Airfield Pavement and Marking Maintenance, Phase 3 State of Tennessee Airports TAD # 99-555-1303-19 AERO-22-999-00

The following additional project information and clarifications are hereby incorporated into the bidding requirements for the referenced project:

- 1. Revised Project Manual Sections:
 - a. Table of Contents (2 Pages)
 - b. Item P-623 Emulsified Asphalt Spray Seal Coat (5 pages)
- 1. Revised Drawing Sheets
 - a. C0.03A
 - b. C0.03B

Please see Verification of Receipt form, next page.

END OF ADDENDUM NO. 1

VERIFICATION OF RECEIPT

Receipt of Addendum No. 1 for the referenced project shall be acknowledged by signing below and immediately returning this verification of receipt via email to jeff.redmill@bargedesign.com. A copy of this addendum <u>must</u> also be submitted with the bid proposal.

COMPANY:	
NAME:	
TITLE:	
DATE:	

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ATTENTION: BIDDERS' RESPONSIBILITY

It shall be the bidders' responsibility to confirm that the Proposal Contract contains all the documents indicated on the Table of Contents.

Should any omissions occur, the appropriate documents may be obtained from the Engineer upon request.

Item P-623 Emulsified Asphalt Spray Seal Coat

(P-623 may be substituted for P-608 on non-runway surfaces only)

DESCRIPTION

623-1.1 This item shall consist of the application of a polymer modified, asphalt emulsion spray seal coat (seal coat) composed of an emulsion of binders prepared from crude petroleum, mineral fillers, water and polymer, applied to an existing, previously prepared asphalt surface. The seal coat shall be applied in accordance with these specifications, and as shown on the plans or as directed by the Resident Project Representative (RPR).

P-623 may be substituted for P-608 on non-runway surfaces only. No separate measurement or payment will be made for the substitution of P-623 for P-608. Payment will be made under P-608.

623-1.2 Application rate per square yard (square meter). The approximate amounts of seal coat per square yard (square meter) for the spray seal will be applied as provided in the Application Rate Table. The actual application rates will vary within the range specified to suit field conditions and will be recommended by the manufacturer's representative and approved by the RPR from the test area/sections evaluation.

Application Rate

	2-coat application	3-coat application
1 st Coat	0.14 - 0.20	0.14 - 0.20
2 nd Coat	0.10 - 0.20	0.10 - 0.20
3 rd Coat	-	0.08 - 0.15
Total Application	0.30 minimum	0.30 - 0.55

MATERIALS

623-2.1 Aggregate. The aggregate shall be black beauty sand or silica sand for taxiways and aprons, in the quantities as specified below. Gradation limits shall be 20/40 mesh or 30/60 mesh as approved by the Engineer. Sand shall be clean and free of vegetation, dirt, dust, and other deleterious substances. The black beauty aggregate material shall meet the requirements of Table 1.

Mixing quantities of sand – pounds per gallon of asphalt emulsion:

A. Taxiway and Apron – two (2) pounds of black beauty sand or two (2) pounds of silica sand.

TABLE 1		
Properties of Black Beauty Aggregate		
Hardness (Mohs Scale)	6 – 7	
Bulk Density	75 – 100 pcf	
Specific Gravity	2.70 min.	

Moisture Content	0.5% max.
Conductivity	25 microSiemens max.
Free Silica	1% max.

623-2.2 Polymer modified asphalt emulsion spray seal (seal coat). A seal coat fortified with fillers created from binders prepared from crude petroleum shall meet the properties in the following table:

Duonoutry	Characteristics		
roperty	Minimum	Maximum	
Density at 77°F (25°C), lb./gal (g/mL)	9 (1.0)	12 (1.5)	
Residue by evaporation, %	44		
Water content, %		56	
Ash content of residue, %	30	40	
Uniformity	Uniform homogeneous consistency.		
Wet film continuity	No separation, coagulation, or settlement that cannot be overcome by moderate agitation.		
Resistance to heat	No blistering, sagging, or slipping.		
Resistance to water	No loss of adhesion and no blistering or tendency to re- emulsify.		
Flash point	No tendency to flash.		
Flexibility	No flaking, cracking, or loss of adhesion to the substrate.		
Polymer modification	Minimum 3% by weight of asphalt binder.		

Polymer Modified Asphalt Emulsion Spray Seal Properties¹

¹ For water content testing, use ASTM Test Method D95. For flash point testing, use ASTM Test Method D93. For other properties, use AASHTO T 59 and T 111.

