INSTRUCTIONS

ABOUT IDOT PROPOSALS: All proposals are potential bidding proposals. Each proposal contains all certifications and affidavits, a proposal signature sheet and a proposal bid bond.

PREQUALIFICATION

Any contractor who desires to become pre-qualified to bid on work advertised by IDOT must submit the properly completed pre-qualification forms to the Bureau of Construction no later than 4:30 p.m. prevailing time twenty-one days prior to the letting of interest. This pre-qualification requirement applies to first time contractors, contractors renewing expired ratings, contractors maintaining continuous pre-qualification or contractors requesting revised ratings. To be eligible to bid, existing pre-qualification ratings must be effective through the date of the letting.

WHO CAN BID?

Bids will be accepted from only those companies that request and receive written Authorization to Bid from IDOT's Central Bureau of Construction.

REQUESTS FOR AUTHORIZATION TO BID

Contractors wanting to bid on items included in a particular letting must submit the properly completed "Request for Authorization to Bid/or Not For Bid Status" (BDE 124) and the ORIGINAL "Affidavit of Availability: (BC 57) to the proper office no later than 4:30 p.m. prevailing time, three (3) days prior to the letting date.

WHAT CONSTITUTES WRITTEN AUTHORIZATION TO BID?: When a prospective prime bidder submits a "Request for Authorization to Bid or Not for Bid Status" (BDE 124) he/she must indicate at that time which items are being requested For Bidding purposes. Only those items requested For Bidding will be analyzed. After the request has been analyzed, the bidder will be issued an **Authorization to Bid or Not for Bid Report**, approved by the Central Bureau of Construction and the Chief Procurement Officer that indicates which items have been approved For Bidding. If **Authorization to Bid** cannot be approved, the **Authorization to Bid or Not for Bid Report** will indicate the reason for denial.

ABOUT AUTHORIZATION TO BID: Firms that have not received an Authorization to Bid or Not For Bid Report within a reasonable time of complete and correct original document submittal should contact the department as to the status. Firms unsure as to authorization status should call the Prequalification Section of the Bureau of Construction at the number listed at the end of these instructions. These documents must be received three days before the letting date.

ADDENDA AND REVISIONS: It is the bidder's responsibility to determine which, if any, addenda or revisions pertain to any project they may be bidding. Failure to incorporate all relevant addenda or revisions may cause the bid to be declared unacceptable.

Each addendum or revision will be included with the Electronic Plans and Proposals. Addenda and revisions will also be placed on the Addendum/Revision Checklist and each subscription service subscriber will be notified by e-mail of each addendum and revision issued.

The Internet is the Department's primary way of doing business. The subscription server e-mails are an added courtesy the Department provides. It is suggested that bidders check IDOT's website at http://www.dot.il.gov/desenv/delett.html before submitting final bid information.

IDOT IS NOT RESPONSIBLE FOR ANY E-MAIL FAILURES.

Addenda questions may be directed to the Contracts Office at (217)782-7806 or D&Econtracts@dot.il.gov

Technical questions about downloading these files may be directed to Tim Garman at (217)524-1624 or <u>Timothy.Garman@illinois.gov</u>.

BID SUBMITTAL GUIDELINES AND CHECKLIST

In an effort to eliminate confusion and standardize the bid submission process the Contracts Office has created the following guidelines and checklist for submitting bids.

This information has been compiled from questions received from contractors and from inconsistencies noted on submitted bids. If you have additional questions please refer to the contact information listed below.

ABOUT SUBMITTING BIDS: It is recommended that bidders deliver bid proposals in person to ensure they arrive at the proper location prior to the time specified for the receipt of bids. Any proposals received at the place of letting after the time specified will not be read.

STANDARD GUIDELINES FOR SUBMITTING BIDS

- All pages should be single sided.
- Use the Cover Page that is provided in the Bid Proposal (posted on the IDOT Web Site) as the first page of your submitted bid. This page has the Item number in the upper left-hand corner and lines provided for your company name and address in the upper right-hand corner.
- Do not use report covers, presentation folders or special bindings and do not staple multiple times on left side like a book. Use only 1 staple in the upper left hand corner. Make sure all elements of your bid are stapled together including the bid bond or guaranty check (if required).
- Do not include any certificates of eligibility, your authorization to bid, Addendum Letters or affidavit of availability.
- Do not include the Subcontractor Documentation with your bid (pages 33-41). This documentation is required only after you are awarded the contract.
- Use the envelope cover sheet (provided with the proposal) as the cover for the proposal envelope.
- Do not rely on overnight services to deliver your proposal prior to 10 AM on letting day. It will not be read if it is delivered after 10 AM.
- Do not submit your Substance Abuse Prevention Program (SAPP) with your bid. If you are awarded the contract this form is to be submitted to the Division Construction Engineer at the pre-construction conference.

Use the following checklist to ensure completeness and the correct order in assembling your bid

□ Illinois Office Affidavit (Not applicable to federally funded projects) Insert your affidavit after page 4 (if applicable).

□ Cover page (the sheet that has the item number on it) followed by your bid (the Pay Items). If you are using special software or CBID to generate your schedule of prices, <u>do not include the blank schedule of prices</u>.

□ **Page 4 (Item 10)** - Check "YES" if you will use a subcontractor(s). Include the subcontractor(s) name, address, general type of work to be performed and the dollar amount (if over \$50,000). If you will use subcontractor(s) but are uncertain who or the dollar amount; check "YES" but leave the lines blank.

□ Page 10 (Paragraph J) - Check "YES" or "NO" whether your company has any business in Iran.

 \Box Page 10 (Paragraph K) – (Not applicable to federally funded projects) List the Union Local Name and number or certified training programs that you have in place. <u>Your bid will not be read if this is not completed.</u> Do not include certificates with your bid. Keep the certificates in your office in case they are requested by IDOT.

□ Page 11 (Paragraph L) - A copy of your State Board of Elections certificate of registration is no longer required with your bid.

□ Page 11 (Paragraph M) – Indicate if your company has hired a lobbyist in connection with the job for which you are submitting the bid proposal.

□ Page 12 (Paragraph C) - This is a work sheet to determine if a completed Form A is required. It is not part of the form and you do not need to make copies for each Form A that is filled out.

□ **Pages 14-17 (Form A)** - One Form A (4 pages) is required for each applicable person in your company. Copies of the Forms can be used and only need to be changed when the financial information changes. The certification <u>signature and date must be original</u> for each letting. Do not staple the forms together.

If you answered "NO" to all of the questions in Paragraph C (page 12), complete the first section (page 14) with your company information and then sign and date the Not Applicable statement on page 17.

□ **Page 18 (Form B)** - If you check "YES" to having other current or pending contracts it is acceptable to use the phrase, "See Affidavit of Availability on file". **Ownership Certification** (at the bottom of the page) – Check N/A if the Form A you submitted accounts for 100 percent of the company ownership. Check YES if any percentage of ownership falls outside of the parameters that require reporting on the Form A. Checking NO indicates that the Form A you submitted is not correct and you will be required to submit a revised Form A.

□ Pages 20-21 (Workforce Projection) - Be sure to include the Duration of the Project. It is acceptable to use the phrase "Per Contract Specifications".

□ **Bid Bond** - Submit your bid bond using the current Bid Bond Form provided in the proposal package. The Power of Attorney page should be stapled to the Bid Bond. If you are using an electronic bond, include your bid bond number on the form and attach the Proof of Insurance printed from the Surety 2000 Web Site.

□ **Disadvantaged Business Utilization Plan and/or Good Faith Effort** - The last item in your bid should be the DBE Utilization Plan (SBE 2026), followed by the DBE Participation Statement (SBE 2025) and supporting paperwork. If you have documentation for a Good Faith Effort, it should follow the SBE Forms.

The Bid Letting is now available in streaming Audio/Video from the IDOT Web Site. A link to the stream will be placed on the main page of the current letting on the day of the Letting. The stream will not begin until 10 AM. The actual reading of the bids does not begin until approximately 10:20 AM.

Following the Letting, the As-Read Tabulation of Bids will be posted by the end of the day. You will find the link on the main page of the current letting.

QUESTIONS: pre-letting up to execution of the contract

| Contractor/Subcontractor pre-qualification | 217-782-3413 |
|---|--------------|
| Small Business, Disadvantaged Business Enterprise (DBE) | |
| Contracts, Bids, Letting process or Internet downloads | 217-785-7806 |
| Estimates Unit | |
| Aeronautics | 217-785-8515 |
| IDNR (Land Reclamation, Water Resources, Natural Resources) | 217-782-6302 |

QUESTIONS: following contract execution

| Including Subcontractor documentation, payments | 217-782-3413 |
|---|--------------|
| Railroad Insurance | |
| | 217-765-0275 |

Proposal Submitted By

| 1 | ς Λ | |
|---|------------|--|
| | D A | |
| | | |
| | | |

| Name | |
|--|------------------|
| Address | |
| City/State | 9 Digit Zip Code |
| Telephone No. | Fax No. |
| Federal Employer Identification No. (FEI | N) |
| Email Address | |

Letting June 14, 2013

NOTICE TO PROSPECTIVE BIDDERS

This proposal can be used for bidding purposes by only those companies that request and receive written AUTHORIZATION TO BID from IDOT's Central Bureau of Construction. BIDDERS NEED NOT RETURN THE ENTIRE PROPOSAL

Notice to Bidders, Specifications, Proposal, Contract and Contract Bond

Illinois Department of Transportation DIVISION OF AERONAUTICS

Contract No. PA056 Chicago Executive Airport Wheeling/Prospect Heights, Illinois Cook County Illinois Project No. PWK-4182 SBG Project No. 3-17-0018-B48

For engineering information, contact Jeremy Linke, P.E. of Crawford, Murphy & Tilly, Inc. at (630) 820-1022.

FAA rules prohibit the use of escalation clauses for materials. Therefore, the Division of Aeronautics cannot offer any material cost adjustment provisions for projects that utilize Federal funds. PLEASE MARK THE APPROPRIATE BOX BELOW:

A <u>Bid Bond</u> is included.

A Cashier's Check or a Certified Check is included.



PROPOSAL

TO THE DEPARTMENT OF TRANSPORTATION

1. Proposal of ______

Taxpayer Identification Number (Mandatory) ____

For the improvement identified and advertised for bids in the Invitation for Bids as:

Contract No. PA056 Chicago Executive Airport Wheeling/Prospect Heights, Illinois Cook County Illinois Project No. PWK-4182 SBG Project No. 3-17-0018-B48

Sitework and Installation for Engineered Material Arresting System (EMAS)

- 2. The undersigned bidder will furnish all labor, material and equipment to complete the above described project in a good workmanlike manner as provided in the contract documents provided by the Department of Transportation. This proposal will become part of the contract and the terms and conditions contained in the contract documents shall govern performance and payments.
- 3. COMPLETION TIME/LIQUIDATED DAMAGES. It being understood and agreed that the completion within the time limit is an essential part of the contract, the bidder agrees to complete the work within 48 calendar days, unless additional time is granted by the Engineer in accordance with the provisions of the specifications. In case of failure to complete the work on or before the time named herein, or within such extra time as may have been allowed by extensions, the bidder agrees that the Department of Transportation shall withhold from such sum as may be due him/her under the terms of this contract, the costs, as set forth below, which costs shall be considered and treated not as a penalty but as damages due to the State from the bidder by reason of the failure of the bidder to complete the work within the time specified in the contract.

| Schedule of Deductions for Each Day of Overrun in Contract Time | | | | |
|--|------------------|--------------|----------|--|
| Original Con | tract Amount | Daily Char | rges | |
| From More Than | To and Including | Calendar Day | Work Day | |
| \$ 0 | \$ 100,000 | \$ 475 | \$ 675 | |
| 100,000 | 500,000 | 750 | 1,050 | |
| 500,000 | 1,000,000 | 1,025 | 1,425 | |
| 1,000,000 | 3,000,000 | 1,275 | 1,725 | |
| 3,000,000 | 6,000,000 | 1,425 | 2,000 | |
| 6,000,000 | 12,000,000 | 2,300 | 3,450 | |
| 12,000,000 | And over | 5,800 | 8,125 | |

A daily charge shall be made for every day shown on the calendar beyond the specified contract time in calendar days.

- ASSURANCE OF EXAMINATION AND INSPECTION/WAIVER. The undersigned further declares that he/she has carefully 4. examined the proposal, plans, specifications, supplemental and applicable recurring special provisions, addenda, form of contract and contract bond, and special provisions, and that he/she has inspected in detail the site of the proposed work, and that he/she has familiarized themselves with all of the local conditions affecting the contract and the detailed requirements of construction, and understands that in making this proposal he/she waives all right to plead any misunderstanding regarding the same.
- EXECUTION OF CONTRACT AND CONTRACT BOND. The undersigned further agrees to execute a contract for this work and 5 present the same to the department within fifteen (15) days after the contract has been mailed to him/her. The undersigned further agrees that he/she and his/her surety will execute and present within fifteen (15) days after the contract has been mailed to him/her contract bond satisfactory to and in the form prescribed by the Department of Transportation, in the penal sum of the full amount of the contract, guaranteeing the faithful performance of the work in accordance with the terms of the contract.
- 6. PROPOSAL GUARANTY. Accompanying this proposal is either a bid bond on the department form, executed by a corporate surety company satisfactory to the department, or a proposal guaranty check consisting of a bank cashier's check or a properly certified check for not less than 5 per cent of the amount bid or for the amount specified in the following schedule:

| ٨ | mount | of Did | Proposal | ٨٣ | nount c | A Did | Proposal Guaranty |
|-------------|-------|-------------|-----------------|--------------|---------|--------------|----------------------|
| <u>A</u> | mount | | <u>Guaranty</u> | <u>All</u> | | | Guaranty |
| Up to | | \$5,000 | \$150 | \$2,000,000 | to | \$3,000,000 | \$100,000 |
| \$5,000 | to | \$10,000 | \$300 | \$3,000,000 | to | \$5,000,000 | \$150,000 |
| \$10,000 | to | \$50,000 | \$1,000 | \$5,000,000 | to | \$7,500,000 | \$250,000 |
| \$50,000 | to | \$100,000 | \$3,000 | \$7,500,000 | to | \$10,000,000 | \$400,000 |
| \$100,000 | to | \$150,000 | \$5,000 | \$10,000,000 | to | \$15,000,000 | \$500,000 |
| \$150,000 | to | \$250,000 | \$7,500 | \$15,000,000 | to | \$20,000,000 | \$600,000 |
| \$250,000 | to | \$500,000 | \$12,500 | \$20,000,000 | to | \$25,000,000 | \$700,000 |
| \$500,000 | to | \$1,000,000 | \$25,000 | \$25,000,000 | to | \$30,000,000 | \$800,000 |
| \$1,000,000 | to | \$1,500,000 | \$50,000 | \$30,000,000 | to | \$35,000,000 | \$900,000 |
| \$1,500,000 | to | \$2,000,000 | \$75,000 | over | | \$35,000,000 | \$1,000,000 |

Bank cashier's checks or properly certified checks accompanying proposals shall be made payable to the Treasurer, State of Illinois, when the state is awarding authority; the county treasurer, when a county is the awarding authority; or the city, village, or town treasurer, when a city, village, or town is the awarding authority.

If a combination bid is submitted, the proposal guaranties which accompany the individual proposals making up the combination will be considered as also covering the combination bid.

The amount of the proposal guaranty check is

). If this proposal is accepted \$(and the undersigned shall fail to execute contract bonds as required herein, it is hereby agreed that the amount of the proposal guaranty shall become the property of the State of Illinois, and shall be considered as payment of damages due to delay and other causes suffered by the State because of the failure to execute said contract and contract bonds: otherwise, the bid bond shall become void or the proposal guaranty check shall be returned to the undersigned.

Attach Cashier's Check or Certified Check Here

In the event that one proposal guaranty check is intended to cover two or more proposals, the amount must be equal to the sum of the proposal guaranties which would be required for each individual proposal. If the guaranty check is placed in another proposal, state below where it may be found.

The proposal guaranty check will be found in the proposal for: Item Airport

Mark the proposal cover sheet as to the type of proposal guaranty submitted.

7. COMBINATION BIDS. The undersigned further agrees that if awarded the contract for the sections contained in the following combination, he/she will perform the work in accordance with the requirements of each individual proposal comprising the combination bid specified in the schedule below, and that the combination bid shall be prorated against each section in proportion to the bid submitted for the same. If an error is found to exist in the gross sum bid for one or more of the individual sections included in a combination, the combination bid shall be corrected as provided in the specifications.

When a combination bid is submitted, the schedule below must be completed in each proposal comprising the combination.

If alternate bids are submitted for one or more of the sections comprising the combination, a combination bid must be submitted for each alternate.

Schedule of Combination Bids

| Combination | | Combination | Bid |
|-------------|----------------------------------|-------------|-------|
| No. | Sections Included in Combination | Dollars | Cents |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

- 8. SCHEDULE OF PRICES. The undersigned submits herewith, in accordance with the rules and instructions, a schedule of prices for the items of work for which bids are sought. The unit prices bid are in U.S. dollars and cents, and all extensions and summations have been made. The bidder understands that the quantities appearing in the bid schedule are approximate and are provided for the purpose of obtaining a gross sum for the comparison of bids. If there is an error in the extension of the unit prices, the unit prices shall govern. Payment to the contractor awarded the contract will be made only for actual quantities of work performed and accepted or materials furnished according to the contract. The scheduled quantities of work to be done and materials to be furnished may be increased, decreased or omitted as provided elsewhere in the contract.
- 9. AUTHORITY TO DO BUSINESS IN ILLINOIS. Section 20-43 of the Illinois Procurement Code (the Code) (30 ILCS 500/20-43) provides that a person (other than an individual acting as a sole proprietor) must be a legal entity authorized to do business in the State of Illinois prior to submitting the bid.
- 10. The services of a subcontractor will be used.

Check box Yes □ Check box No □

For known subcontractors with subcontracts with an annual value of more than \$50,000, the contract shall include their name, address, general type of work to be performed, and the dollar allocation for each subcontractor. (30 ILCS 500/20-120)

11. EXECUTION OF CONTRACT. The Department of Transportation will, in accordance with the rules governing Department procurements, execute the contract and shall be the sole entity having the authority to accept performance and make payments under the contract. Execution of the contract by the Chief Procurement Officer (CPO) or the State Purchasing Officer (SPO) is for approval of the procurement process and execution of the contract by the Department. Neither the CPO nor the SPO shall be responsible for administration of the contract or determinations respecting the performance or payment there under except as otherwise permitted in the Code.

STATE JOB #-

ILLINOIS DEPARTMENT OF TRANSPORTATION ECMS002 DTGECM03 ECMR003 PAGE SCHEDULE OF PRICES CONTRACT NUMBER - PA056

1 RUN DATE - 05/16/13 RUN TIME - 080222

| COUNTY N COOK | IAME CODE DIST AIRPOR 031 01 CHICAGO EXECUTIVE | | | FED PROJECT -17-0018-B48 | ILL PROJECT PW-K -4182 |
|------------------|---|--------------------|-------------|-----------------------------|----------------------------|
| I TEM NUMBER | PAY ITEM DESCRIPTION | UNIT OF MEASURE | QUANTITY | UNIT PRICE DOLLARS CENTS | TOTAL PRICE DOLLARS CTS |
| AR108088 | 1/C #8 XLP-USE | L.F. | 813.000 > | | |
| AR108108 | 1/C #8 5 KV UG CABLE | L.F. | 1,187.000 > | { | |
| AR108758 | 1/C #8 GROUND | L.F. | 406.000 > | { | |
| AR110202 | 2" PVC DUCT, DIRECT BURY | L.F. | 1,000.000 > | { | |
| AR110504 | 4-WAY CONCRETE ENCASED DUCT | L.F. | 336.000 > | | |
| AR110550 | SPLIT DUCT | L.F. | 752.000 > | { | |
| AR110610 | ELECTRICAL HANDHOLE | EACH | 2.000 > | { | |
| AR110947 | ADJUST ELECTRICAL MANHOLE | EACH | 2.000 > | { | |
| AR125415 | MITL-BASE MOUNTED | EACH | 4.000 > | { | |
| AR125445 | TAXI GUIDANCE SIGN, 5 CHARACTER | EACH | 1.000 > | { | |
| AR125610 | REILS | PAIR | 1.000 > | <pre>/////</pre> | |
| AR125901 | REMOVE STAKE MOUNTED LIGHT | EACH | 2.000 > | <pre>{ </pre> | |
| AR125902 | REMOVE BASE MOUNTED LIGHT | EACH | 2.000 > | | |
| AR125907 | REMOVE REILS | PAIR | 1.000 > | | |
| AR125943 | ADJUST INPAVEMENT LIGHT | EACH | 8.000 > | (| |

CHICAGO EXECUTIVE COOK

ILLINOIS DEPARTMENT OF TRANSPORTATION SCHEDULE OF PRICES CONTRACT NUMBER - PA056

ECMS002 DTGECM03 ECMR003 PAGE 2 RUN DATE - 05/16/13 RUN TIME - 080222

| ITEM NUMBER | | | | UNIT PRICE | | TOTAL PRIC | |
|----------------|--------------------------------|---------|-------------|-------------|-----------|------------|----------|
| | PAY ITEM DESCRIPTION | MEASURE | QUANTITY | DOLLARS C | ENTS _ | DOLLARS | CTS |
| AR150510 | ENGINEER'S FIELD OFFICE | L.S. | 1.000 × | (| = | | , |
| AR150520 | MOBILIZATION | L.S. | 1.000 × | <pre></pre> | ====[| | |
| AR152410 | UNCLASSIFIED EXCAVATION | C.Y. | 2,591.000 × | | ==== | | |
| AR152540 | SOIL STABILIZATION FABRIC | S.Y. | 2,185.000 X | | = | | |
| AR156510 | SILT FENCE | L.F. | 565.000 X | | - | | |
| AR156511 | DITCH CHECK | EACH | 2.000 × | | !- | | |
| AR156520 | INLET PROTECTION | EACH | 6.000 X | | | | |
| AR162960 | RELOCATE CLASS E FENCE | L.F. | 40.000 X | | ! | | |
| AR208515 | POROUS GRANULAR EMBANKMENT | С.Ү. | 735.000 X | | | | |
| AR209608 | CRUSHED AGG. BASE COURSE - 8" | S.Y. | 397.000 X | | - | | |
| AR209610 | CRUSHED AGG. BASE COURSE - 10" | S.Y. | 1,918.000 X | | | | |
| AR401610 | BITUMINOUS SURFACE COURSE | TON | 954.000 X | | · | | |
| AR401650 | BITUMINOUS PAVEMENT MILLING | S.Y. | 6,146.000 X | | · = | | |
| AR401900 | REMOVE BITUMINOUS PAVEMENT | S.Y. | 150.000 X | | - | | |
| AR401910 | REMOVE & REPLACE BIT. PAVEMENT | S.Y. | 57.000 × | | = | | |
| | | | | | | | <u> </u> |

CHICAGO EXECUTIVE COOK

ILLINOIS DEPARTMENT OF TRANSPORTATION ECMS002 DTGECM03 ECMR003 PAGE SCHEDULE OF PRICES CONTRACT NUMBER - PA056

3 RUN DATE - 05/16/13 RUN TIME - 080222

| ITEM NUMBER | PAY ITEM DESCRIPTION | UNIT OF MEASURE | QUANTITY | UNIT PRIC | CENTS | TOTAL PRIC DOLLARS | E ICTS |
|----------------|-----------------------------------|--------------------|--------------|--------------|---|-----------------------|-----------|
| AR403610 | BITUMINOUS BASE COURSE | TON | 243.000 > | | = | | |
| AR602510 | BITUMINOUS PRIME COAT | GAL. | 605.000 > | \ \ | = | | |
| AR603510 | BITUMINOUS TACK COAT | GAL. | 1,097.000 > | \ | | | |
| AR620520 | PAVEMENT MARKING-WATERBORNE | S.F. | 18,994.000 > | (, | | | |
| AR620525 | PAVEMENT MARKING-BLACK BORDER | S.F. | 5,685.000 > | (, | | | |
| AR705506 | 6" PERFORATED UNDERDRAIN | L.F. | 580.000 > | < | | | |
| AR800154 | REMOVE WOODEN TAXI GUIDANCE SIGN | EACH | 2.000 > | < | ==== | | |
| AR800194 | REMOVE ELEVATED RETROREFLECTIVE M | EACH | 3.000 > | < | | | |
| AR800205 | ELEVATED RETROREFLECTIVE MARKER T | EACH | 6.000 > | { | ======================================= | | |
| AR800206 | ELEVATED RETROREFLECTIVE MARKER T | ЕАСН | 27.000 > | { | ==== | | |
| AR800207 | EMAS CONCRETE GRADE BEAM | L.S. | 1.000 > | (| ======================================= | | |
| AR800208 | EMAS BED INSTALLATION | L.S. | 1.000 > | < | | | |
| AR800209 | EMAS BED | L.S. | 1.000 > | < | ===== | | |
| AR901510 | SEEDING | ACRE | 2.400 > | <pre>{</pre> | | | |
| AR908510 | MULCHING | ACRE | 2.400 > | < | = | | |

CHICAGO EXECUTIVE COOK

ILLINDIS DEPARTMENT OF TRANSPORTATION ECMS002 DTGECM03 ECMR003 PAGE SCHEDULE OF PRICES CONTRACT NUMBER - PA056

4 RUN DATE - 05/16/13 RUN TIME - 080222

| ITEM | | UNIT OF | | | ICE | TOTAL PRIC | E |
|---------------|----------------------|---------|----------|---------|-------|------------|-----|
| <u>NUMBER</u> | PAY ITEM DESCRIPTION | MEASURE | QUANTITY | DOLLARS | CENTS | DOLLARS | CTS |
| AR910200 | ROADWAY SIGN | EACH | 3.000 X | | | | |

TOTAL

NOTE:

.

- 1. EACH PAY ITEM SHOULD HAVE A UNIT PRICE AND A TOTAL PRICE.
- 2. THE UNIT PRICE SHALL GOVERN IF NO TOTAL PRICE IS SHOWN OR IF THERE IS A DISCREPANCY BETWEEN THE PRODUCT OF THE UNIT PRICE MULTIPLIED BY THE QUANTITY.
- 3. IF A UNIT PRICE IS OMITTED, THE TOTAL PRICE WILL BE DIVIDED BY THE QUANTITY IN ORDER TO ESTABLISH A UNIT PRICE.
- 4. A BID MAY BE DECLARED UNACCEPTABLE IF NEITHER A UNIT PRICE NOR A TOTAL PRICE IS SHOWN.

STATE REQUIRED ETHICAL STANDARDS GOVERNING CONTRACT PROCUREMENT: ASSURANCES, CERTIFICATIONS AND DISCLOSURES

I. GENERAL

A. Article 50 of the Code establishes the duty of all State CPOs, SPOs, and their designees to maximize the value of the expenditure of public moneys in procuring goods, services, and contracts for the State of Illinois and to act in a manner that maintains the integrity and public trust of State government. In discharging this duty, they are charged by law to use all available information, reasonable efforts, and reasonable actions to protect, safeguard, and maintain the procurement process of the State of Illinois.

B. In order to comply with the provisions of Article 50 and to carry out the duty established therein, all bidders are to adhere to ethical standards established for the procurement process, and to make such assurances, disclosures and certifications required by law. Except as otherwise required in subsection III, paragraphs J-M, by execution of the Proposal Signature Sheet, the bidder indicates that each of the mandated assurances has been read and understood, that each certification is made and understood, and that each disclosure requirement has been understood and completed.

C. In addition to all other remedies provided by law, failure to comply with any assurance, failure to make any disclosure or the making of a false certification shall be grounds for the CPO to void the contract, and may result in the suspension or debarment of the bidder or subcontractor. If a false certification is made by a subcontractor, the contractor's submitted bid and the executed contract may not be declared void unless the contractor refuses to terminate the subcontract upon the States' request after a finding that the subcontractor's certification was false.

II. ASSURANCES

The assurances hereinafter made by the bidder are each a material representation of fact upon which reliance is placed should the Department enter into the contract with the bidder.

A. Conflicts of Interest

1. The Code provides in pertinent part:

Section 50-13. Conflicts of Interest.

(a) Prohibition. It is unlawful for any person holding an elective office in this State, holding a seat in the General Assembly, or appointed to or employed in any of the offices or agencies of state government and who receives compensation for such employment in excess of 60% of the salary of the Governor of the State of Illinois, or who is an officer or employee of the Capital Development Board or the Illinois Toll Highway Authority, or who is the spouse or minor child of any such person to have or acquire any contract, or any direct pecuniary interest in any contract therein, whether for stationery, printing, paper, or any services, materials, or supplies, that will be wholly or partially satisfied by the payment of funds appropriated by the General Assembly of the State of Illinois or in any contract of the Capital Development Board or the Illinois Toll Highway Authority.

(b) Interests. It is unlawful for any firm, partnership, association or corporation, in which any person listed in subsection (a) is entitled to receive (i) more than 7 1/2% of the total distributable income or (ii) an amount in excess of the salary of the Governor, to have or acquire any such contract or direct pecuniary interest therein.

(c) Combined interests. It is unlawful for any firm, partnership, association, or corporation, in which any person listed in subsection (a) together with his or her spouse or minor children is entitled to receive (i) more than 15%, in the aggregate, of the total distributable income or (ii) an amount in excess of 2 times the salary of the Governor, to have or acquire any such contract or direct pecuniary interest therein.

(d) Securities. Nothing in this Section invalidates the provisions of any bond or other security previously offered or to be offered for sale or sold by or for the State of Illinois.

(e) Prior interests. This Section does not affect the validity of any contract made between the State and an officer or employee of the State or member of the General Assembly, his or her spouse, minor child or any combination of those persons if that contract was in existence before his or her election or employment as an officer, member, or employee. The contract is voidable, however, if it cannot be completed within 365 days after the officer, member, or employee takes office or is employed.

The current salary of the Governor is \$177,412.00. Sixty percent of the salary is \$106,447.20.

2. The bidder assures the Department that the award and execution of the contract would not cause a violation of Section 50-13, or that an effective exemption has been issued by the Board of Ethics to any individual subject to the Section 50-13 prohibitions pursuant to the provisions of Section 50-20 of the Code and Executive Order Number 3 (1998). Information concerning the exemption process is available from the Department upon request.

B. Negotiations

1. The Code provides in pertinent part:

Section 50-15. Negotiations.

(a) It is unlawful for any person employed in or on a continual contractual relationship with any of the offices or agencies of State government to participate in contract negotiations on behalf of that office or agency with any firm, partnership, association, or corporation with whom that person has a contract for future employment or is negotiating concerning possible future employment.

2. The bidder assures the Department that the award and execution of the contract would not cause a violation of Section 50-15, and that the bidder has no knowledge of any facts relevant to the kinds of acts prohibited therein.

C. Inducements

1. The Code provides:

Section 50-25. Inducement. Any person who offers or pays any money or other valuable thing to any person to induce him or her not to bid for a State contract or as recompense for not having bid on a State contract is guilty of a Class 4 felony. Any person who accepts any money or other valuable thing for not bidding for a State contract or who withholds a bid in consideration of the promise for the payment of money or other valuable thing is guilty of a Class 4 felony.

2. The bidder assures the Department that the award and execution of the contract would not cause a violation of Section 50-25, and that the bidder has no knowledge of any facts relevant to the kinds of acts prohibited therein.

D. <u>Revolving Door Prohibition</u>

1. The Code provides:

Section 50-30. Revolving door prohibition. CPOs, SPOs, procurement compliance monitors, their designees whose principal duties are directly related to State procurement, and executive officers confirmed by the Senate are expressly prohibited for a period of 2 years after terminating an affected position from engaging in any procurement activity relating to the State agency most recently employing them in an affected position for a period of at least 6 months. The prohibition includes, but is not limited to: lobbying the procurement process; specifying; bidding; proposing bid, proposal, or contract documents; on their own behalf or on behalf of any firm, partnership, association, or corporation. This Section applies only to persons who terminate an affected position on or after January 15, 1999.

2. The bidder assures the Department that the award and execution of the contract would not cause a violation of Section 50-30, and that the bidder has no knowledge of any facts relevant to the kinds of acts prohibited therein.

E. Reporting Anticompetitive Practices

1. The Code provides:

Section 50-40. Reporting anticompetitive practices. When, for any reason, any vendor, bidder, contractor, CPO, SPO, designee, elected official, or State employee suspects collusion or other anticompetitive practice among any bidders, offers, contractors, proposers, or employees of the State, a notice of the relevant facts shall be transmitted to the Attorney General and the CPO.

2. The bidder assures the Department that it has not failed to report any relevant facts concerning the practices addressed in Section 50-40 which may involve the contract for which the bid is submitted.

F. Confidentiality

1. The Code provides:

Section 50-45. Confidentiality. Any CPO, SPO, designee, or executive officer who willfully uses or allows the use of specifications, competitive bid documents, proprietary competitive information, proposals, contracts, or selection information to compromise the fairness or integrity of the procurement, bidding, or contract process shall be subject to immediate dismissal, regardless of the Personnel code, any contract, or any collective bargaining agreement, and may in addition be subject to criminal prosecution.

2. The bidder assures the Department that it has no knowledge of any fact relevant to the practices addressed in Section 50-45 which may involve the contract for which the bid is submitted.

G. Insider Information

1. The Code provides:

Section 50-50. Insider information. It is unlawful for any current or former elected or appointed State official or State employee to knowingly use confidential information available only by virtue of that office or employment for actual or anticipated gain for themselves or another person.

2. The bidder assures the Department that it has no knowledge of any facts relevant to the practices addressed in Section 50-50 which may involve the contract for which the bid is submitted.

III. CERTIFICATIONS

The certifications hereinafter made by the bidder are each a material representation of fact upon which reliance is placed should the Department enter into the contract with the bidder. Section 50-2 of the Code provides that every person that has entered into a multi-year contract and every subcontractor with a multi-year subcontract shall certify, by July 1 of each fiscal year covered by the contract after the initial fiscal year, to the responsible CPO whether it continues to satisfy the requirements of Article 50 pertaining to the eligibility for a contract award. If a contractor or subcontractor is not able to truthfully certify that it continues to meet all requirements, it shall provide with its certification a detailed explanation of the circumstances leading to the change in certification status. A contractor or subcontractor that makes a false statement material to any given certification required under Article 50 is, in addition to any other penalties or consequences prescribed by law, subject to liability under the Whistleblower Reward and Protection Act for submission of a false claim.

A. Bribery

1. The Code provides:

Section 50-5. Bribery.

(a) Prohibition. No person or business shall be awarded a contract or subcontract under this Code who:

(1) has been convicted under the laws of Illinois or any other state of bribery or attempting to bribe an officer or employee of the State of Illinois or any other state in that officer's or employee's official capacity; or

(2) has made an admission of guilt of that conduct that is a matter of record but has not been prosecuted for that conduct.

(b) Businesses. No business shall be barred from contracting with any unit of State or local government, or subcontracting under such a contract, as a result of a conviction under this Section of any employee or agent of the business if the employee or agent is no longer employed by the business and:

(1) the business has been finally adjudicated not guilty; or

(2) the business demonstrates to the governmental entity with which it seeks to contract, or which is signatory to the contract which the subcontract relates, and that entity finds that the commission of the offense was not authorized, requested, commanded, or performed by a director, officer, or high managerial agent on behalf of the business as provided in paragraph (2) of subsection (a) of Section 5-4 of the Criminal Code of 1961.

(c) Conduct on behalf of business. For purposes of this Section, when an official, agent, or employee of a business committed the bribery or attempted bribery on behalf of the business and in accordance with the direction or authorization of a responsible official of the business, the business shall be chargeable with the conduct.

(d) Certification. Every bid submitted to and contract executed by the State, and every subcontract subject to Section 20-120 of the Code shall contain a certification by the contractor or the subcontractor, respectively, that the contractor or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the CPO may declare the related contract void if any certifications required by this Section are false. A contractor who makes a false statement, material to the certification, commits a Class 3 felony.

2. The contractor or subcontractor certifies that it is not barred from being awarded a contract under Section 50.5.

B. <u>Felons</u>

1. The Code provides:

Section 50-10. Felons. Unless otherwise provided, no person or business convicted of a felony shall do business with the State of Illinois or any State agency, or enter into a subcontract, from the date of conviction until 5 years after the date of completion of the sentence for that felony, unless no person held responsible by a prosecutorial office for the facts upon which the conviction was based continues to have any involvement with the business.

2. Certification. Every bid submitted to and contract executed by the State and every subcontract subject to Section 20-120 of the Code shall contain a certification by the bidder or contractor or subcontractor, respectively, that the bidder, contractor, or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the CPO may declare the related contract void if any of the certifications required by this Section are false.

C. Debt Delinquency

1. The Code provides:

Section 50-11 and 50-12. Debt Delinquency.

The contractor or bidder or subcontractor, respectively, certifies that it, or any affiliate, is not barred from being awarded a contract or subcontract under the Code. Section 50-11 prohibits a person from entering into a contract with a State agency, or entering into a subcontract, if it knows or should know that it, or any affiliate, is delinquent in the payment of any debt to the State as defined by the Debt Collection Board. Section 50-12 prohibits a person from entering into a contract with a State agency, or entering into a subcontract, if it, or any affiliate, has failed to collect and remit Illinois Use Tax on all sales of tangible personal property into the State of Illinois in accordance with the provisions of the Illinois Use Tax Act. The bidder or contractor or subcontractor, respectively, further acknowledges that the CPO may declare the related contract void if this certification is false or if the bidder, contractor, or subcontractor, or any affiliate, is determined to be delinquent in the payment of any debt to the State during the term of the contract.

D. Prohibited Bidders, Contractors and Subcontractors

1. The Code provides:

Section 50-10.5 and 50-60(c). Prohibited bidders, contractors and subcontractors.

The bidder or contractor or subcontractor, respectively, certifies in accordance with 30 ILCS 500/50-10.5 that no officer, director, partner or other managerial agent of the contracting business has been convicted of a felony under the Sarbanes-Oxley Act of 2002 or a Class 3 or Class 2 felony under the Illinois Securities Law of 1953 or if in violation of Subsection (c) for a period of five years from the date of conviction. Every bid submitted to and contract executed by the State and every subcontract subject to Section 20-120 of the Code shall contain a certification by the bidder, contractor, or subcontractor, respectively, that the bidder, contractor, or subcontract or is not barred from being awarded a contract or subcontract under this Section and acknowledges that the CPO shall declare the related contract void if any of the certifications completed pursuant to this Section are false.

E. Section 42 of the Environmental Protection Act

The bidder or contractor or subcontractor, respectively, certifies in accordance with 30 ILCS 500/50-14 that the bidder, contractor, or subcontractor, is not barred from being awarded a contract or entering into a subcontract under this Section which prohibits the bidding on or entering into contracts with the State of Illinois or a State agency, or entering into any subcontract, that is subject to the Code by a person or business found by a court or the Pollution Control Board to have committed a willful or knowing violation of Section 42 of the Environmental Protection Act for a period of five years from the date of the order. The bidder or contractor or subcontractor, respectively, acknowledges that the CPO may declare the contract void if this certification is false.

F. Educational Loan

1. Section 3 of the Educational Loan Default Act provides:

§ 3. No State agency shall contract with an individual for goods or services if that individual is in default, as defined in Section 2 of this Act, on an educational loan. Any contract used by any State agency shall include a statement certifying that the individual is not in default on an educational loan as provided in this Section.

2. The bidder, if an individual as opposed to a corporation, partnership or other form of business organization, certifies that the bidder is not in default on an educational loan as provided in Section 3 of the Act.

G. Bid-Rigging/Bid Rotating

1. Section 33E-11 of the Criminal Code of 1961 provides:

§ 33E-11. (a) Every bid submitted to and public contract executed pursuant to such bid by the State or a unit of local government shall contain a certification by the prime contractor that the prime contractor is not barred from contracting with any unit of State or local government as a result of a violation of either Section 33E-3 or 33E-4 of this Article. The State and units of local government shall provide the appropriate forms for such certification.

(b) A contractor who makes a false statement, material to the certification, commits a Class 3 felony.

A violation of Section 33E-3 would be represented by a conviction of the crime of bid-rigging which, in addition to Class 3 felony sentencing, provides that any person convicted of this offense or any similar offense of any state or the United States which contains the same elements as this offense shall be barred for 5 years from the date of conviction from contracting with any unit of State or local government. No corporation shall be barred from contracting with any unit of State or local government as a result of a conviction under this Section of any employee or agent of such corporation if the employee so convicted is no longer employed by the corporation and: (1) it has been finally adjudicated not guilty or (2) if it demonstrates to the governmental entity with which it seeks to contract and that entity finds that the commission of the offense was neither authorized, requested, commanded, nor performed by a director, officer or a high managerial agent in behalf of the corporation.

A violation of Section 33E-4 would be represented by a conviction of the crime of bid-rotating which, in addition to Class 2 felony sentencing, provides that any person convicted of this offense or any similar offense of any state or the United States which contains the same elements as this offense shall be permanently barred from contracting with any unit of State or local government. No corporation shall be barred from contracting with any unit of a conviction under this Section of any employee or agent of such corporation if the employee so convicted is no longer employed by the corporation and: (1) it has been finally adjudicated not guilty or (2) if it demonstrates to the governmental entity with which it seeks to contract and that entity finds that the commission of the offense was neither authorized, requested, commanded, nor performed by a director, officer or a high managerial agent in behalf of the corporation.

2. The bidder certifies that it is not barred from contracting with the Department by reason of a violation of either Section 33E-3 or Section 33E-4.

H. International Anti-Boycott

1. Section 5 of the International Anti-Boycott Certification Act provides:

§ 5. State contracts. Every contract entered into by the State of Illinois for the manufacture, furnishing, or purchasing of supplies, material, or equipment or for the furnishing of work, labor, or services, in an amount exceeding the threshold for small purchases according to the purchasing laws of this State or \$10,000.00, whichever is less, shall contain certification, as a material condition of the contract, by which the contractor agrees that neither the contractor nor any substantially-owned affiliated company is participating or shall participate in an international boycott in violation of the provisions of the U.S. Export Administration Act of 1979 or the regulations of the U.S. Department of Commerce promulgated under that Act.

2. The bidder makes the certification set forth in Section 5 of the Act.

I. Drug Free Workplace

1. The Illinois "Drug Free Workplace Act" applies to this contract and it is necessary to comply with the provisions of the "Act" if the contractor is a corporation, partnership, or other entity (including a sole proprietorship) which has 25 or more employees.

2. The bidder certifies that if awarded a contract in excess of \$5,000 it will provide a drug free workplace by:

(a) Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensation, possession or use of a controlled substance, including cannabis, is prohibited in the contractor's workplace; specifying the actions that will be taken against employees for violations of such prohibition; and notifying the employee that, as a condition of employment on such contract, the employee shall abide by the terms of the statement, and notify the employer of any criminal drug statute conviction for a violation occurring in the workplace no later than five (5) days after such conviction.

(b) Establishing a drug free awareness program to inform employees about the dangers of drug abuse in the workplace; the contractor's policy of maintaining a drug free workplace; any available drug counseling, rehabilitation, and employee assistance programs; and the penalties that may be imposed upon employees for drug violations.

(c) Providing a copy of the statement required by subparagraph (1) to each employee engaged in the performance of the contract and to post the statement in a prominent place in the workplace.

(d) Notifying the Department within ten (10) days after receiving notice from an employee or otherwise receiving actual notice of the conviction of an employee for a violation of any criminal drug statute occurring in the workplace.

(e) Imposing or requiring, within 30 days after receiving notice from an employee of a conviction or actual notice of such a conviction, an appropriate personnel action, up to and including termination, or the satisfactory participation in a drug abuse assistance or rehabilitation program approved by a federal, state or local health, law enforcement or other appropriate agency.

(f) Assisting employees in selecting a course of action in the event drug counseling, treatment, and rehabilitation is required and indicating that a trained referral team is in place.

(g) Making a good faith effort to continue to maintain a drug free workplace through implementation of the actions and efforts stated in this certification.

J. Disclosure of Business Operations in Iran

Section 50-36 of the Code, 30ILCS 500/50-36 provides that each bid, offer, or proposal submitted for a State contract shall include a disclosure of whether or not the Company acting as the bidder, offeror, or proposing entity, or any of its corporate parents or subsidiaries, within the 24 months before submission of the bid, offer, or proposal had business operations that involved contracts with or provision of supplies or services to the Government of Iran, companies in which the Government of Iran has any direct or indirect equity share, consortiums or projects commissioned by the Government of Iran, or companies involved in consortiums or projects commissioned by the Government of Iran and either of the following conditions apply:

- (1) More than 10% of the Company's revenues produced in or assets located in Iran involve oil-related activities or mineral-extraction activities; less than 75% of the Company's revenues produced in or assets located in Iran involve contracts with or provision of oil-related or mineral-extraction products or services to the Government of Iran or a project or consortium created exclusively by that government; and the Company has failed to take substantial action.
- (2) The Company has, on or after August 5, 1996, made an investment of \$20 million or more, or any combination of investments of at least \$10 million each that in the aggregate equals or exceeds \$20 million in any 12-month period, which directly or significantly contributes to the enhancement of Iran's ability to develop petroleum resources of Iran.

The terms "Business operations", "Company", "Mineral-extraction activities", "Oil-related activities", "Petroleum resources", and "Substantial action" are all defined in the Code.

Failure to make the disclosure required by the Code shall cause the bid, offer or proposal to be considered not responsive. The disclosure will be considered when evaluating the bid, offer, or proposal or awarding the contract. The name of each Company disclosed as doing business or having done business in Iran will be provided to the State Comptroller.

Check the appropriate statement:

- /____/ Company has no business operations in Iran to disclose.
- /____/ Company has business operations in Iran as disclosed in the attached document.

K. Apprenticeship and Training Certification (Does not apply to federal aid projects)

In accordance with the provisions of Section 30-22 (6) of the Code, the bidder certifies that it is a participant, either as an individual or as part of a group program, in the approved apprenticeship and training programs applicable to each type of work or craft that the bidder will perform with its own forces. The bidder further certifies for work that will be performed by subcontract that each of its subcontractors submitted for approval either (a) is, at the time of such bid, participating in an approved, applicable apprenticeship and training program; or (b) will, prior to commencement of performance of work pursuant to this contract, begin participation in an approved apprenticeship and training program applicable to the work of the subcontract. The Department, at any time before or after award, may require the production of a copy of each applicable Certificate of Registration issued by the United States Department of Labor evidencing such participation by the contractor and any or all of its subcontractors. Applicable apprenticeship and training programs are those that have been approved and registered with the United States Department of Labor. The bidder shall list in the space below, the official name of the program sponsor holding the Certificate of Registration for all of the types of work or crafts in which the bidder is a participat and that will be performed with the bidder's forces. Types of work or craft work that will be subcontracted shall be included and listed as subcontracted work. The list shall also indicate any type of work or craft job category that does not have an applicable apprenticeship or training program. **The bidder is responsible for making a complete report and shall make certain that each type of work or craft job category that will be utilized on the project as reported on the Construction Employee Workforce Projection (Form BC-1256) and returned with the bid is accounted for and listed.**

NA-FEDERAL

The requirements of this certification and disclosure are a material part of the contract, and the contractor shall require this certification provision to be included in all approved subcontracts. In order to fulfill this requirement, it shall not be necessary that an applicable program sponsor be currently taking or that it will take applications for apprenticeship, training or employment during the performance of the work of this contract.

L. Political Contributions and Registration with the State Board of Elections.

Sections 20-160 and 50-37 of the Code regulate political contributions from business entities and any affiliated entities or affiliated persons bidding on or contracting with the state. Generally under Section 50-37, any business entity, and any affiliated entity or affiliated person of the business entity, whose current year contracts with all state agencies exceed an awarded value of \$50,000, are prohibited from making any contributions to any political committees established to promote the candidacy of the officeholder responsible for the awarding of the contracts or any other declared candidate for that office for the duration of the term of office of the incumbent officeholder or a period 2 years after the termination of the contract, whichever is longer. Any business entity and affiliated persons whose state contracts in the current year do not exceed an awarded value of \$50,000, either alone or in combination with contracts not exceeding \$50,000, are prohibited from making any political contributions to any political committee established to promote the candidacy of the officeholder responsible for awarding the pending contract during the period beginning on the date the invitation for bids or request for proposals is issued and ending on the day after the date of award or selection if the entity was not awarded or selected. Section 20-160 requires certification of registration of affected business entities in accordance with procedures found in Section 9-35 of The Election Code

By submission of a bid, the contractor business entity acknowledges and agrees that it has read and understands Sections 20-160 and 50-37 of the Code, and that it makes the following certification:

The undersigned business entity certifies that it has registered as a business with the State Board of Elections and acknowledges a continuing duty to update the registration in accordance with the above referenced statutes. If the business entity is required to register, the CPO shall verify that it is in compliance on the date the bid or proposal is due. The CPO shall not accept a bid or proposal if the business entity is not in compliance with the registration requirements.

These requirements and compliance with the above referenced statutory sections are a material part of the contract, and any breach thereof shall be cause to void the contract under Section 50-60 of the Code. This provision does not apply to Federal-aid contracts.

M. Lobbyist Disclosure

Section 50-38 of the Code requires that any bidder or offeror on a State contract that hires a person required to register under the Lobbyist Registration Act to assist in obtaining a contract shall:

- (i) Disclose all costs, fees, compensation, reimbursements, and other remunerations paid or to be paid to the lobbyist related to the contract,
- (ii) Not bill or otherwise cause the State of Illinois to pay for any of the lobbyist's costs, fees, compensation, reimbursements, or other remuneration, and
- (iii) Sign a verification certifying that none of the lobbyist's costs, fees, compensation, reimbursements, or other remuneration were billed to the State.

This information, along with all supporting documents, shall be filed with the agency awarding the contract and with the Secretary of State. The CPO shall post this information, together with the contract award notice, in the online Procurement Bulletin.

Pursuant to Subsection (c) of this Section, no person or entity shall retain a person or entity to attempt to influence the outcome of a procurement decision made under the Code for compensation contingent in whole or in part upon the decision or procurement. Any person who violates this subsection is guilty of a business offense and shall be fined not more than \$10,000.

Bidder acknowledges that it is required to disclose the hiring of any person required to register pursuant to the Illinois Lobbyist Registration Act (25 ILCS 170) in connection with this contract.

Bidder has not hired any person required to register pursuant to the Illinois Lobbyist Registration Act in connection with this contract.

Or

Bidder has hired the following persons required to register pursuant to the Illinois Lobbyist Registration Act in connection with the contract:

Name and address of person:

All costs, fees, compensation, reimbursements and other remuneration paid to said person:

IV. DISCLOSURES

A. The disclosures hereinafter made by the bidder are each a material representation of fact upon which reliance is placed should the Department enter into the contract with the bidder. The bidder further certifies that the Department has received the disclosure forms for each bid.

The CPO may void the bid, or contract, respectively, if it is later determined that the bidder or subcontractor rendered a false or erroneous disclosure. A contractor or subcontractor may be suspended or debarred for violations of the Code. Furthermore, the CPO may void the contract and the surety providing the performance bond shall be responsible for completion of the contract.

B. Financial Interests and Conflicts of Interest

1. Section 50-35 of the Code provides that all bids of more than \$25,000 shall be accompanied by disclosure of the financial interests of the bidder. This disclosed information for the successful bidder, will be maintained as public information subject to release by request pursuant to the Freedom of Information Act, filed with the Procurement Policy Board, and shall be incorporated as a material term of the contract. Furthermore, pursuant to Section 5-5, the Procurement Policy Board may review a proposal, bid, or contract and issue a recommendation to void a contract or reject a proposal or bid based on any violation of the Code or the existence of a conflict of interest as provided in subsections (b) and (d) of Section 50-35.

The financial interests to be disclosed shall include ownership or distributive income share that is in excess of 5%, or an amount greater than 60% of the annual salary of the Governor, of the bidding entity or its parent entity, whichever is less, unless the contractor or bidder is a publicly traded entity subject to Federal 10K reporting, in which case it may submit its 10K disclosure in place of the prescribed disclosure. If a bidder is a privately held entity that is exempt from Federal 10K reporting, but has more than 200 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any person or entity holding any ownership share that is in excess of 5%. The disclosure shall include the names, addresses, and dollar or proportionate share of ownership of each person making the disclosure, their instrument of ownership or beneficial relationship, and notice of any potential conflict of interest resulting from the current ownership or beneficial interest of each **Excerce 10K**. **The Governor is \$177,412.00**

In addition, all disclosures shall indicate any other current or pending contracts, proposals, leases, or other ongoing procurement relationships the bidding entity has with any other unit of state government and shall clearly identify the unit and the contract, proposal, lease, or other relationship.

2. <u>Disclosure Forms</u>. Disclosure Form A is attached for use concerning the individuals meeting the above ownership or distributive share requirements. A separate Disclosure Form A must be submitted with the bid for each individual meeting the above requirements. In addition, a second form (Disclosure Form B) provides for the disclosure of current or pending procurement relationships with other (non-IDOT) state agencies and a total ownership certification. The forms must be included with each bid.

C. Disclosure Form Instructions

Form A Instructions for Financial Information & Potential Conflicts of Interest

If the bidder is a publicly traded entity subject to Federal 10K reporting, the 10K Report may be submitted to meet the requirements of Form A. If a bidder is a privately held entity that is exempt from Federal 10K reporting, but has more than 400 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any person or entity holding any ownership share that is in excess of 5%. If a bidder is not subject to Federal 10K reporting, the bidder must determine if any individuals are required by law to complete a financial disclosure form. To do this, the bidder should answer each of the following questions. A "YES" answer indicates Form A must be completed. If the answer to each of the following questions is "NO", then the <u>NOT APPLICABLE STATEMENT</u> on Form A must be signed and dated by a person that is authorized to execute contracts for the bidding company. Note: These questions are for assistance only and are not required to be completed.

- 1. Does anyone in your organization have a direct or beneficial ownership share of greater than 5% of the bidding entity or parent entity? YES _____ NO _____
- 2. Does anyone in your organization have a direct or beneficial ownership share of less than 5%, but which has a value greater than 60% of the annual salary of the Governor? YES _____ NO _____
- Does anyone in your organization receive more than 60% of the annual salary of the Governor of the bidding entity's or parent entity's distributive income? (Note: Distributive income is, for these purposes, any type of distribution of profits. An annual salary is not distributive income.) YES_____NO____
- 4. Does anyone in your organization receive greater than 5% of the bidding entity's or parent entity's total distributive income, but which is less than 60% of the annual salary of the Governor? YES _____ NO _____

(Note: Only one set of forms needs to be completed per person per bid even if a specific individual would require a yes answer to more than one question.)

A "YES" answer to any of these questions requires the completion of Form A. The bidder must determine each individual in the bidding entity or the bidding entity's parent company that would cause the questions to be answered "Yes". Each form must be signed and dated by a person that is authorized to execute contracts for your organization. **Photocopied or stamped signatures are not acceptable**. The person signing can be, but does not have to be, the person for which the form is being completed. The bidder is responsible for the accuracy of any information provided.

If the answer to each of the above questions is "NO", then the <u>NOT APPLICABLE STATEMENT</u> of Form A must be signed and dated by a person that is authorized to execute contracts for your company.

Form B: Instructions for Identifying Other Contracts & Procurement Related Information

Disclosure Form B must be completed for each bid submitted by the bidding entity. Note: Checking the <u>NOT APPLICABLE STATEMENT</u> on Form A <u>does not</u> allow the bidder to ignore Form B. Form B must be completed, checked, and dated or the bidder may be considered nonresponsive and the bid will not be accepted.

The Bidder shall identify, by checking Yes or No on Form B, whether it has any pending contracts (including leases), bids, proposals, or other ongoing procurement relationship with any other (non-IDOT) State of Illinois agency. If "No" is checked, the bidder only needs to complete the check box on the bottom of Form B. If "Yes" is checked, the bidder must do one of the following:

Option I: If the bidder did not submit an Affidavit of Availability to obtain authorization to bid, the bidder must list all non-IDOT State of Illinois agency pending contracts, leases, bids, proposals, and other ongoing procurement relationships. These items may be listed on Form B or on an attached sheet(s). Do not include IDOT contracts. Contracts with cities, counties, villages, etc. are not considered State of Illinois agency contracts and are not to be included. Contracts with other State of Illinois agencies such as the Department of Natural Resources or the Capital Development Board must be included. Bidders who submit Affidavits of Availability are suggested to use Option II.

Option II: If the bidder is required and has submitted an Affidavit of Availability in order to obtain authorization to bid, the bidder may write or type "See Affidavit of Availability" which indicates that the Affidavit of Availability is incorporated by reference and includes all non-IDOT State of Illinois agency pending contracts, leases, bids, proposals, and other ongoing procurement relationships. For any contracts that are not covered by the Affidavit of Availability, the bidder must identify them on Form B or on an attached sheet(s). These might be such things as leases.

ILLINOIS DEPARTMENT OF TRANSPORTATION

Form A Financial Information & Potential Conflicts of Interest Disclosure

| Contractor Name | | |
|------------------|---------------|---------------------------|
| Legal Address | | |
| City, State, Zip | | |
| Telephone Number | Email Address | Fax Number (if available) |

Disclosure of the information contained in this Form is required by the Section 50-35 of the Code (30 ILCS 500). Vendors desiring to enter into a contract with the State of Illinois must disclose the financial information and potential conflict of interest information as specified in this Disclosure Form. This information shall become part of the publicly available contract file. This Form A must be completed for bids in excess of \$25,000, and for all open-ended contracts. A publicly traded company may submit a 10K disclosure (or equivalent if applicable) in satisfaction of the requirements set forth in Form A. <u>See Disclosure Form Instructions</u>. *The current salary of the Governor is* \$177,412.00.

DISCLOSURE OF FINANCIAL INFORMATION

1. Disclosure of Financial Information. The individual named below has an interest in the BIDDER (or its parent) in terms of ownership or distributive income share in excess of 5%, or an interest which has a value of more than 60% of the annual salary of the Governor. (Make copies of this form as necessary and attach a separate Disclosure Form A for each individual meeting these requirements)

| For Individu | JAL (type or print informatio | n) | |
|---------------|-----------------------------------|-------------|------------------------------------|
| NAME: | | | |
| ADDRESS | | | |
| | | | |
| Type of own | ership/distributable income sha | are: | |
| stock | sole proprietorship | partnership | other: (explain on separate sheet) |
| % or \$ value | of ownership/distributable income | e share: | |

2. Disclosure of Potential Conflicts of Interest. Check "Yes" or "No" to indicate which, if any, of the following potential conflict of interest relationships apply. If the answer to any question is "Yes", please attach additional pages and describe.

(a) State employment, currently or in the previous 3 years, including contractual employment of services.

Yes____ No___If your

answer is yes, please answer each of the following questions.

- 1. Are you currently an officer or employee of either the Capitol Development Board or the Illinois State Toll Highway Authority? Yes____ No____
- 2. Are you currently appointed to or employed by any agency of the State of Illinois? If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds 60% of the annual salary of the Governor, provide the name of the State agency for which you are employed and your annual salary.

| 3. | If you are currently appointed to or employed by any agency of the State of | f Illinois, and your a | annual |
|----|--|------------------------|-------------|
| | salary exceeds 60% of the annual salary of the Governor, are you entitled | to receive (i) more | than 7 1/2% |
| | of the total distributable income of your firm, partnership, association or co | rporation, or (ii) an | amount in |
| | excess of 100% of the annual salary of the Governor? | Yes | No |

4. If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds 60% of the annual salary of the Governor, are you and your spouse or minor children entitled to receive (i) more than 15 % in the aggregate of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of two times the salary of the Governor? Yes____ No___

(b) State employment of spouse, father, mother, son, or daughter, including contractual employment for services in the previous 2 years. Yes____ No____

If your answer is yes, please answer each of the following questions.

- 1. Is your spouse or any minor children currently an officer or employee of the Capital Development Board or the Illinois State Toll Highway Authority? Yes____ No___
- 2. Is your spouse or any minor children currently appointed to or employed by any agency of the State of Illinois? If your spouse or minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds 60% of the annual salary of the Governor, provide the name of your spouse and/or minor children, the name of the State agency for which he/she is employed and his/her annual salary.
- If your spouse or any minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds 60% of the annual salary of the Governor, are you entitled to receive (i) more than 7 1/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of 100% of the annual salary of the Governor?
 No_
- 4. If your spouse or any minor children are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds 60% of the annual salary of the Governor, are you and your spouse or minor children entitled to receive (i) more than 15% in the aggregate of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of two times the salary of the Governor? Yes____ No__

(c) Elective status; the holding of elective office of the State of Illinois, the government of the United States, any unit of local government authorized by the Constitution of the State of Illinois or the statutes of the State of Illinois currently or in the previous 3 years.
Yes_____ No____

(d) Relationship to anyone holding elective office currently or in the previous 2 years; spouse, father, mother, son, or daughter Yes____ No____

(e) Appointive office; the holding of any appointive government office of the State of Illinois, the United States of America, or any unit of local government authorized by the Constitution of the State of Illinois or the statutes of the State of Illinois, which office entitles the holder to compensation in excess of the expenses incurred in the discharge of that office currently or in the previous 3 years. Yes____ No____

(f) Relationship to anyone holding appointive office currently or in the previous 2 years; spouse, father, mother, son, or daughter. Yes____ No____

(g) Employment, currently or in the previous 3 years, as or by any registered lobbyist of the State government. Yes____ No____

(h) Relationship to anyone who is or was a registered lobbyist in the previous 2 years; spouse, father, mother, son, or daughter. Yes No

(i) Compensated employment, currently or in the previous 3 years, by any registered election or reelection committee registered with the Secretary of State or any county clerk of the State of Illinois, or any political action committee registered with either the Secretary of State or the Federal Board of Elections Yes

No

(j) Relationship to anyone; spouse, father, mother, son, or daughter; who was a compensated employee in the last 2 years by any registered election or re-election committee registered with the Secretary of State or any county clerk of the State of Illinois, or any political action committee registered with either the Secretary of State or the Federal Board of Elections. Yes____ No____

3. Communication Disclosure.

Disclose the name and address of each lobbyist and other agent of the bidder or offeror who is not identified in Section 2 of this form, who has communicated, is communicating, or may communicate with any State officer or employee concerning the bid or offer. This disclosure is a continuing obligation and must be promptly supplemented for accuracy throughout the process and throughout the term of the contract. If no person is identified, enter "None" on the line below:

Name and address of person(s): _____

4. Debarment Disclosure. For each of the persons identified under Sections 2 and 3 of this form, disclose whether any of the following has occurred within the previous 10 years: debarment from contracting with any governmental entity; professional licensure discipline; bankruptcies; adverse civil judgments and administrative findings; and criminal felony convictions. This disclosure is a continuing obligation and must be promptly supplemented for accuracy throughout the procurement process and term of the contract. If no person is identified, enter "None" on the line below:

| Name of person(s): | |
|--|-----------------------|
| Nature of disclosure: | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| APPLICABLE STATEMENT | |
| This Disclosure Form A is submitted on behalf of the INDIVIDUAL named o penalty of perjury, I certify the contents of this disclosure to be true and ac knowledge. | |
| Completed by: | |
| Signature of Individual or Authorized Officer | Date |
| | |
| NOT APPLICABLE STATEMENT | |
| Under penalty of perjury, I have determined that no individuals associated the criteria that would require the completion of this Form A. | |
| This Disclosure Form A is submitted on behalf of the CONTRACTOR listed | on the previous page. |
| | |
| Signature of Authorized Officer | Date |
| | |

The bidder has a continuing obligation to supplement these disclosures under Sec. 50-35 of the Code.

ILLINOIS DEPARTMENT OF TRANSPORTATION

Form B Other Contracts & Procurement Related Information Disclosure

| Contractor Name | | |
|------------------|---------------|---------------------------|
| | | |
| Legal Address | | |
| | | |
| City, State, Zip | | |
| | | |
| Telephone Number | Email Address | Fax Number (if available) |
| | | |

Disclosure of the information contained in this Form is required by the Section 50-35 of the Code (30 ILCS 500). This information shall become part of the publicly available contract file. This Form B must be completed for bids in excess of \$25,000, and for all open-ended contracts.

DISCLOSURE OF OTHER CONTRACTS AND PROCUREMENT RELATED INFORMATION

Identifying Other Contracts & Procurement Related Information. The BIDDER shall identify whether it has any pending contracts (including leases), bids, proposals, or other ongoing procurement relationship with any other State of Illinois agency: Yes _____ No ____
 "No" is checked, the hidder only needs to complete the signature box on the bottom of this page.

If "No" is checked, the bidder only needs to complete the signature box on the bottom of this page.

2. If "Yes" is checked. Identify each such relationship by showing State of Illinois agency name and other descriptive information such as bid or project number (attach additional pages as necessary). SEE DISCLOSURE FORM INSTRUCTIONS:

THE FOLLOWING STATEMENT MUST BE CHECKED

| Signature of Authorized Representative | Date |
|--|------|
| | |

OWNERSHIP CERITIFICATION

Please certify that the following statement is true if the individuals for all submitted Form A disclosures do not total 100% of ownership.

Any remaining ownership interest is held by individuals receiving less than \$106,447.20 of the bidding entity's or parent entity's distributive income or holding less than a 5% ownership interest.

Yes No N/A (Form A disclosure(s) established 100% ownership)

SPECIAL NOTICE TO CONTRACTORS

The following requirements of the Illinois Department of Human Rights' Rules and Regulations are applicable to bidders on all construction contracts advertised by the Illinois Department of Transportation:

CONSTRUCTION EMPLOYEE UTILIZATION PROJECTION

- (a) All bidders on construction contracts shall complete and submit, along with and as part of their bids, a Bidder's Employee Utilization Form (Form BC-1256) setting forth a projection and breakdown of the total workforce intended to be hired and/or allocated to such contract work by the bidder including a projection of minority and female employee utilization in all job classifications on the contract project.
- (b) The Department of Transportation shall review the Employee Utilization Form, and workforce projections contained therein, of the contract awardee to determine if such projections reflect an underutilization of minority persons and/or women in any job classification in accordance with the Equal Employment Opportunity Clause and Section 7.2 of the Illinois Department of Human Rights' Rules and Regulations for Public Contracts adopted as amended on September 17, 1980. If it is determined that the contract awardee's projections reflect an underutilization of minority persons and/or women in any job classification, it shall be advised in writing of the manner in which it is underutilizing and such awardee shall be considered to be in breach of the contract unless, prior to commencement of work on the contract project, it submits revised satisfactory projections or an acceptable written affirmative action plan to correct such underutilization including a specific timetable geared to the completion stages of the contract.
- (c) The Department of Transportation shall provide to the Department of Human Rights a copy of the contract awardee's Employee Utilization Form, a copy of any required written affirmative action plan, and any written correspondence related thereto. The Department of Human Rights may review and revise any action taken by the Department of Transportation with respect to these requirements.



