

## **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.idot.illinois.gov/doing-business/procurements/construction-services/construction-bulletins/transportation-bulletin/index> 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 [DOT.D&Econtracts@illinois.gov](mailto:DOT.D&Econtracts@illinois.gov).

Technical questions about downloading these files may be directed to Tim Garman at (217)524-1624 or [Timothy.Garman@illinois.gov](mailto:Timothy.Garman@illinois.gov).

## **BID SUBMITTAL GUIDELINES AND CHECKLIST**

- 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. It has the Item number in large bold type in the upper left-hand corner of the page.
- 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.
- 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 30-38).
- 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.

## **BID SUBMITTAL CHECKLIST**

- Cover page** (the sheet that has the item number on it) – This should be the first page of your proposal, **followed by your bid (the Pay Items)**. If you are using special software or CBID to generate your schedule of prices, do not include the blank schedule of prices that came with the proposal package.
- Page 4 (Item 9)** - Check “YES” if you will use a subcontractor(s) with an annual value over \$50,000. Include the subcontractor(s) name, address, general type of work to be performed and the dollar amount. If you will use subcontractor(s) but are uncertain who or the dollar amount; check “YES” but leave the lines blank.
- After Page 4** – Insert the following documents: Cost Adjustments for Steel, Bituminous, and Fuel (if applicable) and the Contractor Letter of Assent (if applicable). The general rule should be, if you don’t know where it goes, put it after page 4.
- Page 10 (Paragraph J)** - Check “YES” or “NO” whether your company has any business in Iran.
- Page 10 (Paragraph K)** – (Not applicable to federally funded projects) List the name of the apprenticeship and training program sponsor holding the certificate of registration from the US Department of Labor. If no applicable program exists, please indicate the work/job category. **Your bid will not be read if this is not completed.** 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 completed Form A.
- 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 signature and date must be original 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”.
- Proposal Bid Bond** – (After the Proposal Signature Page) Submit your proposal bid bond (if applicable) 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.

# 4A

## RETURN WITH BID

Proposal Submitted By	
Name	
Address	
City/State	9 Digit Zip Code
Telephone No.	Fax No.
Federal Employer Identification No. (FEIN)	
Email Address	

### Letting January 15, 2016

#### 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. LK012  
Lake in the Hills Airport  
Lake in the Hills, Illinois  
McHenry County  
Illinois Project No. 3CK-4404  
SBG Project No. 3-17-SBGP-112

For engineering information, contact Daniel L. Pape, P.E. of Crawford, Murphy & Tilly, Inc. at (630) 907-7023.

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 Bid Bond is included.
- A Cashier's Check or a Certified Check is included.
- An Annual Bid Bond is included or is on file with IDOT



**Illinois Department  
of Transportation**

**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. LK012  
Lake in the Hills Airport  
Lake in the Hills, Illinois  
McHenry County  
Illinois Project No. 3CK-4404  
SBG Project No. 3-17-SBGP-112**

**Improve Runway 8/26 Safety Area**

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. **ASSURANCE OF EXAMINATION AND INSPECTION/WAIVER.** The undersigned bidder further declares that he/she has carefully examined the proposal, plans, specifications, 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 bid proposal he/she waives all right to plead any misunderstanding regarding the same.
4. **EXECUTION OF CONTRACT AND CONTRACT BOND.** The undersigned bidder further agrees to execute a contract for this work and 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, or as specified in the special provisions, guaranteeing the faithful performance of the work in accordance with the terms of the contract.
5. **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:

<u>Amount of Bid</u>		<u>Proposal Guaranty</u>	<u>Amount of Bid</u>		<u>Proposal Guaranty</u>
Up to	\$5,000	\$150	\$2,000,000	to	\$3,000,000
\$5,000	to	\$300	\$3,000,000	to	\$5,000,000
\$10,000	to	\$1,000	\$5,000,000	to	\$7,500,000
\$50,000	to	\$3,000	\$7,500,000	to	\$10,000,000
\$100,000	to	\$5,000	\$10,000,000	to	\$15,000,000
\$150,000	to	\$7,500	\$15,000,000	to	\$20,000,000
\$250,000	to	\$12,500	\$20,000,000	to	\$25,000,000
\$500,000	to	\$25,000	\$25,000,000	to	\$30,000,000
\$1,000,000	to	\$50,000	\$30,000,000	to	\$35,000,000
\$1,500,000	to	\$75,000	over		\$35,000,000

Bank cashier's checks or properly certified checks accompanying proposals will be made payable to the Treasurer, State of Illinois.

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 will fail to execute contract bond as required herein, it is hereby agreed that the amount of the proposal guaranty will 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 bond; otherwise, the bid bond will become void or the proposal guaranty check will 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.**

**RETURN WITH BID**

6. **COMBINATION BIDS.** The undersigned bidder 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 contract 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 No.	Sections Included in Combination	Combination Bid	
		Dollars	Cents

7. **SCHEDULE OF PRICES.** The undersigned bidder 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 will 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.
8. **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 transact business or conduct affairs in the State of Illinois prior to submitting the bid.
9. **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 performance or payment there under except as otherwise permitted in the Code
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)

---



---

STATE JOB #- - - -

ILLINOIS DEPARTMENT OF TRANSPORTATION  
 SCHEDULE OF PRICES  
 CONTRACT NUMBER - LK012

ECMS002 DTGECM03 ECMR003 PAGE 1  
 RUN DATE - 12/11/15  
 RUN TIME - 183447

COUNTY NAME	CODE	DIST	AIRPORT NAME	FED PROJECT	ILL PROJECT
MCHENRY	111	01	LAKE IN THE HILLS	3-17-SBGP-111	3C-K -4404

\*\*\*\*\* BASE \*\*\*\*\*

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
AR108088	1/C #8 XLP-USE	L.F.	3,650.000 X		=		
AR110312	2" STEEL DUCT, JACKED	L.F.	135.000 X		=		
AR110504	4-WAY CONCRETE ENCASED DUCT	L.F.	56.000 X		=		
AR110550	SPLIT DUCT	L.F.	1,212.000 X		=		
AR125100	ELEVATED RETROREFLECTIVE MARKER	EACH	72.000 X		=		
AR125461	TAXI GUIDANCE SIGN, SPECIAL	EACH	8.000 X		=		
AR125565	SPLICE CAN	EACH	4.000 X		=		
AR125961	RELOCATE STAKE MOUNTED LIGHT	EACH	14.000 X		=		
AR150510	ENGINEER'S FIELD OFFICE	L.S.	1.000 X		=		
AR150520	MOBILIZATION	L.S.	1.000 X		=		
AR152410	UNCLASSIFIED EXCAVATION	C.Y.	18,380.000 X		=		
AR152531	EXPLORATION TRENCH	L.F.	400.000 X		=		
AR152540	SOIL STABILIZATION FABRIC	S.Y.	9,400.000 X		=		
AR152620	FOUNDATION REMOVAL	S.Y.	650.000 X		=		
AR156510	SILT FENCE	L.F.	3,120.000 X		=		