The Contractor shall provide a copy of the manufacturer's Certificate of Analysis (COA) for material delivered to the project. If the asphalt emulsion is diluted at other than the manufacturer's facility, the Contractor shall provide a supplemental COA from an independent laboratory verifying the asphalt emulsion properties. The COA shall be provided to and approved by the RPR before material is applied. The furnishing of the vendor's certified test report for the asphalt material shall not be interpreted as a basis for final acceptance. The manufacturer's COA may be subject to verification by testing the material delivered for use on the project.

623-2.3 Polymer modification. The type of polymer used for modification shall be chosen by the manufacturer. The polymer modifier shall be incorporated in the manufacturing process. The Contractor shall submit manufacturer's technical data, the manufacturer's certification indicating that the polymer meets the requirements of the specification, and the manufacturer's approval of its use to the RPR. The

amount of polymer will be a minimum 3% of the weight of the asphalt binder in the seal coat surface treatment.

623-2.4 Water. Water used in mixing or curing shall be from potable water sources, free of harmful soluble salts, and at least 50° F (10° C). Other sources shall be tested in accordance with ASTM C1602 prior to use.

623-2.5 Friction characteristics. The Contractor shall submit to the RPR friction tests, from previous airport projects which used the emulsified asphalt spray seal coat in a similar environment, in accordance with AC 150/5320-12, at 40 mph (65 km/h) wet, showing, as a minimum; friction value of pavement surface prior to sealant application; two values, tested between 24 and 96 hours after application, with a minimum of 24 hours between tests; and one value tested at no less than 180 days or greater than 360 days after the application. The results of the two tests between 24 and 96 hours shall indicate friction is increasing at a rate to obtain similar friction value of the pavement surface prior to application, and the long-term test shall indicate no apparent adverse effect with time relative to friction values and existing pavement surface. The Contractor shall submit to the RPR a list of airports which meet the above requirements, as well as technical details on application rates, aggregate rates, and point of contact at these airports to confirm use and success of sealer. Friction tests shall be submitted from no less than one of the airports on the list and each set of tests described above, must be from one project.

Submittals without the required friction performance will not be approved. Friction tests performed on this project cannot be used as a substitute of this requirement.

CONSTRUCTION METHODS

623-4.1 Worker safety. The Contractor shall obtain a Safety Data Sheet (SDS) for both the asphalt sealer product and aggregate and require workmen to follow the manufacturer's recommended safety precautions. All additional industry standard safety precautions regarding the storage and applications of asphalts should be understood and followed by the Contractor.

623-4.2 Control strip. Prior to full production the Contractor shall construct a control strip, a minimum of 250 square yards. The test area will be designated by the RPR in an area representative of the project. The control strip will determine the application rate to be used as well as to demonstrate the equipment and placement methods to be used. If the control strip should prove to be unsatisfactory, the necessary adjustments to the mix composition, application rate, placement operations and equipment shall be made. Additional control strips shall be placed and evaluated if required. Full production shall not begin without the RPR's approval of an appropriate application rate. Acceptable control strips shall be paid for in accordance with paragraph 623-8.1.

623-4.3 Weather limitations. The spray seal shall be applied only when the existing pavement surface is dry and when the weather is not foggy, rainy, or the humidity will not allow proper curing, or when the wind velocity will prevent the uniform application of the material. No material shall be applied when dust or sand is blowing or when rain is anticipated within eight (8) hours of application completion. The atmospheric temperature and the pavement surface temperature shall both be above 50°F (10°C) and rising and is expected to remain above 50°F (10°C) for 24 hours, unless otherwise directed by the RPR. Cover existing buildings, structures, runway edge lights, taxiway edge lights, informational signs, retroreflective marking and in-pavement duct markers as necessary to protect against overspray before applying the emulsion. Should emulsion get on any light or marker fixture, promptly clean the fixture. If cleaning is not satisfactory to the RPR, the Contractor shall replace any light, sign or marker with equivalent equipment at no cost to the Owner.

623-4.3 Equipment and tools. The Contractor shall furnish all equipment, tools, and machinery necessary for the performance of the work. Equipment used to apply the seal coat shall have continuous agitation or mixing capabilities to maintain homogeneous consistency of the seal coat throughout the application process. Spray equipment shall be capable of mixing and spraying seal coat with aggregate

added. Self-propelled squeegee equipment with mixing capability shall have at least two squeegee or brush devices (one behind the other) to ensure adequate distribution and penetration of seal coat surface treatment into pavement surface. Hand squeegees and brushes shall be acceptable in areas where practicality prohibits the use of mechanized equipment. A power broom or blower may be used for removing loose material from the surface to be treated.