Contract No. PA056 Chicago Executive Airport Wheeling/Prospect Heights, Illinois Cook County Illinois Project No. PWK-4182 SBG Project No. 3-17-0018-B48

PART I. IDENTIFICATION

Dept. Human Rights #_____ Duration of Project: _____

Name of Bidder:

PART II. WORKFORCE PROJECTION

A. The undersigned bidder has analyzed minority group and female populations, unemployment rates and availability of workers for the location in which this contract work is to be performed, and for the locations from which the bidder recruits employees, and hereby submits the following workforce projection including a projection for minority and female employee utilization in all job categories in the workforce to be allocated to this contract:

| TOTAL Workforce Projection for Contract | | | | | | | | | 1 [| CURRENT EMPLOYEES TO BE ASSIGNED | | | | | | | | |
|---|----------|-------|---------|---------|---------|------|-----|------|------|-------------------------------------|---|--------|-----|------------|---------|----|------|-------|
| MINORITY EI | | | | | | | | | | тр | | | | | | | RACT | |
| JOB | то | TAL | | MIN | | | | HER | APPI | | | HE JOB | - | TOTAL MINO | | | MINC | |
| CATEGORIES | - | DYEES | BLA | ACK | HISP | ANIC | MIN | | TIC | | - | AINEES | | | OYEES | | - | DYEES |
| | M | F | M | F | M | F | М | F | M | F | M | F | - | M | F | | M | F |
| OFFICIALS (MANAGERS) | | | | | | | | | | | | | | | | | | |
| SUPERVISORS | | | | | | | | | | | | | | | | | | |
| FOREMEN | | | | | | | | | | | | | | | | | | |
| CLERICAL | | | | | | | | | | | | | | | | | | |
| EQUIPMENT OPERATORS | | | | | | | | | | | | | | | | | | |
| MECHANICS | | | | | | | | | | | | | | | | | | |
| TRUCK DRIVERS | | | | | | | | | | | | | | | | | | |
| IRONWORKERS | | | | | | | | | | | | | | | | | | |
| CARPENTERS | | | | | | | | | | | | | | | | | | |
| CEMENT MASONS | | | | | | | | | | | | | | | | | | |
| ELECTRICIANS | | | | | | | | | | | | | | | | | | |
| PIPEFITTERS, PLUMBERS | | | | | | | | | | | | | | | | | | |
| PAINTERS | | | | | | | | | | | | | | | | | | |
| LABORERS, SEMI-SKILLED | | | | | | | | | | | | | | | | | | |
| LABORERS, UNSKILLED | | | | | | | | | | | | | | | | | | |
| TOTAL | | | | | | | | | | | | | | | | | | |
| | | BLE C | | | | | | | _ | Γ | | EOD | DEI | | 1ENT US | EO | MI V | |
| | OTAL Tra | | ojectio | n for C | ontract | | | | _ | | | FUR | DEI | FAKIN | IENI US | сU | INLI | |
| EMPLOYEES | | TAL | | | | | | THER | | | | | | | | | | |
| | _ | DYEES | | | | | | NOR. | 4 | | | | | | | | | |
| TRAINING | M | F | М | F | M | F | М | F | - | | | | | | | | | |
| APPRENTICES | | | | | | | | | _ | | | | | | | | | |
| ON THE JOB TRAINEES | | | | | | | | | | | | | | | | | | |

* Other minorities are defined as Asians (A) or Native Americans (N). Please specify race of each employee shown in Other Minorities column.

Note: See instructions on page 2

Contract No. PA056 Chicago Executive Airport Wheeling/Prospect Heights, Illinois Cook County Illinois Project No. PWK-4182 SBG Project No. 3-17-0018-B48

PART II. WORKFORCE PROJECTION - continued

B. Included in "Total Employees" under Table A is the total number of **new hires** that would be employed in the event the undersigned bidder is awarded this contract.

The undersigned bidder projects that: (number) ______ new hires would be recruited from the area in which the contract project is located; and/or (number) ______ new hires would be recruited from the area in which the bidder's principal office or base of operation is located.

C. Included in "Total Employees" under Table A is a projection of numbers of persons to be employed directly by the undersigned bidder as well as a projection of numbers of persons to be employed by subcontractors.

| The undersigned bidder estimates that (number) | persons will be directly |
|--|---|
| employed by the prime contractor and that (number) | persons will be employed by subcontractors. |

PART III. AFFIRMATIVE ACTION PLAN

Address

- A. The undersigned bidder understands and agrees that in the event the foregoing minority and female employee utilization projection included under **PART II** is determined to be an underutilization of minority persons or women in any job category, and in the event that the undersigned bidder is awarded this contract, he/she will, prior to commencement of work, develop and submit a written Affirmative Action Plan including a specific timetable (geared to the completion stages of the contract) whereby deficiencies in minority and/or female employee utilization are corrected. Such Affirmative Action Plan will be subject to approval by the contracting agency and the **Department of Human Rights**.
- B. The undersigned bidder understands and agrees that the minority and female employee utilization projection submitted herein, and the goals and timetable included under an Affirmative Action Plan if required, are deemed to be part of the contract specifications.

 Company _____
 Telephone Number _____

NOTICE REGARDING SIGNATURE

The Bidder's signature on the Proposal Signature Sheet will constitute the signing of this form. The following signature block needs to be completed only if revisions are required.

| Signature: Date: | |
|---------------------------|--|
|---------------------------|--|

Instructions: All tables must include subcontractor personnel in addition to prime contractor personnel.

- Table A Include both the number of employees that would be hired to perform the contract work and the total number currently employed (Table B) that will be allocated to contract work, and include all apprentices and on-the-job trainees. The "Total Employees" column should include all employees including all minorities, apprentices and on-the-job trainees to be employed on the contract work.
- Table B Include all employees currently employed that will be allocated to the contract work including any apprentices and on-the-job trainees currently employed.
- Table C Indicate the racial breakdown of the total apprentices and on-the-job trainees shown in Table A.

BC-1256 (Rev. 12/11/07)

ADDITIONAL FEDERAL REQUIREMENTS

In addition to the Required Contract Provisions for Federally funded airport construction contracts, all bidders make the following certifications.

A. By the execution of this proposal, the signing bidder certifies that the bidding entity has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action, in restraint of free competitive bidding in connection with the submitted bid. This statement made by the undersigned bidder is true and correct under penalty of perjury under the laws of the United States.

B. CERTIFICATION, EQUAL EMPLOYMENT OPPORTUNITY

- 1. Have you participated in any previous contracts or subcontracts subject to the equal opportunity clause? Yes____ No____
- If your answer is yes, have you filed with the Joint Reporting Committee, the Director of OFCC, any Federal agency, or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements of those organizations? Yes____ No____

Contract No. PA056 Chicago Executive Airport Wheeling/Prospect Heights, Illinois Cook County Illinois Project No. PWK-4182 SBG Project No. 3-17-0018-B48

PROPOSAL SIGNATURE SHEET

The undersigned bidder hereby makes and submits this bid on the subject Proposal, thereby assuring the Department that all requirements of the Invitation for Bids and rules of the Department have been met, that there is no misunderstanding of the requirements of paragraph 4 of this Proposal, and that the contract will be executed in accordance with the rules of the Department if an award is made on this bid.

| | Firm Name | |
|--|------------------------------|--|
| (IF AN INDIVIDUAL) | Signature of Owner | |
| | | |
| | Dusiness Address | |
| | | |
| | Firm Name | |
| | | |
| (IF A CO-PARTNERSHIP) | | |
| | | |
| | Name and Address of | All Members of the Firm: |
| | | |
| | | |
| | | |
| | Corporate Name | |
| | Ву | |
| | | Signature of Authorized Representative |
| (IF A CORPORATION) | | Typed or printed name and title of Authorized Representative |
| (IF A JOINT VENTURE, USE THIS | Attest | |
| SECTION FOR THE MANAGING | 711051 | Signature |
| PARTY AND THE SECOND PARTY SHOULD SIGN BELOW) | Business Address | |
| | | |
| | | |
| | Corporate Name | |
| | | |
| | | Signature of Authorized Representative |
| (IF A JOINT VENTURE) | | Typed or printed name and title of Authorized Representative |
| | A 11 1 | |
| | Attest | Signature |
| | Business Address | - |
| | Dusiness Audiess | |
| If more than two parties are in the joint ver | nture, please attach additic | nal signature sheet |



Division of Aeronautics Proposal Bid Bond

| Sponsor | | Item No. | | |
|-------------------------|-------------------|--------------|----------------|--|
| IL Proj. No. | SBG Pr. No. | Letting Date | | |
| KNOW ALL MEN BY THESE F | PRESENTS, That We | | | |
| as PRINCIPAL, and | | | | |
| | | | as SURETY, are | |

held jointly, severally and firmly bound unto the SPONSOR identified above, in the penal sum of 5 percent of the total bid price, or for the amount specified in Section 6, Proposal Guaranty of the Proposal Document, whichever is the lesser sum, well and truly to be paid unto said SPONSOR, for the payment of which we bind ourselves, our heirs, executors, administrators, successors and assigns.

THE CONDITION OF THE FOREGOING OBLIGATION IS SUCH, that whereas, the PRINCIPAL has submitted a bid proposal to the SPONSOR through its AGENT, the State of Illinois, Department of Transportation, Division of Aeronautics, for the improvement designated by the Transportation Bulletin Item Number and Letting Date indicated above.

NOW, THEREFORE, if the SPONSOR through its AGENT shall accept the bid proposal of the PRINCIPAL; and if the PRINCIPAL shall, and as specified in the bidding and contract documents, submit a DBE Utilization Plan that is accepted and approved by the AGENT; and if, after the award by AGENT on behalf of SPONSOR, the PRINCIPAL shall enter into a contract in accordance with the terms of the bidding and contract documents, including evidence of the required insurance coverages and providing such bond as specified with good and sufficient surety for the faithful performance of such contract and for the prompt payment of labor and material furnished in the prosecution thereof; or if, in the event of the failure of the PRINCIPAL to make the required DBE submission or to enter into such contract and to give the specified bond, the PRINCIPAL pays to the SPONSOR the difference not to exceed the penalty hereof between the amount specified in the bid proposal and such larger amount for which the SPONSOR may contract with another party to perform the work covered by said bid proposal, then this obligation shall be null and void, otherwise, it shall remain in full force and effect.

IN THE EVENT the SPONSOR acting through its AGENT determines the PRINCIPAL has failed to comply with any requirement as set forth in the preceding paragraph, then SURETY shall pay the penal sum to the SPONSOR within fifteen (15) days of written demand the refor. If SURETY does not make full payment within such period of time, the AGENT may bring an action to collect the amount owed. SURETY is liable to the SPONSOR and to the AGENT for all its expenses, including attorney's fees, incurred in any litigation in which SPONSOR or AGENT prevail either in whole or in part.

In TESTIMONY WHEREOF, the said PRINCIPAL and the said SURETY have caused this instrument to be signed by

| their respective officers | day of | | A.D., . |
|-------------------------------------|---|-------------------------------|--|
| PRINCIPAL | | SURETY | |
| (Company Na | me) | | (Company Name) |
| Ву | | By: | |
| (Signatur | e & Title) | | (Signature of Attorney-in-Fact) |
| STATE OF ILLINOIS, County of | Notary Certif | ication for Principal and | Surety |
| l, | | , a Notary Pub | lic in and for said County, do hereby certify that |
| | | and | |
| | (Insert names of individuals | s signing on behalf of PRIN | NCIPAL & SURETY) |
| who are each personally known to m | ne to be the same persons his day in person and ackr | whose names are subscrib | bed to the foregoing instrument on behalf of PR INCIPA at they signed and delivered said instrument as their fre |
| Given under my hand and not | arial seal this | day of | A.D. |
| My commission expires | | | |
| | | | Notary Public |
| marking the check box next to the S | Signature and Title line belo | ow, the Principal is ensuring | e an Electronic Bid Bond. By signing the proposal an ng the identified electronic bid bond has been execute der the conditions of the bid bond as shown above. |

Electronic Bid Bond ID#

Signature and Title



(1) Policy

It is public policy that disadvantaged businesses as defined in 49 CFR Part 26 and the Special Provision shall have the maximum opportunity to participate in the performance of contracts financed in whole or in part with Federal or State funds. Consequently the requirements of 49 CFR Part 26 apply to this contract.

(2) Obligation

The contractor agrees to ensure that disadvantaged businesses as defined in 49 CFR Part 26 and the Special Provision have the maximum opportunity to participate in the performance of contracts or subcontracts financed in whole or in part with Federal or State funds. The contractor shall take all necessary and reasonable steps in accordance with 49 CFR Part 26 and the Special Provision to ensure that said businesses have the maximum opportunity to compete for and perform under this contract. The contractor shall not discriminate on the basis of race, color, national origin or sex in the award and performance of contracts.

(3) Project and Bid Identification

Complete the following information concerning the project and bid:

| Route Chicago Executive Airport | Total Bid | |
|---------------------------------|------------------------|-----------------|
| Section | Contract DBE Goal 2.0% | |
| Project PWK-4182 | - (Percent) | (Dollar Amount) |
| County Cook County | _ | |
| Letting Date | - | |
| Contract No. PA056 | - | |
| Letting Item No. 16A | _ | |

(4) Assurance

I, acting in my capacity as an officer of the undersigned bidder (or bidders if a joint venture), hereby assure the Department that on this project my company : (check one)

Meets or exceeds contract award goals and has provided documented participation as follows:

Disadvantaged Business Participation _____ percent

Attached are the signed participation statements, forms SBE 2025, required by the Special Provision evidencing availability and use of each business participating in this plan and assuring that each business will perform a commercially useful function in the work of the contract.

Failed to meet contract award goals and has included good faith effort documentation to meet the goals and that my company has provided participation as follows:

Disadvantaged Business Participation _____ percent

The contract goals should be accordingly modified or waived. Attached is all information required by the Special Provision in support of this request including good faith effort. Also attached are the signed participation statements, forms SBE 2025, required by the Special Provision evidencing availability and use of each business participating in this plan and assuring that each business will perform a commercially useful function in the work of the contract.

Company By _____ Title _____ The "as read" Low Bidder is required to comply with the Special Provision.

Submit only one utilization plan for each project. The utilization plan shall be submitted in accordance with the special provision.

Bureau of Small Business Enterprises 2300 South Dirksen Parkway Springfield, Illinois 62764 Local Let Projects Submit forms to the Local Agency

Date

The Department of Transportation is requesting disclosure of information that is necessary to accomplish the purpose as outlined under State and Federal law. Disclosure of this information is **REQUIRED**. Failure to provide any information will result in the contract not being awarded. This form has been approved by the State Forms Manager Center.



DBE Participation Statement

| Subcontractor Registration | Letting June 14, 2013 |
|----------------------------|-----------------------|
| Participation Statement | Item No. 16A |
| (1) Instructions | Contract PA056 |

This form must be completed for each disadvantaged business participating in the Utilization Plan. This form shall be submitted in accordance with the special provision and will be attached to the Utilization Plan form. If additional space is needed complete an additional form for the firm.

(2) Work

| Pay Item No. | Description | Quantity | Unit Price | Total |
|-----------------|-------------|----------|------------|-------|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| Total | | | | |

(3) Partial Payment Items

For any of the above items which are partial pay items, specifically describe the work and subcontract dollar amount:

(4) Commitment

The undersigned certify that the information included herein is true and correct, and that the DBE firm listed below has agreed to perform a commercially useful function in the work of the contract item(s) listed above and to execute a contract with the prime contractor. The undersigned further understand that no changes to this statement may be made without prior approval from the Department's Bureau of Small Business Enterprises and that complete and accurate information regarding actual work performed on this project and the payment therefore

| Signature for Prime Contractor | Signature for DBE Firm | |
|--|---|--|
| Title | Title | |
| Date | Date | |
| Contact | Contact | |
| Phone | Phone | |
| Firm Name | Firm Name | |
| Address | Address | |
| City/State/Zip | City/State/Zip | |
| | Ε | |
| The Department of Transportation is requesting disclosure of information that is necessary to accom | | |
| federal law. Disclosure of this information is REQUIRED . Failure to provide any information will res approved by the State Forms Management Center. | ult in the contract not being awarded. This form has been | |

SBE 2025 (Rev. 11/03.09)



PROPOSALS

for construction work advertised for bids by the Illinois Department of Transportation

| Item No. | Item No. | Item No. |
|----------|----------|----------|
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| | | |

Submitted By:

| Name: | |
|-----------|--|
| Address: | |
| | |
| | |
| Phone No. | |

Bidders should use an IDOT proposal envelope or affix this form to the front of a 10" x 13" envelope for the submittal of bids. If proposals are mailed, they should be enclosed in a second or outer envelope addressed to:

Engineer of Design and Environment - Room 326 Illinois Department of Transportation 2300 South Dirksen Parkway Springfield, Illinois 62764

NOTICE

Individual bids, including Bid Bond and/or supplemental information if required, should be securely stapled.

CONTRACTOR OFFICE COPY OF CONTRACT SPECIFICATIONS

NOTICE

None of the following material needs to be returned with the bid package unless the special provisions require documentation and/or other information to be submitted.

Contract No. PA056 Chicago Executive Airport Wheeling/Prospect Heights, Illinois Cook County Illinois Project No. PWK-4182 SBG Project No. 3-17-0018-B48



SUBCONTRACTOR DOCUMENTATION

Public Acts 96-0795, 96-0920, and 97-0895 enacted substantial changes to the provisions of the Code (30 ILCS 500). Among the changes are provisions affecting subcontractors. The Contractor awarded this contract will be required as a material condition of the contract to implement and enforce the contract requirements applicable to subcontractors that entered into a contractual agreement with a total value of \$50,000 or more with a person or entity who has a contract subject to the Code and approved in accordance with Section 80-01 of the Illinois Standard Specifications for Construction of Airports.

If the Contractor seeks approval of subcontractors to perform a portion of the work, and approval is granted by the Department, the Contractor shall provide a copy of the subcontract to the Illinois Department of Transportation's CPO upon request within 15 calendar days after execution of the subcontract.

Financial disclosures required pursuant to Section 50-35 of the Code must be submitted for all applicable subcontractors. The subcontract shall contain the certifications required to be made by subcontractors pursuant to Article 50 of the Code. This Notice to Bidders includes a document incorporating all required subcontractor certifications and disclosures for use by the Contractor in compliance with this mandate. The document is entitled <u>State Required Ethical Standards Governing Subcontractors</u>.

STATE ETHICAL STANDARDS GOVERNING SUBCONTRACTORS

Article 50 of the Code establishes the duty of all State CPOs, SPOs, and their designees to maximize the value of the expenditure of public moneys in procuring goods, services, and contracts for the State of Illinois and to act in a manner that maintains the integrity and public trust of State government. In discharging this duty, they are charged by law to use all available information, reasonable efforts, and reasonable actions to protect, safeguard, and maintain the procurement process of the State of Illinois.

The certifications hereinafter made by the subcontractor are each a material representation of fact upon which reliance is placed should the Department approve the subcontractor. The CPO may terminate or void the contract approval if it is later determined that the bidder or subcontractor rendered a false or erroneous certification. If a false certification is made by a subcontractor the contractor's submitted bid and the executed contract may not be declared void unless the contractor refuses to terminate the subcontract upon the State's request after a finding that the subcontractor's certification was false.

Section 50-2 of the Code provides that every person that has entered into a multi-year contract and every subcontractor with a multi-year subcontract shall certify, by July 1 of each fiscal year covered by the contract after the initial fiscal year, to the responsible CPO whether it continues to satisfy the requirements of Article 50 pertaining to the eligibility for a contract award. If a contractor or subcontractor is not able to truthfully certify that it continues to meet all requirements, it shall provide with its certification a detailed explanation of the circumstances leading to the change in certification status. A contractor or subcontractor that makes a false statement material to any given certification required under Article 50 is, in addition to any other penalties or consequences prescribed by law, subject to liability under the Whistleblower Reward and Protection Act for submission of a false claim.

A. Bribery

1. The Code provides:

Section 50-5. Bribery.

(a) Prohibition. No person or business shall be awarded a contract or subcontract under this Code who:

(1) has been convicted under the laws of Illinois or any other state of bribery or attempting to bribe an officer or employee of the State of Illinois or any other state in that officer's or employee's official capacity; or

(2) has made an admission of guilt of that conduct that is a matter of record but has not been prosecuted for that conduct.

(b) Businesses. No business shall be barred from contracting with any unit of State or local government, or subcontracting under such a contract, as a result of a conviction under this Section of any employee or agent of the business if the employee or agent is no longer employed by the business and:

(1) the business has been finally adjudicated not guilty; or

(2) the business demonstrates to the governmental entity with which it seeks to contract, or which is signatory to the contract to which the subcontract relates, and that entity finds that the commission of the offense was not authorized, requested, commanded, or performed by a director, officer, or high managerial agent on behalf of the business as provided in paragraph (2) of subsection (a) of Section 5-4 of the Criminal Code of 1961.

(c) Conduct on behalf of business. For purposes of this Section, when an official, agent, or employee of a business committed the bribery or attempted bribery on behalf of the business and in accordance with the direction or authorization of a responsible official of the business, the business shall be chargeable with the conduct.

(d) Certification. Every bid submitted to and contract executed by the State, and every subcontract subject to Section 20-120 of the Code shall contain a certification by the contractor or the subcontractor, respectively, that the contractor or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the CPO may declare the related contract void if any certifications required by this Section are false. A contractor who makes a false statement, material to the certification, commits a Class 3 felony.

2. The contractor or subcontractor certifies that it is not barred from being awarded a contract under Section 50.5.

B. <u>Felons</u>

1. The Code provides:

Section 50-10. Felons. Unless otherwise provided, no person or business convicted of a felony shall do business with the State of Illinois or any State agency, or enter into a subcontract, from the date of conviction until 5 years after the date of completion of the sentence for that felony, unless no person held responsible by a prosecutorial office for the facts upon which the conviction was based continues to have any involvement with the business.

2. Certification. Every bid submitted to and contract executed by the State and every subcontract subject to Section 20-120 of the Code shall contain a certification by the bidder or contractor or subcontractor, respectively, that the bidder, contractor, or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the CPO may declare the related contract void if any of the certifications required by this Section are false.

C. Debt Delinquency

1. The Code provides:

Section 50-11 and 50-12. Debt Delinquency.

The contractor or bidder or subcontractor, respectively, certifies that it, or any affiliate, is not barred from being awarded a contract or subcontract under the Code. Section 50-11 prohibits a person from entering into a contract with a State agency, or entering into a subcontract, if it knows or should know that it, or any affiliate, is delinquent in the payment of any debt to the State as defined by the Debt Collection Board. Section 50-12 prohibits a person from entering into a contract with a State agency, or entering into a subcontract, if it, or any affiliate, has failed to collect and remit Illinois Use Tax on all sales of tangible personal property into the State of Illinois in accordance with the provisions of the Illinois Use Tax Act. The bidder or contractor or subcontractor, respectively, further acknowledges that the CPO may declare the related contract void if this certification is false or if the bidder, contractor, or subcontractor, or any affiliate, is determined to be delinquent in the payment of any debt to the State during the term of the contract.

D. Prohibited Bidders, Contractors and Subcontractors

1. The Code provides:

Section 50-10.5 and 50-60(c). Prohibited bidders, contractors and subcontractors.

The bidder or contractor or subcontractor, respectively, certifies in accordance with 30 ILCS 500/50-10.5 that no officer, director, partner or other managerial agent of the contracting business has been convicted of a felony under the Sarbanes-Oxley Act of 2002 or a Class 3 or Class 2 felony under the Illinois Securities Law of 1953 or if in violation of Subsection (c) for a period of five years from the date of conviction. Every bid submitted to and contract executed by the State and every subcontract subject to Section 20-120 of the Code shall contain a certification by the bidder, contractor, or subcontractor, respectively, that the bidder, contractor, or subcontract or is not barred from being awarded a contract or subcontract under this Section and acknowledges that the CPO shall declare the related contract void if any of the certifications completed pursuant to this Section are false.

E. Section 42 of the Environmental Protection Act

The bidder or contractor or subcontractor, respectively, certifies in accordance with 30 ILCS 500/50-14 that the bidder, contractor, or subcontractor, is not barred from being awarded a contract or entering into a subcontract under this Section which prohibits the bidding on or entering into contracts with the State of Illinois or a State agency, or entering into any subcontract, that is subject to the Code by a person or business found by a court or the Pollution Control Board to have committed a willful or knowing violation of Section 42 of the Environmental Protection Act for a period of five years from the date of the order. The bidder or contractor or subcontractor, respectively, acknowledges that the CPO may declare the contract void if this certification is false.

The undersigned, on behalf of the subcontracting company, has read and understands the above certifications and makes the certifications as required by law.

Name of Subcontracting Company

Authorized Officer

Date

SUBCONTRACTOR DISCLOSURES

I. DISCLOSURES

A. The disclosures hereinafter made by the subcontractor are each a material representation of fact upon which reliance is placed. The subcontractor further certifies that the Department has received the disclosure forms for each subcontract.

The CPO may void the bid, contract, or subcontract, respectively, if it is later determined that the bidder or subcontractor rendered a false or erroneous disclosure. A contractor or subcontractor may be suspended or debarred for violations of the Code. Furthermore, CPO may void the contract.

B. Financial Interests and Conflicts of Interest

1. Section 50-35 of the Code provides that all subcontracts with a total value of \$50,000 or more from subcontractors identified in Section 20-120 of the Code shall be accompanied by disclosure of the financial interests of the subcontractor. This disclosed information for the subcontractor, will be maintained as public information subject to release by request pursuant to the Freedom of Information Act, filed with the Procurement Policy Board, and shall be incorporated as a material term of the Prime Contractor's contract. Furthermore, pursuant to this Section, the Procurement Policy Board may recommend to allow or void a contract or subcontract based on a potential conflict of interest.

The financial interests to be disclosed shall include ownership or distributive income share that is in excess of 5%, or an amount greater than 60% of the annual salary of the Governor, of the subcontracting entity or its parent entity, whichever is less, unless the subcontractor is a publicly traded entity subject to Federal 10K reporting, in which case it may submit its 10K disclosure in place of the prescribed disclosure. If a subcontractor is a privately held entity that is exempt from Federal 10K reporting, but has more than 400 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any person or entity holding any ownership share that is in excess of 5%. The disclosure shall include the names, addresses, and dollar or proportionate share of ownership of each person making the disclosure, their instrument of ownership or beneficial relationship, and notice of any potential conflict of interest resulting from the current ownership or beneficial interest of each person making the disclosure having any of the Federal 10K. The Governor is \$177,412.00.

In addition, all disclosures shall indicate any other current or pending contracts, subcontracts, proposals, leases, or other ongoing procurement relationships the subcontracting entity has with any other unit of state government and shall clearly identify the unit and the contract, subcontract, proposal, lease, or other relationship.

2. <u>Disclosure Forms</u>. Disclosure Form A is attached for use concerning the individuals meeting the above ownership or distributive share requirements. A separate Disclosure Form A must be submitted with the bid for each individual meeting the above requirements. In addition, a second form (Disclosure Form B) provides for the disclosure of current or pending procurement relationships with other (non-IDOT) state agencies and a total ownership certification. The forms must be included with each bid.

C. Disclosure Form Instructions

Form A Instructions for Financial Information & Potential Conflicts of Interest

If the subcontractor is a publicly traded entity subject to Federal 10K reporting, the 10K Report may be submitted to meet the requirements of Form A. If a subcontractor is a privately held entity that is exempt from Federal 10K reporting, but has more than 400 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any person or entity holding any ownership share that is in excess of 5%. If a subcontractor is not subject to Federal 10K reporting, the subcontractor must determine if any individuals are required by law to complete a financial disclosure form. To do this, the subcontractor should answer each of the following questions. A "YES" answer indicates Form A must be completed. If the answer to each of the following questions is "NO", then the <u>NOT APPLICABLE STATEMENT</u> on the second page of Form A must be signed and dated by a person that is authorized to execute contracts for the subcontracting company. Note: These questions are for assistance only and are not required to be completed.

- 1. Does anyone in your organization have a direct or beneficial ownership share of greater than 5% of the bidding entity or parent entity? YES _____ NO ____
- 2. Does anyone in your organization have a direct or beneficial ownership share of less than 5%, but which has a value greater than 60% of the annual salary of the Governor? YES _____ NO_____
- Does anyone in your organization receive more than 60% of the annual salary of the Governor of the subcontracting entity's or parent entity's distributive income? (Note: Distributive income is, for these purposes, any type of distribution of profits. An annual salary is not distributive income.) YES _____ NO _____
- 4. Does anyone in your organization receive greater than 5% of the subcontracting entity's or parent entity's total distributive income, but which is less than 60% of the annual salary of the Governor? YES _____ NO _____

(Note: Only one set of forms needs to be completed <u>per person per subcontract</u> even if a specific individual would require a yes answer to more than one question.)

A "YES" answer to any of these questions requires the completion of Form A. The subcontractor must determine each individual in the subcontracting entity or the subcontracting entity's parent company that would cause the questions to be answered "Yes". Each form must be signed and dated by a person that is authorized to execute contracts for your organization. **Photocopied or stamped signatures are not acceptable**. The person signing can be, but does not have to be, the person for which the form is being completed. The subcontractor is responsible for the accuracy of any information provided.

If the answer to each of the above questions is "NO", then the <u>NOT APPLICABLE STATEMENT</u> on page 2 of Form A must be signed and dated by a person that is authorized to execute contracts for your company.

Form B: Instructions for Identifying Other Contracts & Procurement Related Information

Disclosure Form B must be completed for each subcontract submitted by the subcontracting entity. Note: Checking the <u>NOT APPLICABLE</u> <u>STATEMENT</u> on Form A <u>does not</u> allow the subcontractor to ignore Form B. Form B must be completed, checked, and dated or the subcontract will not be approved.

The Subcontractor shall identify, by checking Yes or No on Form B, whether it has any pending contracts, subcontracts, leases, bids, proposals, or other ongoing procurement relationship with any other (non-IDOT) State of Illinois agency. If "No" is checked, the subcontractor only needs to complete the check box on the bottom of Form B. If "Yes" is checked, the subcontractor must list all non-IDOT State of Illinois agency pending contracts, subcontracts, leases, bids, proposals, and other ongoing procurement relationships. These items may be listed on Form B or on an attached sheet(s). Contracts with cities, counties, villages, etc. are not considered State of Illinois agency contracts and are not to be included. Contracts or subcontracts with other State of Illinois agencies such as the Department of Natural Resources or the Capital Development Board must be included.

RETURN WITH SUBCONTRACT ILLINOIS DEPARTMENT OF TRANSPORTATION Subco

Form A Subcontractor: Financial Information & Potential Conflicts of Interest Disclosure

Yes No

| Subcontractor Name | | |
|--------------------|---------------|---------------------------|
| | | |
| Legal Address | | |
| | | |
| City, State, Zip | | |
| | | |
| Telephone Number | Email Address | Fax Number (if available) |
| | | |

Disclosure of the information contained in this Form is required by the Section 50-35 of the Code (30 ILCS 500). Subcontractors desiring to enter into a subcontract of a State of Illinois contract must disclose the financial information and potential conflict of interest information as specified in this Disclosure Form. This information shall become part of the publicly available contract file. This Form A must be completed for subcontracts with a total value of \$50,000 or more, from subcontractors identified in Section 20-120 of the Code, and for all openended contracts. A publicly traded company may submit a 10K disclosure (or equivalent if applicable) in satisfaction of the requirements set forth in Form A. See Disclosure Form Instructions.

The current annual salary of the Governor is \$177,412.00.

DISCLOSURE OF FINANCIAL INFORMATION

1. Disclosure of Financial Information. The individual named below has an interest in the SUBCONTRACTOR (or its parent) in terms of ownership or distributive income share in excess of 5%, or an interest which has a value of more than 60% of the annual salary of the Governor. (Make copies of this form as necessary and attach a separate Disclosure Form A for each individual meeting these requirements)

| FOR INDIVIDUAL | (type or print information) | | |
|------------------|--------------------------------------|-------------|-------------------------------------|
| NAME: | | | |
| ADDRESS | | | |
| | | | |
| Type of owne | ership/distributable income share |): | |
| stock | sole proprietorship | Partnership | other: (explain on separate sheet): |
| % or \$ value of | of ownership/distributable income sl | hare: | |

2. Disclosure of Potential Conflicts of Interest. Check "Yes" or "No" to indicate which, if any, of the following potential conflict of interest relationships apply. If the answer to any question is "Yes", please attach additional pages and describe.

(a) State employment, currently or in the previous 3 years, including contractual employment of services.

If your answer is yes, please answer each of the following questions.

- 1. Are you currently an officer or employee of either the Capitol Development Board or the Illinois State Toll Highway Authority? Yes _____ No _____
- 2. Are you currently appointed to or employed by any agency of the State of Illinois? If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds 60% of the annual salary of the Governor, provide the name the State agency for which you are employed and your annual salary ______

- 3. If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds 60% of the annual salary of the Governor, are you entitled to receive (i) more than 7 1/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an Yes amount in excess of 100% of the annual salary of the Governor? No
- 4. If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds 60% of the annual salary of the Governor, are you and your spouse or minor children entitled to receive (i) more than 15 % in the aggregate of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of two times the salary of the Governor? Yes ____ No ____
- (b) State employment of spouse, father, mother, son, or daughter, including contractual employment services in the previous 2 years. Yes No

If your answer is yes, please answer each of the following questions.

- 1. Is your spouse or any minor children currently an officer or employee of the Capitol Development Board or the Illinois State Toll Highway Authority? Yes No
- 2. Is your spouse or any minor children currently appointed to or employed by any agency of the State of Illinois? If your spouse or minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds 60% of the annual salary of the Governor, provide the name of your spouse and/or minor children, the name of the State agency for which he/she is employed and his/her annual salary.
- 3. If your spouse or any minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds 60% of the annual salary of the Governor, are you entitled to receive (i) more than 7 1/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of the salary of the Governor? No _____

Yes

- 4. If your spouse or any minor children are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds 60% of the annual salary of the Governor, are you and your spouse or minor children entitled to receive (i) more than 15 % in the aggregate of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of No 2 times the salary of the Governor? Yes
- (c) Elective status; the holding of elective office of the State of Illinois, the government of the United States, any unit of local government authorized by the Constitution of the State of Illinois or the statutes of the State of Illinois currently or in the previous 3 years. Yes No
- (d) Relationship to anyone holding elective office currently or in the previous 2 years; spouse, father, mother, son, or daughter. Yes No
- (e) Appointive office; the holding of any appointive government office of the State of Illinois, the United States of America, or any unit of local government authorized by the Constitution of the State of Illinois or the statutes of the State of Illinois, which office entitles the holder to compensation in excess of the expenses incurred in the discharge of that office currently or in the previous 3 years. No ____ Yes
- Relationship to anyone holding appointive office currently or in the previous 2 years; spouse, father, mother, (f) son, or daughter. Yes _____ No _____
- (g) Employment, currently or in the previous 3 years, as or by any registered lobbyist of the State government. Yes No _____

- (h) Relationship to anyone who is or was a registered lobbyist in the previous 2 years; spouse, father, mother, son, or daughter. Yes _____ No _____
- (i) Compensated employment, currently or in the previous 3 years, by any registered election or reelection committee registered with the Secretary of State or any county clerk of the State of Illinois, or any political action committee registered with either the Secretary of State or the Federal Board of Elections.
 Yes _____ No ____
- (j) Relationship to anyone; spouse, father, mother, son, or daughter; who was a compensated employee in the last 2 years by any registered election or re-election committee registered with the Secretary of State or any county clerk of the State of Illinois, or any political action committee registered with either the Secretary of State or the Federal Board of Elections.

3. Communication Disclosure.

Disclose the name and address of each lobbyist and other agent of the bidder or offeror who is not identified in Section 2 of this form, who has communicated, is communicating, or may communicate with any State officer or employee concerning the bid or offer. This disclosure is a continuing obligation and must be promptly supplemented for accuracy throughout the process and throughout the term of the contract. If no person is identified, enter "None" on the line below:

Name and address of person(s):

4. Debarment Disclosure. For each of the persons identified under Sections 2 and 3 of this form, disclose whether any of the following has occurred within the previous 10 years: debarment from contracting with any governmental entity; professional licensure discipline; bankruptcies; adverse civil judgments and administrative findings; and criminal felony convictions. This disclosure is a continuing obligation and must be promptly supplemented for accuracy throughout the procurement process and term of the contract. If no person is identified, enter "None" on the line below:

| Name of person(s): | |
|---|---|
| Nature of disclosure: | |
| | |
| | - |
| APPLICABLE STATEMENT | _ |
| This Disclosure Form A is submitted on behalf of the INDIVIDUAL named on previous page. Under benalty of perjury, I certify the contents of this disclosure to be true and accurate to the best of my nowledge. | |
| Completed by: | |
| Signature of Individual or Authorized Officer Date | |
| NOT APPLICABLE STATEMENT | |
| Inder penalty of perjury, I have determined that no individuals associated with this organization meet he criteria that would require the completion of this Form A. |] |
| This Disclosure Form A is submitted on behalf of the SUBCONTRACTOR listed on the previous page. | |
| | |
| Signature of Authorized Officer Date | |
| | |

ILLINOIS DEPARTMENT OF TRANSPORTATION

Form B Subcontractor: Other Contracts & Procurement Related Information Disclosure

| Subcontractor Name | | |
|--------------------|---------------|---------------------------|
| | | |
| Legal Address | | |
| | | |
| City, State, Zip | | |
| | | |
| Telephone Number | Email Address | Fax Number (if available) |
| | | |

Disclosure of the information contained in this Form is required by the Section 50-35 of the Code (30 ILCS 500). This information shall become part of the publicly available contract file. This Form B must be completed for subcontracts with a total value of \$50,000 or more, from subcontractors identified in Section 20-120 of the Code, and for all open-ended contracts.

DISCLOSURE OF OTHER CONTRACTS, SUBCONTRACTS, AND PROCUREMENT RELATED INFORMATION

1. Identifying Other Contracts & Procurement Related Information. The SUBCONTRACTOR shall identify whether it has any pending contracts, subcontracts, including leases, bids, proposals, or other ongoing procurement relationship with any other State of Illinois agency: Yes No If "No" is checked, the subcontractor only needs to complete the signature box on the bottom of this page.

In No is checked, the subcontractor only needs to complete the signature box on the bottom of this page.

2. If "Yes" is checked. Identify each such relationship by showing State of Illinois agency name and other descriptive information such as bid or project number (attach additional pages as necessary). SEE DISCLOSURE FORM INSTRUCTIONS:

THE FOLLOWING STATEMENT MUST BE CHECKED

| gnature of Authorized Officer | Date |
|-------------------------------|-------------------------------|
| (| gnature of Authorized Officer |

OWNERSHIP CERITIFICATION

Please certify that the following statement is true if the individuals for all submitted Form A disclosures do not total 100% of ownership.

Any remaining ownership interest is held by individuals receiving less than \$106,447.20 of the bidding entity's or parent entity's distributive income or holding less than a 5% ownership interest.

| Yes No N/A (Form A disclosure(s) established 100% ownership) |
|--|
|--|



NOTICE TO BIDDERS

- 1. TIME AND PLACE OF OPENING BIDS. Sealed proposals for the improvement described herein will be received by the Department of Transportation at the Harry R. Hanley Building, 2300 South Dirksen Parkway in Springfield, Illinois until 10:00 o'clock a.m., June 14, 2013. All bids will be gathered, sorted, publicly opened and read in the auditorium at the Department of Transportation's Harry R. Hanley Building shortly after the 10:00 a.m. cut off time.
- 2. DESCRIPTION OF WORK. The proposed improvement is identified and advertised for bids in the Invitation for Bids as:

Contract No. PA056 Chicago Executive Airport Wheeling/Prospect Heights, Illinois Cook County Illinois Project No. PWK-4182 SBG Project No. 3-17-0018-B48

Sitework and Installation for Engineered Material Arresting System (EMAS)

3. INSTRUCTIONS TO BIDDERS.

- (a) This Notice, the invitation for bids, proposal and letter of award shall, together with all other documents in accordance with Article 10-18 of the Illinois Standard Specifications for Construction of Airports, become part of the contract. Bidders are cautioned to read and examine carefully all documents, to make all required inspections, and to inquire or seek explanation of the same prior to submission of a bid.
- (b) State law, and, if the work is to be paid wholly or in part with Federal-aid funds, Federal law requires the bidder to make various certifications as a part of the proposal and contract. By execution and submission of the proposal, the bidder makes the certification contained therein. A false or fraudulent certification shall, in addition to all other remedies provided by law, be a breach of contract and may result in termination of the contract.
- 4. AWARD CRITERIA AND REJECTION OF BIDS. This contract will be awarded within 60 calendar days to the lowest responsive and responsible bidder considering conformity with the terms and conditions established by the Department in the proposal and contract documents. The issuance of plans and proposal forms for bidding based upon a prequalification rating shall not be the sole determinant of responsibility. The Department reserves the right to determine responsibility at the time of award, to reject any or all proposals, to readvertise the proposed improvement, and to waive technicalities.
- PRE-BID CONFERENCE. There will be a pre-bid conference held on <u>Tuesday, June 4, 2013 at 11:00am, at the Chicago</u> <u>Executive Airport Administration Building, 1020 S. Plant Road, Wheeling, IL.</u> For engineering information, contact Jeremy Linke, P.E. of Crawford, Murphy & Tilly, Inc. at (630) 820-1022.
- 6. DISADVANTAGED BUSINESS POLICY. The DBE goal for this contract is <u>2.0</u>%.
- 7. SPECIFICATIONS AND DRAWINGS. The work shall be done in accordance with the Illinois Standard Specifications for Construction of Airports, the Illinois Division of Aeronautics Supplemental Specifications and Recurring Special Provisions, the Special Provisions dated <u>April 19, 2013</u> and the Construction Plans dated <u>April 19, 2013</u> as approved by the Department of Transportation, Division of Aeronautics.
- 8. BIDDING REQUIREMENTS AND BASIS OF AWARD. When alternates are included in the proposal, the following shall apply:
 - a. Additive Alternates
 - (1) Bidders must submit a bid for the Base Bid and for all Additive Alternates.
 - (2) Award of this contract will be made to the lowest responsible qualified bidder computed as follows:

The lowest aggregate amount of (i) the Base Bid plus (ii) any Additive Alternate(s) which the Department elects to award.

The Department may elect not to award any Additive Alternates. In that case, award will be to the lowest responsible qualified bidder of the Base Bid.

- b. Optional Alternates
 - (1) Bidders must submit a bid for the Base Bid and for either Alternate A or Alternate B or for both Alternate A and

Alternate B.

(2) Award of this contract will be made to the lowest responsible qualified bidder computed as follows:

The lower of the aggregate of either (i) the Base Bid plus Alternate A or (ii) the Base Bid plus Alternate B.

9. CONTRACT TIME. The Contractor shall complete all work within the specified contract time. Any calendar day extension beyond the specified contract time must be fully justified, requested by the Contractor in writing, and approved by the Engineer, or be subject to liquidated damages.

The contract time for this contract is <u>48 calendar days</u>.

- 10. INDEPENDENT WEIGHT CHECKS. The Department reserves the right to conduct random unannounced independent weight checks on any delivery for bituminous, aggregate or other pay item for which the method of measurement for payment is based on weight. The weight checks will be accomplished by selecting, at random, a loaded truck and obtaining a loaded and empty weight on an independent scale. In addition, the department may perform random weight checks by obtaining loaded and empty truck weights on portable scales operated by department personnel.
- 11. GOOD FAITH COMPLIANCE. The Illinois Department of Transportation has made a good faith effort to include all statements, requirements, and other language required by federal and state law and by various offices within federal and state governments whether that language is required by law or not. If anything of this nature has been left out or if additional language etc. is later required, the bidder/contractor shall cooperate fully with the Department to modify the contract or bid documents to correct the deficiency. If the change results in increased operational costs, the Department shall reimburse the contractor for such costs as it may find to be reasonable.

By Order of the Illinois Department of Transportation

Susan R. Shea, Ph.D., Director, Division of Aeronautics

ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF AERONAUTICS

REQUIRED CONTRACT PROVISIONS FOR FEDERALLY FUNDED AIRPORT CONSTRUCTION CONTRACTS

The work in this contract is included in the federal FAA Airport Improvement Program and is being undertaken and accomplished by the Illinois Department of Transportation, Division of Aeronautics and the Municipality, hereinafter called the Co-Sponsors, in accordance with the terms and conditions of a Grant Agreement between the Co-Sponsors and the United States, under the Airport and Airway Improvement Act of 1982 (Public Law 97-248; Title V, Section 501 et seq., September 3, 1982; 96 Stat. 671; codified at 49 U.S.C Section 2201 et seq.) and Part 152 of the Federal Aviation Regulations (14 CFR Part 152), pursuant to which the United States has agreed to pay a certain percentage of the costs of the Project that are determined to be allowable Project costs under the Act. The United States is not a party to this contract and no reference in this contract to FAA or representative thereof, or to any rights granted to the FAA or any representative thereof, or the United States, by the contract, makes the United States a party to this contract.

<u>Consent of Assignment</u>. The Contractor shall obtain the prior written consent of the Co-Sponsors to any proposed assignment of any interest in or part of this contract.

Provisions for all Construction Contracts

BUY AMERICAN PREFERENCE (Title 49 U.S.C., Chapter 501)

- (a) The Aviation Safety and Capacity Expansion Act of 1990 provides that preference be given to steel and manufactured products produced in the United States when funds are expended pursuant to a grant issued under the Airport Improvement Program (AIP).
- (b) Any and all steel products used in the performance of this contract by the Contractor, subcontractors, producers, and suppliers are required to adhere to the Illinois Steel Products Procurement Act, which requires that all steel items be of 100 percent domestic origin and manufacture. Any products listed under the Federal Aviation Administration's (FAA) nationwide approved list of "Equipment Meeting Buy American Requirements" shall be deemed as meeting the requirements of the Illinois Steel Products Procurement Act.
- (c) The successful bidder will be required to assure that only domestic steel and domestically manufactured products will be used by the Contractor, subcontractors, producers, and suppliers in the performance of this contract. The North American Free Trade Agreement (NAFTA) specifically excluded federal grant programs such as the AIP. Therefore, NAFTA does not change the requirement to comply with the Buy American requirement in the Act. Exceptions to this are for products, other than steel, that:
 - the FAA has determined, under the Aviation Safety and Capacity Expansion Act of 1990, are not produced in the United States in sufficient and reasonably available quantities or of a satisfactory quality;
 - (2) the FAA has determined, under the Aviation Safety and Capacity Expansion Act of 1990, that domestic preference would be inconsistent with the public interest;
 - (3) the FAA has determined that inclusion of domestic material will increase the cost of the overall project contract by more than 25 percent; or
 - (4) the FAA has determined, under the Aviation Safety and Capacity Expansion Act of 1990,
 - (i) the cost of components and subcomponents produced in the United States is more than 60 percent of the cost of all components of the facility or equipment, and
 - (ii) final assembly of the facility or equipment has occurred in the United States.

The FAA must grant waivers for any items that are included in these above exceptions. Bidders can review items already approved under the FAA nationwide approved list of "Equipment Meeting Buy American Requirements" on the FAA website, which do not require a specific FAA waiver.

All waivers are the responsibility of the Contractor, must be obtained prior to the Notice to Proceed, and must be submitted to the Division of Aeronautics for review and approval before being forwarded to the FAA. Any products used on the project that cannot meet the domestic requirement, and for which a waiver prior to the Notice to Proceed was not obtained, will be rejected for use and subject to removal and replacement with no additional compensation, and the contractor deemed non-responsive.

CIVIL RIGHTS ACT OF 1964, TITLE VI – CONTRACTOR CONTRACTUAL REQUIREMENTS (Title 49 CFR Part 21)

During the performance of this contract, the contractor, for itself, its assignees and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

<u>1.1 Compliance with Regulations.</u> The contractor shall comply with the Regulations relative to nondiscrimination in federally assisted programs of the Department of Transportation (hereinafter, "DOT") Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this contract.

<u>1.2 Nondiscrimination</u>. The contractor, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor shall not participate either directly or indirectly in the discrimination prohibited by section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations.

<u>1.3 Solicitations for Subcontracts, Including Procurements of Materials and Equipment.</u> In all solicitations either by competitive bidding or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the contractor of the contractor's obligations under this contract and the Regulations relative to nondiscrimination on the grounds of race, color, or national origin.

<u>1.4 Information and Reports.</u> The contractor shall provide all information and reports required by the Regulations or directives issued pursuant thereto and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Co-Sponsors or the Federal Aviation Administration (FAA) to be pertinent to ascertain compliance with such Regulations, orders, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information, the contractor shall so certify to the Co-Sponsors or the FAA, as appropriate, and shall set forth what efforts it has made to obtain the information.

<u>1.5 Sanctions for Noncompliance.</u> In the event of the contractor's noncompliance with the nondiscrimination provisions of this contract, the Co-Sponsor shall impose such contract sanctions as it or the FAA may determine to be appropriate, including, but not limited to:

- a. Withholding of payments to the contractor under the contract until the contractor complies, and/or
- b. Cancellation, termination, or suspension of the contract, in whole or in part.

<u>1.6 Incorporation of Provisions.</u> The contractor shall include the provisions of paragraphs 1 through 5 in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations or directives issued pursuant thereto. The contractor shall take such action with respect to any subcontract or procurement as the Co-Sponsor or the FAA may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the contractor may request the Co-Sponsor to enter into such litigation to protect the interests of the Co-Sponsor and, in addition, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

AIRPORT AND AIRWAY IMPROVEMENT ACT OF 1982, SECTION 520 - GENERAL CIVIL RIGHTS PROVISIONS (Title 49 U.S.C. 47123)

The contractor assures that it will comply with pertinent statutes, Executive orders and such rules as are promulgated to assure that no person shall, on the grounds of race, creed, color, national origin, sex, age, or handicap be excluded from participating in any activity conducted with or benefiting from Federal assistance. This provision obligates the tenant/concessionaire/lessee or its transferee for the period during which Federal assistance is extended to the airport a program, except where Federal assistance is to provide, or is in the form of personal property or real property or interest therein or structures or improvements thereon. In these cases the provision obligates the party or any transferee for the longer of the following periods: (a) the period during which the property is used by the airport sponsor or any transferee for a purpose for which Federal assistance is extended, or for another purpose involving the provision of similar services or benefits or (b) the period during which the airport sponsor or any transferee retains ownership or possession of the property. In the case of contractors, this provision binds the contractors from the bid solicitation period through the completion of the contract. This provision is in addition to that required of Title VI of the Civil Rights Act of 1964.

LOBBYING AND INFLUENCING FEDERAL EMPLOYEES (Title 49 CFR Part 20)

The undersigned bidder certifies, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have paid or will be paid, by or behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an Officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying", in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

ACCESS TO RECORDS AND REPORTS (Title 49 CFR Part 18.36)

The Contractor shall maintain an acceptable cost accounting system. The Co-Sponsors, the FAA, and the Comptroller General of the United States shall have access to any books, documents, paper, and records of the Contractor which are directly pertinent to the specific contract for the purposes of making an audit, examination, excerpts, and transcriptions. The Contractor shall maintain all required records for three years after the Co-Sponsor makes final payment and all other pending matters are closed.

DISADVANTAGED BUSINESS ENTERPRISES (Title 49 CFR Part 26)

Contract Assurance (§26.13) - The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy, as the recipient deems appropriate.

ENERGY CONSERVATION REQUIREMENTS (Title 49 CFR Part 18.36)

The contractor agrees to comply with mandatory standards and policies relating to energy efficiency that are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (Public Law 94-163)

BREACH OF CONTRACT TERMS (Title 49 CFT Part 18.36)

Any violation or breach of terms of this contract on the part of the contractor or their subcontractors may result in the suspension or termination of this contract or such other action that may be necessary to enforce the rights of the parties of this agreement. The duties and obligations imposed by the Contract Documents and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law.

RIGHTS TO INVENTIONS (Title 49 CFR Part 18.36)

All rights to inventions and materials generated under this contract are subject to Illinois law and to regulations issued by the FAA and the Co-Sponsors of the Federal grant under which this contract is executed.

TRADE RESTRICTION CLAUSE (Title 49 CFR Part30)

The Contractor or subcontractor, by submission of an offer and/or execution of a contract, certifies that it:

- a. is not owned or controlled by one or more citizens or nationals of a foreign country included in the list of countries that discriminate against U.S. firms published by the Office of the United States Trade Representative (USTR);
- b. has not knowingly entered into any contract or subcontract for this project with a Contractor that is a citizen or national of a foreign country on said list, or is owned or controlled directly or indirectly by one or more citizens or nationals of a foreign country on said list.

c. has not procured any product nor subcontracted for the supply of any product for use on the project that is produced in a foreign country on said list.

Unless the restrictions of this clause are waived by the Secretary of Transportation in accordance with 49 CFR 30.17, no contract shall be awarded to a Contractor or subcontractor who is unable to certify to the above. If the Contractor knowingly procures or subcontracts for the supply of any product or service of a foreign country on the said list for use on the project, the Federal Aviation Administration may direct, through the Co-Sponsors, cancellation of the contract at no cost to the Government.

Further, the Contractor agrees that, if awarded a contract resulting from this solicitation, it will incorporate this provision for certification without modification in each contract and in all lower tier subcontracts. The Contractor may rely upon the certification of a prospective subcontractor unless it has knowledge that the certification is erroneous.

The Contractor shall provide immediate written notice to the Co-Sponsors if the Contractor learns that its certification or that of a subcontractor was erroneous when submitted or has become erroneous by reason of changed circumstances. The subcontractor agrees to provide immediate written notice to the Contractor, if at any time it learns that its certification was erroneous by reason of changed circumstances.

This certification is a material representation of fact upon which reliance was placed when making the award. If it is later determined that the Contractor or subcontractor knowingly rendered an erroneous certification, the Federal Aviation Administration may direct, through this Co-Sponsor, cancellation of the contract or subcontract for default at no cost to the Government.

Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by this provision. The knowledge and information of a Contractor is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

This certification concerns a matter within the jurisdiction of an agency of the United States of America and the making of false, fictitious, or fraudulent certification may render the maker subject to prosecution under Title 18, United States Code, Section 1001.

VETERAN'S PREFERENCE (Title 49 U.S.C. 47112)

In the employment of labor (except in executive, administrative, and supervisory positions), preference shall be given to Veterans of the Vietnam era and disabled veterans as defined in Section 515(c)(1) and (2) of the Airport and Airway Improvement Act of 1982. However, this preference shall apply only where the individuals are available and qualified to perform the work to which the employment relates.

Additional Provisions for Construction Contracts Exceeding \$2,000

DAVIS BACON LABOR PROVISIONS (Title 29 Part 5)

(1) Minimum Wages.

(i) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR Part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provision of paragraph (a)(1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in paragraph 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided*, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (a)(1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the Contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

(ii)(A) The contracting officer shall require that any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(1)The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3)The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(B) If the Contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, D.C. 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(C) In the event the Contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (1)(ii) (B) or (C) of this paragraph, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the Contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the Contractor does not make payments to a trustee or other third person, the Contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided*, That the Secretary of Labor has found, upon the written request of the Contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the Contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

(2) Withholding.

The Federal Aviation Administration shall upon its own action or written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the Contractor under this contract or any other Federal contract with the same prime Contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime Contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the Contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the (Agency) may, after written notice to the Contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(3) Payrolls and basic records.

(i) Payrolls and basic records relating thereto shall be maintained by the Contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such work, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the Contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprentices hip programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(ii)(A) The Contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the Federal Aviation Administration if the agency is a party to the contract, but if the agency is not such a party, the Contractor will submit the payrolls to the applicant, sponsor, or owner, as the case may be, for transmission to the Federal Aviation Administration. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under paragraph 5.5(a)(3)(i) of Regulations, 29 CFR Part 5. This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal Stock Number 029-005-00014-

1), U.S. Government Printing Office, Washington, D.C. 20402. The prime Contractor is responsible for the submission of copies of payrolls by all subcontractors.

(B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the Contractor, or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be maintained under paragraph (3)(i) above and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR Part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed as specified in the applicable wage determination incorporated into the contract.

(C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (3)(ii)(B) of this section.

(D) The falsification of any of the above certifications may subject the Contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code.

(iii) The Contractor or subcontractor shall make the records required under paragraph (3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the (write the name of the agency) or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the Contractor or subcontractor fails to submit the required records or to make them available, the Federal agency may, after written notice to the Contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(4) Apprentices and Trainees

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State Apprenticeship Agency recognized by the Bureau, or if a person is employed in his or her first 90 days of probationary employment as a apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the Contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a Contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the Contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Bureau of Apprenticeship and Training, or a State Apprenticeship Agency recognized by the Bureau, withdraws approval of an apprenticeship program, the Contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration

shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ration permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contract will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

(5) Compliance with Copeland Act Requirements.

The Contractor shall comply with the requirements of 29 CFR Part 3, which are incorporated by reference in this contract.

(6) Subcontracts.

The Contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR Part 5.5(a)(1) through (10) and such other clauses as the Federal Aviation Administration may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime Contractor shall be responsible for the compliance by an subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR Part 5.5.

(7) Contract Termination: Debarment.

A breach of these contract clauses paragraphs (1) through (10) of this section may be grounds for termination of the contract and for debarment as a Contractor and a subcontractor as provided in 29 CFR Part 5.12.

(8) Compliance with Davis-Bacon and Related Act Requirements.

All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by referenced in this contract.

(9) Disputes Concerning Labor Standards.

Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the Contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

(10) Certification of Eligibility.

(i) By entering into this contract, the Contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the Contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

MINIMUM WAGES FOR FEDERAL AND FEDERALLY ASSISTED CONSTRUCTION CONTRACTS

This project is funded, in part, with Federal-aid funds and, as such, is subject to the provisions of the Davis-Bacon Act of March 3, 1931, as amended (46 Sta. 1494, as amended, 40 U.S.C. 276a) and of other Federal statutes referred to in a 29 CFR Part 1, Appendix A, as well as such additional statutes as may from time to time be enacted containing provisions for the payment of wages determined to be prevailing by the Secretary of Labor in accordance with the Davis-Bacon Act and pursuant to the provisions of 29 CFR Part 1. The prevailing rates and fringe benefits shown in the General Wage Determination Decisions issued by the U.S. Department of Labor shall, in accordance with the provisions of the foregoing statutes, constitute the minimum wages payable on Federal and federally assisted construction projects to laborers and mechanics of the specified classes engaged on contract work of the character and in the localities described therein.

General Wage Determination Decisions, modifications and supersedes decisions thereto are to be used in accordance with the provisions of 29 CFR Parts 1 and 5. Accordingly, the applicable decision, together with any modifications issued, must be made a part of every contract for performance of the described work within the geographic area indicated as required by an applicable DBRA Federal prevailing wage law and 29 CFR Part 5. The wage rates and fringe benefits contained in the General Wage Determination Decision shall be the minimum paid by contractors and subcontractors to laborers and mechanics.

NOTICE

The most current **General Wage Determination Decisions** (wage rates) are available on the IDOT web site. They are located on the Letting and Bidding page at http://www.dot.state.il.us/desenv/delett.html.

In addition, ten (10) days prior to the letting, the applicable Federal wage rates will be e-mailed to subscribers. It is recommended that all contractors subscribe to the Federal Wage Rates List or the Contractor's Packet through IDOT's subscription service.

PLEASE NOTE: if you have already subscribed to the Contractor's Packet you will automatically receive the Federal Wage Rates.

The instructions for subscribing are at <u>http://www.dot.state.il.us/desenv/subsc.html</u>.

If you have any questions concerning the wage rates, please contact IDOT's Chief Contract Official at 217-782-7806.

Additional Provisions for Construction Contracts Exceeding \$10,000

EQUAL EMPLOYMENT OPPORTUNITY - 41 CFR PART 60-1.4(b)

During the performance of this contract, the contractor agrees as follows:

1. The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

2. The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive considerations for employment without regard to race, color, religion, sex, or national origin.

3. The contractor will send to each labor union or representative of workers with which s/he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

4. The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, as amended, and of the rules, regulations, and relevant orders of the Secretary of Labor.

5. The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

6. In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedure authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

7. The contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provision, including sanctions for noncompliance: *Provided, however,* that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency the contractor may request the United States to enter into such litigation to protect the interests of the United States.

CERTIFICATION OF NONSEGREGATED FACILITIES (41 CFR PART 60-1.8)

The federally-assisted construction contractor certifies that she or he does not maintain or provide, for his employees, any segregated facilities at any of his establishments and that she or he does not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The federally-assisted construction contractor certifies that she or he will not

maintain or provide, for his employees, segregated facilities at any of his establishments and that she or he will not permit his employees to perform their services at any location under his control where segregated facilities are maintained. The federally-assisted construction contractor agrees that a breach of this certification is a violation of the Equal Opportunity Clause in this contract.

As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms, and washrooms, restaurants and other eating areas, timeclocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directives or are, in fact, segregated on the basis of race, color, religion, or national origin because of habit, local custom, or any other reason. The federally-assisted construction contractor agrees that (except where she or he has obtained identical certifications from proposed subcontractors for specific time periods) she or he will obtain identical certifications from proposed subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause and that she or he will retain such certifications in his files.

NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION (Title 41 CFR Part 60-4.2)

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.

2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

APPENDIX A

The following goal for female utilization in each construction craft and trade shall apply to all Contractors holding Federal and federally assisted construction contracts and subcontracts in excess of \$10,000. The goal is applicable to the Contractor's total on-site construction workforce, regardless of whether or not part of that workforce is performing work on a Federal, federally assisted or nonfederally related construction contract or subcontract.

AREA COVERED (STATEWIDE)

Goals for Women apply nationwide.

GOAL

| | Goal (percent) |
|--------------------|-------------------|
| Female Utilization | 6.9 |

APPENDIX B

Until further notice, the following goals for minority utilization in each construction craft and trade shall apply to all Contractors holding Federal and federally-assisted construction contracts and subcontracts in excess of \$10,000. to be performed in the respective geographical areas. The goals are applicable to the Contractor's total on-site construction workforce, regardless of whether or not part of that workforce is performing work on a Federal, federally-assisted or nonfederally related construction contract or subcontract.

| Economic Area | (percent) |
|---|-----------|
| 056 Paducah, KY: Non-SMSA Counties - IL - Hardin, Massac, Pope KY - Ballard, Caldwell, Calloway, Carlisle, Crittenden, Fulton, Graves, Hickman, Livingston, Lyon, McCracken, Marshall | 5.2 |
| 080 Evansville, IN: Non-SMSA Counties - IL - Edwards, Gallatin, Hamilton, Lawrence, Saline, Wabash, White IN - Dubois, Knox, Perry, Pike, Spencer KY - Hancock, Hopkins, McLean, Mublenberg, Ohio, Union, Webster | 3.5 |
| 081 Terre Haute, IN: Non-SMSA Counties - IL - Clark, Crawford IN - Parke | 2.5 |

| 083 Chicago, IL: SMSA Counties: 1600 Chicago, IL - IL - Cook, DuPage, Kane, Lake, McHenry, Will | 19.6 |
|--|------|
| 3740 Kankakee, IL - IL - Kankakee | 9.1 |
| Non-SMSA Counties IL - Bureau, DeKalb, Grundy, Iroquois, Kendall, LaSalle, Livingston, Putnam IN - Jasper, Laporte, Newton, Pulaski, Starke | 18.4 |
| 084 Champaign - Urbana, IL: SMSA Counties: 1400 Champaign - Urbana - Rantoul, IL - IL - Champaign | 7.8 |
| Non-SMSA Counties - IL - Coles, Cumberland, Douglas, Edgar, Ford, Piatt, Vermilion | 4.8 |
| 085 Springfield - Decatur, IL: SMSA Counties: 2040 Decatur, IL - IL - Macon | 7.6 |
| 7880 Springfield, IL - IL - Mendard, Sangamon | 4.5 |
| Non-SMSA Counties IL - Cass, Christian, Dewitt, Logan, Morgan, Moultrie, Scott, Shelby | 4.0 |
| 086 Quincy, IL: Non-SMSA Counties | 3.1 |
| IL - Adams, Brown, Pike MO - Lewis, Marion, Pike, Ralls | |
| 087 Peoria, IL: SMSA Counties: 1040 Bloomington - Normal, IL - IL - McLean | 2.5 |
| 6120 Peoria, IL - IL - Peoria, Tazewell, Woodford | 4.4 |
| Non-SMSA Counties - IL - Fulton, Knox, McDonough, Marshall, Mason, Schuyler, Stark, Warren | 3.3 |
| 088 Rockford, IL: SMSA Counties: 6880 Rockford, IL - IL - Boone, Winnebago | 6.3 |
| Non-SMSA Counties - IL - Lee, Ogle, Stephenson | 4.6 |
| 098 Dubuque, IA: Non-SMSA Counties - IL - JoDaviess IA - Atlamakee, Clayton, Delaware, Jackson, Winnesheik WI - Crawford, Grant, Lafayette | 0.5 |

| 099 Davenport, Rock Island, Moline, IA - IL: SMSA Counties: 1960 Davenport, Rock Island, Moline, IA - IL - IL - Henry, Rock Island IA - Scott | 4.6 |
|---|------|
| Non-SMSA Counties - IL - Carroll, Hancock, Henderson, Mercer, Whiteside IA - Clinton, DesMoines, Henry, Lee, Louisa, Muscatine MO - Clark | 3.4 |
| 107 St. Louis, MO: | |
| SMSA Counties: 7040 St. Louis, MO - IL - IL - Clinton, Madison, Monroe, St. Clair MO - Franklin, Jefferson, St. Charles, St. Louis, St. Louis City | 14.7 |
| Non-SMSA Counties - IL - Alexander, Bond, Calhoun, Clay, Effingham, Fayette, Franklin, Greene, Jackson, Jasper, Jefferson, Jersey, Johnson, Macoupin, Marion, Montgomery, Perry, Pulaski, Randolph, Richland, Union, Washington, Wayne, Williamson MO - Bollinger, Butler, Cape Girardeau, Carter, Crawford, Dent, Gasconade, Iron, Lincoln, Madison, Maries, Mississippi, Montgomery, Perry, Phelps, Reynolds, Ripley, St. Francois, St. Genevieve, Scott, Stoddard, Warren, Washington, Wayne | 11.4 |

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the Contractor also is subject to the goals for both its federally involved and nonfederally involved construction.

The Contractor's compliance with Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the provisions and specifications set forth in its federally assisted contracts, and its efforts to meet the goals established for the geographical area where the contract resulting from this solicitation is to be performed. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Illinois Division of Aeronautics will provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction contract and/or subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. This notification will list the name, address and telephone number of the subcontractor; employer identification number; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the contract is to be performed.

4. As used in this Notice, and in the contract resulting from this solicitation, the "covered area" is the entire State of Illinois for the goal set forth in APPENDIX A and the county or counties in which the work is located for the goals set forth in APPENDIX B.

EQUAL EMPLOYMENT OPPORTUNITY SPECIFICATION (Title 41 CFR Part 60-4.3)

- 1. As used in these specifications:
 - a) "Covered area" means the geographical area described in the solicitation from which this contract resulted;
 - b) "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;
 - c) "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941;
 - d) "Minority" includes:
 - (i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
 - (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
 - (iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
 - (iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

- 2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000. the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.
- 3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.
- 4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered Construction Contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress toward its goals in each craft during the period specified.
- 5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.
- 6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.
- 7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:
 - a) Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working as such sites or in such facilities.
 - b) Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.
 - c) Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractors may have taken.
 - d) Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
 - e) Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.

- f) Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreements; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.
- g) Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with onsite supervisory personnel such as Superintendents, General Foreman, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
- h) Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.
- i) Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship of other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
- j) Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's workforce.
- k) Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.
- Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
- m) Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.
- n) Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
- Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction Contractors and suppliers, including circulation of solicitations to minority and female Contractor associations and other business associations.
- p) Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.
- 8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a Contractor association, joint Contractor-union, Contractor-community, or other similar group of which the Contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these Specifications provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.
- 9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Grder if a specified minority group of women is underutilized).