LAKE IN THE HILLS  
MCHENRY

ILLINOIS DEPARTMENT OF TRANSPORTATION  
SCHEDULE OF PRICES  
CONTRACT NUMBER - LK012

ECMS002 DTGECM03 ECMR003 PAGE 2  
RUN DATE - 12/11/15  
RUN TIME - 183447

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
AR156511	DITCH CHECK	EACH	15.000 X		=		
AR156520	INLET PROTECTION	EACH	18.000 X		=		
AR156530	TEMPORARY SEEDING	ACRE	10.500 X		=		
AR156531	EROSION CONTROL BLANKET	S.Y.	5,000.000 X		=		
AR162304	CLASS E GATE 6' -VINYL	EACH	1.000 X		=		
AR162320	CLASS E GATE 20' -VINYL	EACH	1.000 X		=		
AR162404	CLASS E FENCE, VINYL 4'	L.F.	435.000 X		=		
AR162900	REMOVE CLASS E FENCE	L.F.	105.000 X		=		
AR162905	REMOVE GATE	EACH	2.000 X		=		
AR162920	REMOVE MANUAL SLIDE GATE	EACH	1.000 X		=		
AR163000	TEMPORARY CONSTRUCTION FENCE	L.F.	1,600.000 X		=		
AR208515	POROUS GRANULAR EMBANKMENT	C.Y.	450.000 X		=		
AR209608	CRUSHED AGG. BASE COURSE - 8"	S.Y.	9,400.000 X		=		
AR401610	BITUMINOUS SURFACE COURSE	TON	1,000.000 X		=		
AR401650	BITUMINOUS PAVEMENT MILLING	S.Y.	1,200.000 X		=		

LAKE IN THE HILLS  
MCHENRY

ILLINOIS DEPARTMENT OF TRANSPORTATION  
SCHEDULE OF PRICES  
CONTRACT NUMBER - LK012

ECMS002 DTGECM03 ECMR003 PAGE 3  
RUN DATE - 12/11/15  
RUN TIME - 183447

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
AR401900	REMOVE BITUMINOUS PAVEMENT	S.Y.	13,000.000 X		=		
AR403610	BITUMINOUS BASE COURSE	TON	2,300.000 X		=		
AR510510	TIE DOWN	EACH	15.000 X		=		
AR602510	BITUMINOUS PRIME COAT	GAL.	4,570.000 X		=		
AR603510	BITUMINOUS TACK COAT	GAL.	1,690.000 X		=		
AR610510	STRUCTURAL PC CONCRETE	C.Y.	18.000 X		=		
AR620520	PAVEMENT MARKING-WATERBORNE	S.F.	3,800.000 X		=		
AR620525	PAVEMENT MARKING-BLACK BORDER	S.F.	9,300.000 X		=		
AR620900	PAVEMENT MARKING REMOVAL	S.F.	200.000 X		=		
AR701512	12" RCP, CLASS IV	L.F.	530.000 X		=		
AR701515	15" RCP, CLASS IV	L.F.	270.000 X		=		
AR701524	24" RCP, CLASS IV	L.F.	160.000 X		=		
AR701900	REMOVE PIPE	L.F.	70.000 X		=		
AR705506	6" PERFORATED UNDERDRAIN	L.F.	2,550.000 X		=		
AR705610	CONCRETE HEADWALL FOR UNDERDRAIN	EACH	1.000 X		=		

LAKE IN THE HILLS  
MCHENRY

ILLINOIS DEPARTMENT OF TRANSPORTATION  
SCHEDULE OF PRICES  
CONTRACT NUMBER - LK012

ECMS002 DTGECM03 ECMR003 PAGE 4  
RUN DATE - 12/11/15  
RUN TIME - 183447

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
AR705635	UNDERDRAIN COLLECTION STRUCTURE	EACH	6.000 X		=		
AR705640	UNDERDRAIN CLEANOUT	EACH	5.000 X		=		
AR705900	REMOVE UNDERDRAIN	L.F.	70.000 X		=		
AR705905	REMOVE COLLECTION STRUCTURE	EACH	1.000 X		=		
AR705924	REPLACE UNDERDRAIN CLEANOUT	EACH	2.000 X		=		
AR751540	MANHOLE 4'	EACH	7.000 X		=		
AR751560	MANHOLE 6'	EACH	1.000 X		=		
AR751570	MANHOLE-SPECIAL	EACH	1.000 X		=		
AR751983	RECONSTRUCT MANHOLE	EACH	2.000 X		=		
AR752412	PRECAST REINFORCED CONC. FES 12"	EACH	1.000 X		=		
AR754904	REMOVE COMB CURB & GUTTER	L.F.	750.000 X		=		
AR770908	REMOVE SEPTIC SYSTEM	L.S.	1.000 X		=		
AR800024	BUILDING DEMOLITION	L.S.	1.000 X		=		
AR800037	HANGAR RELOCATION-TYPE A	EACH	1.000 X		=		
AR800053	ELECTRICAL SERVICE - RUNWAY LIGHT	L.S.	1.000 X		=		

LAKE IN THE HILLS  
MCHENRY

ILLINOIS DEPARTMENT OF TRANSPORTATION  
SCHEDULE OF PRICES  
CONTRACT NUMBER - LK012

ECMS002 DTGECM03 ECMR003 PAGE 5  
RUN DATE - 12/11/15  
RUN TIME - 183447

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
AR800064	ELECTRICAL SERVICE - T-HANGARS	L.S.	1.000 X		=		
AR800118	HANGAR RELOCATION-TYPE B	EACH	3.000 X		=		
AR800120	HANGAR FOUNDATION AND FLOOR-TYPE	EACH	1.000 X		=		
AR800128	HANGAR FOUNDATION AND FLOOR-TYPE	EACH	3.000 X		=		
AR800142	RELOCATE FLAG POLE	EACH	1.000 X		=		
AR800164	REMOVE RETROREFLECTIVE MARKER	EACH	5.000 X		=		
AR901510	SEEDING	ACRE	8.500 X		=		
AR908515	HEAVY-DUTY HYDRAULIC MULCH	ACRE	7.500 X		=		
AR910205	TRAFFIC SIGN	S.F.	4.000 X		=		
AR910915	REMOVE ROADWAY SIGN	EACH	8.000 X		=		
AR910975	RELOCATE ROADWAY SIGN	EACH	1.000 X		=		

SUBTOTAL BASE \$ 

--	--

\*\*\*THE DEPARTMENT RESERVES THE RIGHT TO AWARD THIS CONTRACT ON THE  
\*\*\*BASIS OF ANY OF THE ALTERNATES OR COMBINATION THEREOF.