623-4.4 Preparation of asphalt pavement surfaces. Clean pavement surface immediately prior to placing the seal coat so that it is free of dust, dirt, grease, vegetation, oil or any type of objectionable surface film. Remove oil or grease by scrubbing with a detergent, then wash thoroughly with clean water. Any additional surface preparation, such as crack repair, shall be in accordance with Item P-101, paragraph 101-3.6.

623-4.5 Emulsion mixing.

Contractor must ensure the mixture is homogeneous with no balling or lumping. Continue to agitate the seal coat mixture in the mixing tank at all times prior to and during application so that a consistent mix is available for application. Small additional increments of water may be needed to provide a workable consistency, but in no case is the water content to exceed the specified amount.

623-4.6 Application of seal coat. Application of seal coat generally consists of two application coats of material. The first coat must be dry prior to the application of the second coat or subsequent coats if more than two coats are being applied. During all applications, the surfaces of adjacent structures shall be protected to prevent their being spattered or marred. Should the seal coat get on any light or marker fixture, promptly clean the fixture. If cleaning is not satisfactory to the RPR, the Contractor shall replace any light, sign or marker with equivalent equipment at no cost to the Owner.

Traffic shall not be allowed until the seal coat has thoroughly cured for approximately 24 hours.

If low spots and depressions greater than 1/2 inch (12 mm) in depth in the pavement surface cause ponding or puddling of the applied materials, the pavement surface shall be broomed with a broom drag. Brooming shall continue until the pavement surface is free of any pools of excess material. The RPR shall inspect and approve areas after brooming.

623-4.7 Freight and weigh bills. The Contractor shall submit waybills and delivery tickets during the progress of the work. Before the final estimate is allowed, file with the RPR certified waybills and certified delivery tickets for all seal coat used in the construction of the pavement covered by the contract. Do not remove seal coat from storage until the initial outage and temperature measurements have been taken. The delivery or storage units will not be released until the final outage has been taken.

QUALITY CONTROL (QC)

623-5.1 Contractor qualifications. The Contractor shall furnish a certification demonstrating a minimum of three years of experience in the application of seal coats.

623-5.2 Sampling. A minimum of one sample per day shall be tested as specified in the table in paragraph 623-2.1. A random sample of approximately one-quart of the composite mix from the onsite storage tank will be obtained daily by the Contractor in the presence of the owner's representative and stored in a proper container. The containers shall be sealed against contamination and retained in storage by the Owner for a period of six months. Samples shall be stored at room temperature and not be subjected to freezing temperatures.

A sample of undiluted asphalt emulsion shall be obtained from each consignment shipped to the job.

MATERIAL ACCEPTANCE

623-6.1 Application rate. The rate of application of the asphalt emulsion shall be verified at least twice per day. The Contractor must furnish the RPR the results daily.

METHOD OF MEASUREMENT

623-7.1 Asphalt seal coat. The quantity of seal coat shall be measured by the square yards of material applied in accordance with the plans and specifications and accepted by the RPR.

BASIS OF PAYMENT

623-8.1 Payment shall be made at the contract unit price per square yard for the seal coat applied and accepted by the RPR. This price shall be full compensation for all surface preparation, furnishing all materials, delivery and application of these materials, for all labor, equipment, tools, and incidentals necessary to complete the item control strip.

P-623 may be substituted for P-608 on non-runway surfaces only. No separate measurement or payment will be made for the substitution of P-623 for P-608. Payment will be made under P-608.

REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM International (ASTM)

ASTM C1602	Standard Specification for Mixing Water Used in the Production of
ASTWIC1002	Hydraulic Cement Concrete
ASTM D93	Standard Test Methods for Flash Point by Pensky-Martens Closed Cup Tester
ASTM D95	Standard Test Method for Water in Petroleum Products and Bituminous Materials by Distillation
ASTM D2939	
ASTM D5340	Standard Test Method for Airport Pavement Condition Index Surveys
	Advisory Circulars (AC)
AC 150/5380-7	Airport Pavement Management Program (PMP)
	Code of Federal Regulations (CFR)
29 CFR 1910.1200	Occupational Safety and Health Standards, Toxic and Hazardous Substances, Hazard Communication
40 CFR	Protection of Environment.