- 10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.
- 11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.
- 12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.
- 13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.
- 14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy his requirement, Contractors shall not be required to maintain separate records.
- 15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

TERMINATION OF CONTRACT (Title 49 CFR Part 18.36)

- 1. The Co-Sponsor may, by written notice, terminate this contract in whole or in part at any time, either for the Co-Sponsor's convenience or because of failure to fulfill the contract obligations. Upon receipt of such notice services shall be immediately discontinued (unless the notice directs otherwise) and all materials as may have been accumulated in performing this contract, whether completed or in progress, delivered to the Co-Sponsor.
- 2. If the termination is for the convenience of the Co-Sponsor, an equitable adjustment in the contract price shall be made, but no amount shall be allowed for anticipated profit on unperformed services.
- 3. If the termination is due to failure to fulfill the Contractor's obligations, the Co-Sponsor may take over the work and prosecute the same to completion by contract or otherwise. In such case, the Contractor shall be liable to the Co-Sponsor for any additional cost occasioned to the Co-Sponsor thereby.
- 4. If, after notice of termination for failure to fulfill contract obligations, it is determined that the Contractor had not so failed, the termination shall be deemed to have been effected for the convenience of the Co-Sponsor. In such event, adjustment in the contract price shall be made as provided in paragraph 2 of this clause.
- 5. The rights and remedies of the Co-Sponsor provided in this clause are in addition to any other rights and remedies provided by law or under this contract.

Additional Provisions for Construction Contracts Exceeding \$25,000

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION (Title 49 CFR Part 29)

Instructions for Certification

- 1. By signing and submitting this proposal, the prospective primary participant is providing the certification set out below.
- 2. The inability of a person to provide the certification required below will not necessarily result in denial of participation in this covered transaction. The prospective participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such person from participation in this transaction.

- 3. The certification in this clause is a material representation of fact upon which reliance was placed when the department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause of default.
- 4. The prospective primary participant shall provide immediate written notice to the department or agency to whom this proposal is submitted if at any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
- 5. The terms "covered transaction" "debarred" "suspended" "ineligible" "lower tier covered transaction" "participant" "person" "primary covered transaction" "principal" "proposal" and "voluntarily excluded" as used in this clause have the meaning set out in the Definitions and Coverage sections of the rules implementing Executive Order 12540. You may contact the department or agency to which this proposal is being submitted for assistance in obtaining a copy of those regulations.
- 6. The prospective primary participant agrees by submitting this proposal that should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction unless authorized by the department or agency entering into this transaction.
- 7. The prospective primary participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion Lower Tier Transaction", provided by the department or agency entering into this covered transaction without modification in all lower covered transactions and in all solicitations for lower covered transactions.
- 8. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to check the Nonprocurement List (Tel. #).
- 9. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- 10. Except for transactions authorized under paragraph 8 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion Primary Covered Transactions

- 1. The prospective primary participant certifies to the best of its knowledge and belief that it and its principals:
 - a. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by an Federal department or agency;
 - b. Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain or performing a public (Federal, State or Local) transaction or contract under a public transaction: violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction or destruction of records, making false statements, or receiving stolen property;
 - c. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and
 - d. Have not within a three-period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.
- 2. Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

EACH PRIME CONTRACTOR SHALL INSERT IN EACH SUBCONTRACT THE CERTIFICATION IN APPENDIX B, AND FURTHER, SHALL REQUIRE ITS INCLUSION IN ANY LOWER TIER SUBCONTRACT, PURCHASE ORDER, OR TRANSACTION THAT MAY IN TURN BE MADE.

Appendix B of 49 CFR Part 29

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Covered Transactions

This certification applies to subcontractors, material suppliers, vendors and other lower tier participants.

Instructions for Certification

- 1. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.
- 2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
- 3. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
- 4. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction, "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.
- 5. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.
- 6. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
- 7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.
- 8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- 9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarrent.

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion Lower Tier Covered Transactions

- 1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- 2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

Additional Provisions for Construction Contracts Exceeding \$100,000

CONTRACT WORKHOURS AND SAFETY STANDARDS ACT REQUIREMENTS (Title 29 CFR Part 5)

(1) Overtime requirements:

No Contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers, mechanics, watchmen or guards (including apprentices and trainees described in paragraphs 5 and 6 above) shall require or permit any laborer, mechanic, watchman or guard in any workweek in which he/she is employed on such work, to work

in excess of 40 hours in such workweek unless such laborer, mechanic, watchman or guard receives compensation at a rate not less than one and one-half times his/her basic rate of pay for all hours worked in excess of 40 hours in such workweek.

(2) Violations: Liability for Unpaid Wages; Liquidated Damages:

In the event of any violation of the clause set forth in paragraph (1) above, the Contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such Contractor and subcontractor shall be liable to the United States (in case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer, mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1) above, in the sum of \$10.00 for each calendar day on which such employee was required or permitted to work in excess of the standard workweek of 40 hours without payment of the overtime wages required by the clause set forth in paragraph (1) above.

(3) Withholding for Unpaid Wages and Liquidated Damages.

The Federal Aviation Administration or the Co-Sponsor shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the Contractor or subcontractor under any such contract or any other Federal contract with the same prime Contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime Contractor, such sums as may be determined to be necessary to satisfy any liabilities of such Contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2) above.

(4) Subcontracts.

The Contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1) through (4) and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime Contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1) through (4) of this section.

(5) Working Conditions.

No Contractor or subcontractor may require any laborer or mechanic employed in the performance of any contract to work in surroundings or under working conditions that are unsanitary, hazardous, or dangerous to his health or safety as determined under construction safety and health standards (29 CFR 1926) issued by Department of Labor.

CLEAN AIR AND WATER POLLUTION CONTROL (Title 49 CFR Part 18.36(i)(12))

In connection with the administration of the Clean Air Act and the Water Pollution Control Act with respect to Federal Grants, specific requirements have been imposed of any contract which is not exempt under the provisions of 40 CFR 15.5.

(1) Any facility listed on the EPA List of Violating Facilities pursuant to Paragraph 15.20 of 40 CFR as of the date of the contract award will not be utilized in the performance of any non-exempt contract or subcontract.

(2) The Contractor shall comply with all the requirements of Section 114 of the Clean Air Act, as amended, 42 USC 1857 et seq. and Section 308 of the Federal Water Pollution Control Act, as amended, 33 USC 1251 et seq. relating to inspection, monitoring, entry, reports and information, as well as all other requirements specified in Section 114 and Section 308 of the Air Act and Water Act, respectively, and all regulations and guidelines issued thereunder after the award of the contract.

(3) Prompt notification shall be required prior to contract award to the awarding official by the Contractor who will receive the award of the receipt of any communication from the Director, Office of Federal Activities, U.S. Environmental Protection Agency, indicating that a facility to be utilized for the contract is under consideration to be listed on the EPA List of Violating Facilities.

(4) The Contractor shall include or cause to be included the criteria and requirements in paragraphs 1 through 4 in any non-exempt subcontract and will take such action as the Government may direct as a means of enforcing such provisions.

ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF AERONAUTICS

REQUIRED CONTRACT PROVISIONS FOR STATE FUNDED AIRPORT CONSTRUCTION PROJECTS

The following provisions are State of Illinois requirements and are in addition to the REQUIRED CONTRACT PROVISIONS FOR FEDERALLY FUNDED AIRPORT CONSTRUCTION CONTRACTS

DISADVANTAGED BUSINESS POLICY

<u>NOTICE</u>: This proposal contains the special provision entitled "Disadvantaged Business Participation." Inclusion of this Special Provision in this contract satisfies the obligations of the Department of Transportation under federal law as implemented by 49 CFR 23 and under the Illinois "Minority and Female Business Enterprise Act."

<u>POLICY</u>: It is public policy that the businesses defined in 49 CFR Part 23 shall have the maximum opportunity to participate in the performance of contracts financed in whole or in part with State or Federal funds. Consequently, the requirements of 49 CFR Part 23 apply to this contract.

<u>OBLIGATION</u>: The Contractor agrees to ensure that the businesses defined in 49 CFR Part 23 have the maximum opportunity to participate in the performance of this contract. In this regard, the Contractor shall take all necessary and reasonable steps, in accordance with 49 CFR Part 23, to ensure that the said businesses have the maximum opportunity to compete for and perform portions of this contract. The Contractor shall not discriminate on the basis of race, color, national origin, or sex in the selection and retention of subcontractors, including procurement of materials and leases of equipment.

The Contractor shall include the above Policy and Obligation statements of this Special Provision in every subcontract, including procurement of materials and leases of equipment.

<u>DBE/WBE CONTRACTOR FINANCE PROGRAM</u>: On contracts where a loan has been obtained through the DBE/WBE Contractor Finance Program, the Contractor shall cooperate with the Department by making all payments due to the DBE/WBE Contractor by means of a two-payee check payable to the Lender (Bank) and the Borrower (DBE/WBE Contractor).

<u>BREACH OF CONTRACT</u>: Failure to carry out the requirements set forth above and in the Special Provision shall constitute a breach of contract and may result in termination of the contract or liquidated damages as provided in the special provision.

SPECIAL PROVISION FOR DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION Revised: August 2, 2011

<u>FEDERAL OBLIGATION</u>: The Department of Transportation, as a recipient of federal financial assistance, is required to take all necessary and reasonable steps to ensure nondiscrimination in the award and administration of contracts. Consequently, the federal regulatory provisions of 49 CFR part 26 apply to this contract concerning the utilization of disadvantaged business enterprises. For the purposes of this Special Provision, a disadvantaged business enterprise (DBE) means a business certified by the Department in accordance with the requirements of 49 CFR part 26 and listed in the Illinois Unified Certification Program (IL UCP) DBE Directory

STATE OBLIGATION. This Special Provision will also be used by the Department to satisfy the requirements of the Business Enterprise for Minorities, Females, and Persons with Disabilities Act, 30 ILCS 575. When this Special Provision is used to satisfy state law requirements on 100 percent state-funded contracts, the federal government has no involvement in such contracts (not a federal-aid contract) and no responsibility to oversee the implementation of this Special Provision by the Department on those contracts. DBE participation on 100 percent state-funded contracts will not be credited toward fulfilling the Department's annual overall DBE goal required by the US Department of Transportation to comply with the federal DBE program requirements.

<u>CONTRACTOR ASSURANCE:</u> The Contractor makes the following assurance and agrees to include the assurance in each subcontract that the Contractor signs with a subcontractor:

The Contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of contracts funded in whole or in part with federal or state funds. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate.

<u>OVERALL GOAL SET FOR THE DEPARTMENT:</u> As a requirement of compliance with 49 CFR part 26, the Department has set an overall goal for DBE participation in its federally assisted contracts. That goal applies to all federal-aid funds the Department will expend in its federally assisted contracts for the subject reporting fiscal year. The Department is required to make a good faith effort to

achieve the overall goal. The dollar amount paid to all approved DBE companies performing work called for in this contract is eligible to be credited toward fulfillment of the Department's overall goal.

<u>CONTRACT GOAL TO BE ACHIEVED BY THE CONTRACTOR</u>: This contract includes a specific DBE utilization goal established by the Department. The goal has been included because the Department has determined that the work of this contract has subcontracting opportunities that may be suitable for performance by DBE companies. This determination is based on an assessment of the type of work, the location of the work, and the availability of DBE companies to do a part of the work. The assessment indicates that, in the absence of unlawful discrimination, and in an arena of fair and open competition, DBE companies can be expected to perform <u>2.0%</u> of the work. This percentage is set as the DBE participation goal for this contract. Consequently, in addition to the other award criteria established for this contract, the Department will only award this contract to a bidder who makes a good faith effort to meet this goal of DBE participation in the performance of the work. A bidder makes a good faith effort for award consideration if either of the following is done in accordance with the procedures set forth in this Special Provision:

- (a) The bidder documents that enough DBE participation has been obtained to meet the goal; or
- (b) The bidder documents that a good faith effort has been made to meet the goal, even though the effort did not succeed in obtaining enough DBE participation to meet the goal.

<u>DBE LOCATOR REFERENCES</u>: Bidders shall consult the IL UCP DBE Directory as a reference source for DBE-certified companies. In addition, the Department maintains a letting and item specific DBE locator information system whereby DBE companies can register their interest in providing quotes on particular bid items advertised for letting. Information concerning DBE companies willing to quote work for particular contracts may be obtained by contacting the Department's Bureau of Small Business Enterprises at telephone number (217)785-4611, or by visiting the Department's web site at <u>www.dot.il.gov</u>.

<u>BIDDING PROCEDURES.</u> Compliance with this Special Provision is a material bidding requirement. The failure of the bidder to comply will render the bid not responsive.

- (a) The bidder shall submit a Disadvantaged Business Utilization Plan on Department forms SBE 2025 and 2026 with the bid.
- (b) The Utilization Plan shall indicate that the bidder either has obtained sufficient DBE participation commitments to meet the contract goal or has not obtained enough DBE participation commitments in spite of a good faith effort to meet the goal. The Utilization Plan shall further provide the name, telephone number and telefax number of a responsible official of the bidder designated for purposes of notification of plan approval or disapproval under the procedures of this Special Provision.
- (c) The Utilization Plan shall include a DBE Participation Commitment Statement, Department form SBE 2025, for each DBE proposed for the performance of work to achieve the contract goal. For bidding purposes, submission of the completed SBE 2025 forms, signed by the DBEs and faxed to the bidder will be acceptable as long as the original is available and provided upon request. All elements of information indicated on the said form shall be provided, including but not limited to the following:
 - (1) The name and address of DBE firms that will participate in the contract;
 - (2) A description, including pay item numbers, of the work each DBE will perform;
 - (3) The dollar amount of the participation of each DBE firm participating. The dollar amount of participation for identified work shall specifically state the quantity, unit price and total subcontract price for the work to be completed by the DBE. If partial pay items are to be performed by the DBE, indicate the portion of each item, a unit price where appropriate and the subcontract price amount;
 - (4) DBE Participation Commitment Statements, form SBE 2025, signed by the bidder and each participating DBE firm documenting the commitment to use the DBE subcontractors whose participation is submitted to meet the contract goal;
 - (5) If the bidder is a joint venture comprised of DBE companies and non-DBE companies, the plan must also include a clear identification of the portion of the work to be performed by the DBE partner(s); and,
 - (6) If the contract goal is not met, evidence of good faith efforts.

<u>GOOD FAITH EFFORT PROCEDURE.</u> The contract will not be awarded until the Utilization Plan submitted by the apparent successful bidder is approved. All information submitted by the bidder must be complete, accurate and adequately document that enough DBE participation has been obtained or document the good faith efforts of the bidder, in the event enough DBE participation has not been obtained, before the Department will commit to the performance of the contract by the bidder. The Utilization Plan will be approved by the Department if the Utilization Plan commits sufficient commercially useful DBE work performance to meet the contract goal or the bidder submits sufficient documentation of a good faith effort to meet the contract goal pursuant to 49 CFR part 26, Appendix A.

The Utilization Plan will not be approved by the Department if the Utilization Plan does not commit sufficient DBE participation to meet the contract goal unless the apparent successful bidder documented in the Utilization Plan that it made a good faith effort to meet the goal. This means that the bidder must show that all necessary and reasonable steps were taken to achieve the contract goal. Necessary and reasonable steps are those which, by their scope, intensity and appropriateness to the objective, could reasonably be expected to obtain sufficient DBE participation, even if they were not successful. The Department will consider the quality, quantity, and intensity of the kinds of efforts that the bidder has made. Mere *pro forma* efforts, in other words, efforts done as a matter of form, are not good faith efforts; rather, the bidder is expected to have taken genuine efforts that would be reasonably expected of a bidder actively and aggressively trying to obtain DBE participation sufficient to meet the contract goal.

- (a) The following is a list of types of action that the Department will consider as part of the evaluation of the bidder's good faith efforts to obtain participation. These listed factors are not intended to be a mandatory checklist and are not intended to be exhaustive. Other factors or efforts brought to the attention of the Department may be relevant in appropriate cases, and will be considered by the Department.
 - (1) Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) the interest of all certified DBE companies that have the capability to perform the work of the contract. The bidder must solicit this interest within sufficient time to allow the DBE companies to respond to the solicitation. The bidder must determine with certainty if the DBE companies are interested by taking appropriate steps to follow up initial solicitations.
 - (2) Selecting portions of the work to be performed by DBE companies in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the prime Contractor might otherwise prefer to perform these work items with its own forces.
 - (3) Providing interested DBE companies with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.
 - (4) a. Negotiating in good faith with interested DBE companies. It is the bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBE companies that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBE companies to perform the work.

b. A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBE companies is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable.

Also, the ability or desire of a bidder to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Bidders are not, however, required to accept higher quotes from DBE companies if the price difference is excessive or unreasonable.

- (5) Not rejecting DBE companies as being unqualified without sound reasons based on a thorough investigation of their capabilities. The bidder's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of bids in the bidder's efforts to meet the project goal.
- (6) Making efforts to assist interested DBE companies in obtaining bonding, lines of credit, or insurance as required by the recipient or Contractor.
- (7) Making efforts to assist interested DBE companies in obtaining necessary equipment, supplies, materials, or related assistance or services.
- (8) Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and federal minority/women business assistance offices; and other organizations as allowed on a case-bycase basis to provide assistance in the recruitment and placement of DBE companies.
- (b) If the Department determines that the apparent successful bidder has made a good faith effort to secure the work commitment of DBE companies to meet the contract goal, the Department will award the contract provided that it is otherwise eligible for award. If the Department determines that the bidder has failed to meet the requirements of this Special Provision and that a good faith effort has not been made, the Department will notify the responsible company official designated in the Utilization Plan that the bid is not responsive. The notification shall include a statement of reasons why good faith efforts have not been found.
- (c) The bidder may request administrative reconsideration of a determination adverse to the bidder within the five working days after receipt of the notification date of the determination by delivering the request to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764 (Telefax: (217)785-1524). Deposit of the request in the United States mail on or before the fifth business day shall not be deemed delivery. The determination shall become final if a request is not made and delivered. A request may provide additional written documentation and/or argument concerning the issues raised in the determination statement of reasons, provided the documentation and arguments address efforts made prior to submitting the bid. The request will be forwarded to

the Department's Reconsideration Officer. The Reconsideration Officer will extend an opportunity to the bidder to meet in person in order to consider all issues of whether the bidder made a good faith effort to meet the goal. After the review by the Reconsideration Officer, the bidder will be sent a written decision within ten working days after receipt of the request for reconsideration, explaining the basis for finding that the bidder did or did not meet the goal or make adequate good faith efforts to do so. A final decision by the Reconsideration Officer that a good faith effort was made shall approve the Utilization Plan submitted by the bidder and shall clear the contract for award. A final decision that a good faith effort was not made shall render the bid not responsive.

<u>CALCULATING DBE PARTICIPATION</u>. The Utilization Plan values represent work anticipated to be performed and paid for upon satisfactory completion. The Department is only able to count toward the achievement of the overall goal and the contract goal the value of payments made for the work actually performed by DBE companies. In addition, a DBE must perform a commercially useful function on the contract to be counted. A commercially useful function is generally performed when the DBE is responsible for the work and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. The Department and Contractor are governed by the provisions of 49 CFR part 26.55(c) on questions of commercially useful functions as it affects the work. Specific counting guidelines are provided in 49 CFR part 26.55, the provisions of which govern over the summary contained herein.

- (a) DBE as the Contractor: 100 percent goal credit for that portion of the work performed by the DBE's own forces, including the cost of materials and supplies. Work that a DBE subcontracts to a non-DBE does not count toward the DBE goals.
- (b) DBE as a joint venture Contractor: 100 percent goal credit for that portion of the total dollar value of the contract equal to the distinct, clearly defined portion of the work performed by the DBE's own forces.
- (c) DBE as a subcontractor: 100 percent goal credit for the work of the subcontract performed by the DBE's own forces, including the cost of materials and supplies, excluding the purchase of materials and supplies or the lease of equipment by the DBE subcontractor from the prime Contractor or its affiliates. Work that a DBE subcontractor in turn subcontracts to a non-DBE does not count toward the DBE goal.
- (d) DBE as a trucker: 100 percent goal credit for trucking participation provided the DBE is responsible for the management and supervision of the entire trucking operation for which it is responsible. At least one truck owned, operated, licensed, and insured by the DBE must be used on the contact. Credit will be given for the following:
 - (1) The DBE may lease trucks from another DBE firm, including an owner-operator who is certified as a DBE. The DBE who leases trucks from another DBE receives credit for the total value of the transportation services the lessee DBE provides on the contract.
 - (2) The DBE may also lease trucks from a non-DBE firm, including from an owner-operator. The DBE who leases trucks from a non-DBE is entitled to credit only for the fee or commission it receives as a result of the lease arrangement.
- (e) DBE as a material supplier:
 - (1) 60 percent goal credit for the cost of the materials or supplies purchased from a DBE regular dealer.
 - (2) 100 percent goal credit for the cost of materials or supplies obtained from a DBE manufacturer.
 - (3) 100 percent credit for the value of reasonable fees and commissions for the procurement of materials and supplies if not a regular dealer or manufacturer.

<u>CONTRACT COMPLIANCE</u>. Compliance with this Special Provision is an essential part of the contract. The Department is prohibited by federal regulations from crediting the participation of a DBE included in the Utilization Plan toward either the contract goal or the Department's overall goal until the amount to be applied toward the goals has been paid to the DBE. The following administrative procedures and remedies govern the compliance by the Contractor with the contractual obligations established by the Utilization Plan. After approval of the Utilization Plan and award of the contract, the Utilization Plan and individual DBE Participation Statements become part of the contract. If the Contractor did not succeed in obtaining enough DBE participation to achieve the advertised contract goal, and the Utilization Plan was approved and contract awarded based upon a determination of good faith, the total dollar value of DBE work calculated in the approved Utilization Plan as a percentage of the awarded contract value shall become the amended contract goal. All work indicated for performance by an approved DBE shall be performed, managed, and supervised by the DBE executing the Participation Statement.

- (a) <u>NO AMENDMENT</u>. No amendment to the Utilization Plan may be made without prior written approval from the Department's Bureau of Small Business Enterprises. All requests for amendment to the Utilization Plan shall be submitted to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764. Telephone number (217) 785-4611. Telefax number (217) 785-1524.
- (b) <u>TERMINATION OR REPLACEMENT</u>. The Contractor shall not terminate or replace a DBE listed on the approved Utilization Plan, or perform with other forces work designated for a listed DBE except as provided in the Special Provision.
- (c) <u>CHANGES TO WORK</u>. Any deviation from the DBE condition-of-award or contract plans, specifications, or special provisions must be approved, in writing, by the Department as provided elsewhere in the Contract. The Contractor shall notify affected

DBEs in writing of any changes in the scope of work which result in a reduction in the dollar amount condition-of-award to the contract. Where the revision includes work committed to a new DBE subcontractor, not previously involved in the project, then a Request for Approval of Subcontractor, Department form BC 260A, must be signed and submitted. If the commitment of work is in the form of additional tasks assigned to an existing subcontract, then a new Request for Approval of Subcontractor shall not be required. However, the Contractor must document efforts to assure that the existing DBE subcontractor is capable of performing the additional work and has agreed in writing to the change.

- (d) <u>ALTERNATIVE WORK METHODS</u>. In addition to the above requirements for reductions in the condition of award, additional requirements apply to the two cases of Contractor-initiated work substitution proposals. Where the contract allows alternate work methods which serve to delete or create underruns in condition of award DBE work, and the Contractor selects that alternate method or, where the Contractor proposes a substitute work method or material that serves to diminish or delete work committed to a DBE and replace it with other work, then the Contractor must demonstrate one of the following:
 - (1) That the replacement work will be performed by the same DBE (as long as the DBE is certified in the respective item of work) in a modification of the condition of award; or
 - (2) That the DBE is aware that its work will be deleted or will experience underruns and has agreed in writing to the change. If this occurs, the Contractor shall substitute other work of equivalent value to a certified DBE or provide documentation of good faith efforts to do so; or
 - (3) That the DBE is not capable of performing the replacement work or has declined to perform the work at a reasonably competitive price. If this occurs, the Contractor shall substitute other work of equivalent value to a certified DBE or provide documentation of good faith efforts to do so.
- (e) <u>TERMINATION AND REPLACEMENT PROCEDURES</u>. The Contractor shall not terminate or replace a DBE subcontractor listed in the approved Utilization Plan without prior written consent. This includes, but is not limited to, instances in which the Contractor seeks to perform work originally designated for a DBE subcontractor with its own forces or those of an affiliate, a non-DBE firm, or with another DBE firm. Written consent will be granted only if the Bureau of Small Business Enterprises agrees, for reasons stated in its concurrence document, that the Contractor has good cause to terminate or replace the DBE firm. Before transmitting to the Bureau of Small Business Enterprises any request to terminate and/or substitute a DBE subcontractor, the Contractor shall give notice in writing to the DBE subcontractor, with a copy to the Bureau, of its intent to request to terminate and/or substitute, and the reason for the request. The Contractor shall give the DBE five days to respond to the Contractor's notice. The DBE so notified shall advise the Bureau and the Contractor of the reasons, if any, why it objects to the proposed termination of its subcontract and why the Bureau should not approve the Contractor's action. If required in a particular case as a matter of public necessity, the Bureau may provide a response period shorter than five days.

For purposes of this paragraph, good cause includes the following circumstances:

- (1) The listed DBE subcontractor fails or refuses to execute a written contract;
- (2) The listed DBE subcontractor fails or refuses to perform the work of its subcontract in a way consistent with normal industry standards. Provided, however, that good cause does not exist if the failure or refusal of the DBE subcontractor to perform its work on the subcontract results from the bad faith or discriminatory action of the prime contractor;
- (3) The listed DBE subcontractor fails or refuses to meet the prime Contractor's reasonable, nondiscriminatory bond requirements;
- (4) The listed DBE subcontractor becomes bankrupt, insolvent, or exhibits credit unworthiness;
- (5) The listed DBE subcontractor is ineligible to work on public works projects because of suspension and debarment proceedings pursuant to CFR Parts 180, 215 and 1200 or applicable state law;
- (6) You have determined that the listed DBE subcontractor is not a responsible contractor;
- (7) The listed DBE subcontractor voluntarily withdraws from the projects and provides to you written notice of its withdrawal;
- (8) The listed DBE is ineligible to receive DBE credit for the type of work required;
- (9) A DBE owner dies or becomes disabled with the result that the listed DBE contractor is unable to complete its work on the contract;
- (10) Other documented good cause that compels the termination of the DBE subcontractor. Provided, that good cause does not exist if the prime Contractor seeks to terminate a DBE it relied upon to obtain the contract so that the prime Contractor can self-perform the work for which the DBE contractor was engaged or so that the prime Contractor can substitute another DBE or non-DBE contractor after contract award.

When a DBE is terminated, or fails to complete its work on the contract for any reason the Contractor shall make a good faith effort to find another DBE to substitute for the original DBE to perform at least the same amount of work under the contract as the terminated DBE to the extent needed to meet the established contract goal.

- (f) <u>PAYMENT RECORDS</u>. The Contractor shall maintain a record of payments for work performed to the DBE participants. The records shall be made available to the Department for inspection upon request. After the performance of the final item of work or delivery of material by a DBE and final payment therefore to the DBE by the Contractor, but not later than thirty calendar days after payment has been made by the Department to the Contractor for such work or material, the Contractor shall submit a DBE Payment Agreement on Department form SBE 2115 to the Regional Engineer. If full and final payment has not been made to the DBE, the DBE Payment Agreement shall indicate whether a disagreement as to the payment required exists between the Contractor and the DBE or if the Contractor believes that the work has not been satisfactorily completed. If the Contractor does not have the full amount of work indicated in the Utilization Plan performed by the DBE companies indicated in the Utilization Plan and after good faith efforts are reviewed, the Department may deduct from contract payments to the Contractor the amount of the goal not achieved as liquidated and ascertained damages. The Contractor may request an administrative reconsideration of any amount deducted as damages pursuant to subsection (h) of this part.
- (g) <u>ENFORCEMENT</u>. The Department reserves the right to withhold payment to the Contractor to enforce the provisions of this Special Provision. Final payment shall not be made on the contract until such time as the Contractor submits sufficient documentation demonstrating achievement of the goal in accordance with this Special Provision or after liquidated damages have been determined and collected.
- (h) <u>RECONSIDERATION</u>. Notwithstanding any other provision of the contract, including but not limited to Article 50-17 of the Standard Specifications, the Contractor may request administrative reconsideration of a decision to deduct the amount of the goal not achieved as liquidated damages. A request to reconsider shall be delivered to the Contract Compliance Section and shall be handled and considered in the same manner as set forth in paragraph (c) of "Good Faith Effort Procedures" of this Special Provision, except a final decision that a good faith effort was not made during contract performance to achieve the goal agreed to in the Utilization Plan shall be the final administrative decision of the Department.

SPECIAL PROVISION FOR SUBCONTRACTOR MOBILIZATION PAYMENTS Revised: April 1, 2011

To account for the preparatory work and the operations necessary for the movement of subcontractor personnel, equipment, supplies, and incidentals to the project site and for all other work or operations that must be performed or costs incurred when beginning work approved for subcontracting according to Section 80-01 of the Standard Specifications, the Contractor shall make a mobilization payment to each subcontractor.

This mobilization payment shall be made at least 14 days prior to the subcontractor starting work. The amount paid shall be equal to 3 percent of the amount of the subcontract reported on form AER 260A submitted for the approval of the subcontractor's work.

The mobilization payment to the subcontractor is an advance payment of the reported amount of the subcontract and is not a payment in addition to the amount of the subcontract; therefore, the amount of the advance payment will be deducted from future progress payments.

This provision shall be incorporated directly or by reference into each subcontract approved by the Department

SPECIAL PROVISION FOR PAYMENTS TO SUBCONTRACTORS Revised: January 1, 2006

Federal regulations found at 49 CFR §26.29 mandate the Department to establish a contract clause to require Contractors to pay subcontractors for satisfactory performance of their subcontracts and to set the time for such payments.

State law also addresses the timing of payments to be made to subcontractors and material suppliers. Section 7 of the Prompt Payment Act, 30 ILCS 540/7, requires that when a Contractor receives any payment from the Department, the Contractor shall make corresponding, proportional payments to each subcontractor and material supplier performing work or supplying material within 15 calendar days after receipt of the Department payment. Section 7 of the Act further provides that interest in the amount of two percent per month, in addition to the payment due, shall be paid to any subcontractor or material supplier by the Contractor if the payment required by the Act is withheld or delayed without reasonable cause. The Act also provides that the time for payment required and the calculation of any interest due applies to transactions between subcontractors and lower-tier subcontractors and material suppliers throughout the contractor gchain.

This Special Provision establishes the required federal contract clause, and adopts the 15 calendar day requirement of the State Prompt Payment Act for purposes of compliance with the federal regulation regarding payments to subcontractors. This contract is subject to the following payment obligations.

When progress payments are made to the Contractor according to Article 90-07 of the Standard Specifications, the Contractor shall make a corresponding payment to each subcontractor and material supplier in proportion to the work satisfactorily completed by each subcontractor and for the material supplied to perform any work of the contract. The proportionate amount of partial payment due to

each subcontractor and material supplier throughout the contracting chain shall be determined by the quantities measured or otherwise determined as eligible for payment by the Department and included in the progress payment to the Contractor. Subcontractors and material suppliers shall be paid by the Contractor within 15 calendar days after the receipt of payment from the Department. The Contractor shall not hold retainage from the subcontractors. These obligations shall also apply to any payments made by subcontractors and material suppliers to their subcontractors and material suppliers; and to all payments made to lower tier subcontractors and material suppliers throughout the contracting chain. Any payment or portion of a payment subject to this provision may only be withheld from the subcontractor or material supplier to whom it is due for reasonable cause.

This Special Provision does not create any rights in favor of any subcontractor or material supplier against the State or authorize any cause of action against the State on account of any payment, nonpayment, delayed payment, or interest claimed by application of the State Prompt Payment Act. The Department will not approve any delay or postponement of the 15 day requirement except for reasonable cause shown after notice and hearing pursuant to Section 7(b) of the State Prompt Payment Act. State law creates other and additional remedies available to any subcontractor or material supplier, regardless of tier, who has not been paid for work properly performed or material furnished. These remedies are a lien against public funds set forth in Section 23(c) of the Mechanics Lien Act, 770 ILCS 60/23(c), and a recovery on the Contractor's payment bond according to the Public Construction Bond Act, 30 ILCS 550.

SPECIAL PROVISION FOR ADDITIONAL STATE REQUIREMENTS FOR FEDERAL-AID CONSTRUCTION CONTRACTS Effective: February 1, 1969 Revised: January 1, 2010

EQUAL EMPLOYMENT OPPORTUNITY

In the event of the Contractor's noncompliance with any provisions of this Equal Employment Opportunity Clause, the Illinois Fair Employment Practices Act or the Fair Employment Practices Commission's Rules and Regulations for Public Contracts, the Contractor may be declared nonresponsible and therefore ineligible for future contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations, and the contract may be canceled or avoided in whole or in part, and such other sanctions or penalties may be imposed or remedies invoked as provided by statute or regulation.

During the performance of this contract, the Contractor agrees as follows:

(1) That it will not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin or ancestry; and further that it will examine all job classifications to determine if minority persons or women are underutilized and will take appropriate affirmative action to rectify any such underutilization.

(2) That, if it hires additional employees in order to perform this contract or any portion hereof, it will determine the availability (in accordance with the Commission's Rules and Regulations for Public Contracts) of minorities and women in the area(s) from which it may reasonably recruit and it will hire for each job classification for which employees are hired in such a way that minorities and women are not underutilized.

(3) That, in all solicitations or advertisements for employees placed by it or on its behalf, it will state that all applicants will be afforded equal opportunity without discrimination because of race, color, religion, sex, national origin or ancestry.

(4) That it will send to each labor organization or representative of workers with which it has or is bound by a collective bargaining or other agreement or understanding, a notice advising such labor organization or representative of the Contractors obligations under the Illinois Fair Employment Practices Act and the Commission's Rules and Regulations for Public Contracts. If any such labor organization or representative fails or refuses to cooperate with the Contractor in its efforts to comply with such Act and Rules and Regulations, the Contractor will promptly so notify the Illinois Fair Employment Practices Commission and the contracting agency and will recruit employees from other sources when necessary to fulfill its obligations thereunder.

(5) That it will submit reports as required by the Illinois Fair Employment Practices Commission's Rules and Regulations for Public Contracts, furnish all relevant information as may from time to time be requested by the Commission or the contracting agency, and in all respects comply with the Illinois Fair Employment Practices Act and the Commission's Rules and Regulations for Public Contracts.

(6) That it will permit access to all relevant books, records, accounts and work sites by personnel of the contracting agency and the Illinois Fair Employment Practices Commission for purposes of investigation to ascertain compliance with the Illinois Fair Employment Practices Act and the Commission's Rules and Regulations for Public Contracts.

(7) That it will include verbatim or by reference the provisions of paragraphs 1 through 7 of this clause in every performance subcontract as defined in Section 2.10(b) of the Commission's Rules and Regulations for Public Contracts so that such provisions will be binding upon every subcontractor; and that it will also so include the provisions or paragraphs 1, 5, 6 and 7 in every supply subcontract as defined in Section 2.10(a) of the Commission's Rules and Regulations for Public Contracts so that such provisions will be binding upon every such subcontractor. In the same manner as with other provisions of this contract, the Contractor will be liable for compliance with applicable provisions of this clause by all its subcontractors; and further it will promptly notify the contracting agency and the Illinois Fair Employment Practices Commission in the event any subcontractor fails or refuses to comply therewith. In addition, no Contractor will utilize any subcontractor declared by the Commission to be nonresponsible and therefore ineligible for contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations.

SPECIAL PROVISION FOR NPDES CERTIFICATION

In accordance with the provisions of the Illinois Environmental Protection Act, the Illinois Pollution Control Board Rules and Regulations (35 Ill. Adm. Code, Subtitle C, Chapter I), and the Clean Water Act, and the regulations thereunder, this certification is required for all construction contracts that will result in the disturbance of one or more acres total land area.

The bidder certifies under penalty of law that he/she understands the terms and conditions of the general National Pollutant Discharge Elimination System (NPDES) permit (ILR100000) that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification.

The Airport Owner or its Agent will:

- 1) prepare, sign and submit the Notice of Intent (NOI)
- 2) conduct site inspections and complete and file the inspection reports
- 3) submit Incidence of Non-Compliance (ION) forms
- 4) submit Notice of Termination (NOT) form

Prior to the issuance of the Notice-to-Proceed, for <u>each</u> erosion control measure identified in the Storm Water Pollution Prevention Plan, the contractor or subcontractor responsible for the control measure(s) must sign the above certification (forms to be provided by the Department).

State of Illinois Department of Transportation

SPECIAL PROVISION FOR SECTION 90 MEASUREMENT AND PAYMENT

This Special Provision amends the provisions of the Standard Specifications for Construction of Airports, adopted April 1, 2012 and shall be construed to be a part thereof, superseding any conflicting provisions thereof applicable to the work under the contract.

90-07 PARTIAL PAYMENTS.

DELETE: The entire section.

ADD: Partial payments will be made to the Contractor at least once each month as the work progresses. The payments will be based upon estimates, prepared by the Resident Engineer, of the value of the work performed and materials complete and in place in accordance with the contract, plans, and specifications. Such partial payments may also include the delivered actual cost of those materials stockpiled and stored in accordance with the Section 90-08 PAYMENT FOR MATERIALS ON HAND. From the amount of partial payment so determined, there shall be deducted an amount up to ten percent of the cost of the completed work which shall be retained until all conditions necessary for financial closeout of the project are satisfied. The amount of the estimate approved as due for payment will be vouchered by the Department and presented to the State Comptroller for payment. No amount less than \$1,000.00 will be approved for payment other than the final payment.

It is understood and agreed that the Contractor shall not be entitled to demand or receive partial payment based on quantities of work in excess of those provided in the proposal or covered by approved change orders, except when such excess quantities have been determined by the Engineer to be a part of the final quantity for the item of work in question.

No partial payment shall bind the Department to the acceptance of any materials or work in place as to quality or quantity. All partial payments are subject to correction at the time of final payment as provided in Section 90-09 ACCEPTANCE AND FINAL PAYMENT.

The failure to perform any requirement, obligation, or term of the contract by the Contractor shall be reason for withholding any progress payments until the Department determines that compliance has been achieved. Furthermore, progress payments may be reduced by liens filed pursuant to Section 23(c) of the Mechanics Lien Act, 770 ILCS 60/23(c).

In accordance with 49 USC § 47111, the Department will not make payments totaling more than 90 percent of the contract until all conditions necessary for financial closeout of the project are satisfied.

90-10 TRUST AGREEMENT OPTION.

DELETE: The entire section.

SECTION III

Special Provisions

For

CONSTRUCT ENGINEERED MATERIALS ARRESTING SYSTEM (EMAS) PHASE 3B – RUNWAY 34 END (16 DEPARTURE END) INCLUDING RUNWAY 16/34 OFA/RSA IMPROVEMENTS AND SITEWORK

ILLINOIS PROJECT: PWK-4182 S.B.G. PROJECT: 3-17-0018-B48

At

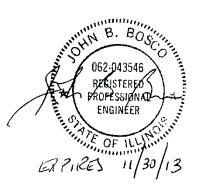
CHICAGO EXECUTIVE AIRPORT WHEELING/PROSPECT HEIGHTS, ILLINOIS

April 19, 2013

Prepared By:



CRAWFORD, MURPHY & TILLY, INC. CONSULTING ENGINEERS 550 N. COMMONS DRIVE, SUITE 116 AURORA, ILLINOIS 60504 http://www.cmtengr.com



ITEM # AR800208 ZODIAC ARRESTING SYSTEMS - ESCO 2239 HIGH HILL ROAD LOGAN TOWNSHIP, NEW JERSEY 08085 http://www.zodiacaerospace.com

11290-03-00

GENERAL

These Special Provisions, together with applicable Standard Specifications, Rules and Regulations, Contract Requirements for Airport Improvement Projects, Payroll Requirements and Minimum Wage Rates which are hereto attached or which by reference are herein incorporated, cover the requirements of the State of Illinois, Department of Transportation, Division of Aeronautics for the construction of the subject project at the Chicago Executive Airport, Wheeling/Prospect Heights, Illinois.

GOVERNING SPECIFICATIONS AND RULES AND REGULATIONS

The "Illinois Standard Specifications for Construction of Airports", dated April 1, 2012, State of Illinois Department of Transportation, Division of Aeronautics shall govern the project except as otherwise noted in these Special Provisions. In cases of conflict with any part or parts of said specifications, the said Special Provisions shall take precedence and shall govern. When noted within the Special Provisions, the Illinois Department of Transportation "Standard Specifications for Road and Bridge Construction", Adopted January 1, 2012, shall also apply.

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DIVISION I – GENERAL PROVISIONS

SECTION 40 – SCOPE OF WORK

40-05 MAINTENANCE OF TRAFFIC

ADD:

The Contractor shall be responsible for cleaning and maintaining all haul roads and use a pick-up type sweeper on all pavements and adjacent roadways utilized in hauling operations when material is tracked onto said pavement. <u>The Contractor shall have a sweeper on site and maintain all</u> **pavements clear of dirt and debris at all times or as requested by the Resident Engineer.** If the Contractor fails to comply with the Standard Specifications, Contract Plans or these Special Provisions concerning traffic control, the Resident Engineer shall execute such work as may be deemed necessary to correct deficiencies and the cost thereof shall be deducted from compensation due or which may become due the Contractor under the contract. The Contractor shall be responsible for supplying, maintaining and moving all barricades required for construction. The cost thereof shall <u>not</u> be paid for separately, but shall be considered incidental to the contract unit prices.

The Airport Manager, following consultation with the Resident Engineer, will give proper notice to the nearest Flight Service Station and the Airways Facilities Chief of the Federal Aviation Administration prior to the beginning of construction. The Contractor shall furnish a flagger in radio control with the Air Traffic at any time the active taxiways or airfield pavement are crossed or used for a haul road. The Contractor shall supply his own radios. The cost thereof shall <u>not</u> be paid for separately, but shall be considered incidental to the contract unit prices.

40-09 AIRPORT OPERATIONS DURING CONSTRUCTION

ADD:

a. Construction Activity and Aircraft Movements

For construction activity to be performed in areas other than active operational areas, the storage and parking of equipment and materials, when not in use or about to be installed, shall not encroach upon active operational areas. In protecting operational areas, the minimum clearances maintained for runways shall be in conformance with Part 77 of the Federal Aviation Regulations.

All construction operations shall conform to the plans and in accordance with AC 150/5370-2 (Latest Edition) <u>Operational Safety on Airports During Construction</u>.

- b. Limitations On Construction
 - (1) Open flame welding or torch cutting operations shall be prohibited, unless adequate fire and safety precautions are provided.
 - (2) Open trenches, excavations and stockpiled material near any pavements shall be prominently marked with red flags and lighted by light units during hours of restricted visibility and/or darkness.
 - (3) Stockpiled material shall be constrained in a manner to prevent movement resulting from aircraft blast or wind conditions.
 - (4) The use of explosives shall be prohibited.

- (5) Burning shall not be allowed.
- c. Debris

Waste and loose material capable of causing damage to aircraft landing gears, propellers, or being ingested in jet engines shall not be placed on active aircraft movement areas. Material tracked on these areas shall be removed continuously during the work project. The Contractor shall provide garbage cans in employee parking areas and storage areas for debris.

SECTION 50 - CONTROL OF WORK

50-10 INSPECTION OF WORK

ADD:

The Contractor shall provide portable flood lighting for nighttime construction. Sufficient units shall be provided so that work areas are illuminated to a level of five horizontal foot candles. The lighting levels shall be calculated and measured in accordance with the current standards of the Illumination Engineering Society. Lights shall be positioned so as not to interfere with Airport operations.

50-12 LOAD RESTRICTIONS

ADD:

Contractor's use of the existing airfield and perimeter pavements by equipment and loaded trucks shall be minimized. Any damage to existing airfield and perimeter pavements shall be repaired by the Contractor at his own expense to the satisfaction of the Owner. Contractor shall obtain written permission from the Airport Owner to use any airfield pavements.

50-18 PLANS AND WORK DRAWINGS

DELETE:

References to "approval" in first paragraph and replace with "review".

REVISE the fifth paragraph to read:

Shop drawings submitted by the Contractor for materials and/or equipment to be provided as a part of the contract shall be reviewed by the Project Engineer for substantial conformance of said materials and/or equipment, to contract requirements. Shop drawings shall be fully descriptive, complete and of sufficient detail for ready determination of compliance.

REVISE the last paragraph to read:

The following information shall be clearly marked on each shop, working, and layout drawing, catalog cut, pamphlet specifications sheet, etc., submitted.

| PROJECT LOCATION: | Chicago Executive Airport |
|-------------------|---|
| PROJECT TITLE: | Construct Engineered Materials Arresting System (EMAS) Phase 3b – Runway 34 End (16 Departure End) Including Runway 16/34 OFA/RSA Improvements and Sitework. |
| PROJECT NUMBERS: | IL Project: PWK-4182 SBG Project: 3-17-0018-B48 |
| CONTRACT ITEM: | (i.e. AR 156520 Inlet Protection) |
| SUBMITTED BY: | (Contractor/Subcontractor Name) |
| DATE: | (Date Submitted) |

SECTION 60 – CONTROL OF MATERIALS

60-01 SOURCE OF SUPPLY AND QUALITY REQUIREMENTS

ADD: After the last paragraph

The Contractor shall certify all materials contained in the contract. Certification documentation shall be submitted to the Engineer. It shall be the sole responsibility of the Contractor to ensure the delivery of adequate and accurate documentation prior to the delivery of the materials.

If, upon delivery and incorporation of any materials, the Contractor has failed to provide the necessary submittals as required by Sections 50-18, 60-01, 60-03 and 60-11 of the Standard Specifications and Special Provisions, the pay item shall not be included on the Construction Progress Payment report until such submittals have been furnished.

60-03 CERTIFICATION OF COMPLIANCE

ADD:

Additional requirements are specified in Section 60-11 Certification of Materials.

60-11 CERTIFICATION OF MATERIALS

ADD:

The Contractor shall certify all materials incorporated into the contract. Certification documentation shall be submitted to the Resident Engineer. It shall be the <u>sole</u> responsibility of the Contractor to ensure the submittal of adequate and accurate documentation in order to satisfy the contract material certification requirements <u>prior</u> to the delivery of the materials. Materials without certification or those with certification that demonstrates the materials do not meet the requirements of the plans and specifications shall be considered nonconforming and subject to the provisions of Section 50-02.

As a guide to the certification process and requirements, the Contractor shall use the Illinois Department of Transportation/Division of Aeronautics <u>MANUAL FOR DOCUMENTATION OF</u> <u>AIRPORT MATERIALS</u> dated April 1, 2010 or latest edition including any addendums. Copies of this manual are available by contacting Mr. Mike Wilhelm-Division of Aeronautics at (217) 785-4282 or from their website at http://www.dot.state.il.us/aero/aviamanual.html.

The cost of providing the required material documentation and certifications shall <u>not</u> be paid for separately, but shall be considered incidental to the associated item.

SECTION 70 – LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC

70-17 CONTRACTOR'S RESPONSIBILITY FOR UTILITY SERVICE AND FACILITIES OF OTHERS

ADD:

Special care shall be taken on all operations and particularly near pavement edges to avoid damage to edge lights and all underground electrical cable on the airport. The approximate location of existing underground cable is shown on drawings. Any airfield lights or cable that are broken and require replacement because of the Contractor's operations will be replaced by the contractor at his own expense.

Any airfield cable repairs or replacement to any part of the electrical system made necessary by the Contractor's operations will be made by him in the manner specified in Sections 108 and 125 at no cost to the airport. Cost of replacement to be borne by the Contractor shall include any expense incurred in locating as well as repairing or replacing damaged parts of the system by the owning agency.

It shall be the Contractor's responsibility to locate and protect all airport-owned utilities within the construction limits. This includes all electrical cables, storm sewer, drain tile, sanitary sewer and water main.

Special attention is necessary when working near FAA power and control cables. Any FAA utility that is damaged or cut during construction shall be repaired immediately. FAA requires that any damaged cable be replaced in its entirety, from power/control source to the equipment/service. Splices of any kind will not be permitted. Exposures of any FAA cables must be done by hand digging or hydro-excavation. No additional compensation will be made for locating, replacement or repair of FAA facilities or cables but, shall be incidental to the contract.

When FAA cables are required to be located, or the contractor is planning on working on or around FAA cables, conduits or equipment, a 10 working day advanced notice shall be given to the FAA before any such markings are required. Once FAA marks the cables, the contractor will be required to survey the FAA utilities so they can be replaced during construction without remarking by the FAA. This shall be incidental to the contract. The FAA personnel are only available from 9 am to 3 pm, Monday through Friday with advanced notice.

Should any utilities or cables require location, the following people shall be contacted:

| Utility Service or Facility | Contact (Person) | Contact (Phone) |
|--|---|-----------------|
| AT&T – Telephone Cables | J.U.L.I.E. (Joint Utility Locating Information for Excavators) | 1-800-892-0123 |
| ComEd - Electric Cables | J.U.L.I.E. (Joint Utility Locating Information for Excavators) | 1-800-892-0123 |
| City Of Prospect Heights Water, Sanitary and Storm Sewer | Operations and Maintenance – City of Prospect Heights | 1-847-459-0588 |
| NICOR - Gas Lines | J.U.L.I.E. (Joint Utility Locating Information for Excavators) | 1-800-892-0123 |
| FAA Control and Communication Cables | FAA Sector Office | 1-630-587-7801 |
| Illinois-American Water Company – Water, Sanitary and Storm Sewer | Supervisor of Construction | 1-630-739-8810 |
| Village of Wheeling – Water, Sanitary and Storm Sewer | Operations and Maintenance | 1-847-459-2985 |
| Metropolitan Water Reclamation District of Greater Chicago | Field Office Personnel | 1-708-588-4055 |
| Miscellaneous Communication Cables | Signature Flight Group Al Palicki | 1-847-537-1200 |
| | Atlantic Aviation Mike Kurgan | 1-847-808-0812 |

CHICAGO EXECUTIVE AIRPORT

SECTION 80 – PROSECUTION AND PROGRESS

80-03 NOTICE TO PROCEED

ADD:

The Notice to Proceed will not be given until all materials are certified by the Contractor to be available and on hand and meeting the Buy American requirements per the Contract Documents.

80-05 LIMITATION OF OPERATIONS

ADD:

The Contractor shall not have access to any part of the active airfield (aprons, runways or taxiways) for any equipment or personnel without approval of the Airport Manager.

80-07 TEMPORARY SUSPENSION OF THE WORK

REVISE the second paragraph to read:

In the event that the Contractor is ordered by the Engineer to suspend work for some unforeseen cause not otherwise provided for in the contract and over which the Contractor has no control, the Contractor may be reimbursed for actual money expended on the work during the period of shutdown. No allowance will be made for anticipated profits. The period of shutdown shall be

computed from the effective date of the Engineer's order to suspend work to the effective date of the Engineer's order to resume the work. Claims for such compensation shall be filed with the Resident Engineer within the time period stated in the Engineer's order to resume work. The Contractor shall submit with his/her claim information substantiating the amount shown on the claim. The Resident Engineer will forward the Contractor's claim to the Division for the consideration in accordance with local laws or ordinances. No provision of this article shall be construed as entitling the Contractor to compensation for delays due to inclement weather, for suspension made at the request of the Engineer, or for any other delay provided for in the contract, plans, or specifications.

SECTION 90 – MEASUREMENT AND PAYMENT

90-05 PAYMENT FOR EXTRA AND FORCE ACCOUNT WORK

ADD the following to subsection B.7. <u>Statements</u>:

All statements of the cost of force account work shall be furnished to the Engineer not later than 60 days after completion of the force account work. If the statement is not received within the specified time frame, all demands for payment for the extra work are waived and the Division, Airport Owner and Local Sponsor are released from any and all such demands. It is the responsibility of the Contractor to ensure that all statements are received within the specified time regardless of the manner or method of delivery.

DIVISION II – PAVING CONSTRUCTION DETAILS

ITEM 150510 - ENGINEER'S FIELD OFFICE

<u>150-2.1</u>

REVISE:

Paragraph (G) to the following:

(G) One (1) electric water cooler dispenser capable of dispensing cold and hot water and a supply of water bottles as needed.

Paragraph (I) to the following:

(I) One (1) dry process copy machine (including maintenance and operating supplies) capable of both collating and reproducing prints up to a half size (11"X 17") and capable of copying field books.

ADD:

- (N) One first-aid cabinet fully equipped.
- (O) One (1) 800 Watt, 0.8 cubic foot microwave oven.
- (P) One (1) Coffee Maker
- (Q) Solid waste disposal consisting of two (2) 28-quart waste baskets and an outside trash container of sufficient size to accommodate a weekly provided pick-up service.
- (R) One (1) internet access account for use by the Engineer with a minimum advertised download speed of up to 768 Kbps and a minimum advertised upload speed of up to 384 Kbps. The type of internet access chosen by the Contractor shall allow for simultaneous use of the internet connection, landline telephone, and facsimile machine. Any required modems, broadband cards or other equipment needed for connecting a desktop or laptop computer to the type of internet connection selected by the Contractor shall also be provided by the Contractor.

BASIS OF PAYMENT

<u>150-3.1</u>

DELETE the second sentence of the second paragraph of this section.

Payment will be made under:

ITEM AR150510 ENGINEER'S FIELD OFFICE – PER LUMP SUM.

ITEM 150520 - MOBILIZATION

BASIS OF PAYMENT

<u>150-3.1</u>

ADD:

Payment will be made under:

ITEM AR150520 MOBILIZATION – PER LUMP SUM.

ITEM 152 – EXCAVATION AND EMBANKMENT

DESCRIPTION

<u>152-1.1</u>

ADD:

All excess excavation material shall be hauled offsite at no additional cost to the contract.

Compaction control tests shall be in accordance with ASTM D 1557 (Modified Proctor) for aircraft weights of 60,000 pounds or more.

152-1.2 CLASSIFICATION

DELETE the second, third and fourth paragraphs.

152-1.3 CLEAN CONSTRUCTION OR DEMOLITION DEBRIS

PROJECT CONDITIONS

- A. Prior to bidding, the bidder shall make a site visit to become familiar with the current conditions. He shall also determine the accessibility and assess safety measures that will be necessary to perform the contract work.
- B. Material Sampling and Analysis:
 - 1. One (1) soil sample/material sample has been performed at the project site for this contract and is included in Appendix B.
 - 2. The Contractor shall provide his own sampling and analysis as required, and in compliance with applicable laws, prior to offsite disposal of all materials. This costs shall be borne by the Contractor at no additional expense to the Owner

REGULATORY REQUIREMENTS

- A. The Contractor shall comply with all applicable local, state and federal laws and regulations with regard to material removal, handling and disposal, and shall pay all assessed costs and fees.
- B. The Contractor shall comply with the Illinois Environmental Protection Act, as amended by Public Act 096-1416 that was signed in to law on July 30, 2010, Public Act 097-0137 that was signed in to law on July 14, 2011, and all applicable amendments of the Illinois Environmental Protection Act.

SUBMITTALS

- A. Contractor shall submit a Construction or Demolition Debris (CCDD) & Soil Removal and Disposal Plan to the Engineer. Submit the following as a minimum:
 - 1. A list of all construction or demolition debris anticipated to be generated requiring disposal.
 - 2. The anticipated quantity (both in tons and in cubic yards) of construction or demolition debris to be disposed of and identification of disposal facility including address and contact information.
 - 3. The anticipated quantity (both in tons and in cubic yards) of surplus soil to be disposed of, and identification of disposal facility including address and contact information.

If further CCDD testing is deemed necessary by the Contractor and/or by the Contractor's chosen disposal facility, as a minimum, the Contractor shall submit the following:

- 1. Proposed Testing Program to establish that the surplus soil is uncontaminated, for compliance with the requirements of the Illinois Environmental Protection Act. Include details of intended testing program, and rate of sampling (number of samples based on total quantity of surplus soil generated).
- 2. Credentials of the testing Lab that will perform the testing, and credentials of the Illinois Licensed Professional Engineer or Illinois Licensed Professional Geologist that will complete all required certification forms.
- 3. Results of the Proposed Testing Program.

GENERAL

- A. The following work shall be included:
 - 1. Removal, handling and legal offsite disposal of all construction or demolition debris generated from all contract work, considering it to be clean construction or demolition debris (CCDD).
 - 2. Removal, handling and legal offsite disposal of surplus soil generated from all contract work, considering it to be uncontaminated.
 - 3. Debris and surplus soil disposal shall include any onsite drying of the material as required, so that the material will pass the paint-filter test as per Method 9095B in USEPA's publication SW 846, prior to transportation.
 - 4. Any costs and fees for legally-permitted-facilities accepting clean construction or demolition debris (CCDD), and/or uncontaminated surplus soil.
 - 5. Additional sampling and testing of surplus soil to establish that it is uncontaminated, and certification to that effect by an Illinois Licensed Professional Engineer or an Illinois Licensed Professional Geologist using Form LPC-663, both as required by law and as required by the site accepting the material.
 - 6. Any other applicable work, costs and fees as required by local, state and federal laws.

MATERIAL CHARACTERIZATION FOR OFFSITE DISPOSAL

A. Costs for any and all additional testing, sampling, laboratory analysis or any other document that is required by the recipient of the material (disposal site) to establish that the material is uncontaminated, shall be borne by the Contractor at no additional expense to the Owner.

CONSTRUCTION METHODS

152-2.2 EXCAVATION

ADD: The 9th paragraph of this section to read:

In cut areas, not requiring porous granular embankment, the top 8" of subgrade shall be compacted to a density of not less than the percentage of the maximum dry density, at optimum moisture, shown in Table 1 as determined by the compaction control tests cited in Division VII for ASTM-1557 (Modified Proctor) for aircraft weights of 60,000 pounds or more. In cut areas, where abandoned utilities, including duct bank, gas pipe lines, fuel lines, water mains and sewer pipe are encountered, the utilities shall be removed. The cost of removal shall be considered incidental unless it is specifically called out for removal on the plan sheets.

In cut areas, requiring the use of porous granular embankment, the proposed subgrade shall be compacted to the satisfaction of the Resident Engineer.

152-2.10 TOPSOIL

DELETE: The 5th paragraph of this section and REPLACE with:

Any excess excavation material shall be hauled offsite at no additional cost to the contract.

152-2.15 DUST CONTROL WATERING

ADD:

This work shall consist exclusively of the control of dust resulting from construction operations and is not intended for use in the compaction of earth embankment.

Dust shall be controlled by the uniform application of sprinkled water and shall be applied as directed by the Resident Engineer, in a manner meeting his approval.

Dust control watering shall not be paid for separately, but shall be considered incidental to the contract.

METHOD OF MEASUREMENT

<u>152-3.2</u>

DELETE: This section.

<u>152-3.3</u>

DELETE: This section.

BASIS OF PAYMENT

<u>152-4.1</u>

DELETE: This section.

<u>152-4.2</u>

DELETE: This section.

<u>152-4.3</u>

DELETE: This section.

<u>152-4.4</u>

DELETE: This section.

<u>152-4.5</u>

ADD:

Payment will be made at the contract unit price per cubic yard measured in initial position for "Unclassified Excavation". This price shall be full compensation for furnishing all materials, and for labor, equipment, tools and incidentals necessary to satisfactorily complete the item.

Clean Construction or Demolition Debris (CCDD) removal and disposal, topsoil placement, shoulder fill and embankment fill shall not be paid for separately, but shall be included in the unit bid price for "Unclassified Excavation".

Removal of existing electrical cable, electrical duct bank or conduit, sewer or water main when in conflict with excavation shall not be paid for separately, unless specifically called out for on the plans, but shall be considered incidental to "Unclassified Excavation".

Payment will be made under:

ITEM AR152410 UNCLASSIFIED EXCAVATION – PER CUBIC YARD.

ITEM 152540 – SOIL STABILIZATION FABRIC

BASIS OF PAYMENT

<u>152-5.1</u>

ADD:

Payment will be made under:

ITEM AR152540 SOIL STABILIZATION FABRIC – PER SQUARE YARD.

ITEM 156000 - EROSION CONTROL

MATERIALS

156-2.4 TEMPORARY MULCH

ADD:

Temporary mulch shall be light-duty hydraulic mulch.

156-2.6 TEMPORARY DITCH CHECKS

ADD:

At the Contractor's option, urethane foam/geotextile ditch checks meeting the requirements per Section 1081.15 (i) of the IDOT "Standard Specifications for Road and Bridge Construction", latest edition may be used.

CONSTRUCTION METHODS

156-3.7 INLET PROTECTION

ADD:

Inlet filter sediment traps shall be placed in all proposed and existing inlets and catch basins as shown on the plans or as directed by the Resident Engineer.

<u>156-3.8</u>

ADD:

In the event that temporary erosion and pollution control measures are ordered by the Engineer due to the Contractor's negligence or carelessness, the work shall be performed by the Contractor at no additional cost to the Owner.

METHOD OF MEASUREMENT

<u>156-4.2</u>

DELETE: This section.

<u>156-4.3</u>

REVISE: This section to read:

Temporary Seeding and Temporary Mulching shall not be measured for payment, but shall be considered incidental to the contract.

<u>156-4.4</u>

DELETE: This section.

BASIS OF PAYMENT

<u>156-5.1</u>

REVISE: This section to read:

Payment will be made at the contract unit price per linear foot of Silt Fence, at the contract unit price per each for Ditch Check and at the contract unit price per each for Inlet Protection. This price shall be full compensation for furnishing all materials for all preparation and installation of these materials, including excavation, placement, tie-down stakes, staples, maintenance and removal and for all labor, equipment, tools, and incidentals necessary to complete this item.

Temporary seeding and temporary mulching shall not be measured for payment. It shall be considered incidental to the contract.

Payment will be made under:

| ITEM AR156510 | SILT FENCE – PER LINEAR FOOT. |
|---------------|-------------------------------|
| ITEM AR156511 | DITCH CHECK – PER EACH. |
| ITEM AR156520 | INLET PROTECTION – PER EACH. |

ITEM 208 – AGGREGATE BASE COURSE

DESCRIPTION

208-1.1

REVISE: This section to read:

This item shall consist of porous granular embankment composed of coarse aggregate as specified. It shall be constructed on a prepared subgrade underlying course in accordance with these specifications and shall conform to the dimensions and typical cross section and to the lines and grades as shown on the plans.

This work shall also consist of furnishing and placing porous granular embankment as the field conditions warrant at the time of construction. This material is intended to repair soft subgrade as determined by the Resident Engineer based on results of geotechnical testing and/or proof roll. No adjustment in unit price will be allowed for an increase or decrease in quantities. Excavation of the soft subgrade shall be not be paid for under Item 208 but shall be paid for under Item 152 Unclassified Excavation.

MATERIALS

208-2.1 UNCRUSHED COARSE AGGREGATE

DELETE: This Entire Section.

208-2.3 GRADATION

DELETE: This Entire Section.

ADD:

The material shall be free from vegetable matter, lumps or clay, and other objectionable or foreign substance.

When submitting materials for consideration, the Contractor shall provide written certification that the material meets the specified requirements. A written gradation shall also be furnished.

Gradation for Porous Granular Embankment shall be as follows:

(a) Crushed Stone and Crushed Concrete

| Sieve Size | Percent Passing |
|------------|-----------------|
| *4" | 90 <u>+</u> 10 |
| 2" | 50 <u>+</u> 25 |
| #200 | 0 <u>+</u> 10 |

(b) Gravel or Crushed Gravel

| Sieve Size | Percent Passing |
|------------|-----------------|
| *4" | 90 <u>+</u> 10 |
| 2" | 60 <u>+</u> 25 |
| #4 | 40 <u>+</u> 25 |
| #200 | 5 <u>+</u> 5 |

*For fills greater than 18", sieve size may be 6".

CONSTRUCTION REQUIREMENTS

208-3.2 PREPARING UNDERLYING COURSE

DELETE: This Entire Section.

208-3.3 METHODS OF PRODUCTION

DELETE: This Entire Section.

208-3.4 PLACING

DELETE: This Entire Section.

ADD:

The porous granular embankment shall be placed in lifts no greater than one (1) foot thick or as directed by the Resident Engineer.

208-3.5 FINISHING AND COMPACTING

DELETE: Fifth sentence, first paragraph.

ADD:

Rolling the top of the aggregate material with a vibratory roller meeting the requirements of Section 1101 of the IDOT *Standard Specification for Road and Bridge Construction* should be sufficient to obtain the desired keying, interlocking and necessary compaction. The Resident Engineer shall verify that adequate keying and interlocking has been obtained. The base shall be compacted to the satisfaction of the Resident Engineer.

Capping aggregate will not be required when embankment meeting the requirements of Section 209 of the Standard Specifications or granular subbase is placed on top of the porous granular embankment. Capping aggregate (two (2) inch depth) meeting the requirements of Section 209 of the Standard Specifications will be required when embankment meeting the requirements of Section 152 of the Standard Specifications is placed on top of the porous granular embankment.

DELETE: Second paragraph.

DELETE: Second sentence, third paragraph and REPLACE with:

When the rolling develops irregularities that exceed 3/8 inch when tested using an acceptable method, the irregular surface shall be loosened, refilled with the same kind of material as that used in constructing the course, and rolled again as required.

METHOD OF MEASUREMENT

<u>208-4.1</u>

DELETE: This Entire Section.

<u>208-4.2</u>

DELETE: This Entire Section.

ADD:

The quantity of Porous Granular Embankment shall be the number of cubic yards as measured by the Engineer at the specified thickness of the material placed. If required, the thickness of PGE measured for payment will include the thickness of the capping stone.

The porous granular embankment shall be used as shown and as field conditions warrant at the time of construction. No adjustment in unit price will be allowed for an increase or decrease in quantities.

The Contractor shall furnish approved duplicate load tickets upon which is recorded the net weight of the aggregates in each truck. The Contractor shall submit one (1) load ticket to the Resident Engineer, or his/her duly authorized representative, at the job site when the truck load is incorporated into the base.

<u>208-4.3</u>

DELETE: This Entire Section.

BASIS OF PAYMENT

<u>208-5.1</u>

DELETE: Entire Section.

ADD:

Payment for porous granular embankment shall be paid for at the contract unit price per cubic yard, of which price shall be full compensation for the two (2) inch capping stone (if necessary), furnishing, spreading, compacting, watering and all incidentals related to equipment, labor and tools necessary to complete this work.

Payment will be made under:

ITEM AR208515 POROUS GRANULAR EMBANKMENT – PER CUBIC YARD.

ITEM 209 – CRUSHED AGGREGATE BASE COURSE

MATERIALS

209-2.1 CRUSHED COARSE AGGREGATE

DELETE: Gradation "C" in Table 1.

CONSTRUCTION METHODS

209-3.4 FINISHING AND COMPACTING

ADD:

The new 6" crushed aggregate base course shall be compacted to not less than 100% of maximum density at optimum moisture as determined by compaction control tests specified in Division VII for aircraft with gross weights of 60,000 lbs. and more (Modified Proctor ASTM D1557).

The Contractor shall submit copies of all density test results for each lift to the Resident Engineer prior to acceptance testing.

DELETE: Second sentence, third paragraph and REPLACE with:

When the rolling develops irregularities that exceed 3/8 inch when tested using an acceptable method, the irregular surface shall be loosened, refilled with the same kind of material as that used in constructing the course, and rolled again as required.

209-3.7 SURFACE GRADE ACCURACY

REVISE: The first sentence to read as follows:

After the course has been compacted, the surface shall be checked for accuracy of grade and crown and shall not vary by more than 3/8 inch from the surface elevations shown on the plans or authorized by the Engineer.

METHOD OF MEASUREMENT

<u>209-4.1</u>

DELETE: This Entire Section.

<u>209-4.2</u>

DELETE: This Entire Section.

ADD:

The Crushed Aggregate Base Course – 8" and Crushed Aggregate Base Course – 10" will be measured by the square yard of the thickness specified in place, completed and accepted. The Contractor shall furnish approved duplicate load tickets upon which is recorded the net weight of the aggregates in each truck. The Contractor shall submit one (1) load ticket to the Resident Engineer, or his/her duly authorized representative, at the job site when the truck load is incorporated into the base.

<u>209-4.3</u>

DELETE: This Entire Section.