LAKE IN THE HILLS  
MCHENRY

ILLINOIS DEPARTMENT OF TRANSPORTATION  
SCHEDULE OF PRICES  
CONTRACT NUMBER - LK012

ECMS002 DTGECM03 ECMR003 PAGE 6  
RUN DATE - 12/11/15  
RUN TIME - 183447

\*\*\*\*\* ALT 1 \*\*\*\*\*

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
AS125100	ELEVATED RETROREFLECTIVE MARKER	EACH	2.000 X		=		
AS125461	TAXI GUIDANCE SIGN, SPECIAL	EACH	1.000 X		=		
AS152410	UNCLASSIFIED EXCAVATION	C.Y.	300.000 X		=		
AS152540	SOIL STABILIZATION FABRIC	S.Y.	1,800.000 X		=		
AS156531	EROSION CONTROL BLANKET	S.Y.	310.000 X		=		
AS208515	POROUS GRANULAR EMBANKMENT	C.Y.	100.000 X		=		
AS209608	CRUSHED AGGREGATE BASE COURSE - 8	S.Y.	1,800.000 X		=		
AS401610	BITUMINOUS SURFACE COURSE	TON	160.000 X		=		
AS401900	REMOVE BITUMINOUS PAVEMENT	S.Y.	8.000 X		=		
AS403610	BITUMINOUS BASE COURSE	TON	484.000 X		=		
AS510510	TIE DOWN	EACH	3.000 X		=		
AS602510	BITUMINOUS PRIME COAT	GAL.	955.000 X		=		
AS603510	BITUMINOUS TACK COAT	GAL.	280.000 X		=		
AS620520	PAVEMENT MARKING-WATERBORNE	S.F.	340.000 X		=		
AS620525	PAVEMENT MARKING-BLACK BORDER	S.F.	310.000 X		=		

LAKE IN THE HILLS  
MCHENRY

ILLINOIS DEPARTMENT OF TRANSPORTATION  
SCHEDULE OF PRICES  
CONTRACT NUMBER - LK012

ECMS002 DTGECM03 ECMR003 PAGE 7  
RUN DATE - 12/11/15  
RUN TIME - 183447

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY	UNIT PRICE		TOTAL PRICE	
				DOLLARS	CENTS	DOLLARS	CTS
AS705924	REPLACE UNDERDRAIN CLEANOUT	EACH	1.000 X				

SUBTOTAL ALT 1 \$ 

--	--

  
CONTRACT - LK012

SUMMARY OF TOTAL ALTERNATES		
	DOLLARS	CTS
TOTAL BASE \$		
TOTAL ALT 1 \$		

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.

## RETURN WITH BID

### 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.

I acknowledge, understand and accept these terms and conditions.

#### 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

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 calendar 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.

## RETURN WITH BID

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**

Section 50-15. Negotiations.

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.

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**

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 provide a submission to a vendor portal or 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, not making a submission to a vendor portal or who withholds a bid or submission to a vendor portal in consideration of the promise for the payment of money or other valuable thing is guilty of a Class 4 felony.

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. Revolving Door Prohibition**

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.

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**

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.

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 or submission to a vendor portal is submitted.

### **F. Confidentiality**

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.

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.

## RETURN WITH BID

### **G. Insider Information**

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.

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.

I acknowledge, understand and accept these terms and conditions for the above assurances.

### **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**

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 2012.

(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.

The contractor or subcontractor certifies that it is not barred from being awarded a contract under Section 50-5.

#### **B. Felons**

Section 50-10. Felons.

(a) 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.

(b) Certification. Every bid submitted to and contract executed by the State and every subcontract subject to Section 20-120 of the Code and every vendor's submission to a vendor portal 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.

## RETURN WITH BID

### **C. Debt Delinquency**

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**

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

The bidder or contractor or subcontractor, respectively, certifies in accordance with Section 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 subcontractor 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**

Section 50-14 Environmental Protection Act violations.

The bidder or contractor or subcontractor, respectively, certifies in accordance with Section 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**

Section 3 of the Educational Loan Default Act, 5 ILCS 385/3

Pursuant to the Educational Loan Default Act, no State agency shall contract with an individual for goods or services if that individual is in default on an educational loan.

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**

Section 33E-11 of the Criminal Code of 2012, 720 ILCS 5/33E-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.

(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.

## RETURN WITH BID

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**

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

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

### **I. Drug Free Workplace**

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.

The bidder certifies that if awarded a contract in excess of \$5,000 it will provide a drug free workplace in compliance with the provisions of the Act.

### **J. Disclosure of Business Operations in Iran**

Section 50-36 of the Code 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 may 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 on the attached document.

**RETURN WITH BID**

**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 participant 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.**

Additionally, Section 30-22 of the Code requires that the bidder certify that an Illinois office be maintained as the primary place of employment for persons employed for this contract.

\_\_\_\_\_ **NA-FEDERAL** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

The requirements of these certifications and disclosures are a material part of the contract, and the contractor shall require these certification provisions 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.

**RETURN WITH BID**

**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 entities or 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 or any other procurement opportunity 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: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

I acknowledge, understand and accept these terms and conditions for the above certifications.

## RETURN WITH BID

### 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 \$50,000 and all submissions to a vendor portal 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 100 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 individual 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 individual making the disclosure having any of the relationships identified in Section 50-35 and on the disclosure form.

**The current annual salary of 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. Disclosure Forms. 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 100 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any individual 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 NOT APPLICABLE STATEMENT on Form A must be signed and dated by an individual 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 \_\_\_\_\_
3. 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 individual 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 an individual that is authorized to execute contracts for your organization. The individual signing can be, but does not have to be, the individual 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 NOT APPLICABLE STATEMENT of Form A must be signed and dated by an individual that is authorized to execute contracts for your company.

## RETURN WITH BID

### **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 NOT APPLICABLE STATEMENT on Form A does not 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 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 \$50,000, 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. See Disclosure Form Instructions.**

*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)**

<b>FOR INDIVIDUAL (type or print information)</b>	
<b>NAME:</b>	_____
<b>ADDRESS</b>	_____
<b>Type of ownership/distributable income share:</b>	
stock _____ sole proprietorship _____ partnership _____ other: (explain on separate sheet)	
% or \$ value of ownership/distributable income 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. \_\_\_\_\_

**RETURN WITH BID**

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 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. \_\_\_\_\_
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 100% of the annual salary of the Governor? Yes \_\_\_ 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 \_\_\_

---

**RETURN WITH BID**

(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): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**RETURN WITH BID**

**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 penalty of perjury, I certify the contents of this disclosure to be true and accurate to the best of my knowledge.**

Completed by:  \_\_\_\_\_ Date \_\_\_\_\_  
Signature of Individual or Authorized Officer

**NOT APPLICABLE STATEMENT**

**Under penalty of perjury, I have determined that no individuals associated with this organization meet 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.**

\_\_\_\_\_ Date \_\_\_\_\_  
Signature of Authorized Officer

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

RETURN WITH BID

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 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 all bids.

DISCLOSURE OF OTHER CONTRACTS AND PROCUREMENT RELATED INFORMATION

1. 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 \_\_\_\_\_ If "No" is checked, the bidder only needs to complete the signature box on 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 CERTIFICATION

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)

## **RETURN WITH BID**

### **SPECIAL NOTICE TO CONTRACTORS**

The following requirements of the Illinois Department of Human Rights' Act 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 Title 44, Illinois Administrative Code, Section 750.120. 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.



**RETURN WITH BID**

**Contract No. LK012  
Lake in the Hills Airport  
Lake in the Hills, Illinois  
McHenry County  
Illinois Project No. 3CK-4404  
SBG Project No. 3-17-SBGP-112**

**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**

- 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 **Illinois 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 \_\_\_\_\_

Address \_\_\_\_\_

**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:  \_\_\_\_\_ Title: \_\_\_\_\_ 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.