END OF ITEM P-623

SCHEDULE OF QUANTITIES - BOMAR FIELD - SHELBYVILLE MUNICIPAL AIRPORT

ITEM	BASE BID	QUANTITY	UNIT
C-100	CONTRACTOR QUALITY CONTROL PROGRAM (CQCP)	1	LS
C-105	MOBILIZATION	1	LS
P-101-5.1	CRACK REPAIR (TYPE I)	9,938	LF
P-101-5.2	CRACK REPAIR (TYPE II)	657	LF
P-101-5.3	AIRFIELD PAVEMENT MARKING REMOVAL	74,920	SF
P-608-8.1	EMULSIFIED ASPHALT SEAL COAT	128,120	SY
P-620-5.1	TEMPORARY WHITE PAINT	32,730	SF
P-620-5.2	TEMPORARY YELLOW PAINT	9,160	SF
P-620-5.3	WHITE PAINT WITH REFLECTIVE MEDIA	32,730	SF
P-620-5.4	YELLOW PAINT WITH REFLECTIVE MEDIA	9,160	SF

SCHEDULE OF QUANTITIES - CLEVELAND REGIONAL AIRPORT

ITEM	BASE BID	QUANTITY	UNIT
C-100	CONTRACTOR QUALITY CONTROL PROGRAM (CQCP)	1	LS
C-105	MOBILIZATION	1	LS
P-101-5.1	CRACK REPAIR (TYPE I)	5,500	LF
P-101-5.3	AIRFIELD PAVEMENT MARKING REMOVAL	98,560	SF
P-608-8.1	EMULSIFIED ASPHALT SEAL COAT	15,195	SY
P-620-5.1	TEMPORARY WHITE PAINT	32,525	SF
P-620-5.2	TEMPORARY YELLOW PAINT	8,530	SF
P-620-5.3	WHITE PAINT WITH REFLECTIVE MEDIA	32,525	SF
P-620-5.4	YELLOW PAINT WITH REFLECTIVE MEDIA	8,530	SF
P-620-5.5	BLACK PAINT	20,310	SF

SCHEDULE OF QUANTITIES - COLLEGEDALE MUNICIPAL AIRPORT

ITEM	BASE BID	QUANTITY	UNIT
C-100	CONTRACTOR QUALITY CONTROL PROGRAM (CQCP)	1	LS
C-105	MOBILIZATION	1	LS
P-101-5.1	CRACK REPAIR (TYPE I)	21,800	LF
P-101-5.2	CRACK REPAIR (TYPE II)	21,250	LF
P-101-5.3	AIRFIELD PAVEMENT MARKING REMOVAL	58,200	SF
P-101-5.4	CRACK REPAIR (TYPE III)	375	LF
P-605-5.1	JOINT SEALING FILLER	2,300	SY
P-608-8.1	EMULSIFIED ASPHALT SEAL COAT	51,420	SY
P-620-5.1	TEMPORARY WHITE PAINT	26,630	SF
P-620-5.2	TEMPORARY YELLOW PAINT	1,455	SF
P-620-5.3	WHITE PAINT WITH REFLECTIVE MEDIA	26,630	SF
P-620-5.4	YELLOW PAINT WITH REFLECTIVE MEDIA	1,455	SF

SCHEDULE OF QUANTITIES - CROSSVILLE MEMORIAL AIRPORT - WHITSON FIELD

BASE BID	QUANTITY	UNIT
CONTRACTOR QUALITY CONTROL PROGRAM (CQCP)	1	LS
MOBILIZATION	1	LS
CRACK REPAIR (TYPE I)	71,236	LF
CRACK REPAIR (TYPE II)	27,411	LF
	BASE BID CONTRACTOR QUALITY CONTROL PROGRAM (CQCP) MOBILIZATION CRACK REPAIR (TYPE I) CRACK REPAIR (TYPE II)	BASE BIDQUANTITYCONTRACTOR QUALITY CONTROL PROGRAM (CQCP)1MOBILIZATION1CRACK REPAIR (TYPE I)71,236CRACK REPAIR (TYPE II)27,411

SCHEDULE OF QUANTITIES - FRANKLIN COUNTY AIRPORT - SEWANEE

ITEM	BASE BID	QUANTITY	UNIT
C-100	CONTRACTOR QUALITY CONTROL PROGRAM (CQCP)	1	LS
C-105	MOBILIZATION	1	LS
P-101-5.1	CRACK REPAIR (TYPE I)	7,750	LF
P-101-5.2	CRACK REPAIR (TYPE II)	13,100	LF
P-101-5.3	AIRFIELD PAVEMENT MARKING REMOVAL	27,900	SF
P-101-5.4	CRACK REPAIR (TYPE III)	2,625	LF
P-608-8.1	EMULSIFIED ASPHALT SEAL COAT	32,735	SY
P-620-5.1	TEMPORARY WHITE PAINT	12,715	SF
P-620-5.2	TEMPORARY YELLOW PAINT	1,450	SF
P-620-5.3	WHITE PAINT WITH REFLECTIVE MEDIA	12,715	SF
P-620-5.4	YELLOW PAINT WITH REFLECTIVE MEDIA	1,450	SF