BASIS OF PAYMENT

<u>209-5.1</u>

DELETE: Entire Section.

ADD:

Payment shall be made at the contract unit price per square yard for Crushed Aggregate Base Course - 8" and Crushed Aggregate Base Course - 10". This price shall be full compensation for furnishing all materials and for all preparation, hauling, and placing of these materials, and for all labor, equipment, tools and incidentals necessary to complete the item.

Payment will be made under:

ITEM AR209608CRUSHED AGG. BASE COURSE - 8" - PER SQUARE YARD.ITEM AR209610CRUSHED AGG. BASE COURSE - 10" - PER SQUARE YARD.

ITEM 401 – BITUMINOUS SURFACE COURSE - SUPERPAVE (METHOD I)

(Central Plant Hot Mix)

COMPOSITION

401-3.2 JOB MIX FORMULA

ADD: The following after the third paragraph of this section:

Table 1 Superpave Design Criteria for Aircraft over 60,000 pounds (Runway or Taxiway) shall apply.

CONSTRUCTION METHODS

401-4.12 JOINTS

ADD: The following as the sixth paragraph of this section:

If at any time during the surface course paving operation, it becomes necessary to end a paving lane at a location other than the new finished pavement edge because of ending a day's paving, machinery breakdown, etc., the lane end will be sawed back a sufficient distance to provide a smooth, neat appearing joint from which to resume paving. The sawed face will be painted with a tack coat and this work shall be considered incidental to Item 401, Bituminous Surface Course, and no additional compensation will be allowed.

401-4.14 SHAPING EDGES

ADD: The following as the second paragraph for this section:

All pavement edges, including the pavement ends, must be left in proper alignment, as shown on the plans. This may be accomplished by a trimming method, or, at the Contractor's option, by sawing after the paving has been completed. No additional compensation will be made if the sawing method is used.

401-4.15 ACCEPTANCE TESTING OF HMA MIXES FOR DENSITY

DELETE: All references to Method II for quantities over 2,500 tons.

BASIS OF PAYMENT

<u>401-6.1</u>

Payment will be made under:

ITEM AR401610 BITUMINOUS SURFACE COURSE – PER TON.

ITEM 401650 – BITUMINOUS PAVEMENT MILLING

DESCRIPTION

<u>401-1.1</u>

ADD:

The material removed shall be disposed of off airport property by and at no additional cost to the contract.

CONSTRUCTION METHODS

<u>401-3.1</u>

ADD:

The existing pavement areas to be milled shall be done in such a manner as to prevent damage to the adjacent structures and pavement. All edges adjacent to existing pavements shall be saw-cut full depth of the removal depth prior to removal as directed by the Engineer.

The Contractor shall use caution and exercise care to avoid damage to the existing subgrade by the bituminous milling operations. Excessive construction traffic on the milled pavement areas shall be avoided in the removal areas and any damage or undercutting necessary to repair failed subgrade areas shall be repaired by the Contractor and the cost of the repairs shall be considered incidental to the Bituminous Pavement Milling item.

BASIS OF PAYMENT

<u>401-5.1</u>

ADD:

Payment will be made under:

ITEM AR401650 BITUMINOUS PAVEMENT MILLING – PER SQUARE YARD.

ITEM 401900 – REMOVE BITUMINOUS PAVEMENT

DESCRIPTION

<u>401-1.1</u>

ADD: To the second sentence.

The type of material to be removed along with approximate typical pavement section is shown on the plans. Pavement structure information was taken from airport records, data supplied by airport personnel and soil borings. The Contractor shall verify the type and thickness of material to be removed. <u>No extra compensation will be allowed for any variations in the pavement sections actually encountered.</u>

CONSTRUCTION METHODS

<u>401-2.1</u>

ADD:

Any damage to the pavement beyond the limits as shown on the plans shall be removed and replaced by the Contractor at his expense. These areas shall be saw cut to a uniform width.

METHOD OF MEASUREMENT

<u>401-3.1</u>

ADD:

If pavement or subgrade material is removed due to negligence on the part of the Contractor, the additional quantity of pavement removal and replacement of subgrade material will <u>not</u> be measured for payment.

BASIS OF PAYMENT

<u>401-5.1</u>

ADD:

Any grading and recompacting of existing granular base course to proper grade shall not be paid for separately but shall be considered incidental.

Any leveling aggregate required to obtain the proper subgrade elevation in areas of bituminous pavement removal shall be considered incidental to HMA pavement removal.

Payment will be made under:

ITEM AR401900 REMOVE BITUMINOUS PAVEMENT – PER SQUARE YARD.

ITEM 401910 – REMOVE AND REPLACE BITUMINOUS PAVEMENT

DESCRIPTION

<u>401-1.1</u>

This item shall consist of bituminous pavement removal and replacement along with the aggregate base course under the pavement in locations as shown on the plans or as directed by the Engineer. The pavement shall be compacted in accordance with these specifications and shall conform to the lines, grades, thicknesses and typical sections as shown on the plans or as directed by the Resident Engineer.

Each course shall be constructed to the depth, section or elevation required to match the existing pavement structure and shall be rolled, finished and approved prior to the placement of the next course.

Removed material resulting from the removal and replacement operations shall be disposed of off Airport property by and at the expense of the Contractor.

MATERIALS

401910-2.1 BITUMINOUS SURFACE COURSE

The bituminous surface course shall conform to the specifications of Section 401.

401910-2.2 BITUMINOUS BASE COURSE

The bituminous base course shall conform to the specifications of Section 403.

401910-2.3 BITUMINOUS PRIME COAT

The bituminous prime coat shall conform to the specifications of Section 602.

401910-2.4 BITUMINOUS TACK COAT

The bituminous tack coat shall conform to the specifications of Section 603.

401910-2.5 CRUSHED AGGREGATE BASE COURSE

The crushed aggregate base course shall conform to the specifications of Section 209.

CONSTRUCTION METHODS

<u>401910-3.1</u>

The types of materials to be removed consist of the existing aggregate base course material, and existing bituminous pavement at the thicknesses shown on the plans. Pavement structure information was taken from airport records, data supplied by airport personnel and pavement cores. The Contractor shall verify the type and thickness of material to be removed. <u>No extra compensation will be allowed for any variations in the pavement sections actually encountered.</u>

401910-3.2

The proposed pavement replacement section shall be as specified herein. Prime coat shall be applied to the aggregate base. Tack coat shall be applied between each lift of asphalt and on all vertical faces of the patch area.



<u>401910-3.3</u>

The existing pavement areas to be removed shall be done in such a manner as to prevent damage to the adjacent pavements. All edges adjacent to existing pavements shall be saw-cut full depth prior to removal, as directed by the Resident Engineer.

<u>401910-3.4</u>

Pavement replacement will be as detailed on the plans and constructed in accordance to the applicable Sections 209, 401, 403, 602 & 603. The various materials required for pavement replacement shall be in accordance with the applicable portions of the Standard Specifications and these Special Provisions. Any damage to pavement beyond the limits as shown on the plans **shall be removed and replaced by the Contractor at his expense. These areas shall be saw cut to a uniform width.**

401910-3.5

Pavement Removal and Replacement shall be the removal of the existing pavements as shown on the plans and the replacement pavement shall match the existing pavement thickness. The replacement pavement shall consist of bituminous base course conforming to the specifications of Section 403, matching the existing pavement bituminous base course thickness, with 2" bituminous surface course conforming to the specifications of Section 401 placed as the final lift. The maximum lift thickness shall be 3". Cost of re-grading and re-compacting of the existing base shall be incidental to the pavement removal and replacement.

METHOD OF MEASUREMENT

<u>401910-4.1</u>

The area of pavement removal and replacement shall be measured by the number of square yards, satisfactorily removed, replaced and disposed of as shown on the plans or as directed by the Resident Engineer.

<u>401910-4.2</u>

If additional pavement, aggregate base course or subgrade material is removed due to negligence on the part of the Contractor, the additional quantity of pavement removal and replacement of said material will <u>not</u> be measured for payment.

401910-4.3

The aggregate removal, regrading and compaction, crushed aggregate base course, bituminous base and surface course, bituminous prime coat and bituminous tack coat will not be measured separately for payment, but will be considered incidental to Remove & Replace Bit. Pavement, per square yard.

BASIS OF PAYMENT

<u>401910-5.1</u>

Payment for Remove & Replace Bit. Pavement shall be made at the contract unit price per square yard. This price shall include full compensation for sawing, removal, disposal, replacement of asphalt and aggregate materials, compaction, prime coat, tack coat, including furnishing all materials, labor, tools, equipment and incidentals necessary to complete this item of work.

Any removal, grading and recompacting of existing granular base course to proper grade shall not be paid for separately but shall be considered incidental to Remove & Replace Bit. Pavement.

Payment will be made under:

ITEM AR401910 REMOVE & REPLACE BIT. PAVEMENT– PER SQUARE YARD.

ITEM 403 – BITUMINOUS BASE COURSE - SUPERPAVE (METHOD I)

(Central Plant Hot Mix)

COMPOSITION

403-3.2 JOB MIX FORMULA

ADD: The following after the third paragraph of this section:

Table 1 Superpave Design Criteria for Aircraft over 60,000 pounds (Runway or Taxiway) shall apply.

CONSTRUCTION METHODS

403-4.11 JOINTS

ADD: The following paragraph to this section:

At any time during the base course paving operation it becomes necessary to end a paving lane at a location other than the proposed finished pavement edge because of ending a day's paving, machinery breakdown, etc.; the lane end will be sawed back a sufficient distance to provide a smooth, neat appearing joint from which to resume paving. The sawed face will be painted with a tack coat and this work shall be considered incidental to Item 403 Bituminous Base Course, and no additional compensation will be allowed.

403-4.12 SHAPING EDGES

ADD:

All pavement edges, including the pavement ends, must be left in proper alignment as shown on the plans. This may be accomplished by a trimming method or at the Contractor's option by sawing after the paving has been completed. No additional compensation will be made if the sawing method is used.

401-4.13 ACCEPTANCE TESTING OF HMA MIXES FOR DENSITY

DELETE: All references to Method II for quantities over 2,500 tons.

BASIS OF PAYMENT

<u>403-6.1</u>

Payment will be made under:

ITEM AR403610 BITUMINOUS BASE COURSE – PER TON.

ITEM 602 – BITUMINOUS PRIME COAT

CONSTRUCTION METHODS

602-3.3 APPLICATION OF BITUMINOUS MATERIAL

ADD: The following to the second paragraph:

Areas worn from hauling operations shall be re-primed at no additional cost to the Contract.

BASIS OF PAYMENT

<u>602-5.1</u>

ADD:

Payment will be made under:

ITEM AR602510 BITUMINOUS PRIME COAT – PER GALLON.

ITEM 603 – BITUMINOUS TACK COAT

CONSTRUCTION METHODS

603-3.3 APPLICATION OF BITUMINOUS MATERIAL

ADD: The following to the second paragraph:

Areas worn from hauling operations shall be re-tacked at no additional cost to the Contract.

BASIS OF PAYMENT

<u>603-5.1</u>

ADD:

Payment will be made under:

ITEM AR603510 BITUMINOUS TACK COAT – PER GALLON.

ITEM 620 – PAVEMENT MARKING

MATERIALS

620-2.2 PAINT

ADD:

All paint shall be waterborne.

The paint shall contain no lead, chromium, cadmium or barium.

CONSTRUCTION METHODS

620-3.3 PREPARATION OF SURFACE

ADD:

Existing marking that is to be re-painted shall be cleaned using sand blasting or high pressure water or other methods as approved by the Engineer to remove dirt, grease, laitance, loose or flaking paint and any paint that is not bonding at no additional cost to the contract.

620-3.9 CLEAN UP

ADD:

The Contractor shall remove from the work area all debris, waste, loose or un-adhered reflective media, and by-products generated by the surface preparation and application operations to the satisfaction of the Resident Engineer. The Contactor shall dispose of these wastes in strict compliance with all applicable state, local and federal environmental statutes and regulations.

METHOD OF MEASUREMENT

<u>620-4.1</u>

ADD:

The quantity of permanent markings to be paid for shall be the number of square feet of painting with the specified material **measured only once to apply two coats** in conformance with the specifications and accepted by the Engineer. Quantities will not be distinguished between different colors of paint.

BASIS OF PAYMENT

ADD:

Payment will be made under:

ITEM AR620520PAVEMENT MARKING – WATERBORNE – PER SQUARE FOOT.ITEM AR620525PAVEMENT MARKING – BLACK BORDER – PER SQUARE FOOT.

DIVISION III - FENCING

ITEM 162 – CHAIN LINK FENCE

MATERIALS

162-2.2 BARBED WIRE

DELETE: Entire Section. No barbed wire required.

162-2.5 WIRE TIES AND TENSION WIRE

ADD:

Coiled spring tension wire of at least 7-gauge O.D. galvanized steel wire shall be stretched along the bottom of the fence and securely fastened to the fabric with hog rings at 2 foot intervals. Fabric ties shall not be less than a 9-gauge galvanized steel wire.

CONSTRUCTION METHODS

162-3.12 FENCE AND GATE RELOCATION

ADD:

The resultant void from the removal of fence foundations or posts in turf areas shall be backfilled with compacted topsoil (hand tamped) and graded to match existing/proposed grades. Any ruts resulting from these operations shall be filled and graded smooth. No additional compensation will be made for the disposal of the non-salvageable fence materials or the filling of foundation/post holes or ruts.

BASIS OF PAYMENT

<u>162-5.6</u>

ADD:

Payment will be made under:

ITEM AR162960 RELOCATE CLASS E FENCE – PER LINEAR FOOT.

DIVISION IV – DRAINAGE

ITEM 705 – PIPE UNDERDRAINS FOR AIRPORTS

MATERIALS

705-2.5 POROUS BACKFILL

DELETE: This entire Section and REPLACE with:

Porous backfill shall be free of clay, humus, or other objectionable matter, and shall also conform to particle size specified.

Porous backfill material shall confirm to the requirements for IDOT CA-7.

705-2.12 CORRUGATED POLYETHYLENE (PE) TUBING AND IGS FITTINGS

DELETE: Any reference to "filter fabric envelope" or "sock" within this section.

705-2.13 FILTER FABRIC ENVELOPES FOR PERFORATED (PE) TUBING

DELETE: This entire Section.

705-2.15 UNDERDRAIN TRENCH ENVELOPE

ADD:

Geotechnical fabric for UD trench lining shall consist of woven or nonwoven filaments of polypropylene, polyester or polyethylene. Nonwoven fabric may be needle punched, heat-bonded, resin-bonded or combinations thereof. The filaments must be dimensionally stable (i.e., filaments must maintain their relative position with respect to each other) and resistant to delamination. The filaments must be free from any chemical treatment or coating that might significantly reduce porosity and permeability.

(a) Physical Properties. The fabric shall comply with the following physical properties: Weight oz./sq. yd. (g/m²) 3.5 (120) min. ASTM D 3776

| Grab tensile strength lbs. (N) | 100 (450) min. | ASTM D 4632 ^{1/} |
|---|------------------------------------|---------------------------|
| Grab elongation @ break (%) | 20 min. | ASTM D 4632 ^{1/} |
| Apparent opening size (AOS No.) Nonwoven Woven | 30 (600 μm) min 50 (300 μm) min | ASTM D 4751 ^{2/} |

- 1/ For woven fabric, test results shall be referenced to orientation with warp or fill, whichever the case may be. Both woven and nonwoven fabrics shall be tested wet.
- 2/ Manufacturer's certification of fabric to meet requirements.

CONSTRUCTION METHODS

705-3.3 LAYING AND INSTALLING PIPE

DELETE: References to "filter fabric sock".

ADD:

Trenches shall be lined with the underdrain trench envelope prior to placing any backfill or underdrain. A 2-foot minimum overlap of material is required where breaks in the fabric occur. The underdrain trench envelope shall be folded over the backfilled trench and weighted down with 1" to 2" of porous backfill.

BASIS OF PAYMENT

<u>705-5.1</u>

ADD:

The underdrain trench envelope shall be considered incidental to the underdrain and shall not be paid for separately.

Payment will be made under:

ITEM AR705506 6" PERFORATED UNDERDRAIN – PER LINEAR FOOT.

DIVISION V – TURFING

ITEM 901 – SEEDING

DESCRIPTION

<u>901-1.1</u>

ADD:

Restoration, seeding and mulching beyond the limits of seeding and mulching shown in the plans (such as lighting, cabling, signage, access roads, haul roads, staging area, storage area) shall be considered incidental to the contract.

MATERIALS

901-2.2 LIME

DELETE: Entire Section.

ADD:

The Contractor has the option to perform a soil test, at their expense, for the on-site or plan specified topsoil sources. If the Contractor proposes an application of lime, the proposal shall be approved by the Engineer. Lime, if used, shall be at no additional costs to the contract.

901-2.3 FERTILIZER

DELETE: The last paragraph and the fertilizer rate table.

ADD:

Fertilizer shall be applied at rates that supply the following amounts of nutrients per acre to the distributed areas of seeding:

| NUTRIENTS | POUNDS PER ACRE |
|---------------------------------|-----------------|
| Nitrogen Fertilizer Nutrients | 90 |
| Phosphorus Fertilizer Nutrients | 90 |
| Potassium Fertilizer Nutrients | 90 |
| TOTAL | 270 |

The Contractor has the option to perform a soil test, at their expense, to validate that the fertilizer rate specified is suitable for the on-site or plan specified topsoil sources. If the Contractor proposes an alternate mix ratio and weights, the proposal shall be approved by the Engineer. Alternate mix ratio and/or weights shall be at no additional costs to the contract.

CONSTRUCTION METHODS

901-3.2 DRY APPLICATION METHOD

DELETE: Paragraph C. Seeding

ADD:

Grass seed shall be sown at the rate shown in 901-2.1 with a machine that is capable of cutting a slit in the soil free from leaves and debris, placing the seed in the slit and compacting the seed into the soil of the slit in one continuous operation.

The site will be to grade and shaped to the elevations as shown on the plans. The topsoil will be free of clods, stones, roots, sticks, rivulets, gullies, crusting, caking and have a soil particle size of no larger than 1". Seedbed preparation methods shall be approved by the Engineer. Cultivation shall be accomplished at such a time that seeding may occur immediately and without delay. No seeds shall be sown until the Seedbed has been approved by the Engineer.

No seed shall be sown during high winds or when the ground is not in a proper condition for seeding, nor shall any seed be sown until the purity test has been completed for the seeds to be used, and shows that the seed meets the noxious weed seed requirements. All equipment shall be approved by the Engineer prior to being used. Prior to starting work, seeders shall be calibrated and adjusted to sow seeds at the required seeding rate. Equipment shall be operated in a manner to ensure complete coverage of the entire area to be seeded. The Engineer shall be notified forty-eight (48) hours prior to beginning the seeding operations.

901-3.3 WET APPLICATION METHOD

DELETE: Entire Section.

BASIS OF PAYMENT

<u>901-5.1</u>

ADD:

Payment will be made under:

ITEM AR901510 SEEDING – PER ACRE.

ITEM 908 – MULCHING

<u>908-1.1</u>

ADD:

Restoration, seeding and mulching beyond the limits of seeding and mulching shown in the plans (such as lighting, cabling, signage, access roads, haul roads, staging area, storage area) shall be considered incidental to the contract.

MATERIALS

908-2.1 MULCH MATERIAL

REVISE: First sentence to read:

Material used for mulching shall be (D) Hydraulic Mulch – Heavy Duty.

Chemical Mulch Binder meeting the requirements per Section 1081.06 (a) (3) of the IDOT "Standard Specifications for Road and Bridge Construction", latest edition shall be used as a mulch stabilizer.

CONSTRUCTION

908-3.1 MULCHING

ADD:

Chemical mulch binder shall be mixed and applied per the manufacturer's recommendations.

BASIS OF PAYMENT

<u>908-5.1</u>

ADD:

Chemical mulch binder shall not be paid for separately but shall be included in the unit bid price for mulching.

Payment will be made under:

ITEM AR908510 MULCHING – PER ACRE.

DIVISION VI - LIGHTING INSTALLATION

ITEM 108 – INSTALLATION OF UNDERGROUND CABLE FOR AIRPORTS

DESCRIPTION

<u>108-1.1</u>

DELETE: The 3rd sentence of the first paragraph.

ADD:

This item of work shall consist of the underground installation of 5000V and 600V cables in PVC conduit or duct bank at the locations shown on the plans and in accordance with these specifications. When crossing existing utilities or as required by the Engineer, the Contractor shall hand dig the trenches for the proposed cables.

Contractor shall color code all airfield lighting cables in ducts, manholes and handholes as directed by the Engineer. All costs of color-coding shall be considered incidental to the contract unit price for the associated item.

EQUIPMENT AND MATERIALS

108-2.1 GENERAL

ADD:

Airfield Lighting cable under this item shall be:

- L-824, 1/C #8, 5,000 V, Type C, in duct bank and conduit
- 1/C # 8 XLP-USE, 600 V cable in duct bank and conduit
- 1/C # 8 GROUND, 600V cable in duct bank and conduit

108-2.4 CABLE CONNECTIONS

DELETE: The first and second sentence of paragraph D. The Taped or Heat-Shrinked Splice.

ADD:

To further reduce the possibility of water (moisture) entrance into the connector between the cable and the field attached connector, heat shrinkable tubing with interior adhesive shall be applied over all cable connections.

The heat shrinkable tubing shall cover the entire L-823 connector. All connections shall be at manholes or light bases. No direct burial splicing will be allowed.

No splices will be allowed in the new cable unless at the end of a spool of cable. Splices due to termination points shall be done in splice cans, manholes, handholes and light cans. Any repairs necessary to cable damaged during installation shall be done at the Contractor's expense and shall consist of replacing the entire length of damaged cable between pull points.

In line connections for existing cables to be spliced or those which are cut during construction shall be repaired with the cast splice kit. The Contractor shall have a minimum of five (5) splice kits on the jobsite at all times for emergency repairs. Splice markers shall be installed over each splice in cables

not to be abandoned. Cast splice kits shall be as specified in paragraph (a). All field splices shall be covered with a flexible polyolefin heat-shrinkable sleeve.

CONSTRUCTION METHODS

108-3.1 GENERAL

ADD:

Any damages to existing utilities as a result of the Contractor's operations shall be repaired immediately at his expense.

108-3.2 INSTALLATION IN DUCT OR CONDUIT

ADD:

The Contractor shall install 2" PVC conduit in trench between lights.

The Contractor shall coordinate the cable trenching, placement and backfilling operations so that the cable will not be damaged by (a) the use of mechanized road building equipment in the area where underground cable is or will be in existence, and (b) stone or other foreign materials falling into the trench or mixing into the trench backfill materials.

108-3.3 TRENCHING

REVISE 24" to 30" in the last sentence of the second paragraph.

ADD:

The installation of PVC conduit using the plowing in method shall not be acceptable.

108-3.5 SPLICING

DELETE: The first and second paragraph of Section **<u>D. Taped or Heat-Shrinked Splices</u>**.

ADD:

Contractor shall use cast splicing kits as described in Article 108-2.4 for any splices made inside the electric handholes and manholes. The cast splicing kit shall be series 82-B1 Scotch cast or 90-B1 Scotch cast as manufactured by 3M or equal. Contractor shall provide shop drawing for splicing method and cast splicing kit. <u>Contractor shall also leave minimum 30" of slack on each side of the</u> cable being spliced.

Splicing of FAA cables shall be tested and approved by FAA.

108-3.10 LOCATING OF EXISTING CABLES

ADD:

Contact Personnel are listed in Section 70-17 herein.

108-3.11 TERMINATIONS AND CONNECTIONS

REVISE: In paragraph 3, the number of splice kits required on site from two (2) to five (5).

ADD:

If, due to the length of spool ordered by the Contractor, it is necessary to install additional handholes, the Contractor shall supply same at no additional cost to the project. The handhole shall be the size as directed by the Engineer.

METHOD OF MEASUREMENT

<u>108-4.1</u>

DELETE: This Section.

<u>108-4.2</u>

REVISE: This Section to read as follows.

The length of 1/C #8 5KV UG CABLE installed in the existing duct bank /conduit or cable installed in the proposed PVC conduit to be paid for, shall be the number of lineal feet measured in place, completed and ready for operation, and accepted as satisfactory, and no extra quantity will be allotted for any vertical distances or the required cable slack, as stated under Item 108-3.3, in the Standard Specifications. There will be a separate measurement made for each cable installed in conduit.

The length of 1/C #8 XLP-USE and 1/C #8 Ground (600V) cable installed in the existing or proposed conduit to be paid for, shall be the number of lineal feet measured in place, completed and ready for operation, and accepted as satisfactory, and no extra quantity will be allotted for any vertical distances or the required cable slack, as stated under Item 108-3.3 in the Standard Specifications.

The cost of routing the cable through duct, splicing, marking, trenching, backfilling, and all connections shall be included in the unit price bid for the cable.

The cost of removing cable as called out in the plans shall not be measured separately for payment, but shall be considered incidental to the unit bid price for the cable.

The cost of control cables between master REIL and slave REIL shall not be measures for payment, but shall be considered incidental to REIL pay item.

BASIS OF PAYMENT

<u>108-5.1</u>

REVISE: This Section to read as follows:

The cables measured under Item 108-4.2 shall be paid for under this item. These prices shall be full compensation for furnishing all materials and for all preparation and installation of these materials, trenching, backfilling and compacting trenches, all connections, line marking tape and installation, and for all labor, equipment, tools and incidentals necessary to complete these items. The line marking tape installed shall be considered incidental to the work and shall not be paid for separately.

Payment will be made under:

| ITEM AR108088 | 1/C #8 XLP-USE – PER LINEAR FOOT. |
|---------------|--|
| ITEM AR108108 | 1/C #8 5KV UG CABLE – PER LINEAR FOOT. |
| ITEM AR108758 | 1/C #8 GROUND – PER LINEAR FOOT. |

ITEM 110 – INSTALLATION OF AIRPORT UNDERGROUND ELECTRICAL DUCT

DESCRIPTION

<u>110-1.1</u>

ADD:

This item shall consist of the construction of new PVC conduit direct bury, concrete encased duct banks, split duct, electrical handholes and adjust electrical manholes, including appropriate duct markers at the locations shown in the plans or as directed by the Engineer.

Contractor shall provide pull wire for each conduit and cap the unused conduits for future use.

EQUIPMENT AND MATERIALS

110-2.9 DUCT MARKER

ADD:

The Contractor shall provide duct markers for each new or existing duct being used as detailed in the plans. The cost of installation of the duct markers shall be incidental to the contract.

Brass duct markers shall only be used at bituminous pavement locations as shown on the plans. At concrete pavement locations, the Contractor shall stamp the concrete as directed by the Engineer.

Contractor shall provide duct markers for each proposed concrete encased duct or existing duct being used as detailed in the plans. Contractor shall also replace all existing duct markers within the project concrete overlay and bituminous overlay limits as detailed in the plans. The cost of replacement and installation of the duct markers shall be incidental to the contract.

110-2.10 SPLIT DUCT

ADD:

The Contractor shall install 1-4" PVC concrete encased split duct to accommodate existing airfield cables. Split duct shall be encased in a minimum of 3" of concrete surrounding the 4" PVC split duct. The cost of routing existing cables through the new split ducts and the cost of concrete encasement shall be incidental to the price of split duct.

110-2.11 ADJUST ELECTRICAL MANHOLES

ADD:

The adjusting rings shall be pre-cast reinforced concrete and fully mortared into place, without use of shims of any type, to reach the final grade elevation. The frame must also be set in a full bed of mortar, without use of shims, and allowed to harden for 72 hours before the placing of any aggregate base or bituminous pavement. The maximum height of adjusting rings shall be eight (8) inches including existing rings for any inlet or manhole adjustment. If adjusting rings cannot obtain proposed grade as outlined above, then existing manholes shall be adjusted/reconstructed by adding or removing barrel sections, flat tops, eccentric cone sections and adjustment rings (or a combination thereof) to the manhole to be adjusted/reconstructed. The maximum number of rings in any structure is three. This may require the Contractor to remove existing rings and replace with larger rings.

Any proposed intrusions into existing FAA manholes MUST be done using approved concrete coring equipment. Breaking into the existing concrete manhole structures with sledge hammers, jack hammers or other destructive means will not be allowed.

The Contractor shall be responsible for field checking existing electrical manhole configurations for the necessary adjustments.

110-2.12 AGGREGATE BACKFILL

ADD:

Crushed aggregate material conforming to the requirements of Item 208-2.3 Gradation, Table 1 or as approved by the Engineer shall be used for backfill at the pavement crossings for the proposed duct installation. The granular material shall be compacted to not less than 95% of Modified Proctor laboratory density. In lieu of aggregate, the Contractor may substitute Controlled low strength material (CLSM) backfill for those areas requiring aggregate backfill. This substitution must be approved in writing prior to construction and must be completed at no additional cost to the contract. CLSM shall meet the requirements of IDOT *Standard Specifications for Road and Bridge Construction (latest edition)*, Section 593. The CLSM material will be considered incidental to the associated duct item.

110-2.13 ELECTRICAL HANDHOLES

ADD:

The Contractor shall install handholes at locations specified and as detailed in the plans.

CONSTRUCTION METHODS

110-3.5 BACKFILL

ADD:

Crushed Stone conforming to the requirements of Item 208 gradation shall be used for backfill at the pavement crossings for the new duct installation. The granular material shall be compacted to not less than 95% of Modified Proctor laboratory density.

METHOD OF MEASUREMENT

<u>110-4.1</u>

DELETE: This Section.

ADD:

The quantity of concrete encased duct, split duct and direct buried PVC to be paid for shall be the number of lineal feet installed, measured in place, completed, and accepted. No separate measurement will be made for individual ducts in a multi-way duct system. The cost of trench excavation and backfill shall not be measured separately for payment, but shall be considered incidental to the respective pay item associated with the work.

<u>110-4.2</u>

DELETE: This Section.

ADD:

The quantity of adjust electrical manholes to be paid for shall be the number of each adjusted in place, completed and accepted by the Engineer.

The quantity of electrical handholes to be paid for shall be the number of each installed in place, completed and accepted by the Engineer.

BASIS OF PAYMENT

<u>110-5.1</u>

DELETE: Entire Section.

ADD:

Payment will be made at the contract unit price per lineal foot for each type and size of PVC conduit, concrete encased duct and split duct completed and accepted. Payment will be made at the contract unit price per each electrical manhole adjusted, completed and accepted. Payment will be made at the contract unit price per each electrical handhole completed and accepted. These prices shall be full compensation for furnishing all materials and for all preparation, assembly, aggregate backfill, backfill, compaction, sawcutting and installation of these materials, and for all labor, equipment, tools, and incidentals necessary to complete these items.

Topsoiling and seeding of the duct, conduit trench and handholes shall not be paid for separately but shall be considered incidental to the associated duct.

Payment will be made under:

| ITEM AR110202 | 2" PVC DUCT, DIRECT BURY – PER LINEAR FOOT. |
|---------------|--|
| ITEM AR110504 | 4-WAY CONCRETE ENCASED DUCT – PER LINEAR FOOT. |
| ITEM AR110550 | SPLIT DUCT – PER LINEAR FOOT. |
| ITEM AR110610 | ELECTRICAL HANDHOLE – PER EACH. |
| ITEM AR110947 | ADJUST ELECTRICAL MANHOLE – PER EACH. |

ITEM 125 – INSTALLATION OF AIRPORT LIGHTING SYSTEMS

DESCRIPTION

<u>125-1.1</u>

ADD:

Airfield lighting improvements and modifications shall include:

- Installation of new medium intensity base mounted taxiway lights.
- Installation of new taxi guidance signs.
- Installation of new Runway End Indicator Light (REIL)
- Installation of new elevated retroreflective markers (Type 1 and Type 2).
- Installation of new splice cans.
- Adjusting existing in-pavement lights (including new fixtures).
- Removal of existing medium intensity stake and base mounted taxiway lights.

125-1.6 INSPECTION, TEST AND WARRANTY

ADD:

VISUAL EXAMINATION

The most important of all inspection and test procedures is thorough visual inspections. Visual inspections shall be made frequently during installation, at completion of installation, and before energizing the circuits. A careful visual inspection can reveal defects that can be corrected prior to acceptance tests and energization. Serious damage may occur if defects are subjected to electrical tests or energization. Visual inspections shall include appraisal of:

- (a) Correctness of external connections.
- (b) Good work performance.
- (c) Cleanliness.
- (d) Safety hazards.
- (e) Specific requirements listed herein for individual items. While all equipment manufactured under specifications pass strict factory tests prior to shipment, it shall be inspected for shipping damage immediately upon receipt.

ELECTRICAL TESTS ON SERIES LIGHTING CIRCUITS

Before modifying any series circuit, verify the performance of the existing circuit by checking the supply voltage to the regulator and measuring the output current from the regulator on all brightness steps under existing load.

- (a) For home run segments that will not be replaced, disconnect at S-1 cutout and at first fixture and verify cable continuity.
- (b) Check cable connections and perform electrical tests on cable as specified in Section 108.

LIGHTING FIXTURES

An inspection shall be made to determine that the color, quantity, and locations of lights are in accordance with the installation drawings. Each light shall be inspected to determine that it is operable, glass is not broken or cracked, correct lamps are installed, and it has been properly leveled and aimed, in accordance with technical orders and manufacturer's instructions, where applicable.

CONSTANT CURRENT REGULATORS

The supply voltage and input and output current shall be checked at the regulator to see that they operate properly and that regulators are not overloaded due to shorts to ground or excessive leakage.

- (a) Visual Examination. Each constant current regulator shall be visually examined to insure that porcelain bushings are not cracked, no shipping damage has occurred, internal and external connections are correct, switches and relays operate freely and are not tied or blocked, fuses (if required) are correct, and that the oil level of oil-filled regulators is correct. Relay panel covers only shall be removed for this examination; it is not necessary to open the main tank of oil-filled regulators. The instructions on the plates attached to the regulator shall be accomplished. After examination and tests are completed, replace all covers tightly.
- (b) Electric Tests. The supply voltage and input tap shall be checked to see that they correspond. With the load disconnected, the regulator shall be energized and the open circuit protector observed to see that it de-energizes the regulator within 2 or 3 seconds.

FINAL ACCEPTANCE TESTS

After components and circuits have been inspected, as specified in the preceding paragraphs, the entire system shall be inspected and tested as follows:

- (a) Operate each switch for the modified lighting circuits from the remote control position (ATCT) so that each switch position is reached at least twice. During this process, all lights and vault equipment shall be observed to determine that each switch properly controls the corresponding circuit.
- (b) Repeat the above test using the local control switches on the regulators.
- (c) Each lighting circuit shall be tested by operating it continuously at maximum brightness for at least 6 hours. Visual inspection shall be made at the beginning and end of this test to determine that the correct numbers of lights are operating at full brightness. Dimming of some or all of the lights in a circuit is an indication of grounded cables.
- (d) In addition to the above, all equipment shall be subjected to any and all performance tests specified in the manufacturer's instructions.
- (e) Photometric testing. The Airport may, upon completion of the lighting installation and as part of acceptance testing, perform field photometric testing of each new light fixture to assure the installed runway lights meet the photometric requirements specified by FAA. The test results will be recorded and furnished to the Contractor, with any noted deficiencies. The Contractor is responsible for correcting any deficiencies at no additional cost to the Owner. The Contractor shall furnish spares in support of this testing, to include 15% lamps and 5% lenses for the new inpavement lights. Spares not used shall be provided to the Airport upon completion of the work

125-1.7 GUARANTEE

All equipment furnished and work performed under the Contract Documents shall be guaranteed against defects in materials or workmanship for a period of one (1) year from the date of final acceptance. This guarantee does not replace any responsibility for errors or omissions as set forth in state law. Any long-term warranties issued or offered by manufacturers for items of equipment shall be turned over to the Airport.

<u>125-1.8</u>

Any failure of equipment or work due to defects in materials or workmanship shall be corrected by the Contractor at no cost to the Airport.

<u>125-1.9</u>

The Contractor shall ascertain that all lighting system components furnished by him (including FAA approved equipment) are compatible in all respects with each other and the remainder of the new/existing system. Any incompatible components furnished by the Contractor shall be replaced by him at no additional cost to the Airport with a similar unit approved by the Project Engineer (different model or manufacturer) that is compatible with the remainder of the airport lighting system.

<u>125-1.10</u>

The Contractor-installed equipment (including FAA approved) shall not generate any electromagnetic interference in the existing and/or new communications, weather and air traffic control equipment. Any equipment generating such interferences shall be replaced by the Contractor at no additional cost with the equipment meeting applicable specifications and not generating any interference.

EQUIPMENT AND MATERIALS

125-2.1 GENERAL

ADD:

All new equipment shall be listed in Advisory Circular 150/5345-53 (Latest Edition) – Airport Lighting Equipment Certification Program.

Before any electrical materials are ordered, the Contractor shall furnish the Engineer a list of the materials and equipment to be incorporated in the work. This list shall include the name of each item, the Federal Aviation Administration specification number, the manufacturer's name, the manufacturer's catalog number, and the size, type and/or rating of each item, catalog cuts, test data, fuse curves, outline drawings, nameplate drawings, wiring diagrams, and schematic diagrams.

After the list has been approved by the Engineer and prior to installation, the Contractor shall assemble the equipment and materials at a single location, on-site, and request inspection by the Engineer. None of the equipment or materials, other than duct or conduit, may be used on the job until such as inspection has been completed.

All test results from required tests shall be submitted to the Engineer for review and approval.

Airport lighting equipment and materials covered by FAA specifications shall have prior approval of the Federal Aviation Administration, Airport Service, Washington, DC 20591, and shall be listed in the current edition of FAA Advisory Circular AC 150/5345-53, Airport Lighting Equipment Certification Program. All other equipment and materials covered by other referenced specifications shall be subject to acceptance through manufacturer's certification of compliance with the applicable specification, when required by the Engineer.

The following documents, of the issue in effect on the date of application for qualification, are applicable to the extent specified:

| ltem | Specification | Advisory Circular |
|--------------------------------|---------------|-------------------|
| Elevated Lights | L-861, L-862 | AC 150/5345-46D |
| Lights, Threshold, In Pavement | L-850D | AC 150/5345-46D |
| Transformers, Isolation, 60 Hz | L-830 | AC 150/5345-47C |
| Signs | L-858 | AC 150/5345-44 |
| REIL | L-849 | AC 150/5345-51B |
| Light base, load bearing | L-868 | AC 150/5345-42G |
| Light base, non-load bearing | L-867 | AC 150/5345-42G |
| Elevated Marker | L-853 | AC 150/5345-39D |

All FAA Advisory Circular referenced in this specification refer to the most recent edition in circulation.

125-2.7 ISOLATION TRANSFORMERS

ADD:

New transformers shall be L-830, 6.6A Pri./6.6A Sec. of the wattage recommended by the manufacturer. The number of transformers per light shall also be as recommended by the manufacturer.

125-2.8 LIGHT CANS

ADD:

3/4" thick blank cover plates shall be provided as required.

125-2.11 AIRFIELD SIGNS

ADD:

Taxi holding position signs and taxi guidance signs shall conform to the type, class, style, nomenclature and dimensions shown in the plans to match the existing guidance signs and as specified herein.

Airfield taxiway signs shall be LED L-858, Size 2, Style 2, Class 2 confirming to the nomenclature indicated in the Plans. For the purposes of this specification, a character shall be defined as a letter, numeral, dot, dash or arrow to be indicated on the sign nomenclature. Sign components and lengths shall be as recommended by the manufacturer.

When existing signs are proposed to be retrofitted with new sign panels, the sign panels shall conform to the applicable requirements of Advisory Circular 150/5340-18 (latest revision). The Contractor shall verify that the proposed sign panels are compatible with the existing sign assemblies.

The LED L-858 Airfield Guidance Signs shall conform to the requirements of FAA Advisory Circular 150/5345-44 (latest revision) "Specification for Runway and Taxiway Signs" and FAA LED "Engineering Brief No. 67" (current edition). The signs shall be ETL certified. The LED L-858 signs shall be as manufactured by ADB or approved equal.

125-2.14 TAXIWAY LIGHTS

ADD:

Taxiway lights shall be base mounted as shown on the plans and shall meet the following FAA specifications:

L-861T Medium Intensity Taxiway Lights

125-2.15 LIGHT, MARKER AND SIGN REMOVAL

ADD:

Existing lights, retroreflective markers and sign fixtures and bases shall be completely removed and disposed of by the Contractor off Airport property. The excavations shall be backfilled and compacted per the requirements of Section 152. The cable associated with light or sign removal shall be removed from the conduit/unit duct and the conduit/unit duct shall be abandoned in place.

Any salvageable materials shall be saved and remain the property of the Airport. The material shall be delivered to the Airport Maintenance Facility.

125-2.16 ELEVATED RETROREFLECTIVE MARKERS

ADD:

Elevated Retroreflective Markers shall be omnidirectional, frangible markers of the color and mounting type as detailed on the plans.

125-2.17 REIL

ADD:

Runway End Identification Light (REIL) shall be L-849, Style A in conformance with the FAA Advisory Circular.

125-2.18 IN-PAVEMENT LIGHT BASE AND LIGHT INSTALLATION AND ALIGNMENT TOOL

The new in-pavement threshold light fixtures shall be L-850D and the new transformers shall be L-830-10 isolation transformer as recommended by the manufacture and as detailed on the plans.

The tolerance requirements for location, elevation and orientation of all in-pavement light fixtures is of critical importance and must be maintained. In order to do so the light bases and lights shall be installed using an installation and alignment tool. This tool shall be capable of achieving the final alignment specified and shall be of sufficient strength to support the light base during placement and compaction of bituminous concrete around the base. The Contractor shall submit to the Engineer the proposed installation and alignment tool for approval. Upon approval, the Contractor shall procure a sufficient number of these tools to use in the installation process. No light base or light shall be installed without using an approved installation and alignment tool. The Contractor shall have a manufacturer's representative familiar with the type of installation on site for the initial installation of light bases.

CONSTRUCTION METHODS

125-3.1 GENERAL

ADD:

The Contractor shall exercise caution in the installation and removal of all light units. Any units damaged by the Contractor's operations shall be repaired or replaced to the satisfaction of the Engineer at no additional cost to the contract.

125-3.4 PHASING AND INTERRUPTIONS

ADD:

All existing electrical equipment and lighting systems not included in the phase of work being performed must be kept in operation, unless prior approval of the Owner has been received and as otherwise specified below and on the Drawings. The Contractor may use salvaged materials for temporary construction where required. The permission for temporary work and using salvaged materials shall be obtained from the Owner. Lighting for active runway and taxiway surfaces shall be maintained. Work shall be coordinated with paving operations.

Refer to the special provision of the specification for notification requirements and other information regarding work interruptions due to airport operational requirements or Contractor anticipation for exceeding the limitations described in the above paragraph.

125-3.5 IN-PAVEMENT LIGHT INSTALLATION

ADD:

The light fixtures shall be installed in accordance with the procedure recommended by the manufacturer, and as specified on the Drawings and herein.

Adjust existing L868 light cans to match with the new grades. Spacer rings and flange rings shall be used to achieve proper grade. Prior to mounting the light fixture on the base an L-823 connector kit shall be installed on the new primary power cable ends in the light base, and the appropriate isolation transformer shall be installed in the light base. Note carefully the cable routing in each light base. All light fixtures shall be verified as properly leveled and aligned.

125-3.6 REMOVE REILS

ADD:

The Contractor shall exercise care in removal of the existing REILs to prevent damage. The existing bases shall be completely removed and disposed of off of the Airport.

REILs units to be removed shall remain the property of the Airport and shall be stored at the location designated by the Engineer At the Airport's discretion, the Contractor may be required to dispose of the REIL units off of Airport property at no additional cost.

METHOD OF MEASUREMENT

<u>125-4.1</u>

DELETE: Entire section.

ADD:

The quantities to be paid for under this item shall consist of:

(a) The number of base mounted taxiway lights, elevated retroreflective markers (Type 1 or Type 2 as called out on plans) and guidance signs installed in place as complete units, ready for operation and accepted by the Engineer.

- (b) The number of lights (in-pavement) adjusted, including all new equipment.
- (c) The number of stake mounted taxiway lights, base mounted taxiway lights, wooden taxiway guidance signs and elevated retroreflective markers removed and accepted by the Engineer.
- (d) The number of pairs of REILS installed in place and accepted by the Engineer

BASIS OF PAYMENT

125-5.1

ADD:

Payment will be made at the contract unit price for each complete item furnished and installed in place by the Contractor and accepted by the Engineer. This price shall be full compensation for furnishing all materials and for all preparation, removals, modifications, relocation, assembly, and installation of these materials, and for all labor, equipment, tools, and incidentals necessary to complete this item.

The connection, power and control wires between REIL units and grounding will not be measured separately and it shall be considered incidental to REIL pay item.

The new L-850D bi-directional in-pavement threshold light fixture, flange and adjusting rings, transformer and L-823 primary cable connectors shall not be measured for payment, but shall be considered incidental to Item AR125943 – ADJUST INPAVEMENT LIGHT.

Payment for topsoiling and seeding of the Item 125 installation areas shall not be paid for separately but shall be considered incidental to the associated item.

Payment will be made under:

| ITEM AR125415 | MITL – BASE MOUNTED – PER EACH. |
|---------------|--|
| ITEM AR125445 | TAXI GUIDANCE SIGN, 5 CHARACTER – PER EACH. |
| ITEM AR125610 | REILS – PER PAIR. |
| ITEM AR125901 | REMOVE STAKE MOUNTED LIGHT – PER EACH. |
| ITEM AR125902 | REMOVE BASE MOUNTED LIGHT – PER EACH. |
| ITEM AR125907 | REMOVE REILS – PER PAIR. |
| ITEM AR125943 | ADJUST INPAVEMENT LIGHT – PER EACH. |
| ITEM AR800154 | REMOVE WOODEN TAXI GUIDANCE SIGN – PER EACH. |
| ITEM AR800194 | REMOVE ELEVATED RETROREFLECTIVE MARKER – PER EACH. |
| ITEM AR800205 | ELEVATED RETROREFLECTIVE MARKER-TYPE 1 – PER EACH. |
| ITEM AR800206 | ELEVATED RETROREFLECTIVE MARKER-TYPE 2 – PER EACH. |

DIVISION VIII – MISCELLANEOUS

ITEM 800207 – EMAS CONCRETE GRADE BEAM

DESCRIPTION

<u>800207-1.1</u>

This item consists of the construction of a reinforced concrete grade beam of the dimensions as detailed in the plans.

MATERIALS

800207-2.1

The concrete and steel reinforcement utilized for this item shall conform to Item 610 Structural Portland Cement Concrete.

CONSTRUCTION METHODS

<u>800207-3.1</u>

Construction methods for this item shall conform to Item 610 Structural Portland Cement Concrete. The concrete grade beam shall be constructed to the dimensions detailed in the plans.

METHOD OF MEASUREMENT

800207-4.1

EMAS Concrete Grade Beam shall be measured per lump sum as specified, in place, completed and accepted.

BASIS OF PAYMENT

<u>800207-5.1</u>

Payment will be made at the contract unit price per lump sum for EMAS Concrete Grade Beam. This price shall be full compensation for furnishing all materials and for placing the materials, and for all labor, equipment, tools, and incidentals necessary to complete this item.

Payment will be made under:

ITEM AR800207 EMAS CONCRETE GRADE BEAM – PER LUMP SUM.

ITEM 800208 – ENGINEERED MATERIAL ARRESTING SYSTEM (EMAS) BED INSTALLATION

DESCRIPTION

<u>800208-1.1</u>

This item shall consist of the installation of one Engineered Material Arresting System (EMAS) in accordance with these specifications, manufacturer's requirements and the contract drawings, at the location and of the form and dimensions shown on the plans. The intended EMAS bed installation plan is to place an EMAS bed at Runway 34 End (Runway 16 departure end). In accordance with the Statement of Work, this item shall include all contractor supplied-labor, local trucking delivery and miscellaneous installation materials and equipment for the EMAS bed, including but not limited to conventional forklifts. This item specifically excludes the manufacturing, furnishing, and shipping of the EMAS blocks and EMAS installation materials (**EMAS blocks**, debris deflector with anchors, joint sealing materials, side coating and side vents).

This item *shall include* the following:

• EMAS Bed installation, and associated labor, contractor supplied equipment, materials and incidentals

This item *shall not include* the following:

- EMAS Bed blocks & production
- EMAS Bed Shipping
- EMAS Bed Installation Materials
- EMAS manufacturer's technical support (to be included in a separate contract between the airport and EMAS manufacturer).

MATERIALS

800208-2.0 SPECIFICATIONS.

The EMAS installation and materials shall be in compliance with FAA Advisory Circular 150/5220-22B.

800208-2.1 SUBMITTALS.

None required.

800208-2.2 MATERIAL ACCEPTANCE.

The EMAS bed installation shall not be accepted until the following installation tolerances are met:

| Dimension | Lower Tolerance | Upper Tolerance |
|---------------|-----------------|-----------------|
| Width of Bed | -0.1 % | +1 % |
| Length of Bed | -0.1 % | +1 % |
| Height of Bed | 25 inch | + 0.75 inch |

CONSTRUCTION METHODS

800208-3.1 WEATHER LIMITATIONS.

The surface temperature of the pavement must be dry and above 40 degrees F before EMAS block installation may begin. Surface temperatures for chevron marking of the EMAS bed must be 45 degrees F and rising.

800208-4 STATEMENT OF WORK FOR LABOR, EQUIPMENT AND MATERIALS.

800208-4.1 WORK SUMMARY

The EMAS bed installation for Chicago Executive Airport Runway 16 Departure End involves the receiving and placing of **2,520** pre-cast cellular concrete blocks into one bed with dimensions of approximately **170** feet wide by **243** feet long (**42** blocks wide x **60** blocks long). The blocks are nominally 4-ft. wide x 4-ft. long x 6 7/8-in. up to 20 7/8 inches in height. Approximately 1% more blocks than necessary will be shipped to adjust for blocks damaged during shipping and installation. Pallets, extra material, and extra block will be repackaged for transport back to ESCO (Zodiac Arresting Systems – ESCO). EMAS blocks are shipped stacked on pallets. The largest pallet of stacked blocks is nominally 4-ft. x 4-ft. x 77-in. and weighs approximately 2,000 lbs. Receiving the installation and will continue during block installation. Installation of the blocks can commence when approximately 20% of the EMAS blocks have been received or the trailer storage area provided by the Airport has reached maximum capacity. It is estimated that delivery of the blocks and other related installation material requires about **40** Trailers.

Dates for access to the work site and EMAS block installation will be determined between the CONTRACTOR, ESCO, the airport and the Engineer. The project will not be initiated until a firm shipping date is established between the CONTRACTOR and ESCO. It is anticipated that **sixteen** (16) 8-hour shifts will be required until the job is completed. A closed runway during overnight hours is the expected operating condition for construction. It is expected the CONTRACTOR will make appropriate adjustments to the labor and material requirement in order to meet this schedule. In the following labor breakdown estimate, sixteen 8-hour daytime shifts for the full crew are assumed, with some arrangements for an early start for the asphalt cement melting kettle warm-up operation. A few additional days of effort from partial crews are also noted in the labor charts. Utilizing one block installation crew (16 people), normally **420** EMAS blocks can be installed per shift except for a planned first day quota of **42** blocks, second day quota of **126** blocks, and all subsequent days having a daily expected installation of **420** blocks.

Because training and familiarization with the EMAS block placement is crucial to correct installation, CONTRACTOR will be required to revert to **42** blocks per shift quotas <u>without additional</u> <u>compensation</u> after any significant crew changes. Specifically, if a new crew, in whole or in part, is put in place after initial start-up, the ESCO field representative has the unilateral authority to reduce the daily installation quota to insure training is accomplished and ensure the highest quality installation. That decision will be based upon the magnitude of the crew change and the contractor's demonstrated performance.

All EMAS joint taping must be installed to a **High Quality Standard** with minimum overlapping of joints. The specialty joint sealing tape has good workability, should not be stretched, and requires a careful installer. Prior to any blocks being readied for placement, the Contractor shall be required to demonstrate their ability to apply and finish the tape in a manner acceptable to ESCO. In addition to sealing the joints to prevent moisture intrusion, the finished taped joint must be aesthetically pleasing, i.e. look good. In order to help achieve the desired result, ESCO will provide 1 to 2 hours of training in EMAS block joint sealing. This project includes approximately **29,000** linear feet of taped joints with a requirement for approximately **2,300** linear feet per 8-hour shift once the job is underway. Recognize that it is standard procedure to seal all seams prior to the end of each work shift. Full and careful consideration of CONTRACTOR personnel assigned to this taping work is encouraged, as experience has shown workmen not fully experienced in careful field work such as taping usually do not meet ESCO's quality or workmanship standards. This leads to job delays and unnecessary rework. Additionally, ESCO's experience has shown that this taping effort will be the task which

paces the job. As noted above, it is required that all blocks installed during a work shift have a backer rod installed (if necessary) and the joints taped by the end of the shift. Joints larger than 5/8" are required to have backer rod installed to prevent possible sagging of the tape. The entire thrust of these requirements is to attain and maintain a very high level of placement competence and quality of installation.

For the required night work, the CONTRACTOR shall provide adequate portable lighting for use at the work site before dawn and after dusk. For EMAS installation and finishing work, the adequate number of light plants is anticipated to be a minimum of six (6) lighting units. The lighting units shall be self-generating, four-bulb light plants in proper working condition and all bulbs lighting.

Before any shut-down of contract operations, all equipment and materials used at the work site shall be moved by the CONTRACTOR to the designated airport mobilization site, to assure safe aircraft operations between CONTRACTOR'S work shifts.

It is the CONTRACTOR'S responsibility to conduct EMAS truck receiving operations. Initial receiving operations at the staging area, including escort services, can be at any time allowed by the airport until installation commences. Upon commencement of block installation receiving operations would be expanded to include access control, (along with escort services), which must be coordinated through the airport and with the work periods at the work site.

The CONTRACTOR is responsible for setting up the staging area and providing access control, a dumpster, all trash collection and rubbish removal, portable lavatory, and all other requirements for the duration of this project. Control of Foreign Object Damage (FOD), construction materials (block packaging materials, paper wrappers, etc. that are used during the installation of the EMAS is the responsibility of the CONTRACTOR. FOD is always of concern to an airport and must be controlled at all times. It will be necessary for the CONTRACTOR to provide covered containers to hold all construction debris and refuse in at the worksite and/or airport property. In addition to collecting and controlling trash/debris, the CONTRACTOR shall be responsible for collecting, stacking and loading of items returned to ESCO. These items shall include, but are not limited to, unused EMAS blocks, all pallets (in good repair), seam seal tape, side coating, adhesive, caulk, backer rod, cardboard spacers and other installation materials and equipment deemed the property of ESCO.

The sequence for installation of the EMAS will be as follows:

- 1. Installation of jet blast debris deflector
- 2. Mark-out of installation grid (centerline, sidelines, rear edge line, and <u>every block corner</u> <u>with a grid system</u>)
- 3. Installation of the EMAS blocks including
 - > Placement of backer rod material into block seams, as needed
 - > Installation of polycarbonate angle material along perimeter
 - Installation of high and low perimeter block vents (on sides and back of bed; adhered to side of block with AC20)
 - Install seam seal over each joint
 - > Install side coating in appropriate intervals
- 4. Complete any "punch-list" work
- 5. Painting of safety area markings (AR620 specification)
- 6. Site clean-up and demobilization

Specific works are as detailed on the following pages. Note: where this Statement of Work conflicts with the contract drawings, the contract drawings shall govern.

800208-4.2 RECEIVING AND LAYOUT

The Contractor, at a staging area designated by the airport, will receive the trailers containing precast EMAS blocks. "Receiving duties" are generally limited to acknowledging the trailer delivery by signing the trucker's delivery ticket and escorting the trucker to and from the drop-off point. Prior to the start of block installation, most or all of the EMAS blocks will arrive at the airport. Once installation is underway, the delivery of blocks may continue, depending of the number of truckloads in the project and the CONTRACTOR'S installation rate.

Blocks will be shipped in 53-foot air-ride suspension trailers. Blocks shipped in advance of installation will be stored at the staging area and will be left secured in the trailers. Blocks will continue to be shipped and received at the staging area during the installation program, depending on the number of truckloads in the project and the rate of installation. The EMAS blocks are shipped stretch-wrapped on 4-ft. (1.219m) x 4-ft. (1.219m) pallets.

Prior to grid layout, the Contractor shall use broom sweepers to remove any debris from the underlying pavement which will support the EMAS blocks. Careful layout of extended runway centerline, sides and back edges of the bed rows and steps shall be augmented by field marking one corner alignment point for each of the 2,520 blocks. Because the blocks are not designed to be altered in the field, the field marking for block corners will be crucial for correct block placement, while edge layout lines will provide side and back block placement guidance. A surveyor licensed in Illinois shall establish the control points for field layout marking lines. These control points shall establish the extended runway centerline through the EMAS, EMAS bed perimeter, and interim points both perpendicular and parallel to runway centerline within the confines of the EMAS bed on a 20.25 ft. x 20.25 ft. grid pattern within a tolerance of +/- 1/8 inch. The entire grid layout must be completely installed and accepted by ESCO before any blocks are installed. NOTE: Prior to establishing the points perpendicular to runway centerline, check with ESCO to ensure the debris deflector has been satisfactorily installed and accepted. These points will use the back of the debris deflector channel as the reference baseline. Often times, this station number differs slightly from the design station and the grid must be adjusted to match the precise stationing of the debris deflector. When marking/laying out the grid, the CONTRACTOR should plan on using a durable marking system. Experience has shown that a painted 1/8" string line grid on the pavement with block heights painted in each box is the simplest and most effective method. A walk behind spray paint unit is recommended and works best in windy conditions. Black spray paint is recommended on concrete pavement and white spray paint is recommended on bituminous pavement. It is very important to note that Jet Blast Resistant coated EMAS blocks cannot be altered for field adjustments of block height, width or length. Therefore accurate layout and numbering of the grid is crucial.

MINIMUM CONTRACTOR LAYOUT LABOR FOR EMAS BED (PER ESCO)

| Total Crew Members | | Days | Area |
|--------------------|-------------|------|-----------|
| 2-3 | Survey Crew | 3 | EMAS Site |

LAYOUT EQUIPMENT PER BED

- Horizontal Survey Equipment with 1/8-inch (plus or minus) accuracy over the area occupied by the EMAS Bed.
- Surveyor's choice of waterproof and durable grid marking devices.

800208-4.3 INSTALLATION PHASE

The air-ride trailers containing EMAS blocks will be received in the staging area. The CONTRACTOR will be responsible for moving trailers to the EMAS installation site, as they are needed. The EMAS trailers will be parked at a location designated by the airport. The EMAS blocks and material will be unloaded from the trailers using a pallet jack and forklift. Great care must be taken when off-loading the EMAS blocks to prevent damage and any foot traffic atop the installed blocks must be minimized. Anyone walking on the bed must have soft-soled shoes with no sharp heels (Sneakers or flat soled boots preferred).

The jet blast debris deflector supplied by ESCO must be installed before the perpendicular block layout grid is started and before any blocks are installed. This is to protect the runway side of the blocks and ensure an accurate grid layout. The primary task involved in the installation of the two-piece Debris Deflector sections will be drilling about **220** each 11/16" diameter x 5" deep holes in the concrete anchor beam and the installation of grout-in-place threaded anchors into those holes. After the anchors are installed, the aluminum Debris Deflector sections are set into position by hand and secured with 3/8" size hex head bolts threaded into the concrete anchors. The sections are installed starting at the centerline and working towards the ends of the debris deflector. Due to its frangible nature, people must avoid stepping on the deflector. The deflector comes pre-marked with "NO STEP".

Stretch wrap, plastic padding, cardboard spacers, and cardboard corner protectors (packing material) used to protect the blocks during transit will be removed and collected at the work site and properly disposed of off-site. As noted above, trash/debris removal is the responsibility of the CONTRACTOR. While at the installation site, care must be taken to ensure that all such packing material is collected and stored in covered containers to mitigate Foreign Object Damage (FOD). Empty pallets and cardboard spacers will be neatly stacked and banded for return shipment to ESCO, Logan Township, New Jersey (Return shipping cost covered under separate pay item AR800209 EMAS Bed).

When installing the blocks, blocks less than 6 inches in height may be placed into position by hand. The equipment ramp blocks shall always be placed by hand. These lower height blocks have a maximum weight of 200 pounds but because of their size require four people to lift (one person per block corner). Blocks greater than 6 inches in height will then be placed into position using one of the four (4) Contractor Supplied forklifts. Each block will be gently pushed into its final position as marked on the pavement grid either by hand or using a forklift with a push plate to minimize joint spaces. Experience has shown that accurate and careful placement by the fork truck operators minimizes the need for pushing the blocks. The ESCO-supplied push plate adapts to standard forks and one push plate will be supplied.

NOTE: All blocks have a particular orientation when installed. The backside of the block (the side away from the debris deflector) has the nominal height of the block, in inches, marked on that side. The forklift operator should always be facing the side of the block when picking up the block for placement. The block side with the serial (or batch) number faces the runway. The forklift slot in the tray shall be oriented when the block is placed so that it is perpendicular to the runway centerline.

Immediately prior to actually placing blocks into position, a hot asphalt cement AC-20 augmented with a crack sealing additive (25% by volume) or 100% CRAFCO 34275 shall be applied to all of the area where the block will be placed at a rate of at least 1.75 to 2.0 gallons per block and a temperature ranging from 3500F to 3750F. The hot asphalt cement/crack sealer coating is the bond or anchor device between the overrun surface and the EMAS blocks. The asphalt cement, while still hot, acts as a lubricant between the block and the existing pavement so that blocks will slide easily into their final position when pushed. ESCO's experience has shown that the total elapsed time from when the hot asphalt cement is placed to when the block must be in its final position is approximately 15 to 25 seconds, depending upon ambient temperatures. After that time, the asphalt cement will have cooled sufficiently to bond the block to the pavement and it will not slide easily. If this occurs before the

block is in the correct position, the block will have to be removed and replaced with a new block, as an adhered block cannot be removed without being destroyed.

NOTE: ESCO provides a number of contingency blocks in the event that any are damaged during shipping. If any blocks are damaged or destroyed by the contractor or any sub-contractor during the installation, the contractor is responsible for the cost of replacing those blocks, to include any shipping and handling that may be required.

Block spacers, loaned by ESCO, are inserted between the blocks during the block placement process in order to provide a positive control on the gaps between the blocks while the hot asphalt cement is cooling and to simplify the process of block alignment. Once the hot asphalt cement is set, individual spacers are removed and reused.

As the first row of blocks next to the debris deflector is completed, the appropriate size backer rod is inserted into the joint between the blocks at a depth of approximately 3/8-inch from the top of the block, and then caulked. (Note: only the front of the first row is caulked with the Debris Deflector. All remaining block rows are taped). It is a requirement that all installed blocks be taped by the end of the work shift. For every vertical side and back row joint between blocks, high and low vents will be installed in the step riser before the installation of block in any additional rows.

During the installation, each block's barcode shall be scanned by ESCO to mark the location of the block within the EMAS bed. The scanning may take place at the time of placement of each block or the row in its entirety may be scanned prior to placement of following rows. The method used shall be determined on-site by the ESCO supervisor.

After 4 rows of block have been installed, seam sealing may commence. This allows sufficient setting time for the blocks and allows ample room for the tapers to work without interfering with or being interfered by the block laying operation. The seam seal tape comes in 4' lengths. Vertical joints do not require taping. These joints shall be covered by the side coating.

A specialty coating will be adhered with caulk to all vertical sides of the completed bed along with 2 inches of overlap onto adjoining horizontal block surfaces. The side coating is typically supplied in roll lengths of 150'. The Contractor shall be required to install the side coating on installed blocks prior the end of the shift.

Finally, the appropriate pavement marking paint will be applied. This last painting phase consists of applying marking paint to indicate the EMAS arrestor bed as unusable pavement. The CONTRACTOR will supply the marking paint and any reflectorized beads to be used with it, and all labor under a separate pay item AR620520 Pavement Marking – Waterborne).

Lastly, the empty pallets and cardboard spacers are neatly stacked, banded and loaded back onto trailers by the CONTRACTOR for shipment back to the EMAS production facility. (Return shipping cost covered under separate pay item AR800209 EMAS Bed.)

Note that some blocks may be damaged during onsite handling, off-loading and installation. The CONTRACTOR must exercise care to minimize these losses for blocks under his care. The CONTRACTOR is responsible for removal of and disposal of any damaged block material. Extra pallets of good blocks left over at completion of installation, or at the end of each shift, at the discretion of the ESCO supervisor, will be stacked, corner-protected, plastic-wrapped, and re-loaded onto trucks by the CONTRACTOR and transported back to ESCO.

800208-4.4 ANTICIPATED CONTRACTOR INSTALLATION LABOR (PER ESCO)

| Total Crew Members | Person | Installation Periods | Area | Responsibility |
|--------------------------|-----------------------|-------------------------|-----------------------------|---|
| 1 | Foreman | 16 | Work Site | Coordination and Supervision |
| 1 | Truck Driver | 16 | Work Site & Staging Area | Transport Blocks and Materials to/ from Staging Area and Installation Site |
| 4 | Forklift Operators | 16 | Work Site | After 1 training day, unload truck and handle blocks |
| 4 | Laborers | 16 | Work Site | After basic training, Operate Pallet jack during truck loading and unloading, Remove and dispose of shrink wrap, collect and dispose of padding between blocks, Install debris deflector, apply hot asphalt cement, Install block, vents, side plastic pieces and cleanup |
| 6 | Caulkers/Taper s | 16 | Work Site | After 1 training day, Install tape, caulk and side coating, (and backer rod as needed) |

| Total Equipment | Equipment | Installation Periods | Area |
|--------------------|--|-------------------------|-----------------------------|
| 4 | *5000# Pneumatic Tire Forklift | 16 | Work Site |
| 1 | Push Plate for forklifts (ESCO supplied) | 16 | Work Site |
| 1 | Drilling Template (ESCO supplied) | 2 | Work Site |
| 1 | Tractor to move over-the-road trailers to and from the work site | 16 | Staging Area & Work Site |
| 1 | Hot Asphalt tank with pump/hose/buckets | 16 | Work Site |
| 6 | Large, four lamp light plants with fuel | 16 | Work Site |
| 1 | 40 cu yd dumpster (covered) for damaged blocks and trash | 16 | Work Site |
| As required | Caulk application equipment, with battery-powered units highly recommended for the approximately 30,000+ linear feet of caulk beads needed to complete the project. | 16 | Work Site |
| As required | Debris Deflector installation tools and multiple drills with 11/16"x1' masonry bits | 2 | Work Site |

800208-4.5 ANTICIPATED CONTRACTOR EQUIPMENT (PER ESCO)

* All forklifts must have lateral load shift capability.

Note: To the maximum extent practical, all equipment should be on site at the start of the installation phase to insure that it will be available when needed.