**RETURN WITH BID**

**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 \_\_\_\_\_
  
2. 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 \_\_\_\_\_

**RETURN WITH BID**

**Contract No. LK012  
Lake in the Hills Airport  
Lake in the Hills, Illinois  
McHenry County  
Illinois Project No. 3CK-4404  
SBG Project No. 3-17-SBGP-112**

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 3 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 \_\_\_\_\_

Business Address \_\_\_\_\_

\_\_\_\_\_

Firm Name \_\_\_\_\_

By \_\_\_\_\_

(IF A CO-PARTNERSHIP) Business Address \_\_\_\_\_

\_\_\_\_\_

Name and Address of All Members of the Firm:

\_\_\_\_\_

\_\_\_\_\_

Corporate Name \_\_\_\_\_

By \_\_\_\_\_

Signature of Authorized Representative \_\_\_\_\_

(IF A CORPORATION) Typed or printed name and title of Authorized Representative \_\_\_\_\_

(IF A JOINT VENTURE, USE THIS SECTION FOR THE MANAGING PARTY AND THE SECOND PARTY SHOULD SIGN BELOW) Attest \_\_\_\_\_

Signature \_\_\_\_\_

Business Address \_\_\_\_\_

\_\_\_\_\_

Corporate Name \_\_\_\_\_

By \_\_\_\_\_

Signature of Authorized Representative \_\_\_\_\_

(IF A JOINT VENTURE) Typed or printed name and title of Authorized Representative \_\_\_\_\_

Attest \_\_\_\_\_

Signature \_\_\_\_\_

Business Address \_\_\_\_\_

\_\_\_\_\_

If more than two parties are in the joint venture, please attach additional signature sheet



Sponsor \_\_\_\_\_ Item No. \_\_\_\_\_

IL Proj. No. \_\_\_\_\_ SBG Pr. No. \_\_\_\_\_ Letting Date \_\_\_\_\_

KNOW ALL MEN BY THESE 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 therefor. 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 Name)

\_\_\_\_\_  
(Company Name)

By \_\_\_\_\_  
(Signature & Title)

By: \_\_\_\_\_  
(Signature of Attorney-in-Fact)

Notary Certification for Principal and Surety

STATE OF ILLINOIS,  
County of \_\_\_\_\_

I, \_\_\_\_\_, a Notary Public in and for said County, do hereby certify that \_\_\_\_\_ and \_\_\_\_\_  
(Insert names of individuals signing on behalf of PRINCIPAL & SURETY)

who are each personally known to me to be the same persons whose names are subscribed to the foregoing instrument on behalf of PRINCIPAL and SURETY, appeared before me this day in person and acknowledged respectively, that they signed and delivered said instrument as their free and voluntary act for the uses and purposes therein set forth.

Given under my hand and notarial seal this \_\_\_\_\_ day of \_\_\_\_\_ A.D. \_\_\_\_\_

My commission expires \_\_\_\_\_  
\_\_\_\_\_  
Notary Public

In lieu of completing the above section of the Proposal Bid Form, the Principal may file an Electronic Bid Bond. By signing the proposal and marking the check box next to the Signature and Title line below, the Principal is ensuring the identified electronic bid bond has been executed and the Principal and Surety are firmly bound unto the SPONSOR through its AGENT under the conditions of the bid bond as shown above.

Electronic Bid Bond ID# \_\_\_\_\_ Company / Bidder Name \_\_\_\_\_ Signature and Title \_\_\_\_\_



**Division of Highways  
Proposal Bid Bond  
(Return with Bid)**



Item No. \_\_\_\_\_

Letting Date \_\_\_\_\_

KNOW ALL PERSONS BY THESE PRESENTS, \_\_\_\_\_

as PRINCIPAL, \_\_\_\_\_

as SURETY, and held jointly, severally and firmly bound unto the STATE OF ILLINOIS in the penal sum of 5 percent of the total bid price, or for the amount specified in the bid proposal under "Proposal Guaranty" in effect on the date of the Invitation for Bids, whichever is the lesser sum, well and truly to be paid unto said STATE OF ILLINOIS, 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 STATE OF ILLINOIS, acting through the Department of Transportation, for the improvement designated by the Transportation Bulletin Item Number and Letting Date indicated above.

NOW, THEREFORE, if the Department shall accept the bid proposal of the PRINCIPAL; and if the PRINCIPAL shall, within the time and as specified in the bidding and contract documents; and if, after award by the Department, 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 enter into such contract and to give the specified bond, the PRINCIPAL pays to the Department the difference not to exceed the penalty hereof between the amount specified in the bid proposal and such larger amount for which the Department 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 Department 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 Department within fifteen (15) days of written demand therefor. If Surety does not make full payment within such period of time, the Department may bring an action to collect the amount owed. Surety is liable to the Department for all its expenses, including attorney's fees, incurred in any litigation in which it prevails either in whole or in part.

In TESTIMONY WHEREOF, the said PRINCIPAL has caused this instrument to be signed by its officer  
\_\_\_\_\_ day of \_\_\_\_\_ A.D., \_\_\_\_\_

In TESTIMONY WHEREOF, the said SURETY has caused this instrument to be signed by its officer  
\_\_\_\_\_ day of \_\_\_\_\_ A.D., \_\_\_\_\_

\_\_\_\_\_  
(Company Name)

\_\_\_\_\_  
(Company Name)

By \_\_\_\_\_  
(Signature and Title)

By \_\_\_\_\_  
(Signature of Attorney-in-Fact)

**Notary for PRINCIPAL**

**Notary for SURETY**

STATE OF \_\_\_\_\_  
COUNTY OF \_\_\_\_\_

STATE OF \_\_\_\_\_  
COUNTY OF \_\_\_\_\_

Signed and attested before me on \_\_\_\_\_ (date)  
by \_\_\_\_\_  
(Name of Notary Public)

Signed and attested before me on \_\_\_\_\_ (date)  
by \_\_\_\_\_  
(Name of Notary Public)

(Seal) \_\_\_\_\_  
(Signature of Notary Public)

(Seal) \_\_\_\_\_  
(Signature of Notary Public)

\_\_\_\_\_  
(Date Commission Expires)

\_\_\_\_\_  
(Date Commission Expires)

In lieu of completing the above section of the Proposal Bid Bond form, the Principal may file an Electronic Bid Bond. By signing the proposal the Principal is ensuring the identified electronic bid bond has been executed and the Principal and Surety are firmly bound unto the State of Illinois under the conditions of the bid bond as shown above.

Electronic Bid Bond ID # \_\_\_\_\_ Company/Bidder Name \_\_\_\_\_ Signature and Title \_\_\_\_\_





PROPOSAL ENVELOPE



# PROPOSALS

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

Item No.	Item No.	Item No.

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. LK012  
Lake in the Hills Airport  
Lake in the Hills, Illinois  
McHenry County  
Illinois Project No. 3CK-4404  
SBG Project No. 3-17-SBGP-112**



**Illinois Department of Transportation**

## **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 State Required Ethical Standards Governing Subcontractors.

## RETURN WITH SUBCONTRACT

### 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**

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 2012.