SCHEDULE OF QUANTITIES - JACKSON COUNTY AIRPORT - GAINESBORO

ITEM	BASE BID	QUANTITY	UNIT
C-100	CONTRACTOR QUALITY CONTROL PROGRAM (CQCP)	1	LS
C-105	MOBILIZATION	1	LS
P-101-5.1	CRACK REPAIR (TYPE I)	5,232	LF
P-101-5.3	AIRFIELD PAVEMENT MARKING REMOVAL	36,330	SF
P-608-8.1	EMULSIFIED ASPHALT SEAL COAT	44,175	SY
P-620-5.1	TEMPORARY WHITE PAINT	15,475	SF
P-620-5.2	TEMPORARY YELLOW PAINT	1,580	SF
P-620-5.3	WHITE PAINT WITH REFLECTIVE MEDIA	15,475	SF
P-620-5.4	YELLOW PAINT WITH REFLECTIVE MEDIA	1,580	SF

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SCHEDULE OF QUANTITIES - LAFAYETTE MUNICIPAL AIRPORT

ITEM	BASE BID	QUANTITY	UNIT
-100	CONTRACTOR QUALITY CONTROL PROGRAM (CQCP)	1	LS
-105	MOBILIZATION	1	LS
9-101-5.1	CRACK REPAIR (TYPE I)	2,875	LF
-101-5.3	AIRFIELD PAVEMENT MARKING REMOVAL	1,790	SF
-608-8.1	EMULSIFIED ASPHALT SEAL COAT	16,705	SY
-620-5.2	TEMPORARY YELLOW PAINT	1,790	SF
-620-5.4	YELLOW PAINT WITH REFLECTIVE MEDIA	1,790	SF

SCHEDULE OF QUANTITIES - LAWRENCEBURG-LAWRENCE COUNTY AIRPORT

ITEM	BASE BID	QUANTITY	UNIT
C-100	CONTRACTOR QUALITY CONTROL PROGRAM (CQCP)	1	LS
C-105	MOBILIZATION	1	LS
P-101-5.1	CRACK REPAIR (TYPE I)	75,623	LF
P-101-5.2	CRACK REPAIR (TYPE II)	11,190	LF
P-101-5.3	AIRFIELD PAVEMENT MARKING REMOVAL	68,810	SF
P-608-8.1	EMULSIFIED ASPHALT SEAL COAT	102,220	SY
P-620-5.1	TEMPORARY WHITE PAINT	31,930	SF
P-620-5.2	TEMPORARY YELLOW PAINT	6,030	SF
P-620-5.3	WHITE PAINT WITH REFLECTIVE MEDIA	31,930	SF
P-620-5.4	YELLOW PAINT WITH REFLECTIVE MEDIA	6,030	SF

SCHEDULE OF QUANTITIES - LEBANON MUNICIPAL AIRPORT

ITEM	BASE BID	QUANTITY	UNIT
C-100	CONTRACTOR QUALITY CONTROL PROGRAM (CQCP)	1	LS
C-105	MOBILIZATION	1	LS
P-101-5.1	CRACK REPAIR (TYPE I)	46,377	LF
P-101-5.2	CRACK REPAIR (TYPE II)	1,888	LF
P-101-5.3	AIRFIELD PAVEMENT MARKING REMOVAL	68,795	SF
P-605-5.1	JOINT SEALING FILLER	125	LF
P-608-8.1	EMULSIFIED ASPHALT SEAL COAT	131,200	SY
P-620-5.1	TEMPORARY WHITE PAINT	35,545	SF
P-620-5.2	TEMPORARY YELLOW PAINT	5,430	SF
P-620-5.3	WHITE PAINT WITH REFLECTIVE MEDIA	35,545	SF
P-620-5.4	YELLOW PAINT WITH REFLECTIVE MEDIA	5,430	SF