800208-4.6 ESCO SUPPLIED MATERIALS

The cost of these items shall be included in pay item AR800209 EMAS Bed:

| Material | Quantity |
|---|--|
| 75% Asphalt Cement AC20 plus a 25% mixture of | 5,100 gallons |
| CrackMaster DL Supreme additive from Sealmaster Industries P.O.Box 2277 Sandusky, Ohio 44780 1 800-395-7325 | (Approx. 2.0 gal/block plus wastage) |
| Or 100 % CRAFCO 34275 from ESCO | |
| Pallet jack for interior trailer unloading and reloading | one |
| Side Vents | 300 |
| Jet Blast Debris Deflector, 2-piece | 22 plus 2 end caps |
| Jet Blast Debris Deflector Concrete Anchor | 220 anchors |
| Seam seal joint tape and side covering | Tape: 29,000 linear feet Side seal: 2450 lf. – 10 inch width |
| Silicone Adhesive Sealant Material | 2,100 Total Tubes |
| Backer Rod (¾ and 1") Closed-Cell polyethylene foam | Total of 1,700 linear feet ⅔", 1,100 LF 1", 600 LF |
| Four foot lengths of plastic right angle corner pieces for edge of bed | 220 Total Pieces |
| Sealant, Urethane & Silicone Non-Self-Leveling Caulk | 120 cartridges, (10.1 oz. size) 48 Urethane 72 Silicone |

800208-4.7 SUGGESTED CONSTRUCTION SCHEDULE (PER ESCO)

| SCHEDULE DAY | ACTIVITIES |
|-----------------|---|
| 1 – 2 | Surveyors check anchor beam and pavements. Laborers install debris deflectors. |
| 2 - 3 | Surveyors establish grid layout points. Laborers start marking grid. |
| 2 - 3 | Train Tapers & Forklift Operators |
| 4 - 15 | Install blocks, backer rod (as needed), seam seal and side coating, side vents, and caulk |
| 15 – 16 | Inspection/Punch list, layout/paint chevrons and clean-up |

800208-4.8 QUALITY CONTROL.

Contractor must place and finish the EMAS bed under the guidance of the EMAS manufacturer's technical support following this specification, specification AR800209 EMAS Bed, and the EMAS Quality Control Plan. EMAS manufacturer's technical support is to be included in a separate contract between the airport and ESCO.

METHOD OF MEASUREMENT

<u>800208-5.1</u>

Measurement shall be per lump sum. No measurements or other allowances shall be made for placement or joint sealing of the EMAS blocks. Chevron marking shall be paid for under AR620.

BASIS OF PAYMENT

<u>800208-6.1</u>

Payment shall be made at the contract unit price per lump sum. This price shall be full compensation for installation of the supplied EMAS blocks and for all labor, equipment, tools, and incidentals necessary to complete the installation of the EMAS blocks. The Engineer will use percentage of completion to determine partial payment. For partial payments, completion shall exclude side coating but must include acceptable block placement with vents and caulked joints.

Payment will be made under:

ITEM AR800208 EMAS BED INSTALLATION – PER LUMP SUM.

ITEM 800209 – ENGINEERED MATERIAL ARRESTING SYSTEM (EMAS) BED

DESCRIPTION

800209-1.1 GENERAL

This item shall consist of the manufacturing, furnishing, and shipping of the EMAS blocks and installation materials of one Engineered Material Arresting System (EMAS) Bed (EMAS blocks, debris deflector with anchors, joint sealing materials, side coating and side vents) in accordance with these specifications, manufacturer's requirements and the contract drawings, at the location and of the form and dimensions shown on the plans for Runway 34 End (Runway 16 departure end).

This item *shall include* the following:

- EMAS Size: 243 ft. long x 170 ft. wide EMAS bed (approximate)
- Production (2520 EMAS blocks)
- Shipping of EMAS bed and materials (Logan Township, NJ to Chicago Executive Airport)
- EMAS Bed Installation Materials

This item *shall not include* the following:

- AR800208 EMAS Bed Installation and associated labor, contractor supplied equipment, materials and incidentals
- EMAS manufacturer's technical support (to be included in a separate contract between the airport and EMAS manufacturer).

800209-1.2 MANUFACTURER.

The proposed EMAS bed and installation materials will be manufactured and shipped by Zodiac Aerospace **Engineered Arresting System Corporation (ESCO).** ESCO is located at 2239 High Hill Road, Logan Township, NJ 08085, (856) 241-8620. ESCO is the only FAA approved sole source manufacturer of EMAS for this project.

MATERIALS

800209-2.1 SPECIFICATIONS.

The proposed EMAS and installation materials will be produced and installed per the requirements of FAA Advisory Circular 150/5220-22B (Latest edition) <u>Engineered Materials Arresting Systems</u> (EMAS) for Aircraft Overruns.

800209-2.2 SUBMITTALS.

Shop drawings submitted by the Contractor for materials and/or equipment to be provided as a part of the contract shall be reviewed by the Project Engineer for substantial conformance of said materials and/or equipment, to contract requirements. Shop drawings shall be fully descriptive, complete and of sufficient detail for ready determination of compliance.

The information shown in Section 50-18 shall be clearly marked on each shop, working, and layout drawing, catalog cut, pamphlet specifications sheet, etc., submitted.

The Contractor shall also submit the following for review:

Project Installation Drawings EMAS Quality Control (QC) plan for EMAS installation at Chicago Executive Airport, with associated Quality Control Instructions. ESCO Inspection, Maintenance and Repair Manual

800209-2.3 EMAS BLOCKS.

The Contractor and material supplier shall supply, at no additional cost, sufficient spare blocks and installation materials to ensure that any items damaged in shipment or during installation do not adversely affect installation progress. Unused spare materials are the property of ESCO and will be returned to ESCO at no additional cost.

With advance consultation, the airport will arrange and provide space at the airport for block storage and staging (to park trucks, stage blocks) at no cost to the contract.

800209-2.4 MATERIAL ACCEPTANCE.

The EMAS bed shall not be accepted until the installation tolerances in section 800208-2.2 are met.

CONSTRUCTION METHODS

800209-3.1 QUALITY CONTROL.

Contractor must place and finish the EMAS bed under the guidance of the EMAS manufacturer's technical support following this specification, specification AR800208 *EMAS Bed Installation*, and the EMAS Quality Control Plan. EMAS manufacturer's technical support is to be included in a separate contract between the airport and ESCO.

NOTE: ESCO provides a number of contingency blocks in the event that any are damaged during shipping. If any blocks are damaged or destroyed by the contractor or any sub-contractor during the installation, the contractor is responsible for the cost of replacing those blocks, to include any shipping and handling that may be required.

800209-3.2 WARRANTY.

ESCO will provide a one (1) year limited commercial warranty against defects in materials and workmanship, provided ESCO supervises the installation of the EMAS and installation is completed in accordance with ESCO standards (as validated and accepted by ESCO representatives upon completion of the installation).

ESCO will perform two (2) semi-annual EMAS inspections during the first year after installation. Inspections are included at no additional cost.

METHOD OF MEASUREMENT

<u>800209-4.1</u>

Measurement shall be per lump sum.

BASIS OF PAYMENT

800209-5.1

Payment shall be made at the contract unit price per lump sum. This price shall be full compensation for manufacturing, furnishing, and shipping of the EMAS bed materials and EMAS installation materials and for all labor, equipment, tools, and incidentals necessary to manufacture, furnish and ship this item. In conformance with section 90-08 *Payment For Materials on Hand*, the Contractor may request material payment(s) for this item.

Payment will be made under:

ITEM AR800209 EMAS BED – PER LUMP SUM.

ITEM 910 – ROADWAY SIGNAGE

DESCRIPTION

<u>910-1.1</u>

This work shall consist of furnishing Type 1 Sign panels complete with reflectorized sign faces, legend and supplemental panels and installing them on newly erected frangible sign supports as detailed in the plans at the locations shown or as directed by the Resident Engineer.

Work shall be in accordance with Section 720 and Section 729 of the Standard Specifications for Road and Bridge Construction and with IDOT Standards 720001-01, 720011-01 and 729001-01

MATERIALS

<u>910-2.1</u>

Materials shall meet the requirements of Sections 720 and 729 of the Standard Specifications for Road and Bridge Construction. Sign panels shall be as detailed in the plans.

CONSTRUCTION METHODS

<u>910-3.1</u>

This work shall also consist of furnishing and installing frangible metal posts of the size and type specified, utilizing the direct burial methods as detailed in the plans.

<u>910-3.2</u>

Materials shall meet the requirements of Article 729 of the Standard Specifications for Road and Bridge Construction. Unless otherwise specified, only frangible galvanized posts shall be used. The post shall be Type B as designated on Illinois Department of Transportation Highway Standard 720011-01 and 729001-01.

<u>910-3.3</u>

The metal posts may be driven by hand or mechanical means to a minimum depth of 4 feet (Type B) measured from the ground line or as shown in the plans. The post shall be protected by suitable driving cap and if required by the Engineer, the material around the post will be compacted after driving.

Care shall be taken to avoid scratching, chipping or other damage to polyester or enamel-coated posts during handling and installation. Chips and scratches may be recoated in the field by a method meeting the coating manufacturer's recommendations except that chips and scratches totaling more than 5% of the surface area of any one post and/or more than 5% of the surface area in any one-foot segment of any one post shall be cause for rejection of the post.

If the post specified is too long, the Contractor may choose to cut the post to the required length. Any post so cut shall be installed with the cut end at the bottom.

METHOD OF MEASUREMENT

<u>910-4.1</u>

The quantity of roadway signs installed to be paid shall be the number, per each, of signs satisfactorily installed in accordance with applicable specifications and accepted by the Engineer. Sign posts and supports shall be incidental to this item. No additional compensation shall be made for additional length of posts required.



For purposes of measurement, sign panels will be defined by the surface area according to the following descriptions:

Type 1 – 9 square feet or less

Type 1 Signs shall be measured and paid for as ROADWAY SIGNAGE on a per each basis.

BASIS OF PAYMENT

<u>910-5.1</u>

Payment shall be made at the contract unit price for ROADWAY SIGNAGE per each. This price shall be full compensation for all materials and erection of all signs at proposed locations and for all materials, labor and equipment necessary to complete the work as described herein.

Payment will be made under:

ITEM AR910200 ROADWAY SIGN – PER EACH.

ENVIRONMENTAL SAMPLING & CLEAN CONSTRUCTION DEMOLITION DEBRIS (CCDD)





Bureau of Land • 1021 N. Grand Avenue E. • P.O. Box 19276 • Springfield • Illinois • 62794-9276

Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Uncontaminated soil, including uncontaminated soil mixed with other clean construction or demolition debris (CCDD) materials, accepted at a CCDD fill operation must be certified to be uncontaminated soil in accordance with Section 22.51(f)(2)(B) of the Environmental Protection Act [415 ILCS 5/22.51(f)(2)(B)]. Uncontaminated soil accepted at an uncontaminated soil fill operation must be certified to be uncontaminated soil accepted at an uncontaminated soil fill operation must be certified to be uncontaminated soil in accordance with Section 22.51a(d)(2)(B) of the Environmental Protection Act [415 ILCS 5/22.51a(d)(2)(B)]. These certifications must be made by a licensed professional engineer or a licensed professional geologist using this form, LPC-663, when the soil is removed from a site that has been used for commercial or industrial purposes. Uncontaminated soil from a site that has not been used for commercial or industrial purposes may be certified by either the site owner or operator using LPC-662 or by a licensed professional engineer or licensed professional geologist using this form. If you have any questions about this form, telephone the Bureau of Land, Permit Section at 217-524-3300.

1. Source Location Information

| (Describe the lo | cation of the s | ource of th | ne uncontami | nated soil) | | | | | | |
|---------------------|-----------------|-------------|----------------|-------------|-------------|---------|---------------|---------------|----------------------|-------------|
| Project Name: | Chicago Exec . | Airport-Ru | nway 34 End | EMAS | Office F | hone | Numb | er, if availa | able: <u>847.537</u> | .2580 |
| Physical Site Lo | cation (Street, | Road): 7 | 00 feet East o | of Hangar 5 | 50 at 16 E. | Palatir | ne Rd. | | | |
| City: Prospect I | leights | | State: IL | | Zip Code: | 6007 | 0 | | | |
| County: Cook | | | Township: | Wheeling | | | | | | |
| Latitude and Lor | ngitude of appr | roximate c | enter of site: | | | | | | | |
| Latitude: <u>42</u> | 06 | 37.04 | Longitude: | 87 | _53 | 59.99 |) | _13 | Wheeling | <u>R11E</u> |
| (Deg | g) (Min) | (Sec) | | (Deg) | (Min) | (Se | c) | Section | Township | Range |
| IEPA Site ID Nu | mber(s), if ass | igned: | BOL: n/a | | BOV | V: n/a | | | BOA: <u>n/a</u> | |
| 2. Owner/Op | erator Iden | tificatio | n - For So | urce Site | • | | | | | |
| | Site O | wner | | | | | | Si | te Operator | |
| Name: | Chicago Exec | utive Airpo | ort | | Name: | | n/a | | | |
| Street Address: | 1020 South P | ant Road | | | Street Ad | dress: | n/a | | | |
| PO Box: | | | | | PO Box: | | n/a | | | |
| City: | Wheeling | | | IL | City: | | n/a | | | State: |
| Zip Code: | 60090 | Phone | 847.537.2 | 580 | Zip Code: | | n/a | | _ Phone: n/a | a |
| Contact: | Dennis Roule | au | | | Contact: | | n/a | | | |
| Email, if availabl | e: drouleau@ |)chiexec.c | om | | Email, if a | vailabl | e: <u>n/a</u> | 8 | | |

IL 532-2922 LPC 663 7/2011

Uncontaminated Soil Certification

Project Name: Chicago Exec Airport-Runway 34 End EMAS

Latitude and Longitude of approximate center of site:

| Latitude: | <u>42</u> | 06 | 37.04 | Longitude: | 87 | _53 | 59.99 | _13 | Wheeling | <u>R11E</u> |
|-----------|-----------|-------|-------|------------|-------|-------|-------|---------|----------|-------------|
| | (Deg) | (Min) | (Sec) | | (Deg) | (Min) | (Sec) | Section | Township | Range |

3. Basis for Certification and Attachments

Explain the basis upon which you are certifying that the soil from this site is uncontaminated soil.

Soils to be removed from the site are not related to any cleanup or removal of contaminants, including, but not limited to activities conducted under CERCLA, or under an IEPA remediation program, such as the LUST program or Site Remediation Program (SRP). Soil samples recovered from boring performed on site were satisfactory for TACO Tier I Soil Remediation Objectives. It is therefore our opinion that soil spoils associated with the proposed construction activities qualify as "Uncontaminated Soils".

Attachments: (check all that apply)

✓ Laboratory Analyses

Laboratory Accreditation Status

Authorized Agent Certification

| Describe | Environmental Investigation Report prepared by GSI |
|----------|--|
| | (Job No. 12012 dated 3/6/2012) |
| | |

4. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I certify under penalty of law that the information submitted, including but not limited to all attachments and other information, is, to the best of my knowledge and belief, true, accurate, and complete. In accordance with the Environmental Protection Act 415 ILCS 5/22.51a(f)(2)(B) or 5/22.51a(d)(2)(B), I certify that the soil from this site is uncontaminated soil. All necessary documentation is attached.

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

| Company Name: | Geo Services, Inc. | | | |
|--|------------------------------|--------|-----------|--|
| Street Address: | 805 Amherst Court, Suite 204 | · | | |
| City: | Naperville | State: | <u> </u> | Zip Code: 60565 |
| Phone: | 630-305-9186 | | | |
| A PA | L | | - | 3/6/12 |
| Licensed Professional Licensed Professional | | | | Date: 062-052031 LICENSED PROFESSIONA |
| Andrew Ptak | | | | PROFESSIONAL |
| Printe | ed Name: | | | PROFESSIONAL ENGINEER P.E. or CPRC Seal: OF ILLING 3013 |

[✓] Other(s)

ENVIRONMENTAL INVESTIGATION REPORT Rehabilitation Runway 16/34 Coordinate Disposal of Uncontaminated Soils Chicago Executive Airport Wheeling/Prospect Heights, IL

Prepared by:

Geo Services, Inc. 805 Amherst Court Suite 204 Naperville, Illinois 60565 (630) 305-9186

JOB NO. 12012

March 2012



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Appendix A – Map & Figure Appendix B – Boring Log Appendix C – Environmental Testing

INTRODUCTION

We have completed the Environmental Investigation for the proposed airport improvements for the CAE, Wheeling-Prospect Heights, Illinois. The subject site is located immediately north of Palatine Road in the southeast quadrant of the CEA approach beginning of Runway 16/34 between Station 592+50 and 590+75, hence referred to as the Project Site. Included in Appendix A is a site map and site diagram which also includes the soil boring location that was performed for this investigation. The purpose of this investigation is to determine if the soils to be generated from construction activities for proposed rehabilitation for new pavements can qualify as being "Uncontaminated Soils" as per the requirements established in Illinois P.A. 096-1416 so that they can be disposed of at a certified Clean Construction Demolition Debris (CCDD) facility.

SITE HISTORY

According to readily available historical information, the CEA was originally opened in 1925 when it was a 40 acre parcel with dirt runways located within an open grassy area. A 1938 aerial photograph confirms that the airport was present in a rural area and that the Project Site is located in an area that appears to have a preliminary dirt runway in place. A 1951 aerial photograph shows that the Project Site is located in an area where three (3) dirt runways intersect. A 1960 aerial photograph suggests that the two (2) eastern most runways are now paved but that the third westernmost runway is not yet paved. The 1974 aerial photograph shows all three (3) runways in the vicinity of the Project Site as being paved. Subsequent aerial photographs indicate that there have been several configuration changes for the runways located in the vicinity of the Project Site, however, no other improvements have been located in this area.

REGULATORY REVIEW

We have reviewed IEPA data base listings online and have identified nine (9) Leaking Underground Storage Tanks and three (3) Illinois Site Remediation Program (SRPs) sites that are affiliated with CEA complex. The following table summarizes readily available information regarding these LUSTS and SRPs:

| Site Name (LUST#/SRP) | Address | NFR DATE |
|--|-------------------------------------|----------|
| | | |
| Palwaukee Aviation (#892088) | Off of Sumac Road. at Airport | 9/6/91 |
| Priester Aviation (#901958) | Palwaukee Airport, Wheeling | 3/31/11 |
| KL Property (#911440) | 1020 South Plant, Wheeling | |
| Priester Aviation (#951122) | Palwaukee Airport, Wheeling | 9/23/97 |
| Priester Aviation (#980170) | 1109 S. Wolf Rd., Palwaukee Airport | 6/26/98 |
| Palwaukee Municipal Airport - Hanger 9 | 1061 Wolf Road, Wheeling | 4/2/04 |
| (#20040450) | | |
| Chicago Executive Airport (20071356) | 1126 South Milwaukee Ave., Wheeling | 1/12/11 |
| Chicago Executive Airport (20071388) | 1126 South Milwaukee Ave., Wheeling | 1/12/11 |
| Chicago Executive Airport (20080829) | 1020 South Plant, Wheeling | 12/9/08 |
| Foxboro Apartment Embankment (SRP) | 496 South Wolf Road, Wheeling | 5/18/99* |
| West Coast Charters (SRP) | 1020 South Plant, Wheeling | 11/16/04 |
| Palwaukee Municipal Airport (SRP) | 807 South Wolf Road, Wheeling | 2/13/98 |

All but one (1) of the identified LUSTs and SRPs at the CAE facility have been categorized as No Further Remediation (NFR) sites by the IEPA and the unresolved LUST is not near enough to the Project Site to pose a threat to have impacted it.

We have also reviewed the current Illinois Emergency Management Agency (IEMA) online records and no additional documented spills or releases of hazardous materials, chemicals or petroleum products were identified at the airport in near proximity to the Project Site. Based on readily available information, proximity to the project site, and local hydrogeological conditions, it is our opinion that there are no documented regulatory concerns in regards to the construction spoils that will be generated from construction activities at the Project Site.

ENVIRONMENTAL SAMPLING

On February 08, 2012, a Geo Services, Inc. (GSI) representative visited the Project Site in order to check the boring layout out made by a CMT representative to recover representative soil samples to document whether or not the soils on site qualify as Uncontaminated Soils. A utility check was also coordinated at the same time as this site visit with representatives from the appropriate utilities and airport officials.

On February 13, 2012, soil boring B-1 was performed at the Project Site with a truck mounted CME-75 drill rig. The boring was advance by means of hollow stem auger drilling methods in accordance with ASTM D-6151 and soil samples were obtained using split spoon sampling procedures in accordance with ASTM D-1586. Prior to drilling operations, the drill rig and all downhole drilling/sampling equipment were cleaned to prevent cross contamination. All drilling and sampling operations were supervised by an experienced GSI Environmental Technician using a photo-ionization detector (PID) meter to screen for indications of possible suspect environmental contamination related to the presence of Volatile Organic Contents (VOCs).

To prevent cross contamination between samples, the GSI sampler handling soil samples wore clean, disposable latex gloves which were changed each time soil samples were handled. The sample selected for environmental analysis was placed into glass vials and jars equipped with Teflon lined lids which had been provided by TestAmerica, the IEPA accredited laboratory selected to perform chemical testing. The vial containers consisted of pre-weighed vials with NaHSO₄ and Methanol solutions for Volatile Organic Contents (VOCs) analysis as per EPA Method 5035/8260. Each sample container was labeled with sample number, site name, date and time of recovery. All samples were placed into an iced cooler to maintain a temperature near 4 degrees Celsius until returned to our laboratory and transferred to a refrigerator. The remaining portion of the recovered samples were transferred to labeled 1-Qt Ziploc freezer bags for potential landfill categorization and were also stored in a chilled condition.

Subsequent to drilling, the boring was backfilled with the excess soil samples and patched to grade to match existing conditions.

The soil conditions encountered in the boring are summarized on the boring log included in Appendix B. As indicated on the boring log, a 1.0' layer of topsoil was encountered at the surface which was underlain by medium dense, brown, sandy silts and silty gravels that extended to a depth of 8.5' below ground surface where a stiff, gray clay was encountered that extended to the maximum depth of the boring, 10.0' below ground surface. No unusual discolorations or unexplained odors were noted during drilling and all PID screenings were non-

detect for any suspect VOCs.

ENVIRONMENTAL TESTING RESULTS

Sample S-3 recovered from a depth of 3.0' to 5.0' was delivered to TestAmerica following chain of custody procedures the following day that it was recovered and submitted for TACO Clean Construction Demolition Debris (CCDD) analysis which includes testing for VOCs, Semi-Volatile Organic Contents (SVOCs), Metals and several other analytes in order to document that the soils on site can be considered to be uncontaminated soil. Test results are included in Appendix C along with data summary tables.

We have compared all of the detected analytes to the IEPA TACO Tier 1 Residential and Industrial/Commercial (Ind/Com) Soil Remediation Objectives (SROs) including Construction Worker Ingestion and Inhalation limits, the soil component of Class I and Class II groundwater limits. In addition, we have compared the Polynuclear Aromatics (PNAs) and Total Metal results to the IEPA approved Metropolitan Background Levels (MBGLs) because the IEPA allows for the use of MBGLs as substitute SROs for some Metals, non-carcinogenic PNAs and the carcinogenic PNA benzo(a)pyrene. Following is a discussion regarding test results:

Volatile Organic Contents (VOCs): No VOCs were detected in excess of any SROs.

Semi-Volatile Organic Contents (SVOCs) and Polynuclear Aromatics (PNAs): The PNA benzo(a)pyrene was detected at 0.14 ppm which exceeds the Residential Ingestion Limit of 0.09 ppm. However, since the IEPA allows for the use of the MBGL of 2.1 ppm as an alternative SRO for this PNA, the detected level of this PNA is not considered to be an environmental concern. No other SVOCs/PNAs were detected in excess of any SROs.

Pesticides and PCBs: The sample was non-detect for all Pesticides and PCBs.

Total Metals: Several Metals were detected in excess of MBGLs that apply to this site, however, none of the Metals with Residential or Ind/Com SROs were detected in excess of any SROs.

Several Metals were detected in excess of MBGLs that do not have any corresponding TACO SROs which are discussed below:

<u>Aluminum:</u> Aluminum was detected at 12,000 ppm which exceeds the MBGL of 9,500 ppm. This concentrations is satisfactory for the lowest IEPA specified SRO of 200,000 ppm which was published by the IEPA in a supplemental Non-Taco Objectives Table on March 14, 2011.

<u>Calcium:</u> Calcium was detected at 37,000 ppm which exceeds the MBGL of 9,300 ppm. There have never been any TACO SROs established for Calcium, however, the most recent TACO guidelines do indicate that the chemical-specific properties of Calcium are such that there are no concerns in regards to ingestion limits at any soil concentration and that there are no toxicity criteria for inhalation limits. The most recent IEPA proposed draft table for TACO-Derived Maximum Allowable Concentrations of Chemical dated 4-29-11 does not list any SROs for Calcium. <u>Iron:</u> Iron was detected at 20,000 ppm which exceeds the MBGL of 15,900 ppm but is less than the lowest IEPA specified SRO of 55,000 ppm which was published by the IEPA in a supplemental Non-Taco Objectives Table on January 6, 2009. In our experience, soils with these Total concentrations of Iron are typically satisfactory for the IEPA TACO specified Class I Groundwater Ingestion Exposure Route SRO of 5.0 mg/L if tested for by the Toxicity Characteristics Leaching Procedure (TCLP).

<u>Potassium:</u> Potassium was detected at 1,800 which exceeds the MBGL of 1,268 ppm. There have never been any TACO SROs established for Potassium, however, the most recent TACO guidelines do indicate that the chemical-specific properties of Potassium are such that there are no concerns in regards to ingestion limits at any soil concentration and that there are no toxicity criteria for inhalation limits. The most recent IEPA proposed draft table for TACO-Derived Maximum Allowable Concentrations of Chemical dated 4-29-11 does not list any SROs for Potassium.

<u>Sodium:</u> Sodium was detected at concentrations of 180 ppm which exceeds the MBGL of 130 ppm. There have never been any TACO SROs established for Sodium, however, the most recent TACO guidelines do indicate that the chemical-specific properties of Sodium are such that there are no concerns in regards to ingestion limits at any soil concentration and that there are no toxicity criteria for inhalation limits. The most recent IEPA proposed draft table for TACO-Derived Maximum Allowable Concentrations of Chemicals dated 4-29-11 does not list any SRO for Sodium.

FINDINGS

Based on the information presented above, the soils to be generated from construction activities for Runway 16/34 are considered to meet the qualifications of an "Uncontaminated Soil" and are thus suitable for disposal at a CCDD disposal facility. Please note, however, that it is the responsibility of the "site operator" to immediately stop work if any unexpected conditions are encountered during site excavation operations. Unexpected conditions include soil with unexplained odors, discolorations or staining, the presence of unsuitable deleterious materials or previously undocumented fill soils. If such a condition is encountered Geo Services, Inc. should be contacted to re-evaluate conditions at the site.

Any soils that may be contaminated should not be transported off-site. Materials sent to a CCDD disposal facility are inspected and screened prior to acceptance at the disposal facility. The disposal facility has the option to reject any material that does not meet their standards. Rejected loads are reported to the IEPA and will be returned to the originating site. The rejected soil must then be properly disposed of at a sanitary landfill and the generating site (site operator) must have documentation confirming proper disposal of the rejected loads.

GENERAL QUALIFICATIONS

Geo Services has performed this environmental investigation in conformance with the scope and limitations of Illinois P.A. 096-1416 for the soils to be generated as construction spoils from

the proposed Runway 16/34 improvements at the Chicago Executive Airport, Wheeling/Prospect Heights, Illinois. The information submitted in this environmental investigation has been based on available information. The data reviewed for this report were limited to those data that were readily available. Geo Services is not responsible for conditions that were not disclosed in the course of review of the available data sources. This environmental investigation is not intended to be deemed a legal opinion. Environmental conditions are subject to change depending upon future activities and this assessment is descriptive of the present conditions at the Project Site. As any additional information becomes available, that information should be brought to our attention to determine if it affects our analysis and recommendations.

The report was prepared for and is intended for the exclusive use of CMT and the Chicago Executive Airport. The report's contents may not be relied upon by any party other than the above listed parties without the express written permission of Geo Services.

The report's findings are based on conditions that existed on the date of the Geo Services' site visit and should not be relied upon to precisely represent conditions at any other time. The scope of service executed for this project does not comprise an audit for regulatory compliance. Geo Services has based the conclusions included in this report on its observation of existing site conditions, its interpretation of site history, and its interpretation of the site usage information it was able to access. Conclusions about site conditions under no circumstances comprise a warranty that conditions in all areas within the site and beneath structures are of the same quality that Geo Services has inferred from observable site conditions and readily available site history.

APPENDIX A

MAPS & FIGURES

Chicago Executive Airport Proposed Runway 16/34 Rehabilitation PROSPECT HEIGHTS/WHEELING, IL COOK COUNTY GSI JOB NO.: 12012

E Lake Cook Rd Lake Cook Rd McHenry Rd Edens 覐 Commercial Av 6th St Portwine North Northfield Wheeling W Dundee Rd 68 = 2 S Rd Rotgers Ln Elmhurst Schoenbeck 21 Walters Ave E Hint Ro Oak Ave w W Hintz Rd T42N Dam No 1 Noods Forest õ NOOD 2 Preserve Techny PROJECT 2 ř LOCATION hurst 문 5 £ Palatine Rd Express Ln ss Ln 듭 45 z E Old Willow Rd õ Prospect Heights E ake Ave E Camp McDonald Rd Rd Woods R River -Forest Preserve Northfield Woods 83 E Euclid Ave Euc 2 enwood Dr 3 0 mi LOCATION MAP

R11E

APPENDIX B

BORING LOG

| | | | | | LOG OF B | ORIN | NG NO. | B-01 | | | | | | | | |
|-------------------------------------|---------------|-------------|-----------------|----------|---|--------------------------------------|---|------------|---------|----------------|--------|------------|-----|------|--|--|
| CLIE | | a 1 | | | & Tilly, Inc. | BOF Sta | RING LOCA | TION 25 | | | | | | | | |
| | | - | | | 3 . | Offset: 80' RT. Centerline RWY 16/34 | | | | | | | | | | |
| PRC | | | | | | PROJECT DESCRIPTION | | | | | | | | | | |
| Whe | | | | | e Airport | Rehabilitation Runway 16/34 | | | | | | | | | | |
| | | | | | | | UNCONFINED COMPRESSIVE STRENGTH TONS/FT. ² | | | | | | | | | |
| DEPTH (ft.) BELOW GROUND SURFACE | SAMPLE NUMBER | ΓΥΡΕ | SAMPLE DISTANCE | RECOVERY | | , WT. | | | | | | | | | | |
| S. | Ĭ | ц | DIS | ШШ | DESCRIPTION OF MATERIAL | IT DRY LBS./FT | 1 | 2 | | 3 4 | 4 | 5 | 6+ | | | |
| | MPLE | SAMPLE TYPE | APLE | SAMPLE | | UNIT DRY LBS./F1 | | | WAT | ER 🌑 CC | NTEN | ⊤% | | | | |
| ВЯ | SA N | 0, | SAI | SAN | | - | | STANDAR | D "N" F | | 10N (I | BLOWS/FT.) | | | | |
| | | | | | GROUND SURFACE ELEVATION 643.25 | | 10 | 20 | | $-\otimes_{4}$ | .0 | 50 6 | 50+ | | | |
| | 1 | AS | \prod | | TOPSOIL-black | | Ĭ | | | | | | | | | |
| | 2 | SS | | | SANDY SILT-brown-medium dense (ML) | | | ≈ • | | | | | | | | |
| 5.0 | 3 | SS | | | SILTY CLAYEY SAND- brown-medium dense (SC-SM) | | | | | | | | | | | |
| | 4 | ss | | | SANDY SILT-brown-medium dense (ML) | | | | | | | | | | | |
| 10.0 | | ss | | | LEAN CLAY with Sand—gray— stiff (CL) | 125 | * | | | | | | | | | |
| | | | | | END OF BORING | | | | | | | | | | | |
| | W/ | TEF | L | EVE | L OBSERVATIONS | | | | BORIN | G STARTE | D | February | 13, | 2012 | | |
| Wate | r Le | evel | Dry | / W | hile Drilling -5.0' | X | Inc | | BORIN | G COMPLE | ETED | February | 13, | 2012 | | |
| Wate | r Le | evel | Aft | er | Boring -5.0' Geotechnical, Environme 805 Amberst C | ntal & | Çivil Enginee | ering | RIG | СМЕ | E-75 | FOREMAN | | RJ | | |
| | | | | | Naperville, Illi | nois | 6,0565 | | DRAW | 1 | RWC | APPROVED | | AJP | | |
| | | | | | (630) 35 | 5+283 | 38 | | GSI JO |)B No. 1 | 2012 | SHEET | 1 | OF 1 | | |

© Geo Services, Inc.

APPENDIX C

ENVIRONMENTAL TESTING

| Project Sample Date | Chicago Executive Airport - Runway 1634 2/13/2012 | | | | | | | | | | | | | |
|------------------------|--|-----------|-------------|-------------|----------|-----------|-------------|---------|----------|---------------------|------------|---------|----------|-----------|
| Lab Name | TestAmerica Chicago | | | | | | | | | | | | | |
| GSI Job # | | | | | | | | | | | | | | |
| | sults for Soil Samples | * Expos | sure Routes | for Specifi | ic SROs | | * | Exposur | e Routes | s for Speci | fic SROs | | | Sample ID |
| | | | Resid | ential | | Inc | dustrial/Co | mmercia | al | Construction Worker | | | | pН |
| TABLE 1: V | locs | Ingestion | Inhalation | Class I | Class II | Indestion | Inhalation | Class I | Class II | Indestion | Inhalation | Class I | Class II | B-1/S-3 |
| Method | Method Analyte | | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | | 7.88 |
| 8260B | 1,1,1-Trichloroethane | NRO | 1200 | 2 | 9.6 | NRO | 1200 | 2 | 9.6 | NRO | 1200 | 2 | 9.6 | < 0.0043 |
| 8260B | 1,1,2,2-Tetrachloroethane | 310 | 2000 | 0.22 | 0.22 | 8200 | 2000 | 0.22 | 0.22 | 2000 | 2000 | 0.22 | 0.22 | < 0.0043 |
| 8260B | 1,1,2-Trichloroethane | 310 | 1800 | 0.02 | 0.3 | 8200 | 1800 | 0.02 | 0.3 | 8200 | 1800 | 0.02 | 0.3 | < 0.0043 |
| 8260B | 1,1-Dichloroethane | 7800 | 1300 | 23 | 110 | 200000 | 1700 | 23 | 110 | 200000 | 130 | 23 | 110 | < 0.0043 |
| 8260B | 1,1-Dichloroethene | 3900 | 290 | 0.06 | 0.3 | 100000 | 470 | 0.06 | 0.3 | 10000 | 3 | 0.06 | 0.3 | < 0.0043 |
| 8260B | 1,2-Dichloroethane | 7 | 0.4 | 0.02 | 0.1 | 63 | 0.7 | 0.02 | 0.1 | 1400 | 0.99 | 0.02 | 0.1 | < 0.0043 |
| 8260B | 1,2-Dichloropropane | 9 | 15 | 0.03 | 0.15 | 84 | 23 | 0.03 | 0.15 | 1800 | 0.5 | 0.03 | 0.15 | < 0.0043 |
| 8260B | 1,3-Dichloropropene, Total | 6.4 | 1.1 | 0.004 | 0.02 | 57 | 2.1 | 0.004 | 0.02 | 1200 | 0.39 | 0.004 | 0.02 | <0.0043 |
| 8260B | 2-Hexanone | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | < 0.0043 |
| 8260B | Acetone | 70000 | 100000 | 25 | 25 | NRO | 100000 | 25 | 25 | NRO | 100000 | 25 | 25 | < 0.0043 |
| 8260B | Benzene | 12 | 0.8 | 0.03 | 0.17 | 100 | 1.6 | 0.03 | 0.17 | 2300 | 2.2 | 0.03 | 0.17 | < 0.0043 |
| 8260B | Bromodichloromethane | 10 | 3000 | 0.6 | 0.6 | 92 | 3000 | 0.6 | 0.6 | 2000 | 3000 | 0.6 | 0.6 | <0.0043 |
| 8260B | Bromoform | 81 | 53 | 0.8 | 0.8 | 720 | 100 | 0.8 | 0.8 | 16000 | 140 | 0.8 | 0.8 | < 0.0043 |
| 8260B | Bromomethane | 110 | 10 | 0.2 | 1.2 | 2900 | 15 | 0.2 | 1.2 | 1000 | 3.9 | 0.2 | 1.2 | < 0.0043 |
| 8260B | Carbon disulfide | 7800 | 720 | 32 | 160 | 200000 | 720 | 32 | 160 | 20000 | 9 | 32 | 160 | < 0.0043 |
| 8260B | Carbon tetrachloride | 5 | 0.3 | 0.07 | 0.33 | 44 | 0.64 | 0.07 | 0.33 | 410 | 0.9 | 0.07 | 0.33 | <0.0043 |
| 8260B | Chlorobenzene | 1600 | 130 | 1 | 6.5 | 41000 | 210 | 1 | 6.5 | 4100 | 1.3 | 1 | 6.5 | <0.0043 |
| 8260B | Chloroethane | NRO | 1500 | NRO | NRO | NRO | 1500 | NRO | NRO | NRO | 97 | NRO | NRO | <0.0043 |
| 8260B | Chloroform | 100 | 0.3 | 0.6 | 2.9 | 940 | 0.54 | 0.6 | 2.9 | 2000 | 0.76 | 0.6 | 2.9 | <0.0043 |
| 8260B | Chloromethane | NRO | 110 | NRO | NRO | NRO | 180 | NRO | NRO | NRO | 11 | NRO | NRO | < 0.0043 |
| 8260B | cis-1,2-Dichloroethene | 780 | 1200 | 0.4 | 1.1 | 20000 | 1200 | 0.4 | 1.1 | 20000 | 1200 | 0.4 | 1.1 | <0.0043 |
| 8260B | cis-1,3-Dichloropropene | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | <0.0043 |
| 8260B | Dibromochloromethane | 1600 | 1300 | 0.4 | 0.4 | 41000 | 1300 | 0.4 | 0.4 | 41000 | 1300 | 0.4 | 0.4 | <0.0043 |
| 8260B | Ethylbenzene | 7800 | 400 | 13 | 19 | 200000 | 400 | 13 | 19 | 20000 | 58 | 13 | 19 | <0.0043 |
| 8260B | Methyl Ethyl Ketone + | 47000 | 13000 | 17 | 17 | 1000000 | 21000 | 17 | 17 | 120000 | 140 | 17 | 17 | <0.0043 |
| 8260B | methyl isobutyl ketone | NRO | 3100 | NRO | NRO | NRO | 3100 | NRO | NRO | NRO | 340 | NRO | NRO | <0.0043 |
| 8260B | Methyl tert-butyl ether | 780 | 8800 | 0.32 | 0.32 | 20000 | 8800 | 0.32 | 0.32 | 2000 | 140 | 0.32 | 0.32 | <0.0043 |
| 8260B | Methylene Chloride | 85 | 13 | 0.02 | 0.2 | 760 | 24 | 0.02 | 0.2 | 12000 | 34 | 0.02 | 0.2 | <0.0043 |
| 8260B | Styrene | 16000 | 1500 | 4 | 18 | 410000 | 1500 | 4 | 18 | 41000 | 430 | 4 | 18 | <0.0043 |
| 8260B | Tetrachloroethene | 12 | 11 | 0.06 | 0.3 | 110 | 20 | 0.06 | 0.3 | 2400 | 28 | 0.06 | 0.3 | <0.0043 |
| 8260B | Toluene | 16000 | 650 | 12 | 29 | 410000 | 650 | 12 | 29 | 410000 | 42 | 12 | 29 | <0.0043 |
| 8260B | trans-1,2-Dichloroethene | 1600 | 3100 | 0.7 | 3.4 | 41000 | 3100 | 0.7 | 3.4 | 41000 | 3100 | 0.7 | 3.4 | <0.0043 |
| 8260B | trans-1,3-Dichloropropene | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | <0.0043 |
| 8260B | Trichloroethene | 58 | 5 | 0.06 | 0.3 | 520 | 8.9 | 0.06 | 0.3 | 1200 | 12 | 0.06 | 0.3 | <0.0043 |
| 8260B | Vinyl chloride | 0.46 | 0.28 | 0.01 | 0.07 | 7.9 | 1.1 | 0.01 | 0.07 | 170 | 1.1 | 0.01 | 0.07 | <0.0043 |
| 8260B | Xylenes, Total | 16000 | 320 | 150 | 150 | 410000 | 320 | 150 | 150 | 41000 | 5.6 | 150 | 150 | <0.0085 |

* Exposure Routes for Soil Remediation Objectives (SROs) are based on Title 35 Part 742 Tier 1 Appendix B Table A, C and D.

All results are mg/Kg and dry weight unless otherwise requested

NRO = (No Remediation Objective) was provided in table A, C or D in Title 35 Part 742

Note 1: Results that are Bolded and Shaded indicate that the measured concentration exceeds any one of the SROs.

Note 2: Class I and Class II SROs are based on pH according to Tables C and D for Title 35 indicated analytes.

Additional analytes may have been requested to be reported but are not contained in the non-TACO or TACO Tier 1 Appendix B tables and so are not evaluated.

Estimated results that are reported between the MDL and RL (J flags) may be reported but are not indicated with a flag.

Please refer to the report for J flagged values.

Non TACO analytes are italicized and limits are based on the Illinois EPA Toxicity Assessment Unit May 1, 2007. These footnotes are not an all inclusive list from Section 742 Appendix B Tier 1 Tables A through H. Results may have been achieved by a dilution and are not indicated with a flag. Please refer to the report for any dilutions.

For a complete detailed list see Section 742 Appendix B Tier 1 Tables A through H.

Xylenes, Total is a calculated result in TALs by adding the m,p-Xylene and o-Xylene results.

NRO/NRO** indicates that pH analysis was not requested and the values for Class I and Class II can not be provided + Reported according to the proposed amendments to TACO.

| Project Sample Date | Chicago Executive Airport - Runway 1634 2/13/2012 | | | | | | | | | | | | | |
|------------------------|--|--------------|--------------|-------------|--------------|-----------------|--------------|-------------|--------------|-----------------|-------------|------------|--------------|------------------|
| Lab Name | TestAmerica Chicago | | | | | | | | | | | | | |
| GSI Job # | 12012 ults for Soil Samples | * Expo | sure Routes | for Specif | o SBOo | T | | * Evnoou | ro Doutor | ofor Speci | fia SBOa | | | Sample ID |
| | • | Expos | | lential | C SRUS | h | ndustrial/C | | | | Constructio | on Worke | r | pH |
| TABLE 2: S | VOCs | Ingestion | Inhalation | Class I | Class II | Ingestion | Inhalation | Class I | Class II | | Inhalation | | Class II | B-1/S-3 |
| Method | Analyte | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | 7.88 |
| 8270C | 1,2,4-Trichlorobenzene | 780 | 3200 | 5 | 53 | 20000 | 3200 | 5 | 53 | 2000 | 920 | 5 | 53 | <0.19 |
| 8270C | 1,2-Dichlorobenzene | 7000 | 560 | 17 | 43 | 180000 | 560 | 17 | 43 | 18000 | 310 | 17 | 43 | <0.19 |
| 8270C | 1,3-Dichlorobenzene | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | <0.19 |
| 8270C 8270C | 1,4-Dichlorobenzene 2,2'-oxybis[1-chloropropane] | NRO NRO | 11000 NRO | 2 NRO | 11 NRO | NRO NRO | 17000 NRO | 2 NRO | 11 NRO | NRO NRO | 340 NRO | 2 NRO | 11 NRO | <0.19 <0.19 |
| 8270C | 2,4,5-Trichlorophenol | 7800 | NRO | 64 | 64 | 200000 | NRO | 64 | 64 | 200000 | NRO | 64 | 64 | <0.19 |
| 8270C | 2,4,6-Trichlorophenol | 58 | 200 | 0.07 | 0.07 | 520 | 390 | 0.07 | 0.07 | 11000 | 540 | 0.07 | 0.07 | <0.38 |
| 8270C | 2,4-Dichlorophenol | 230 | NRO | 0.69 | 0.69 | 6100 | NRO | 0.69 | 0.69 | 610 | NRO | 0.69 | 0.69 | < 0.38 |
| 8270C | 2,4-Dimethylphenol | 1600 | NRO | 9 | 9 | 41000 | NRO | 9 | 9 | 41000 | NRO | 9 | 9 | < 0.38 |
| 8270C | 2,4-Dinitrophenol | 160 | NRO | 0.2 | 0.2 | 4100 | NRO | 0.2 | 0.2 | 410 | NRO | 0.2 | 0.2 | <0.77 |
| 8270C | 2,4-Dinitrotoluene | 0.9 | NRO | 0.0008 | 0.0008 | 8.4 | NRO | 0.0008 | 0.0008 | 180 | NRO | 0.0008 | 0.0008 | <0.19 |
| 8270C | 2,6-Dinitrotoluene | 0.9 | NRO | 0.0007 | 0.0007 | 8.4 | NRO | 0.0007 | 0.0007 | 180 | NRO | 0.0007 | 0.0007 | <0.19 |
| 8270C | 2-Chloronaphthalene | 6300 | NRO | 49 | 240 | 160000 | NRO | 49 | 240 | 160000 | NRO | 49 | 240 | <0.19 |
| 8270C | 2-Chlorophenol | 390 | 53000 | 3.1 | 3.1 | 10000 | 53000 | 3.1 | 3.1 | 10000 | 53000 | 3.1 | 3.1 | <0.19 |
| 8270C | 2-Methylnaphthalene + | 310 | NRO | 1.9 | 9.5 | 8200 | NRO | 1.9 | 9.5 | 820 | NRO | 1.9 | 9.5 | <0.19 |
| 8270C | 2-Methylphenol | 3900 | NRO | 15 0.14 | 15 0.14 | 100000 | NRO 56 | 15 0.14 | 15 0.14 | 100000 | NRO | 15 0.14 | 15 0.14 | <0.19 <0.19 |
| 8270C 8270C | 2-Nitroaniline 2-Nitrophenol | 230 NRO | 35 NRO | 0.14 NRO | 0.14 NRO | 6100 NRO | NRO | 0.14 NRO | 0.14 NRO | 610 NRO | 3.6 NRO | NRO | 0.14 NRO | <0.19 |
| 8270C | 3 & 4 Methylphenol | 390 | NRO | 0.2 | 0.2 | 10000 | NRO | 0.2 | 0.2 | 1000 | NRO | 0.2 | 0.2 | <0.38 |
| 8270C | 3,3'-Dichlorobenzidine | 1 | NRO | 0.2 | 0.033 | 13 | NRO | 0.2 | 0.033 | 280 | NRO | 0.2 | 0.033 | <0.19 |
| 8270C | 3-Nitroaniline | 23 | 250 | 0.001 | 0.000 | 610 | 400 | 0.001 | 0.000 | 61 | 26 | 0.007 | 0.000 | < 0.38 |
| 8270C | 4,6-Dinitro-2-methylphenol | 7.8 | NRO | 0.0031 | 0.0031 | 200 | NRO | 0.0031 | 0.0031 | 820 | NRO | 0.0031 | 0.0031 | < 0.38 |
| 8270C | 4-Bromophenyl phenyl ether | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | <0.19 |
| 8270C | 4-Chloro-3-methylphenol | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | <0.38 |
| 8270C | 4-Chloroaniline | 310 | NRO | 0.7 | 0.7 | 8200 | NRO | 0.7 | 0.7 | 820 | NRO | 0.7 | 0.7 | <0.77 |
| 8270C | 4-Chlorophenyl phenyl ether | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | <0.19 |
| 8270C | 4-Nitroaniline | 230 | 1000 | 0.1 | 0.1 | 6100 | 1600 | 0.1 | 0.1 | 610 | 110 | 0.1 | 0.1 | <0.38 |
| 8270C | 4-Nitrophenol | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | <0.77 |
| 8270C | Acenaphthene | 4700 2300 | NRO NRO | 570 85 | 2900 420 | 120000 61000 | NRO NRO | 570 85 | 2900 420 | 120000 61000 | NRO NRO | 570 85 | 2900 420 | <0.038 <0.038 |
| 8270C 8270C | Acenaphthylene Anthracene | 2300 | NRO | 12000 | 420 59000 | 61000 | NRO | 12000 | 420 59000 | 61000 | NRO | 12000 | 420 59000 | <0.038 |
| 8270C | Benzo[a]anthracene | 0.9 | NRO | 2 | 8 | 8 | NRO | 2 | 8 | 170 | NRO | 2 | 8 | <0.038 |
| 8270C | Benzo[a]pyrene | 0.09 | NRO | 8 | 82 | 0.8 | NRO | 8 | 82 | 17 | NRO | 8 | 82 | <0.038 |
| 8270C | Benzo[b]fluoranthene | 0.9 | NRO | 5 | 25 | 8 | NRO | 5 | 25 | 170 | NRO | 5 | 25 | < 0.038 |
| 8270C | Benzo[g,h,i]perylene | 2300 | NRO | 27000 | 130000 | 61000 | NRO | 27000 | 130000 | 61000 | NRO | 27000 | 130000 | < 0.038 |
| 8270C | Benzo[k]fluoranthene | 9 | NRO | 49 | 250 | 78 | NRO | 49 | 250 | 1700 | NRO | 49 | 250 | <0.038 |
| 8270C | Bis(2-chloroethoxy)methane | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | <0.19 |
| 8270C | Bis(2-chloroethyl)ether | 0.6 | 0.2 | 0.0004 | 0.0004 | 5 | 0.47 | 0.0004 | 0.0004 | 75 | 0.66 | 0.0004 | 0.0004 | <0.19 |
| 8270C | Bis(2-ethylhexyl) phthalate | 46 | 31000 | 3600 | 31000 | 410 | 31000 | 3600 | 31000 | 4100 | 31000 | 3600 | 31000 | <0.19 |
| 8270C | Butyl benzyl phthalate | 16000 | 930 | 930 | 930 | 410000 | 930 | 930 | 930 | 410000 | 930 | 930 | 930 | 0.24 |
| 8270C | Carbazole | 32 | NRO | 0.6 | 2.8 | 290 | NRO | 0.6 | 2.8 | 6200 | NRO | 0.6 | 2.8 | <0.19 |
| 8270C 8270C | Chrysene | 88 0.09 | NRO NRO | 160 2 | 800 7.6 | 780 0.8 | NRO NRO | 160 2 | 800 7.6 | 17000 17 | NRO NRO | 160 2 | 800 7.6 | <0.038 <0.038 |
| 8270C 8270C | Dibenz(a,h)anthracene Dibenzofuran | 0.09 NRO | NRO | ∠ NRO | NRO | NRO | NRO | ∠ NRO | 7.6 NRO | 820 | NRO | ∠ NRO | 7.6 NRO | <0.038 |
| 8270C | Diethyl phthalate | 63000 | 2000 | 470 | 470 | 1000000 | 2000 | 470 | 470 | 1000000 | 2000 | 470 | 470 | <0.19 |
| 8270C | Dimethyl phthalate | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | <0.19 |
| 8270C | Di-n-butyl phthalate | 7800 | 2300 | 2300 | 2300 | 200000 | 2300 | 2300 | 2300 | 200000 | 2300 | 2300 | 2300 | <0.19 |
| 8270C | Di-n-octyl phthalate | 1600 | 10000 | 10000 | 10000 | 41000 | 10000 | 10000 | 10000 | 4100 | 10000 | 10000 | 10000 | <0.19 |
| 8270C | Fluoranthene | 3100 | NRO | 4300 | 21000 | 82000 | NRO | 4300 | 21000 | 82000 | NRO | 4300 | 21000 | <0.038 |
| 8270C | Fluorene | 3100 | NRO | 560 | 2800 | 82000 | NRO | 560 | 2800 | 82000 | NRO | 560 | 2800 | <0.038 |
| 8270C | Hexachlorobenzene | 0.4 | 1 | 2 | 11 | 4 | 1.8 | 2 | 11 | 78 | 2.6 | 2 | 11 | <0.077 |

| Project Sample Date Lab Name GSI Job # | Chicago Executive Airport - Runway 1634 2/13/2012 TestAmerica Chicago 12012 | | | | | | | | | | | | | |
|---|--|------------|---|----------|-----------|------------|---------|----------|-----------|------------|-------------|----------|---------|-----------|
| Analytical Res | ults for Soil Samples | * Expos | sure Routes | | c SROs | | | | | for Speci | fic SROs | | | Sample ID |
| TABLE 2: S | VOCe | | Residential Industrial/Commercial Constru | | | | | | | | Constructio | n Worke | r | рН |
| TABLE 2. 3 | Ingestion | Inhalation | Class I | Class II | Ingestion | Inhalation | Class I | Class II | Ingestion | Inhalation | Class I | Class II | B-1/S-3 | |
| Method | Analyte | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | 7.88 |
| 8270C | Hexachlorobutadiene | 78 | 150 | 2.2 | 11 | 2000 | 150 | 2.2 | 11 | 200 | 72 | 2.2 | 11 | <0.19 |
| 8270C | Hexachlorocyclopentadiene | 550 | 10 | 400 | 2200 | 14000 | 16 | 400 | 2200 | 14000 | 1.1 | 400 | 2200 | <0.77 |
| 8270C | Hexachloroethane | 78 | NRO | 0.5 | 2.6 | 2000 | NRO | 0.5 | 2.6 | 2000 | NRO | 0.5 | 2.6 | <0.19 |
| 8270C | Indeno[1,2,3-cd]pyrene | 0.9 | NRO | 14 | 69 | 8 | NRO | 14 | 69 | 170 | NRO | 14 | 69 | <0.038 |
| 8270C | Isophorone | 15600 | 4600 | 8 | 8 | 410000 | 4600 | 8 | 8 | 410000 | 4600 | 8 | 8 | <0.19 |
| 8270C | Naphthalene | 1600 | 170 | 12 | 18 | 41000 | 270 | 12 | 18 | 4100 | 1.8 | 12 | 18 | <0.038 |
| 8270C | Nitrobenzene | 39 | 92 | 0.1 | 0.1 | 1000 | 140 | 0.1 | 0.1 | 1000 | 9.4 | 0.1 | 0.1 | <0.038 |
| 8270C | N-Nitrosodi-n-propylamine | 0.09 | NRO | 0.00005 | 0.00005 | 0.8 | NRO | 0.00005 | 0.00005 | 18 | NRO | 0.00005 | 0.00005 | <0.19 |
| 8270C | N-Nitrosodiphenylamine | 130 | NRO | 1 | 5.6 | 1200 | NRO | 1 | 5.6 | 25000 | NRO | 1 | 5.6 | <0.19 |
| 8270C | Pentachlorophenol | 3 | NRO | 0.02 | 0.1 | 24 | NRO | 0.02 | 0.1 | 520 | NRO | 0.02 | 0.1 | <0.77 |
| 8270C | Phenanthrene | 2300 | NRO | 200 | 1000 | 61000 | NRO | 200 | 1000 | 61000 | NRO | 200 | 1000 | <0.038 |
| 8270C | Phenol | 23000 | NRO | 100 | 100 | 610000 | NRO | 100 | 100 | 61000 | NRO | 100 | 100 | <0.19 |
| 8270C | Pyrene | 2300 | NRO | 4200 | 21000 | 61000 | NRO | 4200 | 21000 | 61000 | NRO | 4200 | 21000 | <0.038 |

Title 35 Part 742 Tier 1 Appendix B Table A, C and D.

All results are mg/Kg and dry weight unless otherwise requested.

Note 1: Results that are Bolded and Shaded indicate that the measured concentration exceeds any one of the SROs.

Note 2: Class I and Class II SROs are based on pH according to Tables C and D for Title 35 indicated analytes.

NRO = (No Remediation Objective) was provided in tables.

NRO/NRO** indicates that pH analysis was not requested and the values for Class I and Class II can not be provided.

Non TACO analytes are italicized and limits are based on the Illinois EPA Toxicity Assessment Unit May 1, 2007.

Additional analytes may have been requested but are not contained in the

non-TACO or TACO Tier 1 tables and are not evaluated.

Estimated results that are between the MDL and RL (J flags) may be reported but are not indicated with a flag. Please refer to the report.

Results may have been achieved by a dilution and are not indicated with a flag. Please refer to the report. 3&4-Methylphenol does not separate analytically on the columns and are reported as combined analytes.

These footnotes are not an all inclusive list from Section 742 Appendix B Tier 1 Tables A through H.

For a complete detailed list see Section 742 Appendix B Tier 1 Tables A through H.

| Project Sample Date Lab Name GSI Job # | Chicago Executive Airport - Runway 1634 2/13/2012 TestAmerica Chicago 12012 | | | | |
|---|--|---------|--------------|------------------|-----------|
| | | | | | 1 |
| | Analytical Results for PNAs in soils-Metropolitan | Chicago | Metropolitan | Non Metropolitan | |
| | | | | | Sample ID |
| Method | Analyte | mg/Kg | mg/Kg | mg/Kg | B-1/S-3 |
| 8270C | 2-Methylnaphthalene + | NRO | 0.14 | 0.29 | <0.19 |
| 8270C | Acenaphthene | 0.09 | 0.13 | 0.04 | <0.038 |
| 8270C | Acenaphthylene | 0.03 | 0.07 | 0.04 | <0.038 |
| 8270C | Anthracene | 0.25 | 0.4 | 0.14 | <0.038 |
| 8270C | Benzo[a]anthracene | 1.1 | 1.8 | 0.72 | <0.038 |
| 8270C | Benzo[a]pyrene | 1.3 | 2.1 | 0.98 | <0.038 |
| 8270C | Benzo[b]fluoranthene | 1.5 | 2.1 | 0.7 | <0.038 |
| 8270C | Benzo[g,h,i]perylene | 0.68 | 1.7 | 0.84 | <0.038 |
| 8270C | Benzo[k]fluoranthene | 0.99 | 1.7 | 0.63 | < 0.038 |
| 8270C | Chrysene | 1.2 | 2.7 | 1.1 | < 0.038 |
| 8270C | Dibenz(a,h)anthracene | 0.2 | 0.42 | 0.15 | <0.038 |
| 8270C | Fluoranthene | 2.7 | 4.1 | 1.8 | < 0.038 |
| 8270C | Fluorene | 0.1 | 0.18 | 0.04 | < 0.038 |
| 8270C | Indeno[1,2,3-cd]pyrene | 0.86 | 1.6 | 0.51 | <0.038 |
| 8270C | Naphthalene | 0.04 | 0.2 | 0.17 | <0.038 |
| 8270C | Phenanthrene | 1.3 | 2.5 | 0.99 | <0.038 |
| 8270C | Pyrene | 1.9 | 3 | 1.2 | <0.038 |

Background Soils for Chicago / Metropolitan / Non-Metropolitan are based on

Title 35 Part 742 Tier 1 Appendix A Table H.

All results are mg/Kg and dry weight unless otherwise requested.

Note 1: Results that are Bolded and Shaded indicate that the measured concentration exceeds any one of the SROs.

Non TACO analytes are italicized and limits are based on the Illinois EPA Toxicity Assessment Unit May 1, 2007.

Estimated results that are reported between the MDL and RL (J flags) may be reported but are not indicated with a flag. Please refer to the report.

Results may have been achieved by a dilution and are not indicated with a flag. Please refer to the report.

These footnotes are not an all inclusive list from Section 742 Appendix B Tier 1 Tables A through H.

For a complete detailed list see Section 742 Appendix B Tier 1 Tables A through H.

Metropolitan area means a populated area, as defined in Section 742.200, (other than the City

of Chicago) that is located within any county in a metropolitan Statistical Area listed in

Appendix A, Table G, footnote a.

Non-Metropolitan area means a populated area, as defined in Section 742.200, that is not located within any county in a Metropolitan Statistical Area listed in Appendix A, Table G, footnote a.

| Project | Chicago Executive Airport - Runway 1634 | | | | | | | | | | | | | |
|----------------|---|-------------------------------------|------------|---------|----------|-----------|-------------------------------------|---------|----------|-----------|------------|---------|----------|----------|
| Sample Date | 2/13/2012 | | | | | | | | | | | | | |
| Lab Name | TestAmerica Chicago | | | | | | | | | | | | | |
| GSI Job # | 12012 | | | | | | | | | | | | | |
| Analytical Res | ults for Soil Samples | * Exposure Routes for Specific SROs | | | | | * Exposure Routes for Specific SROs | | | | | | | |
| TABLE 3: P | osticidos | | Resid | ential | | In | dustrial/Co | mmercia | al | C | onstructio | n Worke | r | pН |
| TABLE 3. F | esticides | Ingestion | Inhalation | Class I | Class II | Ingestion | Inhalation | Class I | Class II | Ingestion | Inhalation | Class I | Class II | B-1/S-3 |
| Method | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | 7.88 | |
| 8081A | 4,4'-DDD | 3 | NRO | 16 | 80 | 24 | NRO | 16 | 80 | 520 | NRO | 16 | 80 | < 0.0097 |
| 8081A | 4,4'-DDE | 2 | NRO | 54 | 270 | 17 | NRO | 54 | 270 | 370 | NRO | 54 | 270 | 0.017 |
| 8081A | 4,4'-DDT | 2 | NRO | 32 | 160 | 17 | 1500 | 32 | 160 | 100 | 2100 | 32 | 160 | <0.0097 |
| 8081A | Aldrin | 0.04 | 3 | 0.5 | 2.5 | 0.3 | 6.6 | 0.5 | 2.5 | 6.1 | 9.3 | 0.5 | 2.5 | <0.0097 |
| 8081A | alpha-BHC | 0.1 | 0.8 | 0.0005 | 0.003 | 0.9 | 1.5 | 0.0005 | 0.003 | 20 | 2.1 | 0.0005 | 0.003 | <0.0097 |
| 8081A | alpha-Chlordane | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | < 0.0097 |
| 8081A | beta-BHC | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | < 0.0097 |
| 8081A | delta-BHC | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | < 0.0097 |
| 8081A | Dieldrin | 0.04 | 1 | 0.004 | 0.02 | 0.4 | 2.2 | 0.004 | 0.02 | 7.8 | 3.1 | 0.004 | 0.02 | < 0.0097 |
| 8081A | Endosulfan I | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | < 0.0097 |
| 8081A | Endosulfan II | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | < 0.0097 |
| 8081A | Endosulfan sulfate | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | < 0.0097 |
| 8081A | Endrin | 23 | NRO | 1 | 5 | 610 | NRO | 1 | 5 | 61 | NRO | 1 | 5 | < 0.0097 |
| 8081A | Endrin aldehyde | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | < 0.0097 |
| 8081A | Endrin ketone | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | < 0.0097 |
| 8081A | gamma-BHC (Lindane) | 0.5 | NRO | 0.009 | 0.047 | 4 | NRO | 0.009 | 0.047 | 96 | NRO | 0.009 | 0.047 | < 0.0097 |
| 8081A | gamma-Chlordane | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | < 0.0097 |
| 8081A | Heptachlor | 0.1 | 0.1 | 23 | 110 | 1 | 11 | 23 | 110 | 28 | 16 | 23 | 110 | < 0.0097 |
| 8081A | Heptachlor epoxide | 0.07 | 5 | 0.7 | 3.3 | 0.6 | 9.2 | 0.7 | 3.3 | 2.7 | 13 | 0.7 | 3.3 | < 0.0097 |
| 8081A | Methoxychlor | 390 | NRO | 160 | 780 | 10000 | NRO | 160 | 780 | 1000 | NRO | 160 | 780 | < 0.047 |
| 8081A | Toxaphene | 0.6 | 89 | 31 | 150 | 5.2 | 170 | 31 | 150 | 110 | 240 | 31 | 150 | <0.095 |

Title 35 Part 742 Tier 1 Appendix B Table A, C and D.

All results are mg/Kg and dry weight unless otherwise requested

Note 1: Results that are Bolded and Shaded indicate that the measured concentration exceeds any one of the SROs.

Note 2: Class I and Class II SROs are based on pH according to Tables C and D for Title 35 indicated analytes.

NRO = (No Remediation Objective) was provided in tables.

NRO/NRO** indicates that pH analysis was not requested and the values for Class I and Class II can not be provided.

Non TACO analytes are italicized and limits are based on the Illinois EPA Toxicity Assessment Unit May 1, 2007.

Additional analytes may have been requested but are not contained in the

non-TACO or TACO Tier 1 tables and are not evaluated.

Estimated results that are between the MDL and RL (J flags) may be reported but are not indicated with a flag. Please refer to the report.

Results may have been achieved by a dilution and are not indicated with a flag. Please refer to the report.

These footnotes are not an all inclusive list from Section 742 Appendix B Tier 1 Tables A through H.

For a complete detailed list see Section 742 Appendix B Tier 1 Tables A through H.

| Project Sample Date Lab Name | Chicago Executive Airport - Runway 1634 2/13/2012 TestAmerica Chicago | | | | | | | | | | | | | | | |
|------------------------------------|---|---------|-------------|-------------|----------|-----------|-------------|---------|----------|-----------|-------------|---------|----------|----------|--|--|
| GSI Job # Analytical Resi | 12012 Ilts for Soil Samples | * Expos | sure Routes | for Specifi | c SROs | | * F | ynosur | e Routes | for Speci | fic SROs | | | Samle ID | | |
| TABLE 4: P | • | Expo. | Resid | | 0 01103 | Inc | dustrial/Co | | | | onstruction | n Worke | | | | |
| TABLE 4: PO | | | Inhalation | Class I | Class II | Ingestion | Inhalation | Class I | Class II | Ingestion | Inhalation | Class I | Class II | B-1/S-3 | | |
| Method | Analyte | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | 7.88 | | |
| 8082 | PCB-1016 | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | <0.019 | | |
| 8082 | PCB-1221 | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | <0.019 | | |
| 8082 | PCB-1232 | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | <0.019 | | |
| 8082 | PCB-1242 | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | <0.019 | | |
| 8082 | PCB-1248 | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | <0.019 | | |
| 8082 | PCB-1254 | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | <0.019 | | |
| 8082 | PCB-1260 | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | <0.019 | | |
| 8082 | Polychlorinated biphenyls, Total | 1 | NRO | NRO | NRO | 1 | NRO | NRO | NRO | 1 | NRO | NRO | NRO | <0.019 | | |

Title 35 Part 742 Tier 1 Appendix B Table A, C and D.

All results are mg/Kg and dry weight unless otherwise requested.

Note 1: Results that are Bolded and Shaded indicate that the measured concentration exceeds any one of the SROs.

Note 2: Class I and Class II SROs are based on pH according to Tables C and D for Title 35 indicated analytes.

NRO = (No Remediation Objective) was provided in tables.

NRO/NRO^{**} indicates that pH analysis was not requested and the values for Class I and Class II can not be provided. Non TACO analytes are italicized and limits are based on the Illinois EPA Toxicity Assessment Unit May 1, 2007.

Additional analytes may have been requested to be reported but are not contained in the

non-TACO or TACO Tier 1 tables and are not evaluated.

Estimated results that are reported between the MDL and RL (J flags) may be reported but are not indicated with a flag. Please refer to the report.

Results may have been achieved by a dilution and are not indicated with a flag. Please refer to the report.

Total PCB is a calculated result in TALs by adding the individual PCB aroclors.

These footnotes are not an all inclusive list from Section 742 Appendix B Tier 1 Tables A through H.