(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.

The contractor or subcontractor certifies that it is not barred from being awarded a contract under Section 50-5.

#### **B. Felons**

Section 50-10. Felons.

(a.) 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.

(b.) 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.

## RETURN WITH SUBCONTRACT

### **C. Debt Delinquency**

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**

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 subcontractor 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.**

<hr/>		
Name of Subcontracting Company		
<hr/>		<hr/>
Authorized Officer		Date

## RETURN WITH SUBCONTRACT

### 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 100 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any individual 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 Individual 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 individual making the disclosure having any of the relationships identified in Section 50-35 and on the disclosure form.

**The current annual salary of 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. Disclosure Forms. 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 100 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any individual 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 NOT APPLICABLE STATEMENT on the second page of Form A must be signed and dated by an individual 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 \_\_\_\_\_
3. 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 per individual per subcontract 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 an individual that is authorized to execute contracts for your organization. The individual signing can be, but does not have to be, the individual 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 NOT APPLICABLE STATEMENT on page 2 of Form A must be signed and dated by an individual that is authorized to execute contracts for your company.

## RETURN WITH SUBCONTRACT

### **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 NOT APPLICABLE STATEMENT on Form A does not 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.

ILLINOIS DEPARTMENT OF TRANSPORTATION

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

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.

FOR INDIVIDUAL (type or print information) NAME: ADDRESS Type of ownership/distributable income share: stock sole proprietorship Partnership other: (explain on separate sheet): % or \$ value of ownership/distributable income 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 the State agency for which you are employed and your annual salary

**RETURN WITH SUBCONTRACT**

- 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 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 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? Yes \_\_\_\_\_ 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 2 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 \_\_\_\_\_

---

**RETURN WITH SUBCONTRACT**

(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): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**RETURN WITH SUBCONTRACT**

**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 penalty of perjury, I certify the contents of this disclosure to be true and accurate to the best of my knowledge.**

Completed by:

\_\_\_\_\_

Signature of Individual or Authorized Officer

\_\_\_\_\_

Date

**NOT APPLICABLE STATEMENT**

**Under penalty of perjury, I have determined that no individuals associated with this organization meet the 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

RETURN WITH SUBCONTRACT

ILLINOIS DEPARTMENT OF TRANSPORTATION

Form B Subcontractor: Other Contracts & Procurement Related Information Disclosure

Form with fields: 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 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 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 box with fields: Signature of Authorized Officer, Date

OWNERSHIP CERTIFICATION

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. Electronic bids are to be submitted to the electronic bidding system (iCX-Integrated Contractors Exchange). Paper-based bids are to be submitted to the Chief Procurement Officer for the Department of Transportation in care of the Chief Contracts Official at the Harry R. Hanley Building, 2300 South Dirksen Parkway in Springfield, Illinois until 10:00 a.m., January 15, 2016. 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 10:00 a.m.

2. **DESCRIPTION OF WORK.** The proposed improvement is identified and advertised for bids in the Invitation for Bids as:

**Contract No. LK012  
Lake in the Hills Airport  
Lake in the Hills, Illinois  
McHenry County  
Illinois Project No. 3CK-4404  
SBG Project No. 3-17-SBGP-112**

**Improve Runway 8/26 Safety Area**

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.

5. **PRE-BID CONFERENCE.** There will be a pre-bid conference held at N/A at the Lake in the Hills Airport administration building. For engineering information, contact Daniel L. Pape, P.E. of Crawford, Murphy & Tilly, Inc. at (630) 907-7023.

6. **DISADVANTAGED BUSINESS POLICY.** The DBE goal for this contract is 9.0%.

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 December 3, 2015 and the Construction Plans dated December 3, 2015 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 121 calendar days.

**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

Randall S. Blankenhorn  
Acting Secretary

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 AIRPORT IMPROVEMENT PROGRAM AND FOR OBLIGATED SPONSORS

**DISADVANTAGED BUSINESS POLICY**

NOTICE: 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."

POLICY: 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.

OBLIGATION: 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.

DBE/WBE CONTRACTOR FINANCE PROGRAM: 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).

BREACH OF CONTRACT: 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 (BDE)**

**Effective: September 1, 2000**

**Revised: January 2, 2016**

FEDERAL OBLIGATION. 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.

CONTRACTOR ASSURANCE. 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, which may include, but is not limited to:

- (a) Withholding progress payments;
- (b) Assessing sanctions;
- (c) Liquidated damages; and/or
- (d) Disqualifying the Contractor from future bidding as non-responsible.

OVERALL GOAL SET FOR THE DEPARTMENT. 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.

CONTRACT GOAL TO BE ACHIEVED BY THE CONTRACTOR. 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. The 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 9.0% 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 for 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.

DBE LOCATOR REFERENCES. 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 website at:  
<http://www.idot.illinois.gov/doing-business/certifications/disadvantaged-business-enterprise-certification/il-ucp-directory/index>.

BIDDING PROCEDURES. Compliance with this Special Provision is required prior to the award of the contract and the failure of the low bidder to comply will render the bid not responsive.

In order to assure the timely award of the contract, the low bidder shall submit:

- (a) The bidder shall submit a Disadvantaged Business Utilization Plan on completed Department forms SBE 2025 and 2026.
  - (1) The final Utilization Plan must be submitted within five calendar days after the date of the letting.
  - (2) To meet the five day requirement, the bidder may send the Utilization Plan electronically by scanning and sending to **DOT.DBE.UP@illinois.gov** or faxing to (217) 785-1524. The subject line must include the bid Item Number and the Letting date. The Utilization Plan should be sent as one .pdf file, rather than multiple files and emails for the same Item Number. It is the responsibility of the bidder to obtain confirmation of email or fax delivery.

Alternatively, the Utilization Plan may be sent by certified mail or delivery service within the five calendar day period. If a question arises concerning the mailing date of a Utilization Plan, the mailing date will be established by the U.S. Postal Service postmark on the original certified mail receipt from the U.S. Postal Service or the receipt issued by a delivery service. It is the responsibility of the bidder to ensure the postmark or receipt date is affixed within the five days if the bidder intends to rely upon mailing or delivery to satisfy the submission day requirement. The Utilization Plan is to be submitted to:

Illinois Department of Transportation  
Bureau of Small Business Enterprises  
Contract Compliance Section  
2300 South Dirksen Parkway, Room 319  
Springfield, Illinois 62764

The Department will not accept a Utilization Plan if it does not meet the five day submittal requirement and the bid will be declared not responsive. In the event the bid is declared not responsive due to a failure to submit a Utilization Plan or failure to comply with the bidding procedures set forth herein, the Department may elect to cause the forfeiture of the penal sum of the bidder's proposal guaranty, and may deny authorization to bid the project if re-advertised for bids. The Department reserves the right to invite any other bidder to submit a Utilization Plan at any time for award consideration or to extend the time for award.

- (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 Utilization 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 scanned or 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 names and addresses 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 Utilization 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; the documentation of good faith efforts must include copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor is selected over a DBE for work on the contract.