SCHEDULE OF QUANTITIES - LIVINGSTON MUNICIPAL AIRPORT

ITEM	BASE BID	QUANTITY	UNIT
C-100	CONTRACTOR QUALITY CONTROL PROGRAM (CQCP)	1	LS
C-105	MOBILIZATION	1	LS
P-101-5.1	CRACK REPAIR (TYPE I)	29,848	LF
P-101-5.2	CRACK REPAIR (TYPE II)	7,269	LF
P-101-5.3	AIRFIELD PAVEMENT MARKING REMOVAL	47,130	SF
P-608-8.1	EMULSIFIED ASPHALT SEAL COAT	71,410	SY
P-620-5.1	TEMPORARY WHITE PAINT	26,605	SF
P-620-5.2	TEMPORARY YELLOW PAINT	2,740	SF
P-620-5.3	WHITE PAINT WITH REFLECTIVE MEDIA	26,605	SF
P-620-5.4	YELLOW PAINT WITH REFLECTIVE MEDIA	2,740	SF

SCHEDULE OF QUANTITIES - MARION COUNTY AIRPORT - BROWN FIELD

ITEM	BASE BID	QUANTITY	UNIT
C-100	CONTRACTOR QUALITY CONTROL PROGRAM (CQCP)	1	LS
C-105	MOBILIZATION	1	LS
P-101-5.1	CRACK REPAIR (TYPE I)	5,776	LF
P-101-5.2	CRACK REPAIR (TYPE II)	750	LF
P-101-5.3	AIRFIELD PAVEMENT MARKING REMOVAL	1,415	SF
P-608-8.1	EMULSIFIED ASPHALT SEAL COAT	22,805	SY
P-620-5.2	TEMPORARY YELLOW PAINT	1,415	SF
P-620-5.4	YELLOW PAINT WITH REFLECTIVE MEDIA	1,415	SF

SCHEDULE OF QUANTITIES - MARK ANTON AIRPORT - DAYTON

ITEM	BASE BID	QUANTITY	UNIT
C-100	CONTRACTOR QUALITY CONTROL PROGRAM (CQCP)	1	LS
C-105	MOBILIZATION	1	LS
P-101-5.1	CRACK REPAIR (TYPE I)	202,550	LF
P-101-5.2	CRACK REPAIR (TYPE II)	1,808	LF
P-101-5.3	AIRFIELD PAVEMENT MARKING REMOVAL	66,580	SF
P-608-8.1	EMULSIFIED ASPHALT SEAL COAT	86,345	SY
P-620-5.1	TEMPORARY WHITE PAINT	31,385	SF
P-620-5.2	TEMPORARY YELLOW PAINT	5,200	SF
P-620-5.3	WHITE PAINT WITH REFLECTIVE MEDIA	31,385	SF
P-620-5.4	YELLOW PAINT WITH REFLECTIVE MEDIA	5,200	SF

SUMMARY OF QUANTITIES NOTES:

UNDER P-608-8.1.

1. MOBILIZATION COSTS SHALL BE LIMITED TO 10 (TEN) PERCENT OF TOTAL CONSTRUCTION COSTS.

2. P-623 MAY BE SUBSTITUTED FOR P-608 ON NON-RUNWAY SURFACES ONLY. NO SEPARATE MEASUREMENT OR PAYMENT WILL BE MADE FOR THE SUBSTITUTION OF P-623 FOR P-608. PAYMENT WILL BE MADE

	Contraction of the second seco
SCHEDULE OF QUANTITIES	IRFIELD PAVEMENT AND MARKING MAINTENANCE, PHASE 3 TENNESSEE AIRPORTS STATE OF TENNESSEE
REV. DR. CHK. DATE DESCRIPTION JRM JAC JDG 02-11-2022 ISSUED FOR BID 1 JAC JDG 2-22-2022 ADDENDUM No. 1).03A

SCHEDULE OF QUANTITIES - MARTIN CAMPBELL FIELD AIRPORT

ITEM	BASE BID	QUANTITY	UNIT
C-100	CONTRACTOR QUALITY CONTROL PROGRAM (CQCP)	1	LS
C-105	MOBILIZATION	1	LS
P-101-5.1	CRACK REPAIR (TYPE I)	37,438	LF
P-101-5.2	CRACK REPAIR (TYPE II)	17,188	LF
P-101-5.3	AIRFIELD PAVEMENT MARKING REMOVAL	40,330	SF
P-101-5.4	CRACK REPAIR (TYPE III)	3,188	LF
P-608-8.1	EMULSIFIED ASPHALT SEAL COAT	43,825	SY
P-620-5.1	TEMPORARY WHITE PAINT	18,050	SF
P-620-5.2	TEMPORARY YELLOW PAINT	1,290	SF
P-620-5.3	WHITE PAINT WITH REFLECTIVE MEDIA	18,050	SF
P-620-5.4	YELLOW PAINT WITH REFLECTIVE MEDIA	1,290	SF