For a complete detailed list see Section 742 Appendix B Tier 1 Tables A through H.

| Project | Chicago Executive Airport - Runway 1634 | | | | | | | | | | | | | |
|-----------------------|---|--------------------|----------------------|---------|----------|---------|-----------------|----------|---------|-----------|------------|---------|----------|-----------------|
| Sample Date | 2/13/2012 | | | | | | | | | | | | | |
| Lab Name GSI Job # | TestAmerica Chicago 12012 | | | | | | | | | | | | | |
| | | * = | | (| - 000- | | * | F | | (| (- 0D0- | | | O a marcha J D |
| Analytical Rest | Its for Soil Samples | ° Expos | sure Routes Resid | | c SRUS | In | dustrial/Co | | | for Speci | onstructio | n Worke | | Sample ID pH |
| TABLE 5: M | etals (Total) | | | | | | | | | | | • | | |
| Method | Analvte | Ingestion mg/Kg | Inhalation mg/Kg | Class I | Class II | 0 | | | | 0 | Inhalation | | Class II | B-1/S-3 7.88 |
| | | 0 0 | 0 0 | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | |
| 6010B | Aluminum | 78000 | 1000000 | NRO | NRO | 1000000 | 1000000 | NRO | NRO | 410000 | 870000 | NRO | NRO | 4400 |
| 6010B | Antimony | 31 | NRO | 5 | 20 | 820 | NRO | 5 | 20 | 82 | NRO | 5 | 20 | <2.0 |
| 6010B | Arsenic | NRO | 750 | 31 | 120 | NRO | 1200 | 31 | 120 | 61 | 25000 | 31 | 120 | 5.3 |
| 6010B | Barium | 5500 | 690000 | 2100 | 2100 | 140000 | 910000 | 2100 | 2100 | 14000 | 870000 | 2100 | 2100 | 28 |
| 6010B | Beryllium | 160 | 1300 | 8000 | 1000000 | 4100 | 2100 | 8000 | 1000000 | 410 | 44000 | 8000 | 1000000 | - |
| 6010B | Cadmium | 78 | 1800 | 430 | 4300 | 2000 | 2800 | 430 | 4300 | 200 | 59000 | 430 | 4300 | 0.39 |
| 6010B | Calcium | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | 81000 |
| 6010B | Chromium | 230 | 270 | NRO | NRO | 6100 | 420 | NRO | NRO | 4100 | 690 | NRO | NRO | 9.7 |
| 6010B | Cobalt | 4700 | NRO | NRO | NRO | 120000 | NRO | NRO | NRO | 12000 | NRO | NRO | NRO | 5.0 |
| 6010B | Copper | 2900 | NRO | 330000 | 330000 | 82000 | NRO | 330000 | 330000 | 8200 | NRO | 330000 | 330000 | 17 |
| 6010B | Iron | 55000 | NRO | NRO | NRO | 1000000 | NRO | NRO | NRO | 140000 | NRO | NRO | NRO | 12000 |
| 6010B | Lead | 400 | NRO | 107 | 1420 | 800 | NRO | 107 | 1420 | 700 | NRO | 107 | 1420 | 9.1 |
| 6010B | Magnesium | 325000 | NRO | NRO | NRO | NRO | NRO | NRO | NRO | 730000 | NRO | NRO | NRO | 45000 |
| 6010B | Manganese | 1600 | 69000 | NRO | NRO | 41000 | 91000 | NRO | NRO | 4100 | 8700 | NRO | NRO | 450 |
| 6010B | Nickel | 1600 | 13000 | 3800 | 76000 | 41000 | 21000 | 3800 | 76000 | 4100 | 440000 | 3800 | 76000 | 12 |
| 6010B | Potassium | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | 1200 |
| 6010B | Selenium | 390 | NRO | 2.4 | 2.4 | 10000 | NRO | 2.4 | 2.4 | 1000 | NRO | 2.4 | 2.4 | <1.0 |
| 6010B | Silver | 390 | NRO | 110 | NRO | 10000 | NRO | 110 | NRO | 1000 | NRO | 110 | NRO | <0.51 |
| 6010B | Sodium | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | NRO | 170 |
| 6010B | Thallium | 6.3 | NRO | 3.8 | 38 | 160 | NRO | 3.8 | 38 | 160 | NRO | 3.8 | 38 | <1.0 |
| 6010B | Vanadium | 550 | NRO | 980 | NRO | 14000 | NRO | 980 | NRO | 1400 | NRO | 980 | NRO | 15 |
| 6010B | Zinc | 23000 | NRO | 53000 | 110000 | 610000 | NRO | 53000 | 110000 | 61000 | NRO | 53000 | 110000 | 43 |
| 7471A | Mercury | 23 | 10 | 8 | 40 | 610 | 16 | 8 | 40 | 61 | 0.1 | 8 | 40 | <0.017 |

Title 35 Part 742 Tier 1 Appendix B Table A, C and D.

All results are mg/Kg and dry weight unless otherwise requested.

Note 1: Results that are Bolded and Shaded indicate that the measured concentration exceeds any one of the SROs.

Note 2: Class I and Class II SROs are based on pH according to Tables C and D for Title 35 indicated analytes.

NRO = (No Remediation Objective) was provided in tables.

NRO/NRO** indicates that pH analysis was not requested and the values for Class I and Class II can not be provided.

Non TACO analytes are italicized and limits are based on the Illinois EPA Toxicity Assessment Unit May 1, 2007.

Additional analytes may have been requested but are not contained in the

non-TACO or TACO Tier 1 tables and are not evaluated.

Estimated results that are reported between the MDL and RL (J flags) may be reported but are not indicated with a flag. Please refer to the report.

Results may have been achieved by a dilution and are not indicated with a flag. Please refer to the report.

These footnotes are not an all inclusive list from Section 742 Appendix B Tier 1 Tables A through H.

For a complete detailed list see Section 742 Appendix B Tier 1 Tables A through H.

| Project | Chicago Executive Airport - Runway 1634 | | | |
|--------------|---|-----------------|------------------|-----------|
| Sample Date | 2/13/2012 | | | |
| Lab Name | TestAmerica Chicago | | | |
| Job Number | 500-44268-1 | | | - |
| TABLE 5A: | Analytical Results for Inorganic in | Counties Within | Counties Outside | |
| Background S | oils-Metropolitan | Metropolitan | Metropolitan | |
| | | | | Sample ID |
| Method | Analyte | mg/Kg | mg/Kg | B-1/S-3 |
| 6010B | Aluminum | 9500 | 9200 | 4400 |
| 6010B | Antimony | 4 | 3.3 | <2.0 |
| 6010B | Arsenic | 13 | 11.3 | 5.3 |
| 6010B | Barium | 110 | 122 | 28 |
| 6010B | Beryllium | 0.59 | 0.56 | 0.41 |
| 6010B | Cadmium | 0.6 | 0.5 | 0.39 |
| 6010B | Calcium | 9300 | 5525 | 81000 |
| 6010B | Chromium | 16.2 | 13 | 9.7 |
| 6010B | Cobalt | 8.9 | 8.9 | 5.0 |
| 6010B | Copper | 19.6 | 12 | 17 |
| 6010B | Iron | 15900 | 15000 | 12000 |
| 6010B | Lead | 36 | 20.9 | 9.1 |
| 6010B | Magnesium | 4820 | 2700 | 45000 |
| 6010B | Manganese | 636 | 630 | 450 |
| 6010B | Nickel | 18 | 13 | 12 |
| 6010B | Potassium | 1268 | 1100 | 1200 |
| 6010B | Selenium | 0.48 | 0.37 | <1.0 |
| 6010B | Silver | 0.55 | 0.5 | <0.51 |
| 6010B | Sodium | 130 | 130 | 170 |
| 6010B | Thallium | 0.32 | 0.42 | <1.0 |
| 6010B | Vanadium | 25.2 | 25 | 15 |
| 6010B | Zinc | 95 | 60.2 | 43 |
| 7471A | Mercury | 0.06 | 0.05 | <0.017 |
| 9014 | Cyanide, Total | 0.51 | 0.5 | <0.30 |

Background Soils for Within / Outside Metropolitan are based on

Title 35 Part 742 Tier 1 Appendix A Table G.

All results are mg/Kg and dry weight unless otherwise requested.

Note 1: Results that are Bolded and Shaded indicate that the measured concentration exceeds any one of the SROs. Non TACO analytes are italicized and limits are based on the Illinois EPA Toxicity Assessment Unit May 1, 2007. Estimated results that are reported between the MDL and RL (J flags) may be reported but are not indicated with a flag. Please refer to the report.

Results may have been achieved by a dilution and are not indicated with a flag. Please refer to the report.

These footnotes are not an all inclusive list from Section 742 Appendix B Tier 1 Tables A through H.

For a complete detailed list see Section 742 Appendix B Tier 1 Tables A through H.

BOARD NOTE: Counties within Metropolitan Statistical Areas: Boone, Champaign, Clinton, Cook,

Additional analytes may have been requested to be reported but are not contained in the

non-TACO or TACO Tier 1 tables and are not evaluated.

DuPage, Grundy, Henry, Jersey, Kane, Kankakee, Kendall, Lake, Macon, Madison, McHenry, McLean, Menard, Monroe, Peoria, Rock Island, Sangamon, St. Clair, Tazewell, Will, Winnebago and Woodford. + Reported according to the proposed amendments to TACO.

| Project | Chicago Executive Airport - Runway 1634 | | | | | | | | | | | | | |
|-----------------|---|-----------|-------------|-------------|----------|-----------|-------------|---------|----------|-----------|-------------|---------|----------|-----------|
| Sample Date | 2/13/2012 | | | | | | | | | | | | | |
| Lab Name | TestAmerica Chicago | | | | | | | | | | | | | |
| GSI Job # | 12012 | | | | | | | | | | | | | |
| Analytical Resu | Analytical Results for Soil Samples | | sure Routes | for Specifi | c SROs | | * E | Exposur | e Routes | for Speci | fic SROs | | | Sample ID |
| | vanida | | Resid | ential | | Inc | lustrial/Co | mmercia | al | Co | onstruction | n Worke | r | рН |
| TABLE 0. C | TABLE 6: Cyanide | | Inhalation | Class I | Class II | Indestion | Inhalation | Class | Class II | Indestion | Inhalation | Class I | Class II | B-1/S-3 |
| | | Ingestion | IIIIaiau011 | Class I | Class II | ingestion | IIIIaiation | Ciass 1 | 01033 11 | ingestion | minulation | 010001 | 0.000 | 2 0 0 |
| Method | Analyte | mg/Kg | mg/Kg | mg/Kg | mg/Kg | mg/Kg | | | mg/Kg | 0 | mg/Kg | | | |

Title 35 Part 742 Tier 1 Appendix B Table A, C and D.

Note 1: Results that are Bolded and Shaded indicate that the measured concentration exceeds any one of the SROs.

Note 2: Class I and Class II SROs are based on pH according to Tables C and D for Title 35 indicated analytes.

NRO = (No Remediation Objective) was provided in tables.

NRO/NRO** indicates that pH analysis was not requested and the values for Class I and Class II can not be provided.

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Results may have been achieved by a dilution and are not indicated with a flag. Please refer to the report.

These footnotes are not an all inclusive list from Section 742 Appendix B Tier 1 Tables A through H.

For a complete detailed list see Section 742 Appendix B Tier 1 Tables A through H.



THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Chicago 2417 Bond Street University Park, IL 60484 Tel: (708)534-5200

TestAmerica Job ID: 500-44268-1

TestAmerica Sample Delivery Group: 500-44268-1 Client Project/Site: Chicago Executive Airport - Runway 1634

For:

Geo Services, Inc 1235 E Davis Street Arlington Heights, Illinois 60004

Attn: Vern Brown

Authorized for release by: 2/23/2012 8:56:38 AM

Jim Knapp Customer Service Manager jim.knapp@testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

..... Links **Review your project** results through **Total** Access Have a Question? Ask-The Expert Visit us at:

www.testamericainc.com

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Job ID: 500-44268-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative 500-44268-1

Comments

No additional comments.

Receipt

All samples were received in good condition within temperature requirements.

GC/MS VOA

Method(s) 8260B: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for batch 140888 exceeded control limits for the following analytes: Carbon Disulfide and Bromodichloromethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

No other analytical or quality issues were noted.

GC/MS Semi VOA

Method(s) 8270C: The laboratory control sample (LCS) for batch 141050 exceeded control limits for the following analytes: Benzo[g,h,i]perylene at 121% (58%-119%) and Indeno[1,2,3-cd]pyrene at 120% (58%-118%). These analytes were biased high in the LCS and were not detected in the associated sample. These results were within the marginal exceedence. No further action was rrequired.B-1/S-3 (500-44268-1)

Method(s) 8270C: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 141050 were outside control limits. All RPD's were > 30%. The associated laboratory control sample (LCS) recovery met acceptance criteria, with the exception of 2 analytes. No further action was taken.

B-1/S-3 500-44268-1

No other analytical or quality issues were noted.

GC Semi VOA

Method(s) 8081A: The following sample was diluted due to the abundance of target analytes: B-1/S-3 (500-44268-1). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

Metals

No analytical or quality issues were noted.

General Chemistry

No analytical or quality issues were noted.

Organic Prep

No analytical or quality issues were noted.

Client: Geo Services, Inc Project/Site: Chicago Executive Airport - Runway 1634

Lab Sample ID: 500-44268-1

Client Sample ID: B-1/S-3

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|------------------------|--------|-----------|--------|-----|-------|---------|---|--------|-----------|
| Butyl benzyl phthalate | 0.24 | | 0.19 | | mg/Kg | 1 | ¢ | 8270C | Total/NA |
| 4,4'-DDE | 0.017 | | 0.0097 | | mg/Kg | 5 | ₽ | 8081A | Total/NA |
| Aluminum | 4400 | | 20 | | mg/Kg | 1 | ¢ | 6010B | Total/NA |
| Arsenic | 5.3 | | 1.0 | | mg/Kg | 1 | ¢ | 6010B | Total/NA |
| Barium | 28 | | 1.0 | | mg/Kg | 1 | ¢ | 6010B | Total/NA |
| Beryllium | 0.41 | | 0.41 | | mg/Kg | 1 | ¢ | 6010B | Total/NA |
| Cadmium | 0.39 | | 0.20 | | mg/Kg | 1 | ¢ | 6010B | Total/NA |
| Calcium | 81000 | | 20 | | mg/Kg | 1 | ₽ | 6010B | Total/NA |
| Chromium | 9.7 | | 1.0 | | mg/Kg | 1 | ¢ | 6010B | Total/NA |
| Cobalt | 5.0 | | 0.51 | | mg/Kg | 1 | ¢ | 6010B | Total/NA |
| Copper | 17 | | 1.0 | | mg/Kg | 1 | ₽ | 6010B | Total/NA |
| ron | 12000 | | 20 | | mg/Kg | 1 | ₽ | 6010B | Total/NA |
| Lead | 9.1 | | 0.51 | | mg/Kg | 1 | ¢ | 6010B | Total/NA |
| Magnesium | 45000 | | 10 | | mg/Kg | 1 | ₽ | 6010B | Total/NA |
| Manganese | 450 | | 1.0 | | mg/Kg | 1 | ₽ | 6010B | Total/NA |
| Nickel | 12 | | 1.0 | | mg/Kg | 1 | ¢ | 6010B | Total/NA |
| Potassium | 1200 | | 51 | | mg/Kg | 1 | ₽ | 6010B | Total/NA |
| Sodium | 170 | | 100 | | mg/Kg | 1 | ₽ | 6010B | Total/NA |
| Vanadium | 15 | | 0.51 | | mg/Kg | 1 | ¢ | 6010B | Total/NA |
| Zinc | 43 | | 2.0 | | mg/Kg | 1 | ₽ | 6010B | Total/NA |
| pH | 7.88 | | 0.200 | | SU | 1 | | 9045C | Total/NA |

Method Summary

Client: Geo Services, Inc Project/Site: Chicago Executive Airport - Runway 1634

TestAmerica Job ID: 500-44268-1 SDG: 500-44268-1

| Method | Method Description | Protocol | Laboratory |
|----------|--|----------|------------|
| 8260B | Volatile Organic Compounds (GC/MS) | SW846 | TAL CHI |
| 8270C | Semivolatile Organic Compounds (GC/MS) | SW846 | TAL CHI |
| 8081A | Organochlorine Pesticides (GC) | SW846 | TAL CHI |
| 8082 | Polychlorinated Biphenyls (PCBs) by Gas Chromatography | SW846 | TAL CHI |
| 6010B | Metals (ICP) | SW846 | TAL CHI |
| 7471A | Mercury (CVAA) | SW846 | TAL CHI |
| 9014 | Cyanide | SW846 | TAL CHI |
| 9045C | pH | SW846 | TAL CHI |
| Moisture | Percent Moisture | EPA | TAL CHI |

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Geo Services, Inc Project/Site: Chicago Executive Airport - Runway 1634 TestAmerica Job ID: 500-44268-1 SDG: 500-44268-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---------------|------------------|--------|----------------|----------------|
| 500-44268-1 | B-1/S-3 | Solid | 02/13/12 10:28 | 02/14/12 12:20 |

Client: Geo Services, Inc Project/Site: Chicago Executive Airport - Runway 1634 TestAmerica Job ID: 500-44268-1 SDG: 500-44268-1

Lab Sample ID: 500-44268-1

Matrix: Solid

Percent Solids: 86.1

Client Sample ID: B-1/S-3 Date Collected: 02/13/12 10:28

Date Received: 02/14/12 12:20

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|-----|-------|----------|----------------|----------------|---------|
| Chloromethane | ND | | 0.0043 | | mg/Kg | <u> </u> | 02/13/12 10:28 | 02/16/12 13:07 | 1 |
| Vinyl chloride | ND | | 0.0043 | | mg/Kg | ¢ | 02/13/12 10:28 | 02/16/12 13:07 | 1 |
| Bromomethane | ND | | 0.0043 | | mg/Kg | ⇔ | 02/13/12 10:28 | 02/16/12 13:07 | 1 |
| Chloroethane | ND | | 0.0043 | | mg/Kg | ¢ | 02/13/12 10:28 | 02/16/12 13:07 | 1 |
| 1,1-Dichloroethene | ND | | 0.0043 | | mg/Kg | ₽ | 02/13/12 10:28 | 02/16/12 13:07 | 1 |
| Acetone | ND | | 0.0043 | | mg/Kg | ⇔ | 02/13/12 10:28 | 02/16/12 13:07 | 1 |
| Carbon disulfide | ND | * | 0.0043 | | mg/Kg | ¢ | 02/13/12 10:28 | 02/16/12 13:07 | 1 |
| Methylene Chloride | ND | | 0.0043 | | mg/Kg | ¢ | 02/13/12 10:28 | 02/16/12 13:07 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.0043 | | mg/Kg | ¢ | 02/13/12 10:28 | 02/16/12 13:07 | 1 |
| Methyl tert-butyl ether | ND | | 0.0043 | | mg/Kg | ¢ | 02/13/12 10:28 | 02/16/12 13:07 | 1 |
| 1,1-Dichloroethane | ND | | 0.0043 | | mg/Kg | ¢ | 02/13/12 10:28 | 02/16/12 13:07 | 1 |
| cis-1,2-Dichloroethene | ND | | 0.0043 | | mg/Kg | ¢ | 02/13/12 10:28 | 02/16/12 13:07 | 1 |
| Methyl Ethyl Ketone | ND | | 0.0043 | | mg/Kg | ¢ | 02/13/12 10:28 | 02/16/12 13:07 | 1 |
| Chloroform | ND | | 0.0043 | | mg/Kg | ₽ | 02/13/12 10:28 | 02/16/12 13:07 | 1 |
| 1,1,1-Trichloroethane | ND | | 0.0043 | | mg/Kg | ₽ | 02/13/12 10:28 | 02/16/12 13:07 | 1 |
| Carbon tetrachloride | ND | | 0.0043 | | mg/Kg | ¢. | 02/13/12 10:28 | 02/16/12 13:07 | 1 |
| Benzene | ND | | 0.0043 | | mg/Kg | ⇔ | 02/13/12 10:28 | 02/16/12 13:07 | 1 |
| ,2-Dichloroethane | ND | | 0.0043 | | mg/Kg | ¢ | 02/13/12 10:28 | 02/16/12 13:07 | 1 |
| Frichloroethene | ND | | 0.0043 | | mg/Kg | | 02/13/12 10:28 | 02/16/12 13:07 | 1 |
| ,2-Dichloropropane | ND | | 0.0043 | | mg/Kg | ⇔ | 02/13/12 10:28 | 02/16/12 13:07 | 1 |
| Bromodichloromethane | ND | * | 0.0043 | | mg/Kg | ⇔ | 02/13/12 10:28 | 02/16/12 13:07 | 1 |
| sis-1,3-Dichloropropene | ND | | 0.0043 | | mg/Kg | ¢ | 02/13/12 10:28 | 02/16/12 13:07 | 1 |
| nethyl isobutyl ketone | ND | | 0.0043 | | mg/Kg | ¢ | 02/13/12 10:28 | 02/16/12 13:07 | 1 |
| Foluene | ND | | 0.0043 | | mg/Kg | ¢ | 02/13/12 10:28 | 02/16/12 13:07 | 1 |
| rans-1,3-Dichloropropene | ND | | 0.0043 | | mg/Kg | ¢. | 02/13/12 10:28 | 02/16/12 13:07 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.0043 | | mg/Kg | ¢ | 02/13/12 10:28 | 02/16/12 13:07 | 1 |
| Tetrachloroethene | ND | | 0.0043 | | mg/Kg | ₽ | 02/13/12 10:28 | 02/16/12 13:07 | 1 |
| 2-Hexanone | ND | | 0.0043 | | mg/Kg | ¢. | 02/13/12 10:28 | 02/16/12 13:07 | 1 |
| Dibromochloromethane | ND | | 0.0043 | | mg/Kg | ¢ | 02/13/12 10:28 | 02/16/12 13:07 | 1 |
| Chlorobenzene | ND | | 0.0043 | | mg/Kg | ¢ | 02/13/12 10:28 | 02/16/12 13:07 | 1 |
| Ethylbenzene | ND | | 0.0043 | | mg/Kg | ¢ | 02/13/12 10:28 | 02/16/12 13:07 | 1 |
| Kylenes, Total | ND | | 0.0085 | | mg/Kg | ⇔ | 02/13/12 10:28 | 02/16/12 13:07 | 1 |
| Styrene | ND | | 0.0043 | | mg/Kg | ¢ | 02/13/12 10:28 | 02/16/12 13:07 | 1 |
| Bromoform | ND | | 0.0043 | | mg/Kg | ÷ | 02/13/12 10:28 | 02/16/12 13:07 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.0043 | | mg/Kg | ¢ | 02/13/12 10:28 | 02/16/12 13:07 | 1 |
| I,3-Dichloropropene, Total | ND | | 0.0043 | | mg/Kg | ¢ | 02/13/12 10:28 | 02/16/12 13:07 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 95 | | 69 - 120 | | | | 02/13/12 10:28 | 02/16/12 13:07 | 1 |
| Toluene-d8 (Surr) | 94 | | 69 - 122 | | | | 02/13/12 10:28 | 02/16/12 13:07 | 1 |
| 4-Bromofluorobenzene (Surr) | 87 | | 67 - 120 | | | | 02/13/12 10:28 | 02/16/12 13:07 | 1 |
| Dibromofluoromethane | 88 | | 69 - 120 | | | | 02/13/12 10:28 | 02/16/12 13:07 | 1 |

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------------|--------|-----------|-------|-----|-------|----------|----------------|----------------|---------|
| Acenaphthene | ND | | 0.038 | | mg/Kg | <u> </u> | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| Acenaphthylene | ND | | 0.038 | | mg/Kg | ₽ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| Anthracene | ND | | 0.038 | | mg/Kg | ¢ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| Benzo[a]anthracene | ND | | 0.038 | | mg/Kg | ¢ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| Benzo[a]pyrene | ND | | 0.038 | | mg/Kg | ¢ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| Benzo[b]fluoranthene | ND | | 0.038 | | mg/Kg | ¢ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |

5

6 7 8

Client Sample ID: B-1/S-3 Date Collected: 02/13/12 10:28

Date Received: 02/14/12 12:20

| Lab Sample ID: | 500-44268-1 |
|----------------|---------------|
| | Matrix: Solid |

Percent Solids: 86.1

5

6 7

| Method: 8270C - Semivolatile Organ | nic Compour | nds (GC/MS) | (Continued) | | | | | | |
|------------------------------------|-------------|-------------|-------------|-----|-------|---------|----------------|----------------|---------|
| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
| Benzo[g,h,i]perylene | ND | * | 0.038 | | mg/Kg | <u></u> | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| Benzo[k]fluoranthene | ND | | 0.038 | | mg/Kg | ¢ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| Bis(2-chloroethoxy)methane | ND | | 0.19 | | mg/Kg | ¢ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| Bis(2-chloroethyl)ether | ND | | 0.19 | | mg/Kg | ¢ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| Bis(2-ethylhexyl) phthalate | ND | | 0.19 | | mg/Kg | ¢ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| 4-Bromophenyl phenyl ether | ND | | 0.19 | | mg/Kg | ¢ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| Butyl benzyl phthalate | 0.24 | | 0.19 | | mg/Kg | ¢ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| Carbazole | ND | | 0.19 | | mg/Kg | ☆ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| 4-Chloroaniline | ND | | 0.77 | | mg/Kg | ☆ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| 4-Chloro-3-methylphenol | ND | | 0.38 | | mg/Kg | ¢ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| 2-Chloronaphthalene | ND | | 0.19 | | mg/Kg | ☆ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| 2-Chlorophenol | ND | | 0.19 | | mg/Kg | ☆ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| 4-Chlorophenyl phenyl ether | ND | | 0.19 | | mg/Kg | ¢ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| Chrysene | ND | | 0.038 | | mg/Kg | ☆ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| Dibenz(a,h)anthracene | ND | | 0.038 | | mg/Kg | ₽ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| Dibenzofuran | ND | | 0.19 | | mg/Kg | ¢ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| 1,2-Dichlorobenzene | ND | | 0.19 | | mg/Kg | ¢ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| 1,3-Dichlorobenzene | ND | | 0.19 | | mg/Kg | ¢ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| 1,4-Dichlorobenzene | ND | | 0.19 | | mg/Kg | ¢ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| 3,3'-Dichlorobenzidine | ND | | 0.19 | | mg/Kg | ¢ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| 2,4-Dichlorophenol | ND | | 0.38 | | mg/Kg | ¢ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| Diethyl phthalate | ND | | 0.19 | | mg/Kg | ¢ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| 2,4-Dimethylphenol | ND | | 0.38 | | mg/Kg | ☆ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| Dimethyl phthalate | ND | | 0.19 | | mg/Kg | ¢ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| Di-n-butyl phthalate | ND | | 0.19 | | mg/Kg | ¢ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| 4,6-Dinitro-2-methylphenol | ND | | 0.38 | | mg/Kg | ¢ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| 2,4-Dinitrophenol | ND | | 0.77 | | mg/Kg | ¢ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| 2,4-Dinitrotoluene | ND | | 0.19 | | mg/Kg | ¢ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| 2,6-Dinitrotoluene | ND | | 0.19 | | mg/Kg | ¢ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| Di-n-octyl phthalate | ND | | 0.19 | | mg/Kg | ☆ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| Fluoranthene | ND | | 0.038 | | mg/Kg | ¢ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| Fluorene | ND | | 0.038 | | mg/Kg | ¢ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| Hexachlorobenzene | ND | | 0.077 | | mg/Kg | ¢ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| Hexachlorobutadiene | ND | | 0.19 | | mg/Kg | ¢ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| Hexachlorocyclopentadiene | ND | | 0.77 | | mg/Kg | ¢ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| Hexachloroethane | ND | | 0.19 | | mg/Kg | ¢ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| Indeno[1,2,3-cd]pyrene | ND | * | 0.038 | | mg/Kg | ¢ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| Isophorone | ND | | 0.19 | | mg/Kg | ☆ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| 2-Methylnaphthalene | ND | | 0.19 | | mg/Kg | ☆ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| 2-Methylphenol | ND | | 0.19 | | mg/Kg | ¢ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| 3 & 4 Methylphenol | ND | | 0.19 | | mg/Kg | ☆ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| Naphthalene | ND | | 0.038 | | mg/Kg | ¢ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| 2-Nitroaniline | ND | | 0.19 | | mg/Kg | ¢ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| 3-Nitroaniline | ND | | 0.38 | | mg/Kg | ¢ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| 4-Nitroaniline | ND | | 0.38 | | mg/Kg | ₽ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| Nitrobenzene | ND | | 0.038 | | mg/Kg | ¢ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| 2-Nitrophenol | ND | | 0.38 | | mg/Kg | ¢ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| 4-Nitrophenol | ND | | 0.77 | | mg/Kg | ₽ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| N-Nitrosodi-n-propylamine | ND | | 0.19 | | mg/Kg | ¢ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| N-Nitrosodiphenylamine | ND | | 0.19 | | mg/Kg | ¢ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| 2,2'-oxybis[1-chloropropane] | ND | | 0.19 | | mg/Kg | ₽ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| | | | | | | | | | |

Client Sample ID: B-1/S-3 Date Collected: 02/13/12 10:28

Date Received: 02/14/12 12:20

Matrix: Solid Percent Solids: 86.1

| Method: 8270C - Semivolatile Orga Analyte | Result | Qualifier | RL | MDL | | D | Prepared | Analyzed | Dil Fac |
|--|---------------|-----------|----------|-----|-------|----|----------------|----------------|---------|
| Pentachlorophenol | ND | | 0.77 | | mg/Kg | ¢ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| Phenanthrene | ND | | 0.038 | | mg/Kg | ¢ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| Phenol | ND | | 0.19 | | mg/Kg | ¢ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| Pyrene | ND | | 0.038 | | mg/Kg | ¢ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| 1,2,4-Trichlorobenzene | ND | | 0.19 | | mg/Kg | ₽ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| 2,4,5-Trichlorophenol | ND | | 0.38 | | mg/Kg | ₽ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| 2,4,6-Trichlorophenol | ND | | 0.38 | | mg/Kg | ¢ | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 2-Fluorobiphenyl | 69 | | 27 - 113 | | | | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| 2-Fluorophenol | 61 | | 30 - 110 | | | | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| Nitrobenzene-d5 | 61 | | 22 - 110 | | | | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| Phenol-d5 | 65 | | 26 - 112 | | | | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| Terphenyl-d14 | 70 | | 33 - 129 | | | | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| 2,4,6-Tribromophenol | 62 | | 30 - 137 | | | | 02/17/12 17:59 | 02/20/12 19:53 | 1 |
| - Method: 8081A - Organochlorine F | Pesticides (G | C) | | | | | | | |
| Analyte | | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
| alpha-BHC | ND | | 0.0097 | | mg/Kg | ¢. | 02/15/12 18:04 | 02/16/12 17:19 | 5 |
| beta-BHC | ND | | 0.0097 | | mg/Kg | ¢ | 02/15/12 18:04 | 02/16/12 17:19 | 5 |
| delta-BHC | ND | | 0.0097 | | mg/Kg | ¢ | 02/15/12 18:04 | 02/16/12 17:19 | 5 |
| gamma-BHC (Lindane) | ND | | 0.0097 | | mg/Kg | ¢ | 02/15/12 18:04 | 02/16/12 17:19 | 5 |
| Heptachlor | ND | | 0.0097 | | mg/Kg | ¢ | 02/15/12 18:04 | 02/16/12 17:19 | 5 |
| Aldrin | ND | | 0.0097 | | mg/Kg | ¢ | 02/15/12 18:04 | 02/16/12 17:19 | 5 |
| Heptachlor epoxide | ND | | 0.0097 | | mg/Kg | ¢ | 02/15/12 18:04 | 02/16/12 17:19 | 5 |
| Endosulfan I | ND | | 0.0097 | | mg/Kg | ¢ | 02/15/12 18:04 | 02/16/12 17:19 | 5 |
| Dieldrin | ND | | 0.0097 | | mg/Kg | ¢ | 02/15/12 18:04 | 02/16/12 17:19 | 5 |
| 4,4'-DDE | 0.017 | | 0.0097 | | mg/Kg | ¢ | 02/15/12 18:04 | 02/16/12 17:19 | 5 |
| Endrin | ND | | 0.0097 | | mg/Kg | ¢ | 02/15/12 18:04 | 02/16/12 17:19 | 5 |
| Endosulfan II | ND | | 0.0097 | | mg/Kg | ¢ | 02/15/12 18:04 | 02/16/12 17:19 | 5 |
| 4,4'-DDD | ND | | 0.0097 | | mg/Kg | ¢ | 02/15/12 18:04 | 02/16/12 17:19 | 5 |
| Endosulfan sulfate | ND | | 0.0097 | | mg/Kg | ¢ | 02/15/12 18:04 | 02/16/12 17:19 | 5 |
| 4,4'-DDT | ND | | 0.0097 | | mg/Kg | ¢ | 02/15/12 18:04 | 02/16/12 17:19 | 5 |
| Methoxychlor | ND | | 0.047 | | mg/Kg | ¢ | 02/15/12 18:04 | 02/16/12 17:19 | 5 |
| Endrin ketone | ND | | 0.0097 | | mg/Kg | ¢ | 02/15/12 18:04 | 02/16/12 17:19 | 5 |
| Endrin aldehyde | ND | | 0.0097 | | mg/Kg | ₽ | 02/15/12 18:04 | 02/16/12 17:19 | 5 |
| alpha-Chlordane | ND | | 0.0097 | | mg/Kg | ¢ | 02/15/12 18:04 | 02/16/12 17:19 | 5 |
| gamma-Chlordane | ND | | 0.0097 | | mg/Kg | ¢ | 02/15/12 18:04 | 02/16/12 17:19 | 5 |
| Toxaphene | ND | | 0.095 | | mg/Kg | ¢ | 02/15/12 18:04 | 02/16/12 17:19 | 5 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| DCB Decachlorobiphenyl | 96 | | 43 - 126 | | | | 02/15/12 18:04 | 02/16/12 17:19 | 5 |
| | | | | | | | | | |

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------|--------|-----------|-------|-----|-------|----|----------------|----------------|---------|
| PCB-1016 | ND | | 0.019 | | mg/Kg | \$ | 02/15/12 18:04 | 02/16/12 10:03 | 1 |
| PCB-1221 | ND | | 0.019 | | mg/Kg | ¢ | 02/15/12 18:04 | 02/16/12 10:03 | 1 |
| PCB-1232 | ND | | 0.019 | | mg/Kg | ¢ | 02/15/12 18:04 | 02/16/12 10:03 | 1 |
| PCB-1242 | ND | | 0.019 | | mg/Kg | ¢ | 02/15/12 18:04 | 02/16/12 10:03 | 1 |
| PCB-1248 | ND | | 0.019 | | mg/Kg | ¢ | 02/15/12 18:04 | 02/16/12 10:03 | 1 |
| PCB-1254 | ND | | 0.019 | | mg/Kg | ¢ | 02/15/12 18:04 | 02/16/12 10:03 | 1 |
| | | | | | | | | | |

5

Client Sample Results

Lab Sample ID: 500-44268-1

Matrix: Solid

Percent Solids: 86.1

Client Sample ID: B-1/S-3 Date Collected: 02/13/12 10:28

Date Received: 02/14/12 12:20

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|----------------------------------|-----------|-----------|----------|-----|-------|---------|----------------|----------------|---------|
| PCB-1260 | ND | | 0.019 | | mg/Kg | <u></u> | 02/15/12 18:04 | 02/16/12 10:03 | 1 |
| Polychlorinated biphenyls, Total | ND | | 0.019 | | mg/Kg | ¢ | 02/15/12 18:04 | 02/16/12 10:03 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| Tetrachloro-m-xylene | 91 | | 28 - 124 | | | | 02/15/12 18:04 | 02/16/12 10:03 | 1 |
| DCB Decachlorobiphenyl | 82 | | 38 - 130 | | | | 02/15/12 18:04 | 02/16/12 10:03 | 1 |
| Method: 6010B - Metals (ICP) | | | | | | | | | |
| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
| Aluminum | 4400 | | 20 | | mg/Kg | ¢ | 02/15/12 15:09 | 02/16/12 13:55 | 1 |
| Antimony | ND | | 2.0 | | mg/Kg | ₽ | 02/15/12 15:09 | 02/16/12 13:55 | 1 |
| Arsenic | 5.3 | | 1.0 | | mg/Kg | ₽ | 02/15/12 15:09 | 02/16/12 13:55 | 1 |
| Barium | 28 | | 1.0 | | mg/Kg | \$ | 02/15/12 15:09 | 02/16/12 13:55 | 1 |
| Beryllium | 0.41 | | 0.41 | | mg/Kg | ₽ | 02/15/12 15:09 | 02/16/12 13:55 | 1 |
| Cadmium | 0.39 | | 0.20 | | mg/Kg | ₽ | 02/15/12 15:09 | 02/16/12 13:55 | 1 |
| Calcium | 81000 | | 20 | | mg/Kg | ¢ | 02/15/12 15:09 | 02/16/12 13:55 | 1 |
| Chromium | 9.7 | | 1.0 | | mg/Kg | ¢ | 02/15/12 15:09 | 02/16/12 13:55 | 1 |
| Cobalt | 5.0 | | 0.51 | | mg/Kg | ₽ | 02/15/12 15:09 | 02/16/12 13:55 | 1 |
| Copper | 17 | | 1.0 | | mg/Kg | ¢. | 02/15/12 15:09 | 02/16/12 13:55 | 1 |
| Iron | 12000 | | 20 | | mg/Kg | ⇔ | 02/15/12 15:09 | 02/16/12 13:55 | 1 |
| Lead | 9.1 | | 0.51 | | mg/Kg | ₽ | 02/15/12 15:09 | 02/16/12 13:55 | 1 |
| Magnesium | 45000 | | 10 | | mg/Kg | ¢ | 02/15/12 15:09 | 02/16/12 13:55 | 1 |
| Manganese | 450 | | 1.0 | | mg/Kg | ⇔ | 02/15/12 15:09 | 02/16/12 13:55 | 1 |
| Nickel | 12 | | 1.0 | | mg/Kg | ¢ | 02/15/12 15:09 | 02/16/12 13:55 | 1 |
| Potassium | 1200 | | 51 | | mg/Kg | | 02/15/12 15:09 | 02/16/12 13:55 | 1 |
| Selenium | ND | | 1.0 | | mg/Kg | ⇔ | 02/15/12 15:09 | 02/16/12 13:55 | 1 |
| Silver | ND | | 0.51 | | mg/Kg | ⇔ | 02/15/12 15:09 | 02/16/12 13:55 | 1 |
| Sodium | 170 | | 100 | | mg/Kg | | 02/15/12 15:09 | 02/16/12 13:55 | 1 |
| Thallium | ND | | 1.0 | | mg/Kg | ¢ | 02/15/12 15:09 | 02/16/12 13:55 | 1 |
| Vanadium | 15 | | 0.51 | | mg/Kg | ¢ | 02/15/12 15:09 | 02/16/12 13:55 | 1 |
| Zinc | 43 | | 2.0 | | mg/Kg | ¢ | 02/15/12 15:09 | 02/16/12 13:55 | 1 |
| Method: 7471A - Mercury (CVAA) | | | | | | | | | |
| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
| Mercury | ND | | 0.017 | | mg/Kg | <u></u> | 02/16/12 08:30 | 02/16/12 10:55 | 1 |
| General Chemistry | | | | | | | | | |
| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
| Cyanide, Total | ND | | 0.30 | | mg/Kg | \$ | 02/15/12 19:50 | 02/15/12 22:15 | 1 |
| рН | 7.88 | | 0.200 | | SU | | | 02/21/12 16:00 | 1 |

Client: Geo Services, Inc Project/Site: Chicago Executive Airport - Runway 1634

5

8

Qualifiers

| GC/MS VO | |
|-----------|--|
| Qualifier | Qualifier Description |
| * | LCS or LCSD exceeds the control limits |
| GC/MS Sen | ni VOA |
| Qualifier | Qualifier Description |
| * | LCS or LCSD exceeds the control limits |

| F | MS or MSD exceeds the control limits |
|---|--|
| F | RPD of the MS and MSD exceeds the control limits |

Glossary

| Clossury | | |
|----------------|--|---|
| Abbreviation | These commonly used abbreviations may or may not be present in this report. | 9 |
| ¢ | Listed under the "D" column to designate that the result is reported on a dry weight basis | |
| %R | Percent Recovery | |
| CNF | Contains no Free Liquid | |
| DL, RA, RE, IN | Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample | |
| EDL | Estimated Detection Limit | |
| EPA | United States Environmental Protection Agency | |
| MDL | Method Detection Limit | |
| ML | Minimum Level (Dioxin) | |
| ND | Not detected at the reporting limit (or MDL or EDL if shown) | |
| PQL | Practical Quantitation Limit | |
| QC | Quality Control | |
| RL | Reporting Limit | |
| | Deletive Dereent Difference, a measure of the relative difference between two naints | |

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin)

TEQ Toxicity Equivalent Quotient (Dioxin)

QC Association Summary

Client: Geo Services, Inc Project/Site: Chicago Executive Airport - Runway 1634

TestAmerica Job ID: 500-44268-1 SDG: 500-44268-1

GC/MS VOA

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-----------------------|------------------------|-----------|--------|--------|------------|
| 500-44268-1 | B-1/S-3 | Total/NA | Solid | 5035 | |
| Analysis Batch: 14088 | 8 | | | | |
| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
| 500-44268-1 | B-1/S-3 | Total/NA | Solid | 8260B | 140764 |
| LCS 500-140888/5 | Lab Control Sample | Total/NA | Solid | 8260B | |
| | Lab Control Sample Dup | Total/NA | Solid | 8260B | |
| LCSD 500-140888/6 | | | | | |

GC/MS Semi VOA

Prep Batch: 141050

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 500-44268-1 | B-1/S-3 | Total/NA | Solid | 3541 | |
| 500-44268-1 MS | B-1/S-3 | Total/NA | Solid | 3541 | |
| 500-44268-1 MSD | B-1/S-3 | Total/NA | Solid | 3541 | |
| LCS 500-141050/2-A | Lab Control Sample | Total/NA | Solid | 3541 | |
| MB 500-141050/1-A | Method Blank | Total/NA | Solid | 3541 | |

Analysis Batch: 141120

| Lab Sample ID | Client Sample ID | Ргер Туре | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| LCS 500-141050/2-A | Lab Control Sample | Total/NA | Solid | 8270C | 141050 |
| MB 500-141050/1-A | Method Blank | Total/NA | Solid | 8270C | 141050 |

Analysis Batch: 141122

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|-----------------|------------------|-----------|--------|--------|------------|
| 500-44268-1 | B-1/S-3 | Total/NA | Solid | 8270C | 141050 |
| 500-44268-1 MS | B-1/S-3 | Total/NA | Solid | 8270C | 141050 |
| 500-44268-1 MSD | B-1/S-3 | Total/NA | Solid | 8270C | 141050 |

GC Semi VOA

Analysis Batch: 140771

| Lab Sample ID | Client Sample ID | Ргер Туре | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 500-44268-1 | B-1/S-3 | Total/NA | Solid | 8081A | 140853 |
| LCS 500-140853/2-A | Lab Control Sample | Total/NA | Solid | 8081A | 140853 |
| MB 500-140853/1-A | Method Blank | Total/NA | Solid | 8081A | 140853 |

Prep Batch: 140853

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 500-44268-1 | B-1/S-3 | Total/NA | Solid | 3541 | |
| LCS 500-140853/2-A | Lab Control Sample | Total/NA | Solid | 3541 | |
| LCS 500-140853/3-A | Lab Control Sample | Total/NA | Solid | 3541 | |
| MB 500-140853/1-A | Method Blank | Total/NA | Solid | 3541 | |

Analysis Batch: 140887

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 500-44268-1 | B-1/S-3 | Total/NA | Solid | 8082 | 140853 |
| LCS 500-140853/3-A | Lab Control Sample | Total/NA | Solid | 8082 | 140853 |
| MB 500-140853/1-A | Method Blank | Total/NA | Solid | 8082 | 140853 |

QC Association Summary

Client: Geo Services, Inc Project/Site: Chicago Executive Airport - Runway 1634

Metals

Prep Batch: 140787

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--|-----------------------|-----------------------|-----------------|-----------------|------------|
| 500-44268-1 | B-1/S-3 | Total/NA | Solid | 7471A | |
| _CS 500-140787/8-A | Lab Control Sample | Total/NA | Solid | 7471A | |
| MB 500-140787/7-A | Method Blank | Total/NA | Solid | 7471A | |
| ep Batch: 140831 | | | | | |
| _ab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
| 00-44268-1 | B-1/S-3 | Total/NA | Solid | 3050B | |
| CS 500-140831/2-A | Lab Control Sample | Total/NA | Solid | 3050B | |
| /IB 500-140831/1-A | Method Blank | Total/NA | Solid | 3050B | |
| Lab Sample ID | Client Sample ID | Ргер Туре | Matrix | Method | Prep Batch |
| _ab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
| 00-44268-1 | B-1/S-3 | Total/NA | Solid | 7471A | 140787 |
| CS 500-140787/8-A | Lab Control Sample | Total/NA | Solid | 7471A | 140787 |
| /IB 500-140787/7-A | Method Blank | Total/NA | Solid | 7471A | 140787 |
| | - | | | | |
| alysis Batch: 14092 | / | | | | |
| | / Client Sample ID | Ргер Туре | Matrix | Method | Prep Batch |
| ab Sample ID | | Prep Type Total/NA | Matrix Solid | Method 6010B | Prep Batch |
| nalysis Batch: 14092 Lab Sample ID 500-44268-1 _CS 500-140831/2-A | Client Sample ID | | | | |

General Chemistry

Analysis Batch: 140717

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|----------------------|--------------------|-----------|--------|----------|------------|
| 500-44268-1 | B-1/S-3 | Total/NA | Solid | Moisture | |
| rep Batch: 140855 | | | | | |
| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
| 500-44268-1 | B-1/S-3 | Total/NA | Solid | 9010B | |
| LCS 500-140855/12-A | Lab Control Sample | Total/NA | Solid | 9010B | |
| MB 500-140855/11-A | Method Blank | Total/NA | Solid | 9010B | |
| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
| 500-44268-1 | B-1/S-3 | Total/NA | Solid | 9014 | 140855 |
| LCS 500-140855/12-A | Lab Control Sample | Total/NA | Solid | 9014 | 140855 |
| MB 500-140855/11-A | Method Blank | Total/NA | Solid | 9014 | 140855 |
| nalysis Batch: 14136 | 9 | | | | |
| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
| | | | | | |

Prep Type: Total/NA

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

| | | | | Percent Su | rrogate Recov | very (Acceptance Limits) | |
|-----------------------|------------------------|----------|----------|------------|---------------|--------------------------|---|
| | | 12DCE | TOL | BFB | DBFM | | 5 |
| Lab Sample ID | Client Sample ID | (69-120) | (69-122) | (67-120) | (69-120) | | Ο |
| 500-44268-1 | B-1/S-3 | 95 | 94 | 87 | 88 | | |
| LCS 500-140888/5 | Lab Control Sample | 84 | 88 | 85 | 84 | | |
| LCSD 500-140888/6 | Lab Control Sample Dup | 86 | 90 | 87 | 85 | | |
| MB 500-140888/4 | Method Blank | 84 | 85 | 88 | 84 | | |
| Surrogate Legend | | | | | | | 8 |
| 12DCE = 1,2-Dichloroe | thane-d4 (Surr) | | | | | | |
| TOL = Toluene-d8 (Sur | r) | | | | | | Q |
| BFB = 4-Bromofluorobe | enzene (Surr) | | | | | | 3 |
| DBFM = Dibromofluoro | methane | | | | | | |

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

| | | | | Percent Su | rrogate Reco | very (Accept | ance Limits) |
|--------------------|--------------------|----------|----------|------------|--------------|--------------|--------------|
| | | FBP | 2FP | NBZ | PHL | ТРН | ТВР |
| Lab Sample ID | Client Sample ID | (27-113) | (30-110) | (22-110) | (26-112) | (33-129) | (30-137) |
| 500-44268-1 | B-1/S-3 | 69 | 61 | 61 | 65 | 70 | 62 |
| 500-44268-1 MS | B-1/S-3 | 100 | 89 | 92 | 97 | 108 | 98 |
| 500-44268-1 MSD | B-1/S-3 | 62 | 52 | 53 | 57 | 62 | 57 |
| LCS 500-141050/2-A | Lab Control Sample | 89 | 79 | 91 | 86 | 87 | 104 |
| MB 500-141050/1-A | Method Blank | 94 | 77 | 90 | 85 | 80 | 85 |
| | | | | | | | |

Surrogate Legend

FBP = 2-Fluorobiphenyl 2FP = 2-Fluorophenol

NBZ = Nitrobenzene-d5

PHL = Phenol-d5

TPH = Terphenyl-d14

TBP = 2,4,6-Tribromophenol

Method: 8081A - Organochlorine Pesticides (GC) Matrix: Solid

Prep Type: Total/NA

| - | | Percent Surrogate Recovery (Acceptance Limits) | | | | | | | | |
|---------------------|--------------------|--|----------|--|--|--|--|--|--|--|
| | | DCB2 | TCX2 | | | | | | | |
| Lab Sample ID | Client Sample ID | (43-126) | (32-111) | | | | | | | |
| 500-44268-1 | B-1/S-3 | 96 | 97 | | | | | | | |
| LCS 500-140853/2-A | Lab Control Sample | 93 | 87 | | | | | | | |
| MB 500-140853/1-A | Method Blank | 91 | 93 | | | | | | | |
| Surrogate Legend | | | | | | | | | | |
| DCB = DCB Decachlor | obiphenyl | | | | | | | | | |

TCX = Tetrachloro-m-xylene

Matrix: Solid

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Matrix: Solid | | | | Prep Type: Total/NA |
|---------------|------------------|----------|----------|--|
| | | | | Percent Surrogate Recovery (Acceptance Limits) |
| | | TCX1 | DCB1 | |
| Lab Sample ID | Client Sample ID | (28-124) | (38-130) | |
| 500-44268-1 | B-1/S-3 | 91 | 82 | |

Prop Type: Total/NA

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

| Matrix: Solid | | | | Prep Type: Total/NA |
|--------------------|--------------------|----------|----------|--|
| | | | | Percent Surrogate Recovery (Acceptance Limits) |
| | | TCX1 | DCB1 | |
| Lab Sample ID | Client Sample ID | (28-124) | (38-130) | |
| LCS 500-140853/3-A | Lab Control Sample | 91 | 92 | |
| MB 500-140853/1-A | Method Blank | 86 | 93 | |
| Surrogate Legend | | | | |

TCX = Tetrachloro-m-xylene

DCB = DCB Decachlorobiphenyl

Client Sample ID: Method Blank

Prep Type: Total/NA

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-140888/4

Matrix: Solid Analysis Batch: 140888

| | MB | MB | | | | | | | |
|------------------------------|-----------|-----------|----------|-----|-------|---|----------|----------------|---------|
| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
| Chloromethane | ND | | 0.0050 | | mg/Kg | | | 02/16/12 11:20 | 1 |
| Vinyl chloride | ND | | 0.0050 | | mg/Kg | | | 02/16/12 11:20 | 1 |
| Bromomethane | ND | | 0.0050 | | mg/Kg | | | 02/16/12 11:20 | 1 |
| Chloroethane | ND | | 0.0050 | | mg/Kg | | | 02/16/12 11:20 | 1 |
| 1,1-Dichloroethene | ND | | 0.0050 | | mg/Kg | | | 02/16/12 11:20 | 1 |
| Acetone | ND | | 0.0050 | | mg/Kg | | | 02/16/12 11:20 | 1 |
| Carbon disulfide | ND | | 0.0050 | | mg/Kg | | | 02/16/12 11:20 | 1 |
| Methylene Chloride | ND | | 0.0050 | | mg/Kg | | | 02/16/12 11:20 | 1 |
| trans-1,2-Dichloroethene | ND | | 0.0050 | | mg/Kg | | | 02/16/12 11:20 | 1 |
| Methyl tert-butyl ether | ND | | 0.0050 | | mg/Kg | | | 02/16/12 11:20 | 1 |
| 1,1-Dichloroethane | ND | | 0.0050 | | mg/Kg | | | 02/16/12 11:20 | 1 |
| cis-1,2-Dichloroethene | ND | | 0.0050 | | mg/Kg | | | 02/16/12 11:20 | 1 |
| Methyl Ethyl Ketone | ND | | 0.0050 | | mg/Kg | | | 02/16/12 11:20 | 1 |
| Chloroform | ND | | 0.0050 | | mg/Kg | | | 02/16/12 11:20 | 1 |
| 1,1,1-Trichloroethane | ND | | 0.0050 | | mg/Kg | | | 02/16/12 11:20 | 1 |
| Carbon tetrachloride | ND | | 0.0050 | | mg/Kg | | | 02/16/12 11:20 | 1 |
| Benzene | ND | | 0.0050 | | mg/Kg | | | 02/16/12 11:20 | 1 |
| 1,2-Dichloroethane | ND | | 0.0050 | | mg/Kg | | | 02/16/12 11:20 | 1 |
| Trichloroethene | ND | | 0.0050 | | mg/Kg | | | 02/16/12 11:20 | 1 |
| 1,2-Dichloropropane | ND | | 0.0050 | | mg/Kg | | | 02/16/12 11:20 | 1 |
| Bromodichloromethane | ND | | 0.0050 | | mg/Kg | | | 02/16/12 11:20 | 1 |
| cis-1,3-Dichloropropene | ND | | 0.0050 | | mg/Kg | | | 02/16/12 11:20 | 1 |
| methyl isobutyl ketone | ND | | 0.0050 | | mg/Kg | | | 02/16/12 11:20 | 1 |
| Toluene | ND | | 0.0050 | | mg/Kg | | | 02/16/12 11:20 | 1 |
| trans-1,3-Dichloropropene | ND | | 0.0050 | | mg/Kg | | | 02/16/12 11:20 | 1 |
| 1,1,2-Trichloroethane | ND | | 0.0050 | | mg/Kg | | | 02/16/12 11:20 | 1 |
| Tetrachloroethene | ND | | 0.0050 | | mg/Kg | | | 02/16/12 11:20 | 1 |
| 2-Hexanone | ND | | 0.0050 | | mg/Kg | | | 02/16/12 11:20 | 1 |
| Dibromochloromethane | ND | | 0.0050 | | mg/Kg | | | 02/16/12 11:20 | 1 |
| Chlorobenzene | ND | | 0.0050 | | mg/Kg | | | 02/16/12 11:20 | 1 |
| Ethylbenzene | ND | | 0.0050 | | mg/Kg | | | 02/16/12 11:20 | 1 |
| Xylenes, Total | ND | | 0.010 | | mg/Kg | | | 02/16/12 11:20 | 1 |
| Styrene | ND | | 0.0050 | | mg/Kg | | | 02/16/12 11:20 | 1 |
| Bromoform | ND | | 0.0050 | | mg/Kg | | | 02/16/12 11:20 | 1 |
| 1,1,2,2-Tetrachloroethane | ND | | 0.0050 | | mg/Kg | | | 02/16/12 11:20 | 1 |
| 1,3-Dichloropropene, Total | ND | | 0.0050 | | mg/Kg | | | 02/16/12 11:20 | 1 |
| | МВ | МВ | | | | | | | |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 1,2-Dichloroethane-d4 (Surr) | 84 | | 69 - 120 | | | - | | 02/16/12 11:20 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 84 | | 69 - 120 | | 02/16/12 11:20 | 1 |
| Toluene-d8 (Surr) | 85 | | 69 - 122 | | 02/16/12 11:20 | 1 |
| 4-Bromofluorobenzene (Surr) | 88 | | 67 - 120 | | 02/16/12 11:20 | 1 |
| Dibromofluoromethane | 84 | | 69 - 120 | | 02/16/12 11:20 | 1 |

| Lab Sample ID: LCS 500-140888/5 Matrix: Solid | | | (| Client S | Sample | ID: Lab Control Sample Prep Type: Total/NA | |
|--|-------|-------------------------|-----------|---------------|----------|---|--------|
| Analysis Batch: 140888 | Spike | LCS | LCS | | | | %Rec. |
| Analyte Chloromethane | Added | Result 0.0459 | Qualifier | Unit mg/Kg | <u> </u> | %Rec 92 | Limits |