GOOD FAITH EFFORT PROCEDURES. 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 that 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 documents sufficient commercially useful DBE work 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 document 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. In accordance with subsection (c)(6) of the above Bidding Procedures, the documentation of good faith efforts must include copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor was selected over a DBE for work on the contract.
- (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-by-case 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 or 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 for the determination. If the Utilization Plan is not approved because it is deficient as a technical matter, unless waived by the Department, the bidder will be notified and will be allowed no more than a five calendar day period in order to cure the deficiency.
  - (c) The bidder may request administrative reconsideration of a determination adverse to the bidder within the five working days after the 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 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 documentation and 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 consideration, 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.

**CALCULATING DBE PARTICIPATION.** 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 contract. 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 DBE regular dealer or DBE manufacturer.

**CONTRACT COMPLIANCE.** 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 DBE Participation Commitment Statement.

- (a) **NO AMENDMENT.** 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) **CHANGES TO WORK.** 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 or AER 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.
- (c) **SUBCONTRACT.** The Contractor must provide DBE subcontracts to IDOT upon request. Subcontractors shall ensure that all lower tier subcontracts or agreements with DBEs to supply labor or materials be performed in accordance with this Special Provision.
- (d) **ALTERNATIVE WORK METHODS.** 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 reasonable 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) **TERMINATION AND REPLACEMENT PROCEDURES.** 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 this Special

Provision. The Contractor shall utilize the specific DBEs listed to perform the work and supply the materials for which each is listed unless the Contractor obtains the Department's written consent as provided in subsection (a) of this part. Unless Department consent is provided for termination of a DBE subcontractor, the Contractor shall not be entitled to any payment for work or material unless it is performed or supplied by the DBE in the Utilization Plan.

As stated above, 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 2 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. The good faith efforts shall be documented by the Contractor. If the Department requests documentation under this provision, the Contractor shall submit the documentation within seven days, which may be extended for an additional seven days if necessary at the request of the Contractor. The Department shall provide a written determination to the Contractor stating whether or not good faith efforts have been demonstrated.

- (f) PAYMENT RECORDS. 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 Resident 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) **ENFORCEMENT.** 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) **RECONSIDERATION.** Notwithstanding any other provision of the contract, including but not limited to Article 109.09 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. The result of the reconsideration process is not administratively appealable to the U.S. Department of Transportation.

#### **SPECIAL PROVISION FOR WEEKLY DBE TRUCKING REPORTS (BDE)**

**Effective: June 2, 2012**

**Revised: April 2, 2015**

The Contractor shall submit a weekly report of Disadvantaged Business Enterprise (DBE) trucks hired by the Contractor or subcontractors (i.e. not owned by the Contractor or subcontractors) that are used for DBE goal credit.

The report shall be submitted to the Resident Engineer on Division of Aeronautics Form "AER 723" within ten business days following the reporting period. The reporting period shall be Monday through Sunday for each week reportable trucking activities occur.

Any costs associated with providing weekly DBE trucking reports shall be considered as included in the contract unit prices bid for the various items of work involved and no additional compensation will be allowed.

#### **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 contracting chain.

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 Contractor's 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 each 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).

#### **SPECIAL PROVISION FOR COMPLETION TIME VIA CALENDAR DAYS**

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 121 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 in Section 80-09 Failure to Complete on Time of the Standard Specifications, 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.

State of Illinois  
Department of Transportation

SPECIAL PROVISION  
FOR  
SECTION 80 PROSECUTION AND PROGRESS

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.

80-09 FAILURE TO COMPLETE ON TIME.

DELETE: "See contract documents for current schedule of deductions."

ADD:

Schedule of Deductions for Each Day of Overrun in Contract Time			
Original Contract Amount		Daily Charges	
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	6,775	9,525

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 on Federal-Aid projects, 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. A final voucher for under \$5.00 shall not be paid except through electronic funds transfer. (15 ILCS 405/9(b-1))

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.

Progress payments may be reduced by liens filed pursuant to Section 23(c) of the Mechanics Lien Act, 770 ILCS 60/23(c).

If a Contractor or subcontractor has defaulted on a loan issued under the Department's Disadvantaged Business Revolving Loan Program (20 ILCS 2705/2705-610) progress payments may be reduced pursuant to the terms of that loan agreement. In such cases, the amount of the estimate related to the work performed by the Contractor or subcontractor, in default of the loan agreement, will be offset, in whole or in part, and vouchered by the Department to the Working Capital Revolving Fund or designated escrow account. Payment for the work shall be considered as issued and received by the Contractor or subcontractor on the date of the offset voucher. Further, the amount of the offset voucher shall be a credit against the Department's obligation to pay the Contractor, the Contractor's obligation to pay the subcontractor, and the Contractor's or subcontractor's total loan indebtedness to the Department. The offset shall continue until such time as the entire loan indebtedness is satisfied. The Department will notify the Contractor and Fund Control Agent in a timely manner of such offset. The Contractor or subcontractor shall not be entitled to additional payment in consideration of the offset.

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.

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.

90-10 TRUST AGREEMENT OPTION.

DELETE: The entire section.



# **Required Contract Provisions for Airport Improvement Program and for Obligated Sponsors**

## **Contents**

<b>1. REQUIRED CONTRACT PROVISIONS.</b>	54
<b>2. ACCESS TO RECORDS AND REPORTS.</b> (Reference: 2 CFR § 200.326, 2 CFR § 200.333)	56
<b>3. AFFIRMATIVE ACTION REQUIREMENT.</b> (Reference: 41 CFR part 60-4, Executive Order 11246)	56
<b>4. BREACH OF CONTRACT TERMS.</b> (Reference 2 CFR § 200 Appendix II(A))	57
<b>5. BUY AMERICAN PREFERENCE.</b> (Reference: 49 USC § 50101)	57
<b>6. CIVIL RIGHTS - GENERAL.</b> (Reference: 49 USC § 47123)	58
<b>7. CIVIL RIGHTS – TITLE VI ASSURANCES.</b>	59
<b>8. CLEAN AIR AND WATER POLLUTION CONTROL.</b> (Reference: 49 CFR § 18.36(i)(12))	63
<b>9. CONTRACT WORKHOURS AND SAFETY STANDARDS ACT REQUIREMENTS.</b> (Reference: 2 CFR § 200 Appendix II (E))	63
<b>10. COPELAND “ANTI-KICKBACK” ACT.</b> (Reference: 2 CFR § 200 Appendix II(D), 29 CFR parts 3 & 5)	64
<b>11. DAVIS-BACON REQUIREMENTS.</b> (Reference: 2 CFR § 200 Appendix II(D))	64
<b>12. DEBARMENT AND SUSPENSION (NON-PROCUREMENT).</b> (Reference: 2 CFR part 180 (Subpart C), 2 CFR part 1200, DOT Order 4200.5 DOT Suspension & Debarment Procedures & Ineligibility)	68
<b>13. DISADVANTAGED BUSINESS ENTERPRISE.</b> (Reference: 49 CFR part 26)	69
<b>14. ENERGY CONSERVATION REQUIREMENTS.</b> (Reference 2 CFR § 200 Appendix II(H))	69
<b>15. EQUAL OPPORTUNITY CLAUSE AND SPECIFICATIONS.</b> (Reference 41 CFR § 60-1.4, Executive Order 11246)	69
<b>16. FEDERAL FAIR LABOR STANDARDS ACT (FEDERAL MINIMUM WAGE).</b> (Reference: 29 USC § 201, et seq.)	73
<b>17. LOBBYING AND INFLUENCING FEDERAL EMPLOYEES.</b> (Reference: 49 CFR part 20, Appendix A)	74
<b>18. NONSEGREGATED FACILITIES REQUIREMENT.</b> (Reference: 41 CFR § 60-1.8)	74
<b>19. OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970.</b> (Reference 20 CFR part 1910)	75
<b>20. RIGHT TO INVENTIONS.</b> (Reference 2 CFR § 200 Appendix II(F))	75
<b>21. TERMINATION OF CONTRACT.</b> (Reference 2 CFR § 200 Appendix II(B))	76
<b>22. TRADE RESTRICTION.</b> (Reference: 49 CFR part 30)	76
<b>23. TEXTING WHEN DRIVING.</b> (References: Executive Order 13513, and DOT Order 3902.10)	77
<b>24. VETERAN’S PREFERENCE.</b> (Reference: 49 USC § 47112(c))	78
<b>25. APPENDICES</b>	78