SCHEDULE OF QUANTITIES - McMINN COUNTY AIRPORT - ATHENS

ITEM	BASE BID	QUANTITY	UNIT
C-100	CONTRACTOR QUALITY CONTROL PROGRAM (CQCP)	1	LS
C-105	MOBILIZATION	1	LS
P-101-5.1	CRACK REPAIR (TYPE I)	103,083	LF
P-101-5.2	CRACK REPAIR (TYPE II)	9,463	LF
P-101-5.3	AIRFIELD PAVEMENT MARKING REMOVAL	62,885	SF
P-608-8.1	EMULSIFIED ASPHALT SEAL COAT	137,965	SY
P-620-5.1	TEMPORARY WHITE PAINT	35,900	SF
P-620-5.2	TEMPORARY YELLOW PAINT	7,645	SF
P-620-5.3	WHITE PAINT WITH REFLECTIVE MEDIA	35,900	SF
P-620-5.4	YELLOW PAINT WITH REFLECTIVE MEDIA	7,645	SF

SCHEDULE OF QUANTITIES - MONROE COUNTY AIRPORT - MADISONVILLE

ITEM	BASE BID	QUANTITY	UNIT
C-100	CONTRACTOR QUALITY CONTROL PROGRAM (CQCP)	1	LS
C-105	MOBILIZATION	1	LS
P-101-5.1	CRACK REPAIR (TYPE I)	21,708	LF
P-101-5.3	AIRFIELD PAVEMENT MARKING REMOVAL	28,700	SF
P-608-8.1	EMULSIFIED ASPHALT SEAL COAT	38,615	SY
P-620-5.1	TEMPORARY WHITE PAINT	16,725	SF
P-620-5.2	TEMPORARY YELLOW PAINT	1,045	SF
P-620-5.3	WHITE PAINT WITH REFLECTIVE MEDIA	16,725	SF
P-620-5.4	YELLOW PAINT WITH REFLECTIVE MEDIA	1,045	SF

SCHEDULE OF QUANTITIES - MURFREESBORO MUNICIPAL AIRPORT

ITEM	BASE BID	QUANTITY	UNIT
C-100	CONTRACTOR QUALITY CONTROL PROGRAM (CQCP)	1	LS
C-105	MOBILIZATION	1	LS
P-101-5.1	CRACK REPAIR (TYPE I)	40,578	LF
P-101-5.2	CRACK REPAIR (TYPE II)	5,878	LF
P-101-5.3	AIRFIELD PAVEMENT MARKING REMOVAL	835	SF
P-608-8.1	EMULSIFIED ASPHALT SEAL COAT	98,125	SY
P-620-5.2	TEMPORARY YELLOW PAINT	835	SF
P-620-5.4	YELLOW PAINT WITH REFLECTIVE MEDIA	835	SF

SCHEDULE OF QUANTITIES - SMITHVILLE MUNICIPAL AIRPORT

ITEM	BASE BID	QUANTITY	UNIT
C-100	CONTRACTOR QUALITY CONTROL PROGRAM (CQCP)	1	LS
C-105	MOBILIZATION	1	LS
P-101-5.1	CRACK REPAIR (TYPE I)	30,314	LF
P-101-5.2	CRACK REPAIR (TYPE II)	2,503	LF
P-101-5.3	AIRFIELD PAVEMENT MARKING REMOVAL	43,575	SF
P-605-5.1	CONCRETE JOINT REPAIR	605	LF
P-608-8.1	EMULSIFIED ASPHALT SEAL COAT	58,520	SY
P-620-5.1	TEMPORARY WHITE PAINT	17,135	SF
P-620-5.2	TEMPORARY YELLOW PAINT	900	SF
P-620-5.3	WHITE PAINT WITH REFLECTIVE MEDIA	17,135	SF
P-620-5.4	YELLOW PAINT WITH REFLECTIVE MEDIA	900	SF

SCHEDULE OF QUANTITIES - SUMNER COUNTY - MUSIC CITY EXECUTIVE AIRPORT

ITEM	BASE BID	QUANTITY	UNIT
C-100	CONTRACTOR QUALITY CONTROL PROGRAM (CQCP)	1	LS
C-105	MOBILIZATION	1	LS
P-101-5.1	CRACK REPAIR (TYPE I)	67,311	LF
P-101-5.2	CRACK REPAIR (TYPE II)	204	LF
P-101-5.3	AIRFIELD PAVEMENT MARKING REMOVAL	61,275	SF
P-608-8.1	EMULSIFIED ASPHALT SEAL COAT	154,315	SY
P-620-5.1	TEMPORARY WHITE PAINT	33,130	SF
P-620-5.2	TEMPORARY YELLOW PAINT	9,250	SF
P-620-5.3	WHITE PAINT WITH REFLECTIVE MEDIA	33,130	SF
P-620-5.4	YELLOW PAINT WITH REFLECTIVE MEDIA	9,250	SF