11 12 13

Prep Type: Total/NA

Client Sample ID: Lab Control Sample

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-140888/5

Matrix: Solid Analysis Batch: 140888

| Vinyi chloride 0.0500 0.0552 mg/Kg 110 44.130 Bromomethane 0.0500 0.0633 mg/Kg 107 36.146 Chloroethane 0.0500 0.0604 mg/Kg 121 34.144 1.1-Dichloroethene 0.0500 0.0674 mg/Kg 135 43.149 Carbon disulfide 0.0500 0.0673 mg/Kg 111 27.107 Methylene Choide 0.0500 0.0503 mg/Kg 102 62.119 Methylene Choide 0.0500 0.0508 mg/Kg 102 55.116 1.1-Dichloroethane 0.0500 0.0508 mg/Kg 102 70.113 cis-12-Dichloroethane 0.0500 0.0513 mg/Kg 103 70.112 1.1-Dichloroethane 0.0500 0.0531 mg/Kg 103 70.112 1.1-Dichloroethane 0.0500 0.0531 mg/Kg 106 67.115 Carbon distrable 0.0500 0.0531 mg/Kg 107 74.112 | Analysis Batch. 140000 | Spike | LCS | LCS | | | | %Rec. |
|--|---------------------------|--------|--------|-----------|-------|---|------|---------------------|
| Brimomethane 0.0500 0.0533 mg/Kg 107 36.146 Chioreethane 0.0500 0.0604 mg/Kg 121 34.144 1,1-Dichloroethane 0.0500 0.0674 mg/Kg 133 43.149 Carbon disulfide 0.0500 0.0674 mg/Kg 111 27.107 Methylene Chloride 0.0500 0.0508 mg/Kg 102 65.116 Tames 1.2-Dichloroethene 0.0500 0.0508 mg/Kg 102 65.116 1,1-Dichloroethane 0.0500 0.0508 mg/Kg 102 55.116 1,1-Dichloroethane 0.0500 0.0508 mg/Kg 102 55.116 1,1-Dichloroethane 0.0500 0.0513 mg/Kg 102 70.113 ci-1_2-Dichloroethane 0.0500 0.0531 mg/Kg 106 67.115 Carbon ethrachloride 0.0500 0.0531 mg/Kg 106 67.115 Carbon ethrachloride 0.0500 0.0532 mg/Kg 106 77.116 | Analyte | Added | Result | Qualifier | Unit | D | %Rec | Limits |
| Chloroethane 0.0500 0.0604 mg/Kg 121 34.144 1,1-Dichloroethene 0.0500 0.0467 mg/Kg 135 43.149 Cachon disulfide 0.0500 0.0674 mg/Kg 135 43.149 Cachon disulfide 0.0500 0.0653 mg/Kg 192 52.107 Methylene Chloride 0.0500 0.0493 mg/Kg 102 62.119 Methylene Chloride 0.0500 0.0508 mg/Kg 102 52.116 1,1-Dichloroethane 0.0500 0.0508 mg/Kg 102 70.113 cis-1,2-Dichloroethane 0.0500 0.0513 mg/Kg 103 70.112 1,1-Tichloroethane 0.0500 0.0531 mg/Kg 103 70.112 1,1,1-Tichloroethane 0.0500 0.0531 mg/Kg 105 74.112 1,1,1-Tichloroethane 0.0500 0.0537 mg/Kg 106 64.116 Benzene 0.0500 0.0547 mg/Kg 105 76.111 < | Vinyl chloride | 0.0500 | 0.0552 | | mg/Kg | | 110 | 44 - 130 |
| 1,1-Dichloroethene 0.0500 0.0467 mg/kg 93 60 - 128 Acetone 0.0500 0.0674 mg/kg 115 43 . 149 Carbon disulfide 0.0500 0.0503 mg/kg 91 42 . 149 Methylene Chloride 0.0500 0.0508 mg/kg 99 49 . 125 trans.1.2.Dichloroethene 0.0500 0.0508 mg/kg 102 62 . 111 Methylene Chloride 0.0500 0.0508 mg/kg 102 70 . 113 cis.1.2.Dichloroethene 0.0500 0.0513 mg/kg 103 70 . 112 i.1.1.Dichloroethane 0.0500 0.0513 mg/kg 108 67 . 115 Carbon distrahinde 0.0500 0.0531 mg/kg 108 67 . 115 Carbon distrahinde 0.0500 0.0531 mg/kg 108 67 . 115 Carbon distrahinde 0.0500 0.0531 mg/kg 107 74 . 112 1,1.1-Trichloroethane 0.0500 0.0531 mg/kg 107 74 . 112 1,2.Dichloropropane 0.0500 0.0531 mg/kg | Bromomethane | 0.0500 | 0.0533 | | mg/Kg | | 107 | 36 - 146 |
| Accome 0.0500 0.0674 mg/kg 135 43.149 Carbon disulfide 0.0500 0.0533 mg/kg 111 27.107 Methylene Chloride 0.0500 0.0493 mg/kg 199 49.125 Tursn 1,2-Dichloroethene 0.0500 0.0508 mg/kg 102 25.116 1,1-Dichloroethane 0.0500 0.0508 mg/kg 102 25.116 1,1-Dichloroethane 0.0500 0.0527 mg/kg 103 70.113 cis1-12-Dichloroethene 0.0500 0.0531 mg/kg 103 70.112 1,1-Trichloroethane 0.0500 0.0531 mg/kg 103 70.112 1,1,1-Trichloroethane 0.0500 0.0531 mg/kg 106 64.116 Berzene 0.0500 0.0537 mg/kg 105 74.111 1,2-Dichloroptopane 0.0500 0.0534 mg/kg 107 74.112 1,2-Dichloroptopane 0.0500 0.0537 mg/kg 105 76.108 | Chloroethane | 0.0500 | 0.0604 | | mg/Kg | | 121 | 34 - 144 |
| Carbon disulfide 0.0500 0.0553 "mg/kg 111 27 - 107 Methylene Chloride 0.0500 0.0493 mg/kg 99 49.125 trans-1,2-Dichloroethene 0.0500 0.0508 mg/kg 102 62.119 Methyl terb-tudyl ether 0.0500 0.0508 mg/kg 102 70.113 cis-1.2-Dichloroethene 0.0500 0.0508 mg/kg 103 70.113 cis-1.2-Dichloroethene 0.0500 0.0611 mg/kg 105 62.111 Methyl Et-budyl ether 0.0500 0.0611 mg/kg 103 70.112 1,1-Trichloroethane 0.0500 0.0531 mg/kg 106 67.115 Carbon tetrachloride 0.0500 0.0537 mg/kg 106 64.116 Benzene 0.0500 0.0527 mg/kg 106 74.112 1.2-Dichloroethane 0.0500 0.0527 mg/kg 107 74.112 1.2-Dichloroethane 0.0500 0.0527 mg/kg 107 | 1,1-Dichloroethene | 0.0500 | 0.0467 | | mg/Kg | | 93 | 60 - 128 |
| Methylene Chlonde 0.0500 0.0493 mg/Kg 99 49.125 trans.1.2-Dichloroethene 0.0500 0.0508 mg/Kg 102 62.119 Methyl terh-butyl ether 0.0500 0.0508 mg/Kg 102 55.116 1.1-Dichloroethane 0.0500 0.0527 mg/Kg 102 62.111 Methyl terh/store 0.0500 0.0513 mg/Kg 103 70.112 Chlorootm 0.0500 0.0513 mg/Kg 106 67.115 Carbon terrachloride 0.0500 0.0532 mg/Kg 107 74.112 1.2-Dichloroethane 0.0500 0.0532 mg/Kg 107 74.112 1.2-Dichloroethane 0.0500 0.0527 mg/Kg 107 74.112 1.2-Dichloroethane 0.0500 0.0527 mg/Kg 107 77.116 Bromodichloromethane 0.0500 0.0527 mg/Kg 107 77.116 Stanosethane 0.0500 0.0537 mg/Kg 107 75.117 < | Acetone | 0.0500 | 0.0674 | | mg/Kg | | 135 | 43 - 149 |
| trans-1,2-Dichloroethene0.05000.0508mg/Kg10262.119Methyl tert-butyl ether0.05000.0508mg/Kg10255.1161,1-Dichloroethane0.05000.0508mg/Kg10256.211Methyl Ethyl Ketone0.05000.0513mg/Kg10370.1121,1,1-Trichloroethane0.05000.0513mg/Kg10667.115Carbon tetrachloride0.05000.0531mg/Kg10664.116Benzene0.05000.0531mg/Kg10774.1121,2-Dichloroethane0.05000.0537mg/Kg10876.1111,2-Dichloroethane0.05000.0534mg/Kg10876.1111,2-Dichloroethane0.05000.0534mg/Kg10774.1121,2-Dichloroethane0.05000.0537mg/Kg10776.108cis-1,3-Dichloropropane0.05000.0537mg/Kg10776.108cis-1,3-Dichloropropene0.05000.0557mg/Kg10765.127Toluene0.05000.0527mg/Kg10765.127Toluene0.05000.0523mg/Kg10163.1071,1,2-Trichloroethane0.05000.0521mg/Kg10469.118Tears-1,3-Dichloropropene0.05000.0522mg/Kg10469.118Tears-1,3-Dichloropropene0.05000.0522mg/Kg10661.141,1-2-Trichloroethane0.05000.0522mg/Kg10661.14 <td>Carbon disulfide</td> <td>0.0500</td> <td>0.0553</td> <td>*</td> <td>mg/Kg</td> <td></td> <td>111</td> <td>27 - 107</td> | Carbon disulfide | 0.0500 | 0.0553 | * | mg/Kg | | 111 | 27 - 107 |
| Methyl tert-butyl ether 0.0500 0.0508 mg/Kg 102 55.116 1,1-Dichloroethane 0.0500 0.0508 mg/Kg 102 70.113 sis-1,2-Dichloroethane 0.0500 0.0527 mg/Kg 105 62.111 Methyl Ethyl Ketone 0.0500 0.0611 mg/Kg 103 70.112 1,1,1-Trichloroethane 0.0500 0.0531 mg/Kg 106 67.115 Carbon tetrachloride 0.0500 0.0537 mg/Kg 107 74.112 1,2-Dichloroethane 0.0500 0.0537 mg/Kg 108 76.111 1.2-Dichloroethane 0.0500 0.0537 mg/Kg 107 74.112 1.2-Dichloroethane 0.0500 0.0537 mg/Kg 107 77.116 Bromodichloromethane 0.0500 0.0537 mg/Kg 105 76.108 cis-1.3-Dichloropropene 0.0500 0.0537 mg/Kg 107 77.116 Bromodichloromethane 0.0500 0.0537 mg/Kg 107 | Methylene Chloride | 0.0500 | 0.0493 | | mg/Kg | | 99 | 49 - 125 |
| 1.1-Dichloroethane 0.0500 0.0508 mg/Kg 102 70.113 cis-1,2-Dichloroethane 0.0500 0.0527 mg/Kg 105 62.111 Methyl Ethyl Ketone 0.0500 0.0513 mg/Kg 102 58.140 Chloroform 0.0500 0.0513 mg/Kg 108 67.115 Carbon tetrachloride 0.0500 0.0532 mg/Kg 107 74.112 1,1-Trichloroethane 0.0500 0.0537 mg/Kg 108 67.115 Carbon tetrachloride 0.0500 0.0537 mg/Kg 107 74.112 1,2-Dichloroethane 0.0500 0.0540 mg/Kg 108 76.111 1,2-Dichloroptopane 0.0500 0.0547 mg/Kg 107 77.112 1,2-Dichloroptopane 0.0500 0.0537 mg/Kg 105 76.108 cis-1,3-Dichloroptopene 0.0500 0.0537 mg/Kg 107 77.113 trans-1,3-Dichloroptopene 0.0500 0.0527 mg/Kg 104 68.103 trans-1,3-Dichloroptopene 0.0500 0.0537 mg/Kg< | trans-1,2-Dichloroethene | 0.0500 | 0.0508 | | mg/Kg | | 102 | 62 - 119 |
| cis-1,2-Dichloroethene 0.0500 0.0527 mg/Kg 105 62.111 Methyl Ethyl Ketone 0.0500 0.0611 mg/Kg 103 70.112 Chloroform 0.0500 0.0513 mg/Kg 103 70.112 1,1,1-Trichloroethane 0.0500 0.0531 mg/Kg 106 67.115 Carbon tetrachloride 0.0500 0.0537 mg/Kg 105 74.114 Trichloroethane 0.0500 0.0527 mg/Kg 105 74.114 Trichloroethane 0.0500 0.0527 mg/Kg 107 74.114 Trichloroethane 0.0500 0.0527 mg/Kg 107 74.114 Trichloroethane 0.0500 0.0527 mg/Kg 108 76.111 1.2-Dichloropropane 0.0500 0.0527 mg/Kg 107 75.116 Bromodichloromethane 0.0500 0.0527 mg/Kg 107 65.127 Toluene 0.0500 0.0531 mg/Kg 107 65.127 | Methyl tert-butyl ether | 0.0500 | 0.0508 | | mg/Kg | | 102 | 55 - 116 |
| Methyl Ethyl Ketone 0.0500 0.0611 mg/Kg 122 58.140 Chloroform 0.0500 0.0513 mg/Kg 103 70.112 1,1,1-Trichloroethane 0.0500 0.0531 mg/Kg 106 67.115 Carbon tetrachloride 0.0500 0.0537 mg/Kg 106 64.116 Benzene 0.0500 0.0537 mg/Kg 107 74.112 1,2-Dichloroethane 0.0500 0.0534 mg/Kg 108 76.111 1,2-Dichloropthane 0.0500 0.0534 mg/Kg 107 77.116 Bromodichloromethane 0.0500 0.0537 mg/Kg 107 76.108 cis-1,3-Dichloropropene 0.0500 0.0537 mg/Kg 107 75.113 Tolene 0.0500 0.0537 mg/Kg 107 65.127 Toluene 0.0500 0.0537 mg/Kg 101 63.107 1,1,2-Trichloroethane 0.0500 0.0522 mg/Kg 101 63.107 < | 1,1-Dichloroethane | 0.0500 | 0.0508 | | mg/Kg | | 102 | 70 - 113 |
| Chordorm 0.0500 0.0513 mg/Kg 103 70.112 1,1,1-Trichloroethane 0.0500 0.0531 mg/Kg 106 67 - 115 Carbon tetrachloride 0.0500 0.0532 mg/Kg 106 64 - 116 Benzene 0.0500 0.0537 mg/Kg 107 74 - 112 1,2-Dichloroethane 0.0500 0.0540 mg/Kg 107 74 - 112 1,2-Dichloropthane 0.0500 0.0540 mg/Kg 107 77 - 116 Bromodichloropthane 0.0500 0.0534 mg/Kg 107 76 - 108 cis-1,3-Dichloroptopane 0.0500 0.0537 mg/Kg 107 75 - 108 cis-1,3-Dichloroptopane 0.0500 0.0537 mg/Kg 107 65 - 127 Toluene 0.0500 0.0522 mg/Kg 101 63 - 107 1,1,2-Trichloropthane 0.0500 0.0522 mg/Kg 104 69 - 118 trans-1,3-Dichloropropene 0.0500 0.0522 mg/Kg 104 | cis-1,2-Dichloroethene | 0.0500 | 0.0527 | | mg/Kg | | 105 | 62 - 111 |
| 1,1,1-Trichloroethane0.05000.0531mg/Kg10667 - 115Carbon tetrachloride0.05000.0532mg/Kg10664 - 116Benzene0.05000.0537mg/Kg10774 - 1121,2-Dichloroethane0.05000.0527mg/Kg10876 - 1111,2-Dichloroethane0.05000.0540mg/Kg10876 - 1111,2-Dichloropropane0.05000.0534mg/Kg10777 - 116Bromodichloromethane0.05000.0527mg/Kg10576 - 108cis-1,3-Dichloropropane0.05000.0537mg/Kg10765 - 127Toluene0.05000.0537mg/Kg10765 - 127Toluene0.05000.0543mg/Kg10977 - 113trans-1,3-Dichloropropene0.04860.0492mg/Kg10463 - 1071,1,2-Trichloroethane0.05000.0522mg/Kg10463 - 1071,1,2-Trichloroethane0.05000.0526mg/Kg11858 - 138Dibromochloromethane0.05000.0526mg/Kg10576 - 1101,1,2-Trichloroethane0.05000.0526mg/Kg10576 - 1142-Hexanone0.05000.0526mg/Kg10576 - 1142-Hexanone0.05000.0526mg/Kg10576 - 110Chlorobenzene0.05000.0526mg/Kg10478 - 112Zylenes, Total0.1500.160mg/Kg10777 - 114< | Methyl Ethyl Ketone | 0.0500 | 0.0611 | | mg/Kg | | 122 | 58 ₋ 140 |
| Carbon tetrachloride0.05000.0532mg/Kg10664 - 116Benzene0.05000.0537mg/Kg10774 - 1121,2-Dichloroethane0.05000.0527mg/Kg10876 - 1111,2-Dichloropropane0.05000.0534mg/Kg10777 - 116Bromodichloromethane0.05000.0527mg/Kg10576 - 108cis-1,3-Dichloropropane0.05000.0527mg/Kg10777 - 116Bromodichloromethane0.05000.0527mg/Kg10766 - 127Toluene0.05000.0533mg/Kg10766 - 127Toluene0.05000.0543mg/Kg10163 - 1071,1,2-Trichloroptopene0.05000.0522mg/Kg10163 - 1071,1,2-Trichloroethane0.05000.0522mg/Kg10469 - 118Tetrachloroethane0.05000.0526mg/Kg11858 - 138Dibromochloromethane0.05000.0526mg/Kg10380 - 110Lityanone0.05000.0526mg/Kg10380 - 110Chlorobenzene0.05000.0520mg/Kg10478 - 112Xylenes, Total0.1500.160mg/Kg10478 - 112Xylenes, Total0.1500.0526mg/Kg10576 - 114Styrene0.05000.0526mg/Kg10478 - 112Styrene0.05000.0526mg/Kg10478 - 112Styrene0.0 | Chloroform | 0.0500 | 0.0513 | | mg/Kg | | 103 | 70 ₋ 112 |
| Benzene0.05000.0537mg/Kg10774 - 1121,2-Dichloroethane0.05000.0527mg/Kg10574 - 114Trichloroethane0.05000.0540mg/Kg10876 - 1111,2-Dichloropropane0.05000.0534mg/Kg10777 - 116Bromodichloromethane0.05000.0527mg/Kg10576 - 108cis-1,3-Dichloropropene0.05380.0519mg/Kg9768 - 103methyl isobutyl ketone0.05000.0537mg/Kg10765 - 127Toluene0.05000.0533mg/Kg10163 - 1071,1,2-Tichloroptopene0.04860.0492mg/Kg10163 - 1071,1,2-Tichloroethane0.05000.0522mg/Kg10163 - 1071,1,2-Tichloroethane0.05000.0591mg/Kg9876 - 1142-Hexanone0.05000.0526mg/Kg10576 - 110Dibromochloromethane0.05000.0526mg/Kg10380 - 110Chlorobenzene0.05000.0526mg/Kg10380 - 110Ethylbenzene0.05000.0520mg/Kg10380 - 110Xylenes, Total0.1500.160mg/Kg10777 - 114Styrene0.05000.0526mg/Kg10578 - 109Bromoform0.05000.0547mg/Kg10578 - 109 | 1,1,1-Trichloroethane | 0.0500 | 0.0531 | | mg/Kg | | 106 | 67 - 115 |
| 1,2-Dichloroethane0.05000.0527mg/Kg10574 - 114Trichloroethene0.05000.0540mg/Kg10876 - 1111,2-Dichloropropane0.05000.0534mg/Kg10777 - 116Bromodichloromethane0.05000.0527mg/Kg10576 - 108cis-1,3-Dichloropropene0.05380.0519mg/Kg9768 - 103methyl isobutyl ketone0.05000.0537mg/Kg10765 - 127Toluene0.05000.0543mg/Kg10977 - 113trans-1,3-Dichloropropene0.04860.0492mg/Kg10163 - 1071,1,2-Trichloroethane0.05000.0522mg/Kg10469 - 118Tetrachloroethane0.05000.0591mg/Kg1888 - 138Dibromochloromethane0.05000.0526mg/Kg10576 - 110Chlorobenzene0.05000.0526mg/Kg10380 - 110Chlorobenzene0.05000.0526mg/Kg10380 - 110Chlorobenzene0.05000.0520mg/Kg10478 - 112Xylenes, Total0.1500.160mg/Kg10777 - 114Styrene0.05000.0526mg/Kg10578 - 109Bromoform0.05000.0526mg/Kg10578 - 109Bromoform0.05000.0526mg/Kg10578 - 109 | Carbon tetrachloride | 0.0500 | 0.0532 | | mg/Kg | | 106 | 64 - 116 |
| Trichloroethene0.05000.0540mg/Kg10876 - 1111,2-Dichloropropane0.05000.0534mg/Kg10777 - 116Bromodichloromethane0.05000.0527mg/Kg10576 - 108cis-1,3-Dichloropropene0.05380.0519mg/Kg10765 - 127Toluene0.05000.0537mg/Kg10977 - 113trans-1,3-Dichloropropene0.04860.0492mg/Kg10163 - 1071,1,2-Trichloroethane0.05000.0522mg/Kg10469 - 118Tetrachloroethane0.05000.0591mg/Kg11858 - 138Dibromochloromethane0.05000.0526mg/Kg10576 - 1102-Hexanone0.05000.0526mg/Kg10380 - 110Chlorobenzene0.05000.0514mg/Kg10380 - 110Chlorobenzene0.05000.0520mg/Kg10478 - 112Xylenes, Total0.1500.160mg/Kg10777 - 114Styrene0.05000.0526mg/Kg10578 - 109Bromoform0.05000.0526mg/Kg10578 - 109 | Benzene | 0.0500 | 0.0537 | | mg/Kg | | 107 | 74 - 112 |
| 1,2-Dichloropropane0.05000.0534mg/Kg10777 - 116Bromodichloromethane0.05000.0527mg/Kg10576 - 108cis-1,3-Dichloropropene0.05380.0519mg/Kg9768 - 103methyl isobutyl ketone0.05000.0537mg/Kg10765 - 127Toluene0.05000.0543mg/Kg10977 - 113trans-1,3-Dichloropropene0.04860.0492mg/Kg10163 - 1071,1,2-Trichloroethane0.05000.0522mg/Kg10469 - 118Tetrachloroethane0.05000.0591mg/Kg9876 - 1142-Hexanone0.05000.0526mg/Kg10576 - 110Dibromochloromethane0.05000.0526mg/Kg10380 - 110Chlorobenzene0.05000.0520mg/Kg10380 - 110Ethylbenzene0.05000.0520mg/Kg10478 - 112Xylenes, Total0.1500.160mg/Kg10777 - 114Styrene0.05000.0526mg/Kg10578 - 109Bromoform0.05000.0547mg/Kg10966 - 115 | 1,2-Dichloroethane | 0.0500 | 0.0527 | | mg/Kg | | 105 | 74 ₋ 114 |
| Bromodichloromethane0.05000.0527mg/Kg10576 - 108cis-1,3-Dichloropropene0.05380.0519mg/Kg9768 - 103methyl isobutyl ketone0.05000.0537mg/Kg10765 - 127Toluene0.05000.0543mg/Kg10977 - 113trans-1,3-Dichloropropene0.04860.0492mg/Kg10163 - 1071,1,2-Trichloroethane0.05000.0522mg/Kg10469 - 118Tetrachloroethane0.05000.0591mg/Kg11858 - 138Dibromochloromethane0.05000.0526mg/Kg10576 - 110Chlorobenzene0.05000.0526mg/Kg10380 - 110Chlorobenzene0.05000.0520mg/Kg10478 - 112Xylenes, Total0.1500.160mg/Kg10777 - 114Styrene0.05000.0526mg/Kg10578 - 109Bromoform0.05000.0526mg/Kg10578 - 109 | Trichloroethene | 0.0500 | 0.0540 | | mg/Kg | | 108 | 76 - 111 |
| cis-1,3-Dichloropropene0.05380.0519mg/Kg9768 - 103methyl isobutyl ketone0.05000.0537mg/Kg10765 - 127Toluene0.05000.0543mg/Kg10977 - 113trans-1,3-Dichloropropene0.04860.0492mg/Kg10163 - 1071,1,2-Trichloroethane0.05000.0522mg/Kg10469 - 118Tetrachloroethene0.05000.0591mg/Kg11858 - 138Dibromochloromethane0.05000.0526mg/Kg10576 - 110Chlorobenzene0.05000.0514mg/Kg10380 - 110Ethylbenzene0.05000.0520mg/Kg10478 - 112Xylenes, Total0.1500.160mg/Kg10777 - 114Styrene0.05000.0526mg/Kg10578 - 109Bromoform0.05000.0526mg/Kg10578 - 109Bromoform0.05000.0526mg/Kg10578 - 109 | 1,2-Dichloropropane | 0.0500 | 0.0534 | | mg/Kg | | 107 | 77 - 116 |
| methyl isobutyl ketone0.05000.0537mg/Kg10765 - 127Toluene0.05000.0543mg/Kg10977 - 113trans-1,3-Dichloropropene0.04860.0492mg/Kg10163 - 1071,1,2-Trichloroethane0.05000.0522mg/Kg10469 - 118Tetrachloroethene0.05000.0491mg/Kg9876 - 1142-Hexanone0.05000.0526mg/Kg10576 - 110Dibromochloromethane0.05000.0514mg/Kg10380 - 110Chlorobenzene0.05000.0520mg/Kg10478 - 112Xylenes, Total0.1500.160mg/Kg10777 - 114Styrene0.05000.0526mg/Kg10578 - 109Bromoform0.05000.0547mg/Kg10966 - 115 | Bromodichloromethane | 0.0500 | 0.0527 | | mg/Kg | | 105 | 76 - 108 |
| Toluene0.05000.0543mg/Kg10977 - 113trans-1,3-Dichloropropene0.04860.0492mg/Kg10163 - 1071,1,2-Trichloroethane0.05000.0522mg/Kg10469 - 118Tetrachloroethene0.05000.0491mg/Kg9876 - 1142-Hexanone0.05000.0591mg/Kg11858 - 138Dibromochloromethane0.05000.0526mg/Kg10576 - 110Chlorobenzene0.05000.0514mg/Kg10380 - 110Ethylbenzene0.05000.0520mg/Kg10478 - 112Xylenes, Total0.1500.160mg/Kg10777 - 114Styrene0.05000.0526mg/Kg10578 - 109Bromoform0.05000.0547mg/Kg10966 - 115 | cis-1,3-Dichloropropene | 0.0538 | 0.0519 | | mg/Kg | | 97 | 68 - 103 |
| trans-1,3-Dichloropropene0.04860.0492mg/Kg10163 - 1071,1,2-Trichloroethane0.05000.0522mg/Kg10469 - 118Tetrachloroethene0.05000.0491mg/Kg9876 - 1142-Hexanone0.05000.0591mg/Kg11858 - 138Dibromochloromethane0.05000.0526mg/Kg10576 - 110Chlorobenzene0.05000.0514mg/Kg10380 - 110Ethylbenzene0.05000.0520mg/Kg10478 - 112Xylenes, Total0.1500.160mg/Kg10777 - 114Styrene0.05000.0526mg/Kg10578 - 109Bromoform0.05000.0547mg/Kg10966 - 115 | methyl isobutyl ketone | 0.0500 | 0.0537 | | mg/Kg | | 107 | 65 - 127 |
| 1,1,2-Trichloroethane0.05000.0522mg/Kg10469 - 118Tetrachloroethane0.05000.0491mg/Kg9876 - 1142-Hexanone0.05000.0591mg/Kg11858 - 138Dibromochloromethane0.05000.0526mg/Kg10576 - 110Chlorobenzene0.05000.0514mg/Kg10380 - 110Ethylbenzene0.05000.0520mg/Kg10478 - 112Xylenes, Total0.1500.160mg/Kg10777 - 114Styrene0.05000.0526mg/Kg10578 - 109Bromoform0.05000.0547mg/Kg10966 - 115 | Toluene | 0.0500 | 0.0543 | | mg/Kg | | 109 | 77 _ 113 |
| Tetrachloroethene0.05000.0491mg/Kg9876 - 1142-Hexanone0.05000.0591mg/Kg11858 - 138Dibromochloromethane0.05000.0526mg/Kg10576 - 110Chlorobenzene0.05000.0514mg/Kg10380 - 110Ethylbenzene0.05000.0520mg/Kg10478 - 112Xylenes, Total0.1500.160mg/Kg10777 - 114Styrene0.05000.0526mg/Kg10578 - 109Bromoform0.05000.0547mg/Kg10966 - 115 | trans-1,3-Dichloropropene | 0.0486 | 0.0492 | | mg/Kg | | 101 | 63 - 107 |
| 2-Hexanone 0.0500 0.0591 mg/Kg 118 58 - 138 Dibromochloromethane 0.0500 0.0526 mg/Kg 105 76 - 110 Chlorobenzene 0.0500 0.0514 mg/Kg 103 80 - 110 Ethylbenzene 0.0500 0.0520 mg/Kg 104 78 - 112 Xylenes, Total 0.150 0.160 mg/Kg 107 77 - 114 Styrene 0.0500 0.0526 mg/Kg 105 78 - 109 Bromoform 0.0500 0.0547 mg/Kg 109 66 - 115 | 1,1,2-Trichloroethane | 0.0500 | 0.0522 | | mg/Kg | | 104 | 69 - 118 |
| Dibromochloromethane 0.0500 0.0526 mg/Kg 105 76 - 110 Chlorobenzene 0.0500 0.0514 mg/Kg 103 80 - 110 Ethylbenzene 0.0500 0.0520 mg/Kg 104 78 - 112 Xylenes, Total 0.150 0.160 mg/Kg 107 77 - 114 Styrene 0.0500 0.0526 mg/Kg 105 78 - 109 Bromoform 0.0500 0.0547 mg/Kg 109 66 - 115 | Tetrachloroethene | 0.0500 | 0.0491 | | mg/Kg | | 98 | 76 - 114 |
| Chlorobenzene 0.0500 0.0514 mg/Kg 103 80 - 110 Ethylbenzene 0.0500 0.0520 mg/Kg 104 78 - 112 Xylenes, Total 0.150 0.160 mg/Kg 107 77 - 114 Styrene 0.0500 0.0526 mg/Kg 105 78 - 109 Bromoform 0.0500 0.0547 mg/Kg 109 66 - 115 | 2-Hexanone | 0.0500 | 0.0591 | | mg/Kg | | 118 | 58 - 138 |
| Ethylbenzene 0.0500 0.0520 mg/Kg 104 78 - 112 Xylenes, Total 0.150 0.160 mg/Kg 107 77 - 114 Styrene 0.0500 0.0526 mg/Kg 105 78 - 109 Bromoform 0.0500 0.0547 mg/Kg 109 66 - 115 | Dibromochloromethane | 0.0500 | 0.0526 | | mg/Kg | | 105 | 76 - 110 |
| Xylenes, Total 0.150 0.160 mg/Kg 107 77 - 114 Styrene 0.0500 0.0526 mg/Kg 105 78 - 109 Bromoform 0.0500 0.0547 mg/Kg 109 66 - 115 | Chlorobenzene | 0.0500 | 0.0514 | | mg/Kg | | 103 | 80 - 110 |
| Styrene 0.0500 0.0526 mg/Kg 105 78 - 109 Bromoform 0.0500 0.0547 mg/Kg 109 66 - 115 | Ethylbenzene | 0.0500 | 0.0520 | | mg/Kg | | 104 | 78 - 112 |
| Bromoform 0.0500 0.0547 mg/Kg 109 66 - 115 | Xylenes, Total | 0.150 | 0.160 | | mg/Kg | | 107 | 77 - 114 |
| | Styrene | 0.0500 | 0.0526 | | mg/Kg | | 105 | 78 - 109 |
| 1,1,2,2-Tetrachloroethane 0.0500 0.0557 mg/Kg 111 73 - 114 | Bromoform | 0.0500 | 0.0547 | | mg/Kg | | 109 | 66 - 115 |
| | 1,1,2,2-Tetrachloroethane | 0.0500 | 0.0557 | | mg/Kg | | 111 | 73 - 114 |

| | LCS | LCS | | | |
|------------------------------|-----------|-----------|----------|--|--|
| Surrogate | %Recovery | Qualifier | Limits | | |
| 1,2-Dichloroethane-d4 (Surr) | 84 | | 69 - 120 | | |
| Toluene-d8 (Surr) | 88 | | 69 - 122 | | |
| 4-Bromofluorobenzene (Surr) | 85 | | 67 - 120 | | |
| Dibromofluoromethane | 84 | | 69 - 120 | | |

Lab Sample ID: LCSD 500-140888/6 Matrix: Solid Analysis Batch: 140888

LCSD LCSD %Rec. Spike RPD Analyte Added Result Qualifier Unit D %Rec Limits RPD Limit Chloromethane 0.0500 0.0476 mg/Kg 95 48 - 136 4 30 44 - 130 Vinyl chloride 0.0500 0.0564 mg/Kg 113 2 30 Bromomethane 0.0500 0.0560 mg/Kg 112 36 - 146 5 30

TestAmerica Chicago 2/23/2012

Prep Type: Total/NA

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Client Sample ID: Lab Control Sample Dup

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 500-140888/6

Matrix: Solid Analysis Batch: 140888

| Analysis Batch: 140888 | | | Spike | LCSD | LCSD | | | | %Rec. | | RPD |
|------------------------------|-----------|------|----------|--------|-----------|-------|---|------|---------------------|-----|-------|
| Analyte | | | Added | | Qualifier | Unit | D | %Rec | Limits | RPD | Limit |
| Chloroethane | | | 0.0500 | 0.0611 | | mg/Kg | | 122 | 34 _ 144 | 1 | 30 |
| 1,1-Dichloroethene | | | 0.0500 | 0.0472 | | mg/Kg | | 94 | 60 - 128 | 1 | 30 |
| Acetone | | | 0.0500 | 0.0619 | | mg/Kg | | 124 | 43 - 149 | 9 | 30 |
| Carbon disulfide | | | 0.0500 | 0.0567 | * | mg/Kg | | 113 | 27 _ 107 | 3 | 30 |
| Methylene Chloride | | | 0.0500 | 0.0508 | | mg/Kg | | 102 | 49 - 125 | 3 | 30 |
| trans-1,2-Dichloroethene | | | 0.0500 | 0.0505 | | mg/Kg | | 101 | 62 - 119 | 1 | 30 |
| Methyl tert-butyl ether | | | 0.0500 | 0.0500 | | mg/Kg | | 100 | 55 ₋ 116 | 2 | 30 |
| 1,1-Dichloroethane | | | 0.0500 | 0.0501 | | mg/Kg | | 100 | 70 _ 113 | 1 | 30 |
| cis-1,2-Dichloroethene | | | 0.0500 | 0.0531 | | mg/Kg | | 106 | 62 - 111 | 1 | 30 |
| Methyl Ethyl Ketone | | | 0.0500 | 0.0505 | | mg/Kg | | 101 | 58 - 140 | 19 | 30 |
| Chloroform | | | 0.0500 | 0.0522 | | mg/Kg | | 104 | 70 - 112 | 2 | 30 |
| 1,1,1-Trichloroethane | | | 0.0500 | 0.0531 | | mg/Kg | | 106 | 67 _ 115 | 0 | 30 |
| Carbon tetrachloride | | | 0.0500 | 0.0533 | | mg/Kg | | 107 | 64 _ 116 | 0 | 30 |
| Benzene | | | 0.0500 | 0.0541 | | mg/Kg | | 108 | 74 _ 112 | 1 | 30 |
| 1,2-Dichloroethane | | | 0.0500 | 0.0527 | | mg/Kg | | 105 | 74 _ 114 | 0 | 30 |
| Trichloroethene | | | 0.0500 | 0.0536 | | mg/Kg | | 107 | 76 - 111 | 1 | 30 |
| 1,2-Dichloropropane | | | 0.0500 | 0.0548 | | mg/Kg | | 110 | 77 _ 116 | 3 | 30 |
| Bromodichloromethane | | | 0.0500 | 0.0546 | * | mg/Kg | | 109 | 76 - 108 | 4 | 30 |
| cis-1,3-Dichloropropene | | | 0.0538 | 0.0524 | | mg/Kg | | 97 | 68 - 103 | 1 | 30 |
| methyl isobutyl ketone | | | 0.0500 | 0.0553 | | mg/Kg | | 111 | 65 _ 127 | 3 | 30 |
| Toluene | | | 0.0500 | 0.0541 | | mg/Kg | | 108 | 77 - 113 | 0 | 30 |
| trans-1,3-Dichloropropene | | | 0.0486 | 0.0505 | | mg/Kg | | 104 | 63 _ 107 | 3 | 30 |
| 1,1,2-Trichloroethane | | | 0.0500 | 0.0513 | | mg/Kg | | 103 | 69 _ 118 | 2 | 30 |
| Tetrachloroethene | | | 0.0500 | 0.0485 | | mg/Kg | | 97 | 76 _ 114 | 1 | 30 |
| 2-Hexanone | | | 0.0500 | 0.0540 | | mg/Kg | | 108 | 58 - 138 | 9 | 30 |
| Dibromochloromethane | | | 0.0500 | 0.0499 | | mg/Kg | | 100 | 76 - 110 | 5 | 30 |
| Chlorobenzene | | | 0.0500 | 0.0511 | | mg/Kg | | 102 | 80 _ 110 | 1 | 30 |
| Ethylbenzene | | | 0.0500 | 0.0526 | | mg/Kg | | 105 | 78 - 112 | 1 | 30 |
| Xylenes, Total | | | 0.150 | 0.155 | | mg/Kg | | 103 | 77 _ 114 | 3 | 30 |
| Styrene | | | 0.0500 | 0.0510 | | mg/Kg | | 102 | 78 - 109 | 3 | 30 |
| Bromoform | | | 0.0500 | 0.0533 | | mg/Kg | | 107 | 66 - 115 | 3 | 30 |
| 1,1,2,2-Tetrachloroethane | | | 0.0500 | 0.0532 | | mg/Kg | | 106 | 73 _ 114 | 5 | 30 |
| | I CSD | LCSD | | | | | | | | | |
| Surrogate | %Recovery | | Limits | | | | | | | | |
| 1,2-Dichloroethane-d4 (Surr) | | | 69 - 120 | | | | | | | | |
| Toluene-d8 (Surr) | 90 | | 69 - 122 | | | | | | | | |
| 4-Bromofluorobenzene (Surr) | 87 | | 67 - 120 | | | | | | | | |
| Dibromofluoromethane | 85 | | 69 - 120 | | | | | | | | |

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

| Lab Sample ID: MB 500-141050/1-4 Matrix: Solid Analysis Batch: 141120 | A | | | | | | Client Sa | mple ID: Metho Prep Type: T Prep Batch: | otal/NA |
|---|--------|-----------|-------|-----|-------|---|----------------|---|---------|
| | MB | MB | | | | | | | |
| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
| Acenaphthene | ND | | 0.033 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| Acenaphthylene | ND | | 0.033 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| Anthracene | ND | | 0.033 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |

TestAmerica Chicago 2/23/2012 Lab Sample ID: MB 500-141050/1-A

Client Sample ID: Method Blank

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

| Lab Sample ID: MB 500-141050/1-A | | | | | | | Client Sa | mple ID: Metho | |
|-------------------------------------|----|-----------------|-------|-----|-------|---|----------------|----------------|---------------------------------------|
| Matrix: Solid | | | | | | | | Prep Type: 1 | |
| Analysis Batch: 141120 | MB | MB | | | | | | Prep Batch | 141050 |
| Analyte | | MD Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
| Benzo[a]anthracene | ND | | 0.033 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| Benzo[a]pyrene | ND | | 0.033 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | |
| Benzo[b]fluoranthene | ND | | 0.033 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| Benzo[g,h,i]perylene | ND | | 0.033 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| Benzo[k]fluoranthene | ND | | 0.033 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| Bis(2-chloroethoxy)methane | ND | | 0.000 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| Bis(2-chloroethyl)ether | ND | | 0.17 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | · · · · · · · · · · · · · · · · · · · |
| Bis(2-ethylhexyl) phthalate | ND | | 0.17 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| | ND | | 0.17 | | | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| 4-Bromophenyl phenyl ether | ND | | 0.17 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| Butyl benzyl phthalate Carbazole | | | | | mg/Kg | | 02/17/12 17:59 | | 1 |
| | ND | | 0.17 | | mg/Kg | | | 02/20/12 13:40 | 1 |
| 4-Chloroaniline | ND | | 0.67 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| 4-Chloro-3-methylphenol | ND | | 0.33 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | |
| 2-Chloronaphthalene | ND | | 0.17 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| 2-Chlorophenol | ND | | 0.17 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| 4-Chlorophenyl phenyl ether | ND | | 0.17 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| Chrysene | ND | | 0.033 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| Dibenz(a,h)anthracene | ND | | 0.033 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| Dibenzofuran | ND | | 0.17 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| 1,2-Dichlorobenzene | ND | | 0.17 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| 1,3-Dichlorobenzene | ND | | 0.17 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| 1,4-Dichlorobenzene | ND | | 0.17 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| 3,3'-Dichlorobenzidine | ND | | 0.17 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| 2,4-Dichlorophenol | ND | | 0.33 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| Diethyl phthalate | ND | | 0.17 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| 2,4-Dimethylphenol | ND | | 0.33 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| Dimethyl phthalate | ND | | 0.17 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| Di-n-butyl phthalate | ND | | 0.17 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| 4,6-Dinitro-2-methylphenol | ND | | 0.33 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| 2,4-Dinitrophenol | ND | | 0.67 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| 2,4-Dinitrotoluene | ND | | 0.17 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| 2,6-Dinitrotoluene | ND | | 0.17 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| Di-n-octyl phthalate | ND | | 0.17 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| Fluoranthene | ND | | 0.033 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| Fluorene | ND | | 0.033 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| Hexachlorobenzene | ND | | 0.067 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| Hexachlorobutadiene | ND | | 0.17 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| Hexachlorocyclopentadiene | ND | | 0.67 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| Hexachloroethane | ND | | 0.17 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| Indeno[1,2,3-cd]pyrene | ND | | 0.033 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| Isophorone | ND | | 0.17 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| 2-Methylnaphthalene | ND | | 0.17 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| 2-Methylphenol | ND | | 0.17 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| 3 & 4 Methylphenol | ND | | 0.17 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| Naphthalene | ND | | 0.033 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| 2-Nitroaniline | ND | | 0.000 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| 3-Nitroaniline | ND | | 0.17 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| 4-Nitroaniline | ND | | 0.33 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| | ND | | 0.033 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| Nitrobenzene 2-Nitrophenol | ND | | 0.033 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |

TestAmerica Chicago 2/23/2012

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

| Lab Sample ID: MB 500-141050/1-A | | | | | | | Client Sa | mple ID: Metho | d Blank |
|----------------------------------|--------|-----------|-------|-----|-------|---|----------------|----------------|---------|
| Matrix: Solid | | | | | | | | Prep Type: 1 | otal/NA |
| Analysis Batch: 141120 | | | | | | | | Prep Batch: | 141050 |
| - | MB | MB | | | | | | | |
| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
| 4-Nitrophenol | ND | | 0.67 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| N-Nitrosodi-n-propylamine | ND | | 0.17 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| N-Nitrosodiphenylamine | ND | | 0.17 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| 2,2'-oxybis[1-chloropropane] | ND | | 0.17 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| Pentachlorophenol | ND | | 0.67 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| Phenanthrene | ND | | 0.033 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| Phenol | ND | | 0.17 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| Pyrene | ND | | 0.033 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| 1,2,4-Trichlorobenzene | ND | | 0.17 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| 2,4,5-Trichlorophenol | ND | | 0.33 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| 2,4,6-Trichlorophenol | ND | | 0.33 | | mg/Kg | | 02/17/12 17:59 | 02/20/12 13:40 | 1 |
| | | | | | | | | | |

| 2,4,6-Trichlorophenol | ND | | 0.33 | mg/Kg | 02/17/12 17:59 | 02/20/12 13:40 | 1 | 11 |
|-----------------------|-----------|-----------|----------|-------|----------------|----------------|---------|----|
| | МВ | МВ | | | | | | |
| Surrogate | %Recovery | Qualifier | Limits | | Prepared | Analyzed | Dil Fac | |
| 2-Fluorobiphenyl | 94 | | 27 _ 113 | | 02/17/12 17:59 | 02/20/12 13:40 | 1 | |
| 2-Fluorophenol | 77 | | 30 - 110 | | 02/17/12 17:59 | 02/20/12 13:40 | 1 | 13 |
| Nitrobenzene-d5 | 90 | | 22 - 110 | | 02/17/12 17:59 | 02/20/12 13:40 | 1 | |
| Phenol-d5 | 85 | | 26 - 112 | | 02/17/12 17:59 | 02/20/12 13:40 | 1 | |
| Terphenyl-d14 | 80 | | 33 - 129 | | 02/17/12 17:59 | 02/20/12 13:40 | 1 | |
| 2,4,6-Tribromophenol | 85 | | 30 - 137 | | 02/17/12 17:59 | 02/20/12 13:40 | 1 | |
| | | | | | | | | |

Lab Sample ID: LCS 500-141050/2-A Matrix: Solid

Analysis Batch: 141120

| Analysis Batch: 141120 | Spike | LCS | LCS | | | | %Rec. |
|---|-------|--------|-----------|-------|---|------|---------------------|
| Analyte | Added | Result | Qualifier | Unit | D | %Rec | Limits |
| Acenaphthene | 1.67 | 1.31 | | mg/Kg | | 79 | 64 - 105 |
| Acenaphthylene | 1.67 | 1.36 | | mg/Kg | | 82 | 60 - 105 |
| Anthracene | 1.67 | 1.37 | | mg/Kg | | 82 | 63 - 109 |
| Benzo[a]anthracene | 1.67 | 1.33 | | mg/Kg | | 80 | 60 - 114 |
| Benzo[a]pyrene | 1.67 | 1.83 | | mg/Kg | | 110 | 59 - 110 |
| Benzo[b]fluoranthene | 1.67 | 1.91 | | mg/Kg | | 115 | 50 - 118 |
| Benzo[g,h,i]perylene | 1.67 | 2.02 | * | mg/Kg | | 121 | 58 - 119 |
| Benzo[k]fluoranthene | 1.67 | 1.71 | | mg/Kg | | 103 | 49 - 116 |
| Bis(2-chloroethoxy)methane | 1.67 | 1.35 | | mg/Kg | | 81 | 60 - 105 |
| Bis(2-chloroethyl)ether | 1.67 | 1.22 | | mg/Kg | | 73 | 54 - 116 |
| Bis(2-ethylhexyl) phthalate | 1.67 | 1.21 | | mg/Kg | | 72 | 63 - 124 |
| 4-Bromophenyl phenyl ether | 1.67 | 1.46 | | mg/Kg | | 88 | 66 - 114 |
| Butyl benzyl phthalate | 1.67 | 1.28 | | mg/Kg | | 77 | 63 - 131 |
| Carbazole | 1.67 | 1.50 | | mg/Kg | | 90 | 65 - 112 |
| 4-Chloroaniline | 1.67 | 1.12 | | mg/Kg | | 67 | 33 - 100 |
| 4-Chloro-3-methylphenol | 1.67 | 1.36 | | mg/Kg | | 81 | 60 - 111 |
| 2-Chloronaphthalene | 1.67 | 1.26 | | mg/Kg | | 75 | 62 - 104 |
| 2-Chlorophenol | 1.67 | 1.27 | | mg/Kg | | 76 | 60 - 104 |
| 4-Chlorophenyl phenyl ether | 1.67 | 1.27 | | mg/Kg | | 76 | 65 - 111 |
| Chrysene | 1.67 | 1.35 | | mg/Kg | | 81 | 64 - 112 |
| Dibenz(a,h)anthracene | 1.67 | 1.85 | | mg/Kg | | 111 | 56 ₋ 117 |
| Dibenzofuran | 1.67 | 1.30 | | mg/Kg | | 78 | 64 - 107 |
| 1,2-Dichlorobenzene | 1.67 | 1.24 | | mg/Kg | | 75 | 62 - 100 |
| 1,3-Dichlorobenzene | 1.67 | 1.21 | | mg/Kg | | 72 | 60 - 100 |
| 1 Contraction of the second | | | | | | | |

Client Sample ID: Lab Control Sample

Prep Type: Total/NA Prep Batch: 141050

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

| Lab Sample ID: LCS 500-141050/2-A Matrix: Solid | | | | | Client | Sample | ID: Lab Control Sample Prep Type: Total/NA |
|--|-------|-------|-----------|-------|--------|--------|---|
| Analysis Batch: 141120 | | | | | | | Prep Batch: 141050 |
| | Spike | | LCS | | | | %Rec. |
| Analyte | Added | | Qualifier | Unit | D | %Rec | Limits |
| 1,4-Dichlorobenzene | 1.67 | 1.22 | | mg/Kg | | 73 | 60 - 100 |
| 3,3'-Dichlorobenzidine | 1.67 | 1.27 | | mg/Kg | | 76 | 33 - 100 |
| 2,4-Dichlorophenol | 1.67 | 1.45 | | mg/Kg | | 87 | 65 ₋ 108 |
| Diethyl phthalate | 1.67 | 1.46 | | mg/Kg | | 88 | 64 ₋ 118 |
| 2,4-Dimethylphenol | 1.67 | 1.39 | | mg/Kg | | 83 | 63 - 106 |
| Dimethyl phthalate | 1.67 | 1.39 | | mg/Kg | | 83 | 68 - 108 |
| Di-n-butyl phthalate | 1.67 | 1.41 | | mg/Kg | | 85 | 64 - 117 |
| 4,6-Dinitro-2-methylphenol | 1.67 | 0.737 | | mg/Kg | | 44 | 10 - 103 |
| 2,4-Dinitrophenol | 1.67 | 0.677 | | mg/Kg | | 41 | 10 - 100 |
| 2,4-Dinitrotoluene | 1.67 | 1.40 | | mg/Kg | | 84 | 67 - 118 |
| 2,6-Dinitrotoluene | 1.67 | 1.45 | | mg/Kg | | 87 | 67 - 116 |
| Di-n-octyl phthalate | 1.67 | 1.74 | | mg/Kg | | 105 | 52 - 120 |
| Fluoranthene | 1.67 | 1.53 | | mg/Kg | | 92 | 68 - 113 |
| Fluorene | 1.67 | 1.51 | | mg/Kg | | 90 | 66 - 110 |
| Hexachlorobenzene | 1.67 | 1.39 | | mg/Kg | | 84 | 63 ₋ 118 |
| Hexachlorobutadiene | 1.67 | 1.35 | | mg/Kg | | 81 | 62 - 110 |
| Hexachlorocyclopentadiene | 1.67 | 1.02 | | mg/Kg | | 61 | 22 - 102 |
| Hexachloroethane | 1.67 | 1.20 | | mg/Kg | | 72 | 58 ₋ 100 |
| Indeno[1,2,3-cd]pyrene | 1.67 | 2.00 | * | mg/Kg | | 120 | 58 ₋ 118 |
| Isophorone | 1.67 | 1.25 | | mg/Kg | | 75 | 58 ₋ 100 |
| 2-Methylnaphthalene | 1.67 | 1.29 | | mg/Kg | | 78 | 62 - 101 |
| 2-Methylphenol | 1.67 | 1.18 | | mg/Kg | | 71 | 60 ₋ 107 |
| 3 & 4 Methylphenol | 1.67 | 1.15 | | mg/Kg | | 69 | 60 - 118 |
| Naphthalene | 1.67 | 1.35 | | mg/Kg | | 81 | 60 - 102 |
| 2-Nitroaniline | 1.67 | 1.61 | | mg/Kg | | 97 | 62 - 140 |
| 3-Nitroaniline | 1.67 | 1.40 | | mg/Kg | | 84 | 39 - 101 |
| 4-Nitroaniline | 1.67 | 1.70 | | mg/Kg | | 102 | 58 ₋ 118 |
| Nitrobenzene | 1.67 | 1.34 | | mg/Kg | | 80 | 63 - 108 |
| 2-Nitrophenol | 1.67 | 1.49 | | mg/Kg | | 89 | 65 - 106 |
| 4-Nitrophenol | 1.67 | 1.56 | | mg/Kg | | 94 | 42 - 122 |
| N-Nitrosodi-n-propylamine | 1.67 | 1.19 | | mg/Kg | | 71 | 58 - 117 |
| N-Nitrosodiphenylamine | 1.67 | 1.43 | | mg/Kg | | 86 | 66 - 115 |
| 2,2'-oxybis[1-chloropropane] | 1.67 | 1.19 | | mg/Kg | | 71 | 46 - 120 |
| Pentachlorophenol | 1.67 | 1.43 | | mg/Kg | | 86 | 25 - 119 |
| Phenanthrene | 1.67 | 1.40 | | mg/Kg | | 84 | 63 - 117 |
| Phenol | 1.67 | 1.37 | | mg/Kg | | 82 | 59 - 110 |
| Pyrene | 1.67 | 1.28 | | mg/Kg | | 77 | 62 _ 117 |
| 1,2,4-Trichlorobenzene | 1.67 | 1.33 | | mg/Kg | | 80 | 65 - 102 |
| 2,4,5-Trichlorophenol | 1.67 | 1.48 | | mg/Kg | | 89 | 67 _ 116 |
| 2,4,6-Trichlorophenol | 1.67 | 1.43 | | mg/Kg | | 86 | 60 - 114 |

| | LCS | LCS | |
|----------------------|-----------|-----------|----------|
| Surrogate | %Recovery | Qualifier | Limits |
| 2-Fluorobiphenyl | 89 | | 27 - 113 |
| 2-Fluorophenol | 79 | | 30 - 110 |
| Nitrobenzene-d5 | 91 | | 22 - 110 |
| Phenol-d5 | 86 | | 26 - 112 |
| Terphenyl-d14 | 87 | | 33 - 129 |
| 2,4,6-Tribromophenol | 104 | | 30 - 137 |

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

| Lab Sample ID: 500-44268-1 MS Matrix: Solid Analysis Batch: 141122 | Sample | Sample | Spike | MS | MS | | | CI | ient Sample ID: B-1/S-3 Prep Type: Total/NA Prep Batch: 141050 %Rec. |
|--|--------|-----------|-------|--------|-----------|----------------|-----------------|----------|---|
| Analyte | Result | Qualifier | Added | Result | Qualifier | Unit | D | %Rec | Limits |
| Acenaphthene | ND | | 1.85 | 1.89 | | mg/Kg | <u></u> | 102 | 60 - 105 |
| Acenaphthylene | ND | | 1.85 | 1.88 | | mg/Kg | ¢ | 102 | 65 ₋ 105 |
| Anthracene | ND | | 1.85 | 1.98 | | mg/Kg | ¢ | 107 | 63 - 109 |
| Benzo[a]anthracene | ND | | 1.85 | 2.01 | | mg/Kg | ¢ | 108 | 60 _ 114 |
| Benzo[a]pyrene | ND | | 1.85 | 2.90 | F | mg/Kg | ₽ | 155 | 59 - 110 |
| Benzo[b]fluoranthene | ND | | 1.85 | 2.92 | F | mg/Kg | ₽ | 156 | 50 ₋ 118 |
| Benzo[g,h,i]perylene | ND | * | 1.85 | 2.09 | | mg/Kg | ₽ | 112 | 58 - 119 |
| Benzo[k]fluoranthene | ND | | 1.85 | 3.07 | F | mg/Kg | ¢ | 164 | 49 - 116 |
| Bis(2-chloroethoxy)methane | ND | | 1.85 | 1.80 | | mg/Kg | ₽ | 97 | 60 - 105 |
| Bis(2-chloroethyl)ether | ND | | 1.85 | 1.66 | | mg/Kg | ¢ | 90 | 54 - 116 |
| Bis(2-ethylhexyl) phthalate | ND | | 1.85 | 1.72 | | mg/Kg | ¢ | 93 | 63 ₋ 124 |
| 4-Bromophenyl phenyl ether | ND | | 1.85 | 2.02 | | mg/Kg | ¢ | 109 | 66 ₋ 114 |
| Butyl benzyl phthalate | 0.24 | | 1.85 | 2.45 | | mg/Kg | ¢ | 119 | 63 - 131 |
| Carbazole | ND | | 1.85 | 1.97 | | mg/Kg | ¢ | 106 | 65 ₋ 112 |
| 4-Chloroaniline | ND | | 1.85 | 1.44 | | mg/Kg | ¢ | 78 | 33 - 100 |
| 4-Chloro-3-methylphenol | ND | | 1.85 | 1.90 | | mg/Kg | ¢ | 103 | 60 - 111 |
| 2-Chloronaphthalene | ND | | 1.85 | 1.80 | | mg/Kg | ¢ | 97 | 62 - 104 |
| 2-Chlorophenol | ND | | 1.85 | 1.74 | | mg/Kg | ¢ | 94 | 60 ₋ 104 |
| 4-Chlorophenyl phenyl ether | ND | | 1.85 | 2.00 | | mg/Kg | | 108 | 65 ₋ 111 |
| Chrysene | ND | | 1.85 | 1.93 | | mg/Kg | ¢ | 103 | 64 - 112 |
| Dibenz(a,h)anthracene | ND | | 1.85 | 2.28 | F | mg/Kg | ₽ | 123 | 56 - 117 |
| Dibenzofuran | ND | | 1.85 | 1.86 | | mg/Kg | ¢. | 100 | 64 - 107 |
| 1,2-Dichlorobenzene | ND | | 1.85 | 1.58 | | mg/Kg | ¢ | 85 | 62 - 100 |
| 1,3-Dichlorobenzene | ND | | 1.85 | 1.43 | | mg/Kg | ₽ | 77 | 60 - 100 |
| 1,4-Dichlorobenzene | ND | | 1.85 | 1.47 | | mg/Kg | | 80 | 60 - 100 |
| 3,3'-Dichlorobenzidine | ND | | 1.85 | 1.65 | | mg/Kg | ₽ | 89 | 33 - 100 |
| 2,4-Dichlorophenol | ND | | 1.85 | 1.92 | | mg/Kg | ¢ | 104 | 65 - 108 |
| Diethyl phthalate | ND | | 1.85 | 1.98 | | mg/Kg | ¢. | 107 | 64 ₋ 118 |
| 2,4-Dimethylphenol | ND | | 1.85 | 1.82 | | mg/Kg | ¢ | 98 | 63 - 106 |
| Dimethyl phthalate | ND | | 1.85 | 1.98 | | mg/Kg | ¢ | 107 | 68 - 108 |
| Di-n-butyl phthalate | ND | | 1.85 | 1.98 | | mg/Kg | | 107 | 64 - 117 |
| 4,6-Dinitro-2-methylphenol | ND | | 1.85 | 1.12 | | mg/Kg | ₽ | 61 | 10 - 103 |
| 2,4-Dinitrophenol | ND | | 1.85 | 0.870 | | mg/Kg | ¢ | 47 | 10 - 100 |
| 2,4-Dinitrotoluene | ND | | 1.85 | 1.97 | | mg/Kg | ф | 106 | 67 _ 118 |
| 2,6-Dinitrotoluene | ND | | 1.85 | 1.95 | | mg/Kg | ¢ | 105 | 67 _ 116 |
| Di-n-octyl phthalate | ND | | 1.85 | 2.65 | F | mg/Kg | ¢ | 143 | 52 - 120 |
| Fluoranthene | ND | | 1.85 | 2.03 | | mg/Kg | ¢. | 107 | 68 - 113 |
| Fluorene | ND | | 1.85 | 1.94 | | mg/Kg | ¢ | 105 | 66 - 110 |
| Hexachlorobenzene | ND | | 1.85 | 2.08 | | mg/Kg | ¢ | 112 | 63 - 118 |
| Hexachlorobutadiene | ND | | 1.85 | 1.69 | | mg/Kg | ¢. | 91 | 62 - 110 |
| Hexachlorocyclopentadiene | ND | | 1.85 | ND | F | mg/Kg | ¢ | 0 | 22 - 102 |
| Hexachloroethane | ND | | 1.85 | 0.755 | | mg/Kg | ¢ | 41 | 58 - 100 |
| Indeno[1,2,3-cd]pyrene | ND | * | 1.85 | 2.27 | | mg/Kg | | 122 | 58 - 118 |
| Isophorone | ND | | 1.85 | 1.65 | • | mg/Kg | ¢ | 89 | 58 - 100 |
| 2-Methylnaphthalene | ND | | 1.85 | 1.03 | | mg/Kg | ¢ | 96 | 62 - 101 |
| 2-Methylphenol | ND | | 1.85 | 1.69 | | | • • • • • • • • | 90 91 | 60 - 107 |
| | ND | | 1.85 | 1.09 | | mg/Kg mg/Kg | ¢ | 103 | 60 - 107 60 - 118 |
| 3 & 4 Methylphenol | ND | | 1.85 | 1.90 | | mg/Kg mg/Kg | ¢ | 97 | 60 - 118 60 - 102 |
| Naphthalene | | | | | | mg/Kg | ÷÷÷÷ | | |
| 2-Nitroaniline | ND | | 1.85 | 1.74 | | mg/Kg | 245 | 94 | 62 - 140 |

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

| Lab Sample ID: 500-44268-1 M Matrix: Solid Analysis Batch: 141122 | IS | | | | | | | CI | ient Sample ID: B-1/S-3 Prep Type: Total/NA Prep Batch: 141050 |
|---|--------|-----------|-------|--------|-----------|-------|---|------|--|
| - | Sample | Sample | Spike | MS | MS | | | | %Rec. |
| Analyte | Result | Qualifier | Added | Result | Qualifier | Unit | D | %Rec | Limits |
| 3-Nitroaniline | ND | | 1.85 | 1.63 | | mg/Kg | ₽ | 88 | 39 - 101 |
| 4-Nitroaniline | ND | | 1.85 | 1.52 | | mg/Kg | ₽ | 82 | 58 ₋ 118 |
| Nitrobenzene | ND | | 1.85 | 1.70 | | mg/Kg | ¢ | 92 | 63 - 108 |
| 2-Nitrophenol | ND | | 1.85 | 1.69 | | mg/Kg | ₽ | 91 | 65 - 106 |
| 4-Nitrophenol | ND | | 1.85 | 2.01 | | mg/Kg | ₽ | 108 | 42 - 122 |
| N-Nitrosodi-n-propylamine | ND | | 1.85 | 1.85 | | mg/Kg | ¢ | 100 | 58 - 117 |
| N-Nitrosodiphenylamine | ND | | 1.85 | 2.12 | | mg/Kg | ₽ | 115 | 66 - 115 |
| 2,2'-oxybis[1-chloropropane] | ND | | 1.85 | 1.68 | | mg/Kg | ₽ | 91 | 46 - 120 |
| Pentachlorophenol | ND | | 1.85 | 0.996 | | mg/Kg | ¢ | 54 | 25 - 119 |
| Phenanthrene | ND | | 1.85 | 2.14 | | mg/Kg | ₽ | 115 | 63 ₋ 117 |
| Phenol | ND | | 1.85 | 1.86 | | mg/Kg | ¢ | 100 | 59 ₋ 110 |
| Pyrene | ND | | 1.85 | 2.06 | | mg/Kg | ¢ | 110 | 62 _ 117 |
| 1,2,4-Trichlorobenzene | ND | | 1.85 | 1.71 | | mg/Kg | ¢ | 93 | 65 - 102 |
| 2,4,5-Trichlorophenol | ND | | 1.85 | 1.97 | | mg/Kg | ¢ | 107 | 67 - 116 |
| 2,4,6-Trichlorophenol | ND | | 1.85 | 1.92 | | mg/Kg | ¢ | 104 | 60 ₋ 114 |

| | MS | MS | |
|----------------------|-----------|-----------|----------|
| Surrogate | %Recovery | Qualifier | Limits |
| 2-Fluorobiphenyl | 100 | | 27 - 113 |
| 2-Fluorophenol | 89 | | 30 - 110 |
| Nitrobenzene-d5 | 92 | | 22 - 110 |
| Phenol-d5 | 97 | | 26 - 112 |
| Terphenyl-d14 | 108 | | 33 - 129 |
| 2,4,6-Tribromophenol | 98 | | 30 - 137 |

Lab Sample ID: 500-44268-1 MSD Matrix: Solid Analysis Batch: 141122

| Analysis Batch: 141122 | | | | | | | | | Prep B | atch: 1 | 41050 |
|-----------------------------|--------|-----------|-------|--------|-----------|-------|----|------|---------------------|---------|-------|
| | Sample | Sample | Spike | MSD | MSD | | | | %Rec. | | RPD |
| Analyte | Result | Qualifier | Added | Result | Qualifier | Unit | D | %Rec | Limits | RPD | Limit |
| Acenaphthene | ND | | 1.87 | 1.15 | F | mg/Kg | \$ | 62 | 60 _ 105 | 48 | 30 |
| Acenaphthylene | ND | | 1.87 | 1.15 | F | mg/Kg | ¢ | 61 | 65 _ 105 | 49 | 30 |
| Anthracene | ND | | 1.87 | 1.21 | F | mg/Kg | ₽ | 65 | 63 _ 109 | 48 | 30 |
| Benzo[a]anthracene | ND | | 1.87 | 1.21 | F | mg/Kg | ¢ | 64 | 60 - 114 | 50 | 30 |
| Benzo[a]pyrene | ND | | 1.87 | 1.74 | F | mg/Kg | ¢ | 92 | 59 ₋ 110 | 50 | 30 |
| Benzo[b]fluoranthene | ND | | 1.87 | 1.70 | F | mg/Kg | ☆ | 90 | 50 ₋ 118 | 53 | 30 |
| Benzo[g,h,i]perylene | ND | * | 1.87 | 1.31 | F | mg/Kg | ¢ | 69 | 58 ₋ 119 | 46 | 30 |
| Benzo[k]fluoranthene | ND | | 1.87 | 1.96 | F | mg/Kg | ¢ | 104 | 49 _ 116 | 44 | 30 |
| Bis(2-chloroethoxy)methane | ND | | 1.87 | 1.05 | F | mg/Kg | ¢ | 56 | 60 - 105 | 53 | 30 |
| Bis(2-chloroethyl)ether | ND | | 1.87 | 0.937 | F | mg/Kg | ¢ | 50 | 54 ₋ 116 | 56 | 30 |
| Bis(2-ethylhexyl) phthalate | ND | | 1.87 | 1.20 | F | mg/Kg | ¢ | 64 | 63 - 124 | 36 | 30 |
| 4-Bromophenyl phenyl ether | ND | | 1.87 | 1.19 | F | mg/Kg | ¢ | 64 | 66 _ 114 | 52 | 30 |
| Butyl benzyl phthalate | 0.24 | | 1.87 | 1.60 | F | mg/Kg | ¢ | 73 | 63 _ 131 | 42 | 30 |
| Carbazole | ND | | 1.87 | 1.17 | F | mg/Kg | ☆ | 63 | 65 - 112 | 51 | 30 |
| 4-Chloroaniline | ND | | 1.87 | 0.993 | F | mg/Kg | ☆ | 53 | 33 - 100 | 36 | 30 |
| 4-Chloro-3-methylphenol | ND | | 1.87 | 1.12 | F | mg/Kg | ₽ | 60 | 60 _ 111 | 52 | 30 |
| 2-Chloronaphthalene | ND | | 1.87 | 1.11 | F | mg/Kg | ¢ | 59 | 62 _ 104 | 48 | 30 |
| 2-Chlorophenol | ND | | 1.87 | 1.00 | F | mg/Kg | ₽ | 54 | 60 _ 104 | 54 | 30 |
| 4-Chlorophenyl phenyl ether | ND | | 1.87 | 1.24 | F | mg/Kg | ¢ | 66 | 65 - 111 | 47 | 30 |
| Chrysene | ND | | 1.87 | 1.19 | F | mg/Kg | ¢ | 63 | 64 _ 112 | 48 | 30 |

Client Sample ID: B-1/S-3 Prep Type: Total/NA

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

| Matrix: Solid | | | | | | | | | Prep Ty | pe: To | tal/NA |
|------------------------------|--------|-----------|-------|--------|-----------|-------|---|------|---------------------|---------|--------|
| Analysis Batch: 141122 | | | | | | | | | | atch: 1 | |
| - | Sample | Sample | Spike | MSD | MSD | | | | %Rec. | | RPD |
| Analyte | Result | Qualifier | Added | Result | Qualifier | Unit | D | %Rec | Limits | RPD | Limit |
| Dibenz(a,h)anthracene | ND | | 1.87 | 1.40 | F | mg/Kg | ¢ | 75 | 56 _ 117 | 48 | 30 |
| Dibenzofuran | ND | | 1.87 | 1.14 | F | mg/Kg | ¢ | 61 | 64 - 107 | 48 | 30 |
| 1,2-Dichlorobenzene | ND | | 1.87 | 0.911 | F | mg/Kg | ¢ | 49 | 62 - 100 | 54 | 30 |
| 1,3-Dichlorobenzene | ND | | 1.87 | 0.803 | F | mg/Kg | ¢ | 43 | 60 - 100 | 56 | 30 |
| 1,4-Dichlorobenzene | ND | | 1.87 | 0.837 | F | mg/Kg | ¢ | 45 | 60 - 100 | 55 | 30 |
| 3,3'-Dichlorobenzidine | ND | | 1.87 | 1.02 | F | mg/Kg | ¢ | 55 | 33 - 100 | 47 | 30 |
| 2,4-Dichlorophenol | ND | | 1.87 | 1.12 | F | mg/Kg | ¢ | 60 | 65 - 108 | 53 | 30 |
| Diethyl phthalate | ND | | 1.87 | 1.18 | F | mg/Kg | ¢ | 63 | 64 - 118 | 50 | 30 |
| 2,4-Dimethylphenol | ND | | 1.87 | 1.06 | F | mg/Kg | ¢ | 57 | 63 - 106 | 52 | 30 |
| Dimethyl phthalate | ND | | 1.87 | 1.19 | F | mg/Kg | ¢ | 64 | 68 - 108 | 50 | 30 |
| Di-n-butyl phthalate | ND | | 1.87 | 1.21 | F | mg/Kg | ¢ | 65 | 64 - 117 | 49 | 30 |
| 4,6-Dinitro-2-methylphenol | ND | | 1.87 | 0.527 | F | mg/Kg | ¢ | 28 | 10 _ 103 | 72 | 30 |
| 2,4-Dinitrophenol | ND | | 1.87 | ND | F | mg/Kg | ¢ | 15 | 10 _ 100 | 102 | 30 |
| 2,4-Dinitrotoluene | ND | | 1.87 | 1.18 | F | mg/Kg | ¢ | 63 | 67 _ 118 | 50 | 30 |
| 2,6-Dinitrotoluene | ND | | 1.87 | 1.16 | F | mg/Kg | ₽ | 62 | 67 _ 116 | 51 | 30 |
| Di-n-octyl phthalate | ND | | 1.87 | 1.92 | F | mg/Kg | ₽ | 103 | 52 - 120 | 32 | 30 |
| Fluoranthene | ND | | 1.87 | 1.19 | F | mg/Kg | ¢ | 62 | 68 ₋ 113 | 52 | 30 |
| Fluorene | ND | | 1.87 | 1.20 | F | mg/Kg | ₽ | 64 | 66 _ 110 | 47 | 30 |
| Hexachlorobenzene | ND | | 1.87 | 1.21 | F | mg/Kg | ¢ | 65 | 63 - 118 | 52 | 30 |
| Hexachlorobutadiene | ND | | 1.87 | 0.971 | F | mg/Kg | ¢ | 52 | 62 _ 110 | 54 | 30 |
| Hexachlorocyclopentadiene | ND | | 1.87 | ND | F | mg/Kg | ₽ | 0 | 22 - 102 | NC | 30 |
| Hexachloroethane | ND | | 1.87 | 0.388 | F | mg/Kg | ₽ | 21 | 58 ₋ 100 | 64 | 30 |
| Indeno[1,2,3-cd]pyrene | ND | * | 1.87 | 1.41 | F | mg/Kg | ¢ | 75 | 58 _ 118 | 47 | 30 |
| Isophorone | ND | | 1.87 | 0.937 | F | mg/Kg | ₽ | 50 | 58 ₋ 100 | 55 | 30 |
| 2-Methylnaphthalene | ND | | 1.87 | 1.07 | F | mg/Kg | ¢ | 57 | 62 _ 101 | 50 | 30 |
| 2-Methylphenol | ND | | 1.87 | 0.990 | F | mg/Kg | ¢ | 53 | 60 - 107 | 52 | 30 |
| 3 & 4 Methylphenol | ND | | 1.87 | 1.14 | F | mg/Kg | ₽ | 61 | 60 _ 118 | 50 | 30 |
| Naphthalene | ND | | 1.87 | 1.05 | F | mg/Kg | ₽ | 56 | 60 _ 102 | 52 | 30 |
| 2-Nitroaniline | ND | | 1.87 | 1.09 | F | mg/Kg | ¢ | 58 | 62 - 140 | 46 | 30 |
| 3-Nitroaniline | ND | | 1.87 | 1.02 | F | mg/Kg | ¢ | 55 | 39 _ 101 | 46 | 30 |
| 4-Nitroaniline | ND | | 1.87 | 1.02 | F | mg/Kg | ₽ | 55 | 58 - 118 | 40 | 30 |
| Nitrobenzene | ND | | 1.87 | 0.982 | F | mg/Kg | ¢ | 53 | 63 - 108 | 53 | 30 |
| 2-Nitrophenol | ND | | 1.87 | 0.982 | F | mg/Kg | ¢ | 53 | 65 ₋ 106 | 53 | 30 |
| 4-Nitrophenol | ND | | 1.87 | 1.10 | F | mg/Kg | ¢ | 59 | 42 - 122 | 58 | 30 |
| N-Nitrosodi-n-propylamine | ND | | 1.87 | 1.07 | F | mg/Kg | ¢ | 57 | 58 - 117 | 53 | 30 |
| N-Nitrosodiphenylamine | ND | | 1.87 | 1.28 | F | mg/Kg | ₽ | 69 | 66 - 115 | 49 | 30 |
| 2,2'-oxybis[1-chloropropane] | ND | | 1.87 | 0.960 | F | mg/Kg | ¢ | 51 | 46 - 120 | 55 | 30 |
| Pentachlorophenol | ND | | 1.87 | ND | F | mg/Kg | ¢ | 36 | 25 _ 119 | 39 | 30 |
| Phenanthrene | ND | | 1.87 | 1.28 | | mg/Kg | ¢ | 68 | 63 - 117 | 50 | 30 |
| Phenol | ND | | 1.87 | 1.08 | | mg/Kg | ¢ | 58 | 59 ₋ 110 | 53 | 30 |
| Pyrene | ND | | 1.87 | 1.23 | | mg/Kg | ¢ | 64 | 62 - 117 | 51 | 30 |
| 1,2,4-Trichlorobenzene | ND | | 1.87 | 0.993 | | mg/Kg | ¢ | 53 | 65 - 102 | 53 | 30 |
| 2,4,5-Trichlorophenol | ND | | 1.87 | 1.15 | | mg/Kg | ¢ | 62 | 67 _ 116 | 52 | 30 |
| 2,4,6-Trichlorophenol | ND | | 1.87 | 1.11 | | mg/Kg | ¢ | 60 | 60 - 114 | 53 | 30 |

| | MSD | MSD | |
|------------------|-----------|-----------|----------|
| Surrogate | %Recovery | Qualifier | Limits |
| 2-Fluorobiphenyl | 62 | | 27 - 113 |
| 2-Fluorophenol | 52 | | 30 - 110 |
| Nitrobenzene-d5 | 53 | | 22 - 110 |

| ethod: 8270C - Semivolatile | Organic O | ompoun | | oontinue | , uj | | | |
|----------------------------------|--------------|-----------|----------|----------|-------|----------------|----------------|----------|
| ab Sample ID: 500-44268-1 MSD | | | | | | Cli | ent Sample ID: | |
| Matrix: Solid | | | | | | | Prep Type: 1 | |
| Analysis Batch: 141122 | | | | | | | Prep Batch: | : 141050 |
| | MSD MS | | | | | | | |
| | Recovery Qua | | Limits | | | | | |
| Phenol-d5 | 57 | | 26 - 112 | | | | | |
| Terphenyl-d14 | 62 | | 33 - 129 | | | | | |
| 2,4,6-Tribromophenol | 57 | | 30 - 137 | | | | | |
| ethod: 8081A - Organochlor | ine Pestic | ides (GC |) | | | | | |
| Lab Sample ID: MB 500-140853/1-A | A | | | | | Client Sa | mple ID: Metho | |
| Matrix: Solid | | | | | | | Prep Type: 1 | |
| Analysis Batch: 140771 | МР | MB | | | | | Prep Batch: | : 140853 |
| Analyte | | Qualifier | RL | MDL | Unit | D Prepared | Analyzed | Dil Fac |
| alpha-BHC | ND |) | 0.0017 | | mg/Kg | 02/15/12 18:04 | 02/16/12 16:38 | 1 |
| beta-BHC | ND |) | 0.0017 | | mg/Kg | 02/15/12 18:04 | 02/16/12 16:38 | 1 |
| delta-BHC | ND |) | 0.0017 | | mg/Kg | 02/15/12 18:04 | 02/16/12 16:38 | 1 |
| gamma-BHC (Lindane) | ND |) | 0.0017 | | mg/Kg | 02/15/12 18:04 | 02/16/12 16:38 | 1 |
| Heptachlor | ND |) | 0.0017 | | mg/Kg | 02/15/12 18:04 | 02/16/12 16:38 | 1 |
| Aldrin | ND |) | 0.0017 | | mg/Kg | 02/15/12 18:04 | 02/16/12 16:38 | 1 |
| Heptachlor epoxide | ND |) | 0.0017 | | mg/Kg | 02/15/12 18:04 | 02/16/12 16:38 | 1 |
| Endosulfan I | ND |) | 0.0017 | | mg/Kg | 02/15/12 18:04 | 02/16/12 16:38 | 1 |
| Dieldrin | ND |) | 0.0017 | | mg/Kg | 02/15/12 18:04 | 02/16/12 16:38 | 1 |
| 4,4'-DDE | ND |) | 0.0017 | | mg/Kg | 02/15/12 18:04 | 02/16/12 16:38 | 1 |
| Endrin | ND |) | 0.0017 | | mg/Kg | 02/15/12 18:04 | 02/16/12 16:38 | 1 |
| Endosulfan II | ND |) | 0.0017 | | mg/Kg | 02/15/12 18:04 | 02/16/12 16:38 | 1 |
| 4,4'-DDD | ND |) | 0.0017 | | mg/Kg | 02/15/12 18:04 | 02/16/12 16:38 | 1 |
| Endosulfan sulfate | ND |) | 0.0017 | | mg/Kg | 02/15/12 18:04 | 02/16/12 16:38 | 1 |
| 4,4'-DDT | ND |) | 0.0017 | | mg/Kg | 02/15/12 18:04 | 02/16/12 16:38 | 1 |
| Methoxychlor | ND |) | 0.0083 | | mg/Kg | 02/15/12 18:04 | 02/16/12 16:38 | 1 |
| Endrin ketone | ND |) | 0.0017 | | mg/Kg | 02/15/12 18:04 | 02/16/12 16:38 | 1 |
| Endrin aldehyde | ND |) | 0.0017 | | mg/Kg | 02/15/12 18:04 | 02/16/12 16:38 | 1 |
| alpha-Chlordane | ND |) | 0.0017 | | mg/Kg | 02/15/12 18:04 | 02/16/12 16:38 | 1 |
| gamma-Chlordane | ND |) | 0.0017 | | mg/Kg | 02/15/12 18:04 | 02/16/12 16:38 | 1 |
| Toxaphene | ND |) | 0.017 | | mg/Kg | 02/15/12 18:04 | 02/16/12 16:38 | 1 |
| | MB | MB | | | | | | |
| Surrogate | %Recovery | | Limits | | | Prepared | Analyzed | Dil Fac |
| | 91 | 1 | 43 - 126 | | | 02/15/12 18:04 | 02/16/12 16:38 | 1 |
| DCB Decachlorobiphenyl | 91 | | | | | | | |