## 1. REQUIRED CONTRACT PROVISIONS.

Federal laws and regulations require that specific contract provisions be included in certain contracts, requests for proposals, or invitations to bid *whether or not* the contracts are federally-funded. This requirement is established within the grant assurances. Other contract provisions are required to be in federally-funded contracts, including all subcontracts. For purposes of determining requirements for contract provisions, the term **contract** includes subcontracts.

The type and magnitude of a project determines whether a provision is required. Some Federal provisions have dollar thresholds that define when they are applicable. The majority of the Federal provisions may be incorporated within the contract itself. However, certain Federal notices are required to be identified within the Notice-to-Bidders.

### GENERAL REQUIREMENT FOR CONTRACTS.

In general, the sponsor must:

- 1) Physically incorporate these contract provisions (not simply by reference) in each contract funded under AIP;
- 2) Require the contractor (including all subcontractors) to insert these contract provisions in each contract and subcontract, and further require that the clauses be included in all subcontracts;
- 3) Require the contractor (or subcontractor) to incorporate applicable requirements of these contract provisions by reference for work done under any purchase orders, rental agreements and other agreements for supplies or services;
- 4) Require that the prime contractor be responsible for compliance with these contract provisions by any subcontractor, lower-tier subcontractor or service provider; and
- 5) Not modify the provisions. Minor additions covering state or sponsor requirements may be included in a separate supplemental specification, provided they do not conflict with federal laws and regulations and do not change the intent of the required contract provision.

Subject to the applicability criteria noted in the specific contract provisions, these contract provisions apply to all work performed on the contract.

### GENERAL REQUIREMENT FOR REQUESTS FOR BIDS (ADVERTISEMENT) AND NOTICE TO BIDDERS

In general, the sponsor may incorporate certain provisions *by reference* in the Request for Bids (the Advertisement) rather than including the entire text of the provision in the Request or Notice. The provisions that can be incorporated by reference in the Request or Notice are:

- 1) Buy American Preference
- 2) Foreign Trade Restriction
- 3) Davis Bacon
- 4) Affirmative Action
- 5) Governmentwide Debarment and Suspension
- 6) Governmentwide Requirements for Drug-free Workplace

### GENERAL REQUIREMENTS FOR ALL CONTRACTS ENTERED INTO BY OBLIGATED SPONSORS.

Where noted, the sponsor must include certain notifications in contracts or solicitations for proposals regardless of funding source.

### FAILURE TO COMPLY WITH PROVISIONS.

Failure to comply with the terms of these contract provisions may be sufficient grounds to:

- 1) Withhold progress payments or final payment,
- 2) Terminate the contract,
- 3) Seek suspension/debarment, or
- 4) Any other action determined to be appropriate by the sponsor or the FAA.

**REQUIRED CONTRACT PROVISIONS.**

The following list summarizes the contract provisions and to what types of contracts the provisions apply:

**All Contracts Regardless of Funding Source**

- a. Civil Rights – General  
Civil Rights – Title VI      **All AIP Funded Contracts**
  
- a. Access to Records and Reports
- b. Affirmative Action Plan
- c. Buy American Preferences
- d. Civil Rights – General
- e. Civil Rights - Title VI
- f. Disadvantaged Business Enterprises
- g. Energy Conservation Requirements
- h. Federal Fair Labor Standards Act (Minimum Wage)
- i. Lobbying and Influencing Federal Employees
- j. Occupational Safety and Health Act
- k. Rights to Inventions
- l. Trade Restriction Clause
- m. Veteran’s Preference

**Additional Provisions for AIP Funded Contracts that are \$2,000 and greater**

- a. Copeland Anti-Kickback
- b. Davis Bacon Requirements

**Additional Provisions for AIP Funded Contracts that are \$10,000 and greater**

- a. Affirmative Action
- b. Equal Employment Opportunity
- c. Nonsegregated Facilities
- d. Termination of Contract

**Additional Provisions for AIP Funded Contracts that are \$25,000 and greater**

- a. Debarment and Suspension

**Additional Provisions for AIP Funded Contracts that are \$100,000 and greater**

- a. Breach of Contract
- b. Clean Air and Water Pollution Controls
- c. Contract Work Hours and Safety Standards

## **2. ACCESS TO RECORDS AND REPORTS.**

(Reference: 2 CFR § 200.326, 2 CFR § 200.333)

### **APPLICABILITY.**

Applies to all AIP-funded projects and must be included in all contracts and subcontracts.

### **MANDATORY CONTRACT LANGUAGE.**

The mandatory language that must be used on AIP funded project contracts is as follows:

#### **ACCESS TO RECORDS AND REPORTS**

The Contractor must maintain an acceptable cost accounting system. The Contractor agrees to provide the Sponsor, the Federal Aviation Administration, the Comptroller General of the United States, and the Illinois Department of Transportation or any of their duly authorized representatives access to any books, documents, papers, and records of the contractor which are directly pertinent to the specific contract for the purpose of making audit, examination, excerpts and transcriptions. The Contractor agrees to maintain all books, records and reports required under this contract for a period of not less than three years after final payment is made and all pending matters are closed.

## **3. AFFIRMATIVE ACTION REQUIREMENT.**

(Reference: 41 CFR part 60-4, Executive Order 11246)

### **APPLICABILITY.**

Incorporate in all AIP-funded construction contracts and subcontracts that exceed \$10,000. This notice must be placed within the solicitation for proposals. The goals for minority participation are dependent upon the Economic Area (EA) and Standard Metropolitan Statistical Area (SMSA). Refer to Volume 45 of the Federal Register dated 10/3/80. Page 65984 contains a table of all EA and SMSA and their associated minority goals. Executive Order 11246 has set a goal of 6.9% nationally for female participation for all construction contractors.

