of Payment:

This work shall not be paid for separately but shall be included in the unit price bid for furnishing and/or erecting structural steel according to Article 505.13.

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