Analysis Batch: 140771

| | Spike | LCS | LCS | | | | %Rec. | |
|---------------------|--------|---------|-----------|-------|---|------|----------|--|
| Analyte | Added | Result | Qualifier | Unit | D | %Rec | Limits | |
| alpha-BHC | 0.0133 | 0.0114 | | mg/Kg | | 86 | 35 - 112 | |
| beta-BHC | 0.0133 | 0.0130 | | mg/Kg | | 98 | 47 _ 131 | |
| delta-BHC | 0.0133 | 0.00977 | | mg/Kg | | 73 | 43 - 134 | |
| gamma-BHC (Lindane) | 0.0133 | 0.0116 | | mg/Kg | | 87 | 45 - 111 | |
| Heptachlor | 0.0133 | 0.00990 | | mg/Kg | | 74 | 42 _ 114 | |
| Aldrin | 0.0133 | 0.0114 | | mg/Kg | | 86 | 40 _ 110 | |
| Heptachlor epoxide | 0.0133 | 0.0102 | | mg/Kg | | 77 | 53 - 110 | |

Prep Batch: 140853

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

| Lab Sample ID: LCS 500-14 Matrix: Solid | 0853/2-A | | | | | | Client S | Sample | ID: Lab Control Sample Prep Type: Total/NA |
|--|-----------|-----------|----------|---------|-----------|-------|----------|--------|---|
| Analysis Batch: 140771 | | | Spike | LCS | LCS | | | | Prep Batch: 140853 %Rec. |
| Analyte | | | Added | Result | Qualifier | Unit | D | %Rec | Limits |
| Endosulfan I | | | 0.0133 | 0.00943 | | mg/Kg | | 71 | 40 - 110 |
| Dieldrin | | | 0.0133 | 0.0120 | | mg/Kg | | 90 | 58 - 111 |
| 4,4'-DDE | | | 0.0133 | 0.0124 | | mg/Kg | | 93 | 57 ₋ 112 |
| Endrin | | | 0.0133 | 0.0118 | | mg/Kg | | 89 | 52 - 130 |
| Endosulfan II | | | 0.0133 | 0.0113 | | mg/Kg | | 85 | 43 - 110 |
| 4,4'-DDD | | | 0.0133 | 0.0140 | | mg/Kg | | 105 | 62 - 120 |
| Endosulfan sulfate | | | 0.0133 | 0.0133 | | mg/Kg | | 100 | 58 ₋ 117 |
| 4,4'-DDT | | | 0.0133 | 0.0125 | | mg/Kg | | 94 | 54 - 135 |
| Methoxychlor | | | 0.0133 | 0.0126 | | mg/Kg | | 95 | 48 - 133 |
| Endrin ketone | | | 0.0133 | 0.0135 | | mg/Kg | | 101 | 62 - 123 |
| Endrin aldehyde | | | 0.0133 | 0.0128 | | mg/Kg | | 96 | 49 - 110 |
| alpha-Chlordane | | | 0.0133 | 0.0120 | | mg/Kg | | 90 | 56 _ 110 |
| gamma-Chlordane | | | 0.0133 | 0.0124 | | mg/Kg | | 93 | 54 ₋ 110 |
| | LCS | LCS | | | | | | | |
| Surrogate | %Recovery | Qualifier | Limits | | | | | | |
| DCB Decachlorobiphenyl | 93 | | 43 - 126 | | | | | | |
| Tetrachloro-m-xylene | 87 | | 32 - 111 | | | | | | |

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

| Lab Sample ID: MB 500-1408 Matrix: Solid | 353/1-A | | | | | | С | lient Sa | mple ID: Meth Prep Type: | |
|---|--------------|-------------|----------|--------|-----------|-------|----------|----------|-----------------------------|-----------|
| Analysis Batch: 140887 | | | | | | | | | Prep Batch | n: 140853 |
| | MI | B MB | | | | | | | | |
| Analyte | Resu | t Qualifier | RL | М | DL Unit | | D Pre | pared | Analyzed | Dil Fac |
| PCB-1016 | N | D | 0.017 | | mg/Kg | | 02/15/ | 12 18:04 | 02/16/12 09:35 | 1 |
| PCB-1221 | N | C | 0.017 | | mg/Kg | | 02/15/ | 12 18:04 | 02/16/12 09:35 | 1 |
| PCB-1232 | N | C | 0.017 | | mg/Kg | | 02/15/ | 12 18:04 | 02/16/12 09:35 | 1 |
| PCB-1242 | N |) | 0.017 | | mg/Kg | | 02/15/ | 12 18:04 | 02/16/12 09:35 | 1 |
| PCB-1248 | N | C | 0.017 | | mg/Kg | | 02/15/ | 12 18:04 | 02/16/12 09:35 | 1 |
| PCB-1254 | N | C | 0.017 | | mg/Kg | | 02/15/ | 12 18:04 | 02/16/12 09:35 | 1 |
| PCB-1260 | NI |) | 0.017 | | mg/Kg | | 02/15/ | 12 18:04 | 02/16/12 09:35 | 1 |
| Polychlorinated biphenyls, Total | N | C | 0.017 | | mg/Kg | | 02/15/ | 12 18:04 | 02/16/12 09:35 | 1 |
| | М | 3 <i>MB</i> | | | | | | | | |
| Surrogate | %Recover | y Qualifier | Limits | | | | Pre | pared | Analyzed | Dil Fac |
| Tetrachloro-m-xylene | 8 | 6 | 28 - 124 | | | | 02/15/ | 12 18:04 | 02/16/12 09:35 | 1 |
| DCB Decachlorobiphenyl | 9 | 3 | 38 - 130 | | | | 02/15/ | 12 18:04 | 02/16/12 09:35 | 1 |
| _ Lab Sample ID: LCS 500-140 | 853/3-A | | | | | | Client S | ample | ID: Lab Contro | l Sample |
| Matrix: Solid | | | | | | | | | Prep Type: | |
| Analysis Batch: 140887 | | | | | | | | | Prep Batch | |
| · | | | Spike | LCS | LCS | | | | %Rec. | |
| Analyte | | | Added | Result | Qualifier | Unit | D | %Rec | Limits | |
| PCB-1016 | | | 0.167 | 0.153 | | mg/Kg | | 92 | 47 - 117 | |
| PCB-1260 | | | 0.167 | 0.149 | | mg/Kg | | 90 | 57 _ 122 | |
| | LCS LC | s | | | | | | | | |
| Surrogate | %Recovery Qu | alifier | Limits | | | | | | | |
| Tetrachloro-m-xylene | 91 | | 28 - 124 | | | | | | | |

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Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued) Lab Sample ID: LCS 500-140853/3-A **Client Sample ID: Lab Control Sample** Matrix: Solid Prep Type: Total/NA Prep Batch: 140853 Analysis Batch: 140887 LCS LCS %Recovery Limits Surrogate Qualifier DCB Decachlorobiphenyl 92 38 - 130 Method: 6010B - Metals (ICP) Lab Sample ID: MB 500-140831/1-A **Client Sample ID: Method Blank** Matrix: Solid **Prep Type: Total/NA** Analysis Batch: 140927 Prep Batch: 140831 MB MB Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac ND 20 02/15/12 15:09 Aluminum mg/Kg 02/16/12 10:48 1 Antimony ND 2.0 02/15/12 15:09 02/16/12 10:48 1 mg/Kg 02/15/12 15:09 Arsenic ND 1.0 mg/Kg 02/16/12 10:48 1 Barium ND 1.0 02/15/12 15:09 02/16/12 10:48 1 mg/Kg ND 0.40 02/16/12 10:48 Beryllium mg/Kg 02/15/12 15:09 1 02/16/12 10:48 Cadmium ND 0.20 mg/Kg 02/15/12 15:09 1 Calcium ND 20 02/15/12 15:09 02/16/12 10:48 mg/Kg 1 ND Chromium 10 02/15/12 15:09 02/16/12 10.48 mg/Kg 1 Cobalt ND 0.50 mg/Kg 02/15/12 15:09 02/16/12 10:48 02/16/12 10:48 Copper ND 1.0 mg/Kg 02/15/12 15:09 1 Iron ND 20 mg/Kg 02/15/12 15:09 02/16/12 10:48 1 Lead ND 0.50 mg/Kg 02/15/12 15:09 02/16/12 10:48 1 Magnesium ND 10 mg/Kg 02/15/12 15:09 02/16/12 10:48 Manganese ND 1.0 mg/Kg 02/15/12 15:09 02/16/12 10:48 1 Nickel ND 02/16/12 10:48 1.0 mg/Kg 02/15/12 15:09 1 50 Potassium ND mg/Kg 02/15/12 15:09 02/16/12 10:48 Selenium ND 1.0 02/15/12 15:09 02/16/12 10:48 mg/Kg 1 Silver ND 0.50 mg/Kg 02/15/12 15:09 02/16/12 10:48 Sodium ND 100 02/15/12 15:09 02/16/12 10:48 mg/Kg 1 Thallium ND 1.0 mg/Kg 02/15/12 15:09 02/16/12 10:48 1 Vanadium ND 0.50 mg/Kg 02/15/12 15:09 02/16/12 10.48 1 Zinc ND 2.0 mg/Kg 02/15/12 15:09 02/16/12 10:48 1

Lab Sample ID: LCS 500-140831/2-A Matrix: Solid

Analysis Batch: 140927

| | Spike | LCS | LCS | | | | %Rec. |
|-----------|-------|--------|-----------|-------|---|------|----------|
| Analyte | Added | Result | Qualifier | Unit | D | %Rec | Limits |
| Aluminum | 200 | 194 | | mg/Kg | | 97 | 80 - 120 |
| Antimony | 50.0 | 47.6 | | mg/Kg | | 95 | 80 - 120 |
| Arsenic | 10.0 | 9.22 | | mg/Kg | | 92 | 80 - 120 |
| Barium | 200 | 191 | | mg/Kg | | 96 | 80 - 120 |
| Beryllium | 5.00 | 4.97 | | mg/Kg | | 99 | 80 - 120 |
| Cadmium | 5.00 | 4.86 | | mg/Kg | | 97 | 80 - 120 |
| Calcium | 1000 | 1000 | | mg/Kg | | 100 | 80 - 120 |
| Chromium | 20.0 | 20.0 | | mg/Kg | | 100 | 80 - 120 |
| Cobalt | 50.0 | 49.2 | | mg/Kg | | 98 | 80 - 120 |
| Copper | 25.0 | 25.0 | | mg/Kg | | 100 | 80 - 120 |
| Iron | 100 | 101 | | mg/Kg | | 101 | 80 - 120 |
| Lead | 10.0 | 10.2 | | mg/Kg | | 102 | 80 - 120 |

2/23/2012

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 140831

Client: Geo Services, Inc Project/Site: Chicago Executive Airport - Runway 1634

Method: 6010B - Metals (ICP) (Continued)

| Lab Sample ID: LCS 500-140831/2-A Matrix: Solid Analysis Batch: 140927 | | | | (| Client S | ample | ID: Lab Control Sample Prep Type: Total/NA Prep Batch: 140831 |
|--|-------|--------|-----------|-------|----------|-------|---|
| | Spike | LCS | LCS | | | | %Rec. |
| Analyte | Added | Result | Qualifier | Unit | D | %Rec | Limits |
| Magnesium | 1000 | 975 | | mg/Kg | | 98 | 80 - 120 |
| Manganese | 50.0 | 51.7 | | mg/Kg | | 103 | 80 - 120 |
| Nickel | 50.0 | 49.5 | | mg/Kg | | 99 | 80 - 120 |
| Potassium | 1000 | 922 | | mg/Kg | | 92 | 80 - 120 |
| Selenium | 10.0 | 8.54 | | mg/Kg | | 85 | 80 - 120 |
| Silver | 5.00 | 4.79 | | mg/Kg | | 96 | 80 - 120 |
| Sodium | 1000 | 926 | | mg/Kg | | 93 | 80 - 120 |
| Thallium | 10.0 | 9.69 | | mg/Kg | | 97 | 80 - 120 |
| Vanadium | 50.0 | 50.1 | | mg/Kg | | 100 | 80 - 120 |
| Zinc | 50.0 | 48.3 | | mg/Kg | | 97 | 80 - 120 |

Method: 7471A - Mercury (CVAA)

| Lab Sample ID: MB 500-140787/7-A | | | | | | | | | CI | ient Sa | mple ID: Metho | d Blank |
|-----------------------------------|--------|-----------|-------|-------|--------|-----------|------|-----|----------|---------|----------------|----------|
| Matrix: Solid | | | | | | | | | | | Prep Type: 7 | Total/NA |
| Analysis Batch: 140902 | | | | | | | | | | | Prep Batch | 14078 |
| | MB | MB | | | | | | | | | | |
| Analyte | Result | Qualifier | | RL | м | DL Unit | | D | Prep | ared | Analyzed | Dil Fa |
| Mercury | ND | | | 0.017 | | mg/Kg | 1 | (| 02/16/12 | 2 08:30 | 02/16/12 10:31 | |
| Lab Sample ID: LCS 500-140787/8-A | | | | | | | | Cli | ent Sa | ample I | D: Lab Control | Sampl |
| Matrix: Solid | | | | | | | | | | | Prep Type: 7 | otal/N |
| Analysis Batch: 140902 | | | | | | | | | | | Prep Batch | : 14078 |
| | | | Spike | | LCS | LCS | | | | | %Rec. | |
| | | | | | Desult | Qualifier | Unit | | D | %Rec | Limits | |
| Analyte | | | Added | | Result | Quaimer | Unit | | D | /oncec | Linits | |

Method: 9014 - Cyanide

| Lab Sample ID: MB 500-140855/11-A Matrix: Solid Analysis Batch: 140946 | | | | | | | | | С | lient Sa | mple ID: Metho Prep Type: ⁻ Prep Batch | Total/NA |
|--|--------|-----------|-------|------|--------|-----------|------|------|-------|----------|---|----------|
| | | MB | | | | | | _ | _ | | | |
| Analyte | Result | Qualifier | | RL | м | DL Unit | | D | Pre | pared | Analyzed | Dil Fac |
| Cyanide, Total | ND | | | 0.50 | | mg/Kg | | 0 | 2/15/ | 12 19:50 | 02/15/12 22:15 | 1 |
| Lab Sample ID: LCS 500-140855/12-A | | | | | | | | Clie | ent S | Sample I | D: Lab Control | I Sample |
| Matrix: Solid | | | | | | | | | | | Prep Type: | Total/NA |
| Analysis Batch: 140946 | | | | | | | | | | | Prep Batch | : 140855 |
| | | | Spike | | LCS | LCS | | | | | %Rec. | |
| Analyte | | | Added | | Result | Qualifier | Unit | | D | %Rec | Limits | |
| / | | | | | | | | | | | | |

Certification Summary

Client: Geo Services, Inc Project/Site: Chicago Executive Airport - Runway 1634

TestAmerica Job ID: 500-44268-1 SDG: 500-44268-1

| Laboratory | Authority | Program | EPA Region | Certification ID |
|---------------------|----------------|---------------------|------------|------------------|
| TestAmerica Chicago | Alabama | State Program | 4 | 40461 |
| TestAmerica Chicago | California | NELAC | 9 | 01132CA |
| TestAmerica Chicago | Florida | NELAC | 4 | E871072 |
| TestAmerica Chicago | Georgia | Georgia EPD | 4 | N/A |
| TestAmerica Chicago | Georgia | State Program | 4 | 939 |
| TestAmerica Chicago | Hawaii | State Program | 9 | N/A |
| TestAmerica Chicago | Illinois | NELAC | 5 | 100201 |
| TestAmerica Chicago | Indiana | State Program | 5 | C-IL-02 |
| TestAmerica Chicago | Iowa | State Program | 7 | 82 |
| TestAmerica Chicago | Kansas | NELAC | 7 | E-10161 |
| TestAmerica Chicago | Kentucky | Kentucky UST | 4 | 66 |
| TestAmerica Chicago | Kentucky | State Program | 4 | 90023 |
| TestAmerica Chicago | L-A-B | DoD ELAP | | L2304 |
| TestAmerica Chicago | L-A-B | ISO/IEC 17025 | | L2304 |
| TestAmerica Chicago | Louisiana | NELAC | 6 | 30720 |
| TestAmerica Chicago | Massachusetts | State Program | 1 | M-IL035 |
| TestAmerica Chicago | Mississippi | State Program | 4 | N/A |
| TestAmerica Chicago | North Carolina | North Carolina DENR | 4 | 291 |
| TestAmerica Chicago | Oklahoma | State Program | 6 | 8908 |
| TestAmerica Chicago | South Carolina | State Program | 4 | 77001 |
| TestAmerica Chicago | Texas | NELAC | 6 | T104704252-09-TX |
| TestAmerica Chicago | USDA | USDA | | P330-12-00038 |
| TestAmerica Chicago | Virginia | NELAC Secondary AB | 3 | 460142 |
| TestAmerica Chicago | Wisconsin | State Program | 5 | 999580010 |
| TestAmerica Chicago | Wyoming | State Program | 8 | 8TMS-Q |

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Chicago

2417 Bond Street

Chain of Custody Record

THE LEADER IN ENVIRONMENTAL TESTING.

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TestAmerica

| University Park, IL 60484 | | |
|---------------------------|-----|---|
| -L 700 424 4200 feet 709 | 634 | 4 |

| phone 708,534,5200 fax 708.534.5363 | | | | | | | | | | | | | | | | | | | | | | merica | Labor | atories | s, Inc |
|---|----------------|-------------------|----------------|-------------------|-----------------|----------------|---------|-----------------|-----------------|---------------|--------------|-------|------|-------|----------|--------|------------|--------------|------|-------|----------|------------------------|----------|---|----------|
| Client Contact | Project Ma | nager: Ve | rnon Brown | L | | Site | Cont | act: | | | | | T | Dat | e: | | | | | | COC No: | | | | |
| Geo Services Inc (GSI) | | | brown@ob | | | Lab | Cont | tact: | | | | | | Car | rier: | | | | | | | _ of | | OCs | |
| 805 Amherst Court, Suite 204 | | An#lysis T | umaround ' | Time | | | Τ | Т | Т | | | | | | | | | | | | Job No | <u>ک</u> ' | 00- | - | |
| Naperville, IL 60565-3448 | Calendar | r(C) or Wo | rk Days (W) | | | 5 | | | | 1 | | | | | | | | | | | Job No | H | 26 | 8 | |
| (630) 305-9186 (Drew Ptak: 847-253-3845) PHONE | τ/ | T if dillistent f | iom Below | | | 67.24 6. 2. | 1 | | | | | | | | | | | | | | | | | <u> </u> | |
| (630) 355-2838 FAX | | 2 | weeks . | | | | | | | | | | 1 | | | | | | | | SDG N | la. | | | |
| Project Name: Runway 1634 | | | week | ~~~d | w/s/ | | | | | | | | | | | | | | | | | | | | |
| Site: Chicago Executive Airport | | | 2 days | | | | | | | | | | | | | | | | | | | | | | |
| GSI Job # : 12012 | | | l day | | | H. | | | | 2 | | | ł | | | | | | | | | | | | |
| Sample Identification | Sample Date | Sample Time | Sample Type | Matrix | #of Cont | Intered Sea | Ha Cont | 5VOC3 | Total Metals | Total Cyanide | Pesticides | PCIBs | PIOI | | | - | | | | | | Sampl in Const | e Specif | ie Note | es: |
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| B-1/S-2 | 2/13/12 | 10:29 | Grab | \$ | 1 | Ħ | ╈ | \dagger | | 1 | | | x | | | | | | | | <u> </u> | Posaibl | e Landf | ili Test | ing |
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| · · · · · · · · · · · · · · · · · · · | - | | | | | | ╡ | + | | \square | | | | | | | | | | | | | | | |
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| | | CODE 1/2-1- | A. 12 11 a.d. | | <u>I</u> | ╇ | | 6 1 | 1 | 1 | + - | 1 | + | + | ┝╼┈┝ | | + | | | ╈ | + | | | | |
| Preservation Used: 1= lcc, 2= HCl; 3- H2SO4; 4-HNO3; 5=Na Possible Hazard Identification | OH; 6= Other | 3033 VINIS | or cameo | | | | | | | | | | ay b | e ass | essex | d if s | ample | 1 1 65 ai | 9798 | taine | d longer | than 1 | month | <u>, </u> | |
| Non-Hazard Itammable | Poison B | $\Box _{U}$ | nknown | | | | | | | | Jient | | | Dispe | | | | | | chive | | | Monti | | |
| Special Instructions/QC Requirements & Comments: report re goes directly to GSI | | ernon Bro | own at ve | ernbro | wn@c | bair | | | | | | | | ewpt | ak@ | geo | serv | | | | | | | bili | ling |
| Relinquished by: | Company: | | | Date/T | ime: לביקי פ | , | Rcod | ved b | у: <u>/</u> | $\frac{1}{2}$ | | Ę | 2 | 7 | T | Comp | | <u> </u> | | | Date/T | ink:// | 12. | 70 | 0 |
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Form No. CA-C-WI 2/23/2012

Login Sample Receipt Checklist

Client: Geo Services, Inc

Login Number: 44268 List Number: 1 Creator: Kelsey, Shawn M

| Question | Answer | Comment |
|--|--------|---------|
| Radioactivity either was not measured or, if measured, is at or below background | True | |
| The cooler's custody seal, if present, is intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the sample IDs on the containers and the COC. | True | |
| Samples are received within Holding Time. | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | True | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter. | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | True | |
| | | |

Job Number: 500-44268-1 SDG Number: 500-44268-1

List Source: TestAmerica Chicago

IDOT DIVISION OF AERONAUTICS POLICY MEMORANDA

State of Illinois Department of Transportation Division of Aeronautics

POLICY MEMORANDUM

April 1, 2010

Springfield

Number: 87-2

TO: CONSULTING ENGINEERS

SUBJECT: DENSITY ACCEPTANCE OF BITUMINOUS PAVEMENTS

1. Introduction

This Policy Memorandum deals with the implementation of the bituminous density quality assurance specifications as outlined in the Standard Specifications for Construction of Airports, Sections 401-4.15 and 403-4.15.

II. Sampling

After completion of compaction and when the pavement has reached ambient temperature, the paved area shall be divided into Sublots of 500 tons per type of mix. One core sample (2 cores per sample) shall be taken from each Sublot. The longitudinal and transverse location for each sample shall be determined by use of a random number "Deck" provided by the Division. No core shall be taken closer than two (2) feet from the edge of the mat. A core extraction device shall be used to obtain all cores from the mat. All cores are to be taken by the contractor under the supervision and remain in the possession of the Engineer. It is imperative that the Engineer and the contractor realize that the cores are "money" and that improper coring, extraction, shipping and/or testing can be costly.

One mix sample per 1000 tons of mix laid shall be taken for Extraction, Maximum Specific Gravity (G_{mm}) and Air Void tests. The mix samples shall be sampled by the contractor and split in half.

The Resident Engineer shall randomly designate and send the split samples to an independent laboratory for testing. The laboratory will be verified to be ASTM-certified for all the required testing and be contracted through the Consultant. The frequency of testing split samples shall be 1 per 5000 tons. Higher frequencies may be necessary if the contractor's tests, and/or mix quality control are inconsistent.

III. Testing

All cores shall be tested for Bulk Specific Gravity (G_{sb}) in accordance with ASTM D2726 using Procedure 9.1, "For Specimens That Contain Moisture". The Theoretical Maximum Gravity (G_{mm}) shall be determined according to ASTM D2041, Procedure 7. From these tests the in-place air voids of the compacted pavement are calculated according to ASTM D3203 for "dense bituminous paving mixtures". Selection of the proper G_{mm} shall be based on a running average of four (4) tests per Lot.

- Eg. Lot 1 Use the average of the two (2) tests for Lot 1.
 - Lot 2 Use the average of the four (4) tests from Lots 1 and 2.
 - Lot 3 Use the average of the four (4) tests from Lots 2 and 3.
 - NOTE: When more than four (4) Sublots are used, still use a running average of four (4) tests per Lot.

IV. Acceptance Calculations

The first step in calculating the quantities for pay is to calculate the Mean (\bar{x}) and the Standard Deviation (S) of the Sublot tests. From this data the Lot samples should first be tested for outliers. After consideration for outliers, the Percent Within Tolerance (PWT) and the Percent Within Limits (PWL) are calculated to determine the final pay quantities for the Lot.

EXAMPLE

1. Test Data

Lot Quantity = 2000 tons Sublot Test 1 = 4.35 % Air Voids Sublot Test 2 = 3.96 % Air Voids Sublot Test 3 = 6.75 % Air Voids Sublot Test 4 = 6.25 % Air Voids

2. Calculating the Mean and Standard Deviation

| Sublot | X | $(\underline{X} - \overline{X})$ | (<u>x - x</u>) ² |
|--------|-------------|----------------------------------|-------------------------------|
| 1 | 4.35 | - 0.978 | 0.956 |
| 2 | 3.96 | - 1.368 | 1.871 |
| 3 | 6.75 | 1.422 | 2.022 |
| 4 | <u>6.25</u> | 0.922 | <u>0.850</u> |
| Sum = | 21.31 | | 5.699 |

N = 4

 $Mean(\bar{x}) = 21.34 / 4 = 5.328$

Variance $(S)^2 = Sum(\underline{x - \overline{x}})^2 = \frac{5.699}{3} = 1.900$ Standard Deviation S = $\sqrt{1.900} = 1.378$

3. Test For Outliers

Check for Critical "T" Values

$$T = |(\underline{X_1 - X})|^* = |\underline{3.96 - 5.328}| = 0.99$$

S |.378

* Difference between the suspect test value (X_1) and the Mean (\overline{X}).

If the T value exceeds the critical "T" Value in the table below and no assignable cause can be determined for the outlier, discard the suspected test measurement and obtain another random sample from the Sublot in question. If the new test exceeds the Mean (\overline{x}) in the same direction from the Mean as the suspected test, recalculate the T value including all tests (original test, suspected test, and new test) for an outlier and for computing final payment.

TABLE OF CRITICAL "T" VALUES

| Critical "T" Value |
|-----------------------|
| 5% Significance Level |
| 1.15 |
| 1.46 |
| 1.67 |
| 1.82 |
| 1.94 |
| 2.03 |
| 2.11 |
| 2.18 |
| 2.23 |
| 2.29 |
| |

Based on the above table, the "T" value of 0.99 does not exceed the Critical "T" Value of 1.46 for N = 4. Therefore, the value (3.96) is not an outlier and shall be used in calculating the Lot payment.

4. Calculation of Lot Payment

To calculate the Lot Payment use the Acceptance Criteria as outlined under Item 401-4.15(c) or Item 403-4.15(c).

$$Q_{L} = (\frac{\bar{x} - 1}{S}) = \frac{5.328 - 1}{1.378} = 3.141$$

 $Q_{\underline{u}} = (\underline{7 - \overline{x}}) = \underline{7 - 5.328} = 1.213$ S 1.378

From this data the Percentage Within Tolerance (PWT) for both the lower and upper tolerance limits is determined by Table 6 (see Item 401 Bituminous Surface Course and/or Item 403 Bituminous Base Course in the Standard Specifications) for the number (N) of samples tested.

Eq. PWT (lower) = 99.0% PWT (upper) = 90.4%

We now calculate the Percent Within Limits (PWL) for the Lot.

PWL = [PWT (lower)] + [PWT (upper)] - 100 PWL = (99.0 + 90.4) - 100 = 89.4%

Using Table 5, the % Adjustment in Lot Quantity is:

% Adjustment = 0.5 PWL + 55.0 % Adjustment = 0.5 (89.4) + 55.0 % Adjustment = 99.7

Adjusted Quantities = % Adjustment x Lot Quantities Adjusted Quantities = 0.997 x 2000 tons Adjusted Quantities = 1994 tons

5. Resampling and Retesting

The contractor has the right to request the resampling and retesting of a complete Lot. This privilege is only allowed once for each Lot and must be requested in writing by the contractor within 48 hours of receiving the official report from the Engineer.

6. Reporting

After completion of the tests for each Lot, the Engineer shall complete the necessary calculations for final adjustment in quantities on the Form AER-1 and have both the Engineer and the Contractor sign the report for copying to both the FAA and IDOA.

Steven J. Long, P.E. Acting Chief Engineer

Supersedes Policy Memorandum 87-2, dated January 1, 2004.

State of Illinois Department of Transportation Division of Aeronautics

POLICY MEMORANDUM January 1, 2004 Springfield Number: 87-4

TO: CONSULTING ENGINEERS

SUBJECT: DETERMINATION OF BULK SPECIFIC GRAVITY (d) OF COMPACTED BITUMINOUS MIXES

A. SCOPE. This method of test covers the determination of the bulk specific gravity and the percent air, of core samples from compacted bituminous mixtures using a <u>saturated surface-dry</u> procedure.

B. DEFINITIONS.

- 1. Bulk Specific Gravity (G_{sb}) or density is the weight per unit volume (gms/cc) of a mixture in its existing state of consolidation. The volume measurement for this specific gravity will include the volume of all the aggregate, asphalt, and air spaces (voids) in the aggregate particles and between the aggregate particles.
- 2. Theoretical Maximum Specific Gravity (G_{mm}) ASTM 2041 is the weight per unit volume (grams/cc) of a mixture assuming complete consolidation; i.e., all the air spaces (voids) between the aggregate particles are eliminated.
- 3. Percent Density is a measure of the degree of compaction in relation to the Theoretical Maximum Specific Gravity.
- 4. Percent Air is a measure of the air voids in the compacted pavement.

C. APPARATUS.

- 1. Balance The balance shall be accurate to 0.1 gm throughout the operating range. It may be mechanical or electrical and shall be equipped with a suitable suspension apparatus and holder to permit weighing of the core in water while suspended from the balance. If the balance is a beam type, it shall be set up so that the core is placed in the basket that is suspended from the zero (0) end of the balance arm.
- 2. Water bath The container for immersing the core in water while suspended from the balance shall be equipped with an overflow outlet for maintaining a constant water level. This water bath should be large enough to handle full-depth cores. When testing several cores at the same time, a dish-pan, sink or suitable container may be used for soaking.

D. PROCEDURE.

- 1. Prior to testing, cores shall be sorted on a flat surface in a cool place. The sample(s) shall be brushed with a wire brush and/or other suitable means, to remove all loose and/or foreign materials, such as seal coat, tack coat, foundation material, soil, paper, and foil, prior to testing.
- 2. If a core contains binder and surface or multiple lifts, the lifts shall be separated. This may be done in the following manner:
 - a. Mark the separation line between the two lifts.
 - b. Place the core in a freezer for 20-25 minutes.
 - c. Place a 2 or 3-inch wide chisel on the separation line and tap with a hammer. Rotate the core and continue this process until the core separates. Brush loose pieces with a wire brush if needed.
 - d. Allow 2-3 hours for the core to return to ambient temperature before proceeding.
- 3. Prepare the water baths for soaking and weighing with water at 77^o F. Water baths should be maintained at this temperature throughout testing. Saturate the cores by submerging in the water for a minimum of 20 minutes.
- 4. With the balance and water bath properly assembled and zeroed, suspend the sample from the balance and submerge it in the water bath. The core must be placed with the original top and bottom in a <u>vertical</u> position. If necessary, add sufficient water to bring the water level up to the overflow outlet. Permit any excess to overflow. Read and record the Saturated Submerged Weight. Designate this weight as (C).
- 5. Remove the core from the water bath and blot the excess water from the surface of the core with an absorbent cloth or other suitable material. This must be done quickly to prevent the internal water from escaping.
- 6. Place the core on the balance and read and record the Saturated Surface-dry Weight in air. Designate this weight as (B).
- 7. Place the core in a tared pan and dry in an oven. When the core is dry, (less than 0.5 gm loss in one hour) record the weight and subtract the pan weight. Designate this weight as (A).

8. The following calculation is used to determine the Bulk Specific Gravity of the core.

$$G_{sb} = \underline{A}$$

B-C

 G_{sb} = Bulk Specific Gravity A = Oven dry weight B = Saturated surface-dry weight C = Saturated submerged weight

E. PERCENT DENSITY. The following calculation is used to determine the percent density of the core:

% Density = 100 x \underline{G}_{sb} \overline{G}_{mm}

 G_{sb} = Bulk Specific Gravity G_{mm} = Theoretical Maximum Gravity*

Note: The Theoretical Maximum Gravity (G_{mm}) is determined from the mix design until current Vacuum Pycnometer test are available.

F. PERCENT AIR. To calculate the percent air, use the following formula:

% Air = 100 - % Density

G. WEIGHT PER SQUARE YARD OF COMPACTED MIXTURE. The actual weight per square yard of a compacted mixture can be calculated by using the Bulk Specific Gravity (G_{sb}). The volume of a square yard of pavement <u>one (1) inch</u> thick is 0.75 cubic foot. Taking the weight of a cubic foot of water as 62.37 pounds, one square yard of compacted material, <u>one (1) inch</u> thick weighs:

Pounds Per Sq. Yd. (1" thick) = $0.75 \times 62.37 \times G_{sb}$

Steven J. Long, P.E. Acting Chief Engineer

Supersedes Policy Memorandum 87-4 effective January 1, 1994.

State of Illinois Department of Transportation Division of Aeronautics

POLICY MEMORANDUM

| April 1, 2010 | Springfield | Number 96-1 |
|---------------|-------------|-------------|
|---------------|-------------|-------------|

TO: CONSULTING ENGINEERS

SUBJECT: ITEM 610, STRUCTURAL PORTLAND CEMENT CONCRETE: JOB MIX FORMULA APPROVAL & PRODUCTION TESTING.

I. This policy memorandum addresses the Job Mix Formula (JMF) approval process and production testing requirements when Item 610 is specified for an airport construction contract.

II. PROCESS

- a. The contractor may submit a mix design with recent substantiating test data or he may submit a mix design generated by the Illinois Division of Highways with recent substantiating test data for approval consideration. The mix design should be submitted to the Resident Engineer.
- b. The Resident Engineer should verify that each component of the proposed mix meets the requirements set forth under Item 610 of the *Standard Specifications for Construction of Airports* and/or the contract special provisions.
- c. The mix design should also indicate the following information:
 - 1. The name, address, and producer/supplier number for the concrete.
 - 2. The source, producer/supplier number, gradation, quality, and SSD weight for the proposed coarse and fine aggregates.
 - 3. The source, producer/supplier number, type, and weight of the proposed flyash and/or cement.
 - 4. The source, producer/supplier number, dosage rate or dosage of all admixtures.
- d. After completion of Items b and c above, the mix with substantiating test data shall be forwarded to the Division of Aeronautics for approval. Once the mix has been approved, the production testing shall be at the rate in Section III as specified herein.

Policy Memorandum 96-1 Page 2

III. PRODUCTION TESTING

- a. One set of cylinders or beams, depending on the strength specified, shall be cast for acceptance testing for each day the mix is used. In addition, at least one slump and one air test shall be conducted for each day the mix is used. If more than 100 c.y. of the mix is placed in a given day, additional tests at a frequently of 1 per 100 c.y. shall be taken for strength, slump, and air. The concrete shall have a maximum slump of three inches (3") and minimum slump of one inches (1") when tested in accordance with ASTM C-143. The air content of the concrete shall be between 5% and 8% by volume. At no time shall the temperature of the concrete exceed 90 degrees Fahrenheit.
- b. If the total proposed amount of Item 610 Structural Portland Cement Concrete as calculated by the Resident Engineer is less than 50 c.y. for the entire project, the following shall apply:
 - The Resident Engineer shall provide calculations of the quantity of Item 610 to the Division of Aeronautics.
 - One set of cylinders or beams, depending the strength specified, shall be cast for acceptance testing.
 - One air content and one slump test shall be taken for acceptance testing.
 - The concrete shall have a maximum slump of three inches (3") and minimum of one inch (1") when tested in accordance with ASTM C-143. The air content of the concrete shall be between 5% and 8% by volume. At no time shall the temperature of the concrete exceed 90 degrees Fahrenheit.
- c. The Resident Engineer shall collect actual batch weight tickets for every batch of Item 610 concrete used for the project. The actual batch weight tickets shall be kept with the project records and shall be available upon request of the Department of Transportation.

Steven J. Long, P.E. Acting Chief Engineer

Supersedes Policy Memorandum 96-1 dated January 1, 2004

State of Illinois Department of Transportation Division of Aeronautics

POLICY MEMORANDUM

| January 1, 2004 | Springfield, Illinois | Number 96-3 |
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TO: CONSULTING ENGINEERS

SUBJECT: REQUIREMENTS FOR QUALITY ASSURANCE ON PROJECTS WITH BITUMINOUS CONCRETE PAVING

I. SCOPE

The purpose of this policy memorandum is to define to the Consulting Engineer the requirements concerning Quality Assurance on bituminous concrete paving projects. Specifically, this memo applies whenever the Contractor is required to comply with the requirements set forth in Policy Memorandum 96-2, "*Requirements for Laboratory, Testing, Quality Control, and Paving of Bituminous Concrete Mixtures*".

II. LABORATORY APPROVAL

The Resident Engineer shall review and approve the Contractor's plant laboratory to assure that it meets the requirements set forth in the contract specifications and Policy Memorandum 96-2. This review and approval shall be completed prior to utilization of the plant for the production of any mix.

III. QUALITY ASSURANCE DURING PRODUCTION PAVING

A. At the option of the Engineer, independent assurance tests may be performed on split samples taken by the Contractor for Quality Control testing. In addition, the Resident Engineer shall witness the sampling and splitting of these samples at the start of production and as needed throughout mix production. The Engineer may select any or all split samples for assurance testing. These tests may be performed at any time after sampling. The test results will be made available to the Contractor as soon as they become available.

- B. The Resident Engineer may witness the sampling and testing being performed by the Contractor. If the Resident Engineer determines that the sampling and Quality Control tests are not being performed according to the applicable test procedures, the Engineer may stop production until corrective action is taken. The Resident Engineer will promptly notify the Contractor, both verbally and in writing, of observed deficiencies. The Resident Engineer will document all witnessed samples and tests. The Resident Engineer may elect to obtain samples for testing, separate from the Contractor's Quality Control process, to verify specification compliance.
 - 1. Differences between the Contractor's and the Engineer's split sample test results will be considered acceptable if within the following limits:

| Test Parameter | Acceptable Limits of Precision |
|---|---|
| % Passing 1/2 in. No. 4 No. 8 No. 30 No. 200 | 5.0 % 5.0 % 3.0 % 2.0 % 2.2 % |
| Asphalt Content | 0.3 % |
| Maximum Specific Gravity of M | ixture 0.026 |
| Bulk Specific Gravity of Marsha | all Sample 0.045 |

2. In the event a comparison of the required plant test results is outside the above acceptable limits of precision, split or independent samples fail the control limits, an extraction indicates non-specification mix, or a continual trend of difference between Contractor and Engineer test results is identified, the Engineer will immediately investigate. The Engineer may suspend production while the investigation is in progress. The investigation may include testing by the Engineer of any remaining split samples or a comparison of split sample test results on the mix currently being produced. The investigation may also include review and observation of the Contractor's technician performance, testing procedure, and equipment. If a problem is identified with the mix, the Contractor shall take immediate corrective action. After corrective action, both the Contractor and the Engineer shall immediately resample and retest.

C. The Contractor shall be responsible for documenting all observations, records of inspection, adjustments to the mixture, test results, retest results, and corrective actions in a bound hardback field book or bound diary which will become the property of IDA upon completion and acceptance of the project. The Contractor shall be responsible for the maintenance of all permanent records whether obtained by the Contractor, the Contractor's Consultants, or the producer of bituminous mix material. The Contractor shall provide the Engineer full access to all documentation throughout the progress of the work.

Results of adjustments to mixture production and tests shall be recorded in duplicate and sent to the Engineer.

IV. ACCEPTANCE BY ENGINEER

Density acceptance shall be performed according to Policy Memorandum 87-2, or according to the acceptance procedure outlined in the Special Provisions.

Steven J. Long, P.E. Acting Chief Engineer

Supersedes Policy Memorandum 96-3 dated January 1, 1997

State of Illinois Department of Transportation Division of Aeronautics

POLICY MEMORANDUM

January 1, 2004

Springfield, Illinois

Number 97-2

TO: CONSULTING ENGINEERS

SUBJECT: PAVEMENT MARKING PAINT ACCEPTANCE

I. SCOPE

The purpose of this policy memorandum is to define the procedure for acceptance of pavement marking paint.

II. RESIDENT ENGINEER'S DUTIES

The Resident Engineer shall follow the acceptance procedure outlined as follows:

- A. Require the painting contractor to furnish the name of the paint manufacturer and the batch number proposed for use prior to beginning work. Notify the I.D.A. Materials Certification Engineer when this information is available.
- B. Require the manufacturer's certification before painting begins. Check the certification for compliance to the contract specifications.
 - 1. The certification shall be issued from the manufacturer and shall include the specification and the batch number.
 - 2. The paint containers shall have the manufacturer's name, the specification and the batch number matching the certification.
- C. If no batch number is indicated on the certification or containers, sample the paint according to the procedure for the corresponding paint type.
- D. If the I.D.A. Engineer of Materials indicates that batch number has not been previously sampled and tested, sample the paint according to the procedure for the corresponding paint type. The Division of Aeronautics will provide paint cans upon request by the Resident Engineer. Samples will only be taken in new epoxy lined cans so that the paint will not be contaminated. It is important to seal the sample container immediately with a tight cover to prevent the loss of volatile solvents.

Mark the sample cans with the paint color, manufacturer's name, and batch number. The paint samples and manufacturer's certification shall be placed in the mail within 24 hours after sampling. Address the samples to the Materials Certification Engineer at:

> Illinois Department of Transportation Division of Aeronautics One Langhorne Bond Drive Springfield, Illinois 62707

Sampling Procedures for Each Paint Type:

- 1. Waterborne or Solvent Base Paints
 - a. Take the paint sample from the spray nozzle when the contractor begins marking. A sample consists of two one-pint cans taken per batch number.
 - b. Be sure to indicate to the contractor that acceptance of material is based upon a passing test of the paint material.
- 2. Epoxy Paint
 - a. Take separate one-pint samples of each paint component prior to marking. Before drawing samples, the contents of each component's container must be thoroughly mixed to make certain that any settled portion is fully dispersed. **Do not combine the two components or sample from the spray nozzle.**
 - b. Be sure to indicate to the contractor that acceptance of material is based upon a passing test of the paint material.

III. TESTING

The paint will be tested for acceptance by the IDOT Bureau of Materials and Physical Research for conformance to the contract specifications.

Steven J. Long, P.E. Acting Chief Engineer

Supersedes policy memorandum 97-2 dated February 27, 2002

State of Illinois Department of Transportation Division of Aeronautics

POLICY MEMORANDUM

April 1, 2010

Springfield, Illinois

Number 2003-1

TO: CONTRACTORS

SUBJECT: REQUIREMENTS FOR LABORATORY, TESTING, QUALITY CONTROL, AND PAVING OF SUPERPAVE HMA CONCRETE MIXTURES FOR AIRPORTS

I. SCOPE

The purpose of this policy memorandum is to define to the Contractor the requirements concerning the laboratory, testing, Quality Control, and paving of HMA mixtures utilizing Superpave technology. References are made to the most recent issue of the Standard Specifications for Construction of Airports and to American Society for Testing and Materials (ASTM) testing methods. The Quality Assurance and acceptance responsibilities of the Resident Engineer are described in Policy Memorandum 96-3.

II. LABORATORY

The Contractor shall provide a laboratory located at the plant and approved by the Illinois Division of Aeronautics (IDA). The laboratory shall be of sufficient size and be furnished with the necessary equipment and supplies for adequately and safely performing the Contractor's Quality Control testing as well as the Resident Engineer's acceptance testing as described in Policy Memorandum 96-3.

The effective working area of the laboratory shall be a minimum of 600 square feet with a ceiling height of not less than 7.5 feet. Lighting shall be adequate to illuminate all working areas. It shall be equipped with heating and air conditioning units to maintain a temperature of 70° F \pm 5°F.

The laboratory shall have equipment that is in good working order and that meets the requirements set forth in the following ASTM test standards:

| ASTM D 70 | Test Method for Specific Gravity and Density of Semi-Solid Materials |
|-------------|--|
| ASTM C 117 | Test Method for Materials Finer than 75 μm (No. 200) Sieve in Mineral Aggregates by Washing |
| ASTM C 136 | Sieve or Screen Analysis of Fine and Coarse Aggregate |
| ASTM C 566 | Total Moisture Content of Aggregate by Drying |
| ASTM D 75 | Sampling Aggregates |
| ASTM D 2041 | Theoretical Maximum Specific Gravity and Density of Bituminous Paving Mixtures |
| ASTM D 2172 | Quantitative Extraction of Bitumen from Bituminous Paving Mixtures |
| IDOT | Ignition Method for Determining Asphalt Content |
| ASTM D 2726 | Bulk Specific Gravity of Compacted Bituminous Mixtures using Saturated Surface Dry Specimens |

| ASTM D 3203 | Percent Air Voids in Compacted Dense and Open Bituminous Paving Mixtures |
|-------------|---|
| ASTM D 2950 | Density of Bituminous Concrete in Place by Nuclear Method |
| ASTM D 4125 | Asphalt Content of Bituminous Mixtures by Nuclear Method |
| ASTM C 127 | Standard Test Method for Specific Gravity and Absorption of Coarse Aggregate |
| ASTM C 128 | Standard Test Method for Specific Gravity and Absorption of Fine Aggregate |

The Asphalt Institute's Superpave Mix Design, Superpave Series No. 2 (SP-2)

The laboratory and equipment furnished by the Contractor shall be properly calibrated and maintained. The Contractor shall maintain a record of calibration results at the laboratory. The Engineer may inspect measuring and testing devices at any time to confirm both calibration and condition. If the Resident Engineer determines that the equipment is not within the limits of dimensions or calibration described in the appropriate test method, he may stop production until corrective action is taken. If laboratory equipment becomes inoperable or insufficient to keep up with mix production testing, the Contractor shall cease mix production until adequate and/or sufficient equipment is provided.

III. MIX DESIGN SUBMITTAL

Based upon data and test results submitted by the Contractor, the Illinois Division of Aeronautics Engineer of Construction & Materials shall issue the final Job Mix Formula (JMF) approval letter that concurs or rejects the Contractor's proposed JMF. The Contractor will be required to perform the sampling and laboratory <u>testing</u> and develop a complete mix design, according to the following guidelines: [Note: A testing summary chart can be found in Appendix B.]

- A. Material sources meeting the requirements of the contract shall be submitted in writing at or before the preconstruction conference (see BITUMINOUS WORKSHEET in Appendix A) in the following format:
 - To: Steven J. Long, P.E., Acting Chief Engineer Attn: Michael F. Wilhelm, P.E., Engineer of Construction & Materials Division of Aeronautics One Langhorne Bond Drive Springfield, Illinois 62707
 - 2. Producer name and location of each aggregate
 - 3. Producer # for each aggregate (producers are assigned this number by IDOT Central Bureau of Materials)
 - 4. Material code for each aggregate
 - 5. Gradation and Quality designation for each aggregate (i.e. CA-11, etc.)
 - 6. Producer, producer #, and specific gravities of asphalt cement
 - 7. Performance Graded Binder 64-22 shall be used unless otherwise approved by the IDA Engineer of Construction & Materials.
- B. The Contractor shall obtain representative samples of each aggregate. The individual obtaining samples shall have successfully completed the IDOT Aggregate Technician Course under the

IDOT Division of Highways, QC/QA program. The sample size shall be approximately 280 lb. for each coarse aggregate, 150 lb. for each fine aggregate, 15 lb. for the mineral filler or collected dust, and 1 gallon of asphalt cement.

- C. The Contractor shall split the aggregate samples down and run gradation tests according to the testing methods referenced in Appendix B of this memorandum. The remaining aggregates shall be set aside for further Mix Design testing. The results of the gradation tests, along with the most recent stockpile gradations, shall be reported by fax to the IDA Engineer of Construction & Materials for engineering evaluation. If the gradation results are deemed non-representative or in any way unacceptable, new representative samples may be required at the direction of the IDA Engineer of Construction & Materials. Only composite gradations are required under this procedure.
- D. Based on the accepted gradation results, the Contractor will determine blend percentages in accordance with the contract specifications (see Section 401/403 3.2 JOB MIX FORMULA under Table 2) for each aggregate to be used in determining the Job Mix Formula, as well as mix temperature and asphalt content(s), and number of Gyrations (N_{des}) for preparation of the Superpave Mix Design. The Contractor will verify the aggregate percentages, mix temperatures, asphalt content(s), and number of gyrations with the IDA Engineer of Construction & Materials before beginning any testing.
- E. After verification of the information from step D., the Contractor shall make specimens and perform the following tests at various asphalt contents in order to obtain the optimum mix design. [Note: Actual test designation is referenced in Appendix B of this memorandum.]

<u>Tests</u>

Maximum Specific Gravity -- G_{mm} Bulk Specific Gravity -- G_{mb} % air voids -- V_a % VMA VFA %

The JMF will be designed in accordance with TABLE 2 as modified in Section 401 - 3.2 or 403 - 3.2, depending on the type of mix being produced. Appendix C contains a copy of the TABLE 2 targets and ranges for the JMF.

- F. All technicians who will be performing mix design testing and plant sampling/testing shall have successfully completed the IDOT Division of Highways Bituminous Concrete Level 1 Technician Course "Bituminous Concrete Testing". The Contractor may also provide a Gradation who has successfully completed the Department's "Gradation Technician Course" to run gradation tests only under the supervision of a Bituminous Concrete Level 2 Technician.
- G. The mix design testing results and resulting optimal JMF shall be reported to the IDA Engineer of Construction & Materials with the following data included:
 - a) Aggregate & liquid asphalt material codes
 - b) Aggregate & liquid asphalt producer numbers, names, and locations
 - c) Aggregate Blend of each aggregate
 - d) Optimum Blend % for each sieve
 - e) AC Specific Gravity
 - f) Bulk Specific Gravity and Absorption for each aggregate
 - g) Summary of Superpave Design Data: AC % Mix, G_{mb}, G_{mm}, VMA, Voids (Total Mix), Voids Filled, V_{be}, P_{be}, P_{ba}, G_{se}
 - h) Optimum design data listing: AC % Mix, G_{mb}, G_{mm}, VMA, Voids (Total Mix), Voids Filled, G_{se}, G_{sb}
 - i) Percent of asphalt that any RAP will add to the mix

j) Graphs for the following: gradation on 0.45 Power Curve, AC vs. Voids (Total Mix), AC vs. Specific Gravities, AC vs. Voids Filled, AC vs. VMA

- H. The IDA Engineer of Construction & Materials shall generate and issue a concurrence or rejection of the Contractor's proposed Mix Design with the JMF for the manufacture of HMA mixtures based upon the Contractor's submitted testing and completed mix design results. The Contractor shall not be permitted to use the proposed HMA mix in production for the project until an approval letter is issued to the Contractor by the IDA Engineer of Construction & Materials, and the mix passes all test section requirements, when a test section is specified.
- I. The above procedure, III. MIX DESIGN SUBMITTAL, shall be repeated for each change in source or gradation of materials.

IV. MIX PRODUCTION TESTING

The Quality Control of the manufacture and placement of HMA mixtures is the responsibility of the Contractor. The Contractor shall perform or have performed the inspection and tests required to assure conformance to contract requirements. Quality Control includes the recognition of defects and their immediate correction. This may require increased testing, communication of test results to the plant or the job site, modification of operations, suspension of HMA production, rejection of material, or other actions as appropriate. The Resident Engineer shall be immediately notified of any failing tests and subsequent remedial action. Form AER M-14 shall be reported to the Engineer and Resident Engineer no later than the start of the next work day. In addition, AER M-9 and M-11 shall be given to the Resident Engineer daily. The Contractor shall provide a Quality Control (QC) Manager who will have overall responsibility and authority for Quality Control. This individual shall have successfully completed the IDOT Division of Highways HMA Concrete Level II Technician Course "HMA Proportioning and Mixture Evaluation." In addition to the QC Manager, the Contractor shall provide sufficient and qualified personnel to perform the required visual inspections, sampling, testing, and documentation in a timely manner. The following plant tests and documentation shall be required: [Note: A summary chart of testing can be found in Appendix B.]

- A. Minimum of one (1) complete hot bin or combined belt analysis per day of production or every 1,000 tons, whichever is more frequent.
- B. Minimum one (1) stockpile gradation for each aggregate and/or mineral filler per week when a batch plant is utilized. Minimum of one (1) gradation for each aggregate per day of production or every 1,000 tons when a drum plant is used, and one (1) gradation per week for mineral filler when a drum plant is used.
- C. A certification from the quarry for the total quantity of aggregate listing the source, gradation type, and quality designation of aggregate shipped. In lieu of a certification, the contractor may complete and submit an "Aggregate Certification of Compliance" form which may be obtained from IDA or found on the I.D.O.T. website.
- D. Original asphalt shipping tickets listing the source and type of asphalt shipped.

- E. One mix sample per 1,000 tons of mix. The sample shall be split in half. One half shall be reserved for testing by the Engineer. The other half shall be split and tested by the Contractor for Extraction, Gradation, Maximum Specific Gravity, and Air Void tests in accordance with the appropriate ASTM standard referenced herein. [See Appendix B.]
 - 1. In place of the extraction test, the Contractor may provide the asphalt content by a calibrated ignition oven test using the IDOT Division of Highways' latest procedure. The correction (calibration) factor for aggregate type shall be clearly indicated in the reported test results.

From these tests, the Contractor shall interpret the test data and make necessary adjustments to the production process only in order to comply with the approved JMF.

V. QUALITY CONTROL

A. <u>Control Limits</u>

Target values shall be determined from the approved JMF. The target values shall be plotted on the control charts within the following control limits:

| | Control Limits | | |
|------------------|-----------------|------------------|--|
| <u>Parameter</u> | Individual Test | Moving Avg. of 4 | |
| % Passing | | | |
| 1/2 in. | ±7% | ±4 % | |
| No. 4 | ±7 % | ±4 % | |
| No. 8 | ±5 % | ±3 % | |
| No. 30 | ±4 % | ±2.5 % | |
| No. 200 * | ±2.0 % * | ±1.0 % * | |
| Asphalt Content | ±0.45 % | ±0.2 % | |

* No. 200 material percents shall be based on washed samples. Dry sieve gradations (-200) shall be adjusted based on anticipated degradation in the mixing process.

B. Control Charts

Standardized control charts shall be maintained by the Contractor at the field laboratory. The control charts shall be displayed and be accessible at the field laboratory at all times for review by the Engineer. The individual required test results obtained by the Contractor shall be recorded on the control chart immediately upon completion of a test, but no later than 24 hours after sampling. Only the required plant tests and resamples shall be recorded on the control chart. Any additional testing of check samples may be used for controlling the Contractor's processes, but shall be documented in the plant diary.

The results of assurance tests performed by the Resident Engineer will be posted as soon as available.

The following parameters shall be recorded on control charts:

- Combined Gradation of Hot-Bin (Batch Plant) or Combined Belt Aggregate Samples (Drier Drum Plant). (% Passing 1/2 in., No. 4., No. 8, No. 30, and No. 200 Sieves)
- 2. Asphalt Content

- 3. Bulk Specific Gravity (G_{mb})
- 4. Maximum Specific Gravity of Mixture (G_{mm})

C. <u>Corrective Action for Required Plant Tests</u>

Control Limits for each required parameter, both individual tests and the average of four tests, shall be exhibited on control charts. Test results shall be posted within the time limits previously outlined.

- 1. Individual Test Result. When an individual test result exceeds its control limit, the Contractor shall immediately resample and retest. If at the end of the day no material remains from which to resample, the first sample taken the following day shall serve as the resample as well as the first sample of the day. This result shall be recorded as a retest. If the retest passes, the Contractor may continue the required plant test frequency. Additional check samples should be taken to verify mix compliance.
- 2. Asphalt Content. If the retest for asphalt content exceeds control limits, mix production shall cease and immediate corrective action shall be instituted by the Contractor. After corrective action, mix production shall be restarted, the mix production shall be stabilized, and the Contractor shall immediately resample and retest. Mix production may continue when approved by the Engineer. The corrective action shall be documented.

Inability to control mix production is cause for the Engineer to stop the operation until the Contractor completes the investigation identifying the problems causing failing test results.

- 3. Combined Aggregate/Hot-Bin. For combined aggregate/hot-bin retest failures, immediate corrective action shall be instituted by the Contractor. After corrective action, the Contractor shall immediately resample and retest. The corrective action shall be documented.
 - a. Moving Average. When the moving average values trend toward the moving average control limits, the Contractor shall take corrective action and increase the sampling and testing frequency. The corrective action shall be documented.

The Contractor shall notify the Engineer whenever the moving average values exceed the moving average control limits. If two consecutive moving average values fall outside the moving average control limits, the Contractor shall cease operations. Corrective action shall be immediately instituted by the Contractor. Operations shall not be reinstated without the approval of the Engineer. Failure to cease operations shall subject all subsequently produced material to be considered unacceptable.

b. Mix Production Control. If the Contractor is not controlling the production process and is making no effort to take corrective action, the operation shall stop.

VI. TEST SECTION AND DENSITY ACCEPTANCE (Note: Applies only when specified.)

A. The purpose of the test section is to determine if the mix is acceptable and can be compacted to a consistent passing density.

A quick way to determine the compactibility of the mix is by the use of a nuclear density gauge in the construction of a growth curve. An easy way to construct a growth curve is to use a good vibratory roller. To construct the curve, an area the width of the roller in the middle of the mat is chosen and the roller is allowed to make one compactive pass. With the roller stopped some 30 feet away, a nuclear reading is taken and the outline of the gauge is marked on the pavement. The roller then makes a compactive pass in the opposite direction and another reading is taken. This scenario is continued until at least two (2) passes are made past the maximum peak density obtained.

The maximum laboratory density potential of a given mix is a direct function of the mix design air voids. Whereas, the actual maximum field density is a function of the type of coarse aggregates, natural or manufactured sands, lift thickness, roller type (static or vibratory), roller and paver speed, base condition, mix variation, etc. All of these items are taken into consideration with the growth curve.

- 1. <u>High Density in the Growth Curve</u>. If the growth curve indicates a maximum achievable field density of between 95 to 98 percent of the Theoretical Maximum Density (D), you can proceed with the Rolling Pattern. On the other hand, if the maximum achievable density is greater than 98 percent, a quick evaluation (by use of an extractor, hot bin gradations, nuclear asphalt determinator, etc.) must be made of the mix. When adjustments are made in the mix, a new growth curve shall be constructed.
- 2. Low Density in the Growth Curve. If the growth curve indicates the maximum achievable density is below 94 percent, a thorough evaluation of the mix, rollers, and laydown operations should be made. After a thorough evaluation of all factors (mix, rollers, etc.), asphalt or gradation changes may be in order as directed by the Engineer. Again, any changes in the mix will require a new growth curve. Note that the nuclear density test is a quality control tool and not an acceptance test. All acceptance testing is to be conducted by the use of cores, unless otherwise specified.
- 3. <u>Acceptance of Test Section</u>. The Contractor may proceed with paving the day after the test section provided the following criteria have been met:
 - a. Four random locations (2 cores per location cut longitudinally and cored by the Contractor) will be selected by the Engineer within the test strip. All the cores must show a minimum of 94% density.
 - b. All Superpave and extraction test results from mix produced for the test section must be within the tolerances required by specification.
 - c. The Contractor shall correlate his nuclear gauge to the cores taken in the test section. Additional cores may be taken at the Contractor's expense for this purpose within the test section area, when approved by the Engineer.

- 4. <u>Density Acceptance under Production Paving</u>. The responsibility for obtaining the specified density lies with the Contractor. Therefore, it is important that the nuclear density gauge operator communicate with the roller operators to maintain the specified density requirements. The Contractor shall provide a qualified HMA Density Tester who has successfully completed the Department's "HMA Nuclear Density Testing Course" to run all required density tests on the job site. Density acceptance testing, unless otherwise specified, is described as follows:
 - a. The Contractor shall cut cores at random locations within 500 ton sublots as directed by the Resident Engineer.
 - b. The cores should be extracted so as not to damage them, since they are used to calculate the Contractor's pay.
 - c. The Engineer will run preliminary G_{mb} tests on the cores to give the Contractor an indication of how compaction is running for the next day's paving.
 - d. A running average of four (4) Maximum Theoretical Gravities (G_{mm}) will be used for calculating percent compaction.
 - e. Final core density tests and pay calculations will be performed by the Resident Engineer and delivered to the Contractor.
 - f. Should the contractor wish to resample the pavement as a result of pay calculations resulting in less than 100% payment, the request must be made within 48 hours of receipt of the original payment calculations.

Steven J. Long, P.E. Acting Chief Engineer

Supersedes Policy Memorandum 2003-1 dated January 15, 2007

APPENDIX A

BITUMINOUS WORKSHEET

| Airport: | Project No.: | | AIP No | o.: | |
|--|----------------|------------|-----------------|-----|--|
| Mix Design # : | Material Code: | | | er: | |
| | AGG | REGATE | Prod. # | : | |
| Mat'l. Code: | | | | | |
| Producer #: | | | | | |
| Prod. Name | | | | | |
| Location: | | | | | |
| | | Percent P | assing | | |
| <u>Sieve Size</u> | | | | | |
| 1 inch | | | | | |
| 3/4 inch ½ inch 3/8 inch | | | | | |
| No. 4 No. 8 No. 16 | | | | | |
| No. 30 | | | | | |
| No. 100 No. 200 | | | | | |
| O.D. Gravity | | | | | |
| App. Gravity | | | | | |
| Absorption | | | | | |
| Asphalt Gravity | Asphalt Source | Asph | alt Producer No | | |
| | MAR | SHALL DATA | | | |
| % Asphalt | | | | | |
| M. Stability | | | | | |
| Flow | | | | | |
| D | | | | | |
| 0 | | | | | |
| % Air Voids | | | | | |
| Q.C. Manager Name: | | Phone | number: | | |
| Laboratory Location: _ | | Fax N | umber: | | |
| Remarks: | | | | | |

APPENDIX B

| PARAMETER | FREQUENCY | SAMPLE SIZE | TEST | REPORT |
|------------------|----------------------|-----------------------|---------------|--------------|
| | | | METHOD | FORM |
| Aggregate | Minimum 1 per day | CA07/11: 5000 gm | ASTM C 136 | AER M-9 |
| Gradations: Hot | of production and at | Ũ | | |
| bins for batch | least 1 per 1000 | CA16: 1500 gm | | |
| and continuous | tons. | Fine agg: 500 gm | | |
| plants | | 1 gallon asphalt | | |
| Individual cold- | | cement | | |
| feeds or | | | | |
| combined belt- | | | | |
| feeds for drier | | | | |
| drum plants. | | | | |
| Aggregate | Minimum 1 per | CA07/11: 5000 gm | ASTM C 136 | AER M-9 |
| gradations: | aggregate per week | CA13: 2000 gm | | |
| Stockpiles | per stockpile. | CA16: 1500 gm | | |
| ~~~ r ~~~ | r | Fine agg: 500 gm | | |
| | | *Note: The above | | |
| | | test sample sizes are | | |
| | | to be obtained from | | |
| | | splitting down a | | |
| | | larger sample from | | |
| | | the stockpiles. | | |
| | | | | |
| Maximum | Minimum 1 per | 1200 gm per test | ASTM D 2041 | AER M-11 and |
| Specific Gravity | 1000 tons | 1200 gin per test | | AERM-14 |
| Bulk Specific | Minimum 1 per | 1250 gm per | ASTM D 2726 | AER M-11 and |
| Gravity | 1000 tons | briquette | | AERM-14 |
| Marshall | Minimum 1 per | 1250 gm per | ASTM D 1559 | AER M-11 and |
| Stability and | 1000 tons | briquette | 11011112 1009 | AERM-14 |
| Flow | | 1 | | |
| % Air Voids | Minimum 1 per | | ASTM D 3203 | AER M-11 and |
| | 1000 tons | | | AERM-14 |
| Extraction | Minimum 1 per | 1000 gm (surface) | ASTM D 2172 | AER M-11 and |
| | 1000 tons | 1500 gm (base) | | AERM-14 |
| Ignition Oven | Minimum 1 per | 1500 gm | | AER M-14 |
| Test | 1000 tons | U | | |
| Nuclear Asphalt | Minimum 1 per | 1000-1100 gm | ASTM D 2145 | AER M-14 |
| Gauge | 1000 tons | - 0 - | | |
| Gyratory Brix | Minimum 1 per | 4700-4800 gm 115 | AASHTO TP4-99 | |
| J J | 1000 tons | mm +/- 5 mm | // | |

QUALITY CONTROL TESTING (PLANT)

MIX DESIGN TESTING

| PARAMETER | FREQUENCY | SAMPLE SIZE | TEST METHOD | REPORT FORM |
|---|---|--|----------------|---|
| Representative samples of each aggregate and asphalt cement. | 1 per aggregate and 1 asphalt cement. | 280 lb. (coarse) 150 lb. (fine) 15 lb. (min. filler) 1 gallon asphalt cement | ASTM D 75 | N/A |
| Aggregate Gradation | 1 per aggregate | CA07/11: 5000 gm CA13: 2000 gm CA16: 1500 gm Fine agg: 500 gm | ASTM C 136 | Bituminous Worksheet (Appendix A) |
| Maximum Specific Gravity | 2 per specified asphalt content | 1200 gm per test | ASTM D 2041 | Bituminous Worksheet (Appendix A) |
| Bulk Specific Gravity | 3 briquettes per specified asphalt content | 1250 gm per briquette | ASTM D 2726 | Bituminous Worksheet (Appendix A) |
| Marshall Stability and Flow | 3 briquettes | 1250 gm per briquette | ASTM D 1559 | Bituminous Worksheet (Appendix A) |
| % Air Voids | 1 per specified asphalt content (Avg. of G _{sb} /G _{mm}) | | ASTM D 3203 | Bituminous Worksheet (Appendix A) |
| Gyratory Brix | Minimum 1 per 1000 tons | 4700-4800 gm 115 mm +/- 5 mm | AASHTO TP4-99 | |

QUALITY CONTROL TESTING (PAVER)

| PARAMETER | FREQUENCY | SAMPLE SIZE | TEST METHOD | REPORT FORM |
|-------------------------|---|-------------------|----------------|----------------|
| Nuclear Density Test | As required by the Contractor to amintain consistent passing density | Various locations | ASTM D 2950 | |

APPENDIX C

| Percentage by Weight Passing Sieves Job Mix Formula (JMF) | | | | |
|--|-------------------|--------|--|--|
| Sieve | Gradation B Range | Ideal | | |
| Size | 1" Maximum | Target | | |
| 1-1/4 in. | | | | |
| 1 in. | 100 | 100 | | |
| 3/4 in. | 93 – 97 | 95 | | |
| 1/2 in. | 75 – 79 | 77 | | |
| 3/8 in. | 64 - 68 | 66 | | |
| No. 4 | 45 – 51 | 48 | | |
| No. 8 | 34 – 40 | 37 | | |
| No. 16 | 27 – 33 | 30 | | |
| No. 30 | 19 – 23 | 21 | | |
| No. 100 | 6 – 10 | 8 | | |
| No. 200 | 4 – 6 | 5 | | |
| Bitumen %: Stone | 4.5 – 7.0 | 5.5 | | |

AGGREGATE BITUMINOUS BASE COURSE

| Percentage by Weight Passing Sieves Job Mix Formula (JMF) | | | | |
|--|--------------------------|-----------------|--|--|
| Sieve | Gradation B Range | ldeal Targat | | |
| Size | ³ ⁄4" Maximum | Target | | |
| 1 in. | 100 | | | |
| 3/4 in. | 100 | 100 | | |
| 1/2 in. | 99 - 100 | 100 | | |
| 3/8 in. | 91 - 97 | 94 | | |
| No. 4 | 56 – 62 | 59 | | |
| No. 8 | 36 - 42 | 39 | | |
| No. 16 | 27 - 32 | 30 | | |
| No. 30 | 19 - 25 | 22 | | |
| No. 100 | 7 – 9 | 8 | | |
| No. 200 | 5 – 7 | 6 | | |
| Bitumen %: | | | | |
| Stone | 5.0 – 7.0 | 6.0 | | |

AGGREGATE BITUMINOUS SURFACE COURSE