SCHEDULE OF QUANTITIES - TULLAHOMA REGIONAL AIRPORT

C-100	CONTRACTOR QUALITY CONTROL PROGRAM (CQCP)	1	LS
C-105	MOBILIZATION	1	LS
P-101-5.1	CRACK REPAIR (TYPE I)	72,063	LF
P-101-5.2	CRACK REPAIR (TYPE II)	7,838	LF
P-101-5.3	AIRFIELD PAVEMENT MARKING REMOVAL	117,105	SF
P-608-8.1	EMULSIFIED ASPHALT SEAL COAT	88,985	SY
P-620-5.1	TEMPORARY WHITE PAINT	66,880	SF
P-620-5.2	TEMPORARY YELLOW PAINT	21,930	SF
P-620-5.3	WHITE PAINT WITH REFLECTIVE MEDIA	66,880	SF
P-620-5.4	YELLOW PAINT WITH REFLECTIVE MEDIA	21,930	SF
P-620-5.5	BLACK PAINT	28,305	SF
P-620-5.6	RED PAINT WITH REFLECTIVE MEDIA	625	SF

SCHEDULE OF QUANTITIES - UPPER CUMBERLAND REGIONAL AIRPORT - SPARTA

C-100	CONTRACTOR QUALITY CONTROL PROGRAM (CQCP)	1	LS
C-105	MOBILIZATION	1	LS
P-101-5.1	CRACK REPAIR (TYPE I)	107,935	LF
P-101-5.2	CRACK REPAIR (TYPE II)	20,845	LF
P-101-5.3	AIRFIELD PAVEMENT MARKING REMOVAL	109,340	SF
P-608-8.1	EMULSIFIED ASPHALT SEAL COAT	195,415	SY
P-620-5.1	TEMPORARY WHITE PAINT	94,715	SF
P-620-5.2	TEMPORARY YELLOW PAINT	13,685	SF
P-620-5.3	WHITE PAINT WITH REFLECTIVE MEDIA	94,715	SF
P-620-5.4	YELLOW PAINT WITH REFLECTIVE MEDIA	13,685	SF

SCHEDULE OF QUANTITIES - WARREN COUNTY MEMORIAL AIRPORT - McMINNVILLE

ITEM	BASE BID	QUANTITY	UNIT
C-100	CONTRACTOR QUALITY CONTROL PROGRAM (CQCP)	1	LS
C-105	MOBILIZATION	1	LS
P-101-5.1	CRACK REPAIR (TYPE I)	46,299	LF
P-101-5.2	CRACK REPAIR (TYPE II)	27,244	LF
P-101-5.3	AIRFIELD PAVEMENT MARKING REMOVAL	6,720	SF
P-101-5.4	CRACK REPAIR (TYPE III)	3,250	LF
P-608-8.1	EMULSIFIED ASPHALT SEAL COAT	62,430	SY
P-620-5.2	TEMPORARY YELLOW PAINT	6,720	SF
P-620-5.4	YELLOW PAINT WITH REFLECTIVE MEDIA	6,720	SF

SUMMARY OF QUANTITIES NOTES:

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1. MOBILIZATION COSTS SHALL BE LIMITED TO 10 (TEN) PERCENT OF TOTAL CONSTRUCTION COSTS.

 P-623 MAY BE SUBSTITUTED FOR P-608 ON NON-RUNWAY SURFACES ONLY. NO SEPARATE MEASUREMENT OR PAYMENT WILL BE MADE FOR THE SUBSTITUTION OF P-623 FOR P-608. PAYMENT WILL BE MADE
UNDER P-608-8.1.

	BESIGN SOLUTIONS BESIGN SOLUTIONS 615 3rd Avenue South // Suite 700 // Nashville, Tennessee 37210 PHONE (615) 254-1500 // FAX (615) 255-6572
	STERED ENGLAND
SCHEDULE OF QUANTITIES	AIRFIELD PAVEMENT AND MARKING MAINTENANCE, PHASE 3 TENNESSEE AIRPORTS STATE OF TENNESSEE
EV. DR. CHK. DATE DESCRIPTION RM JAC JDG 02-11-2022 ISSUED FOR BID 1 JAC JDG 2-22-2022 ADDENDUM No. 1	
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