### **MANDATORY CONTRACT LANGUAGE.**

#### **NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION**

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:

- A. Timetables
- B. Goals for minority participation for each trade (Vol. 45 Federal Register pg. 65984 10/3/80)
- C. Goals for female participation in each trade (6.9%)

These goals are applicable to all of 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 is also subject to the goals for both federally funded and non-federally funded construction regardless of the percentage of federal participation in funding.

The contractor's compliance with the 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 specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training shall 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 contractor shall provide written notification to the Director, Office of Federal Contract Compliance Programs (OFCCP), within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address, and telephone number of the subcontractor; employer

identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of subcontract; and the geographical area in which the subcontract is to be performed.

4. As used in this notice and in the contract resulting from this solicitation, the "covered area" is [insert description of the geographical areas where the contract is to be performed giving the state, county, and city, if any].

#### **AFFIRMATIVE ACTION PLAN.**

The Department of Labor is responsible for administering the Executive Order 11246, which contains requirements for an Affirmative Action Plan. This Plan is similar in content and requirements to the affirmative action plan required in 49 CFR Part 152 subpart e. 49 CFR Part 152 applied to grants issued under the Airport Development Aid Program, which was replaced by the Airport Improvement Program.

## **4. BREACH OF CONTRACT TERMS.**

(Reference 2 CFR § 200 Appendix II(A))

#### **APPLICABILITY.**

This provision is required in all contracts that exceed the simplified acquisition threshold. This threshold, fixed at 41 USC 403(11), is presently set at \$100,000.

#### **MANDATORY CONTRACT LANGUAGE.**

The regulation does not prescribe mandatory language, however the following clause represents sample language that meets the intent of 2 CFR § 200 Appendix II(A). This provision requires grantees to incorporate administrative, contractual or legal remedies in instances where contractors violate or breach contract terms.

### **BREACH OF CONTRACT TERMS**

Any violation or breach of terms of this contract on the part of the contractor or its 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 are in addition to, and not a limitation of, any duties, obligations, rights and remedies otherwise imposed or available by law.

## **5. BUY AMERICAN PREFERENCE.**

(Reference: 49 USC § 50101)

#### **APPLICABILITY.**

The sponsor must meet the Buy American preference requirements found in 49 USC § 50101 in all AIP-funded projects. The Buy America requirements flow down from the sponsor to first tier contractors, who are responsible for ensuring that lower tier contractors and subcontractors are in compliance. The Buy American preference also applies to professional service agreements if the agreement includes any manufactured product as a deliverable.

#### **REQUIREMENTS.**

- (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:

- (1) 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.

## **6. CIVIL RIGHTS - GENERAL.**

(Reference: 49 USC § 47123)

### **APPLICABILITY.**

The General Civil Rights Provisions found in 49 USC § 47123, derived from the Airport and Airway Improvement Act of 1982, Section 520, apply to all AIP-funded projects. This provision is in addition to the Civil Rights – Title VI provisions.

### **MANDATORY CONTRACT LANGUAGE.**

The mandatory language that must be used on AIP funded project contracts is as follows:

#### **GENERAL CIVIL RIGHTS PROVISIONS**

The contractor agrees that it will comply with pertinent statutes, Executive Orders and such rules as are promulgated to ensure 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 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.

This provision also obligates the tenant/concessionaire/lessee or its transferee for the period during which Federal assistance is extended to the airport through the Airport Improvement Program, except where Federal assistance is to provide, or is in the form of personal property; real property or interest therein; 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.

## 7. CIVIL RIGHTS – TITLE VI ASSURANCES.

Appropriate clauses from the Standard DOT Title VI Assurances must be included in all contracts and solicitations. The clauses are as follows:

- 1) Title VI Solicitation Notice
- 2) Title VI Clauses for Compliance with Nondiscrimination Requirements.
- 3) Title VI Required Clause for Land Interests Transferred from the United States
- 4) Title VI Required Clause for Real Property Acquired Or Improved by the sponsor subject to the nondiscrimination Acts and Regulations.
- 5) Clauses for Construction/Use/Access to Real Property Acquired Under the Activity, Facility or Program
- 6) Title VI List Of Pertinent Nondiscrimination Statutes And Authorities

### APPLICABILITY.

The sponsor must insert the **Title VI Solicitation Notice** in:

- 1) All solicitations for bids, requests for proposals work, or material subject to the nondiscrimination acts and regulations made in connection with Airport Improvement Program grants; and
- 2) All proposals for negotiated agreements regardless of funding source

The Sponsor must insert the **Title VI required contract clause** and the **Title VI list of Pertinent Nondiscrimination Statutes and Authorities** in every contract or agreement, unless the sponsor has determined and the FAA has agreed, that the contract or agreement is not subject to the nondiscrimination Acts and the Regulations.

The sponsor must insert the clauses of **Title VI Clauses for Deeds Transferring United States Property**, as a covenant running with the land, in any deed from the United States effecting or recording a transfer of real property, structures, use, or improvements thereon or interest therein to a sponsor.

The sponsor must include the **Title VI Clauses for Transfer of Real Property Acquired or Improved Under the Activity, Facility, Or Program**, the **Title VI Clauses for Construction/Use/Access to Real Property Acquired Under the Activity, Facility or Program**, and the **Title VI List of Pertinent Nondiscrimination Authorities**, as a covenant running with the land, in any future deeds, leases, licenses, permits, or similar instruments entered into by the sponsor with other parties:

- 1) For the subsequent transfer of real property acquired or improved under the applicable activity, project, or program; and
- 2) For the construction or use of, or access to, space on, over, or under real property acquired or improved under the applicable activity, project, or program.

### MANDATORY CONTRACT LANGUAGE.

#### **Title VI Solicitation Notice**

(Source: Appendix 4 of FAA Order 1400.11, Nondiscrimination in Federally-Assisted Programs at the Federal Aviation Administration)

#### **Title VI Solicitation Notice:**

The sponsor, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations, hereby notifies all bidders that it will affirmatively ensure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.

#### **Title VI Clauses for Compliance with Nondiscrimination Requirements**

(Source: Appendix A of Appendix 4 of FAA Order 1400.11, Nondiscrimination in Federally-Assisted Programs at the Federal Aviation Administration)

#### **Compliance with Nondiscrimination Requirements**

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:

1. **Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the **Title VI List of Pertinent Nondiscrimination Statutes and Authorities**, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. **Non-discrimination:** The contractor, with regard to the work performed by it during the contract, will 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 will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR part 21.
3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** 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 will be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.
4. **Information and Reports:** The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the sponsor or the Federal Aviation Administration to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the sponsor or the Federal Aviation Administration, as appropriate, and will set forth what efforts it has made to obtain the information.
5. **Sanctions for Noncompliance:** In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the sponsor will impose such contract sanctions as it or the Federal Aviation Administration may determine to be appropriate, including, but not limited to:
  - a. Withholding payments to the contractor under the contract until the contractor complies; and/or
  - b. Cancelling, terminating, or suspending a contract, in whole or in part.
6. **Incorporation of Provisions:** The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the sponsor or the Federal Aviation Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the sponsor to enter into any litigation to protect the interests of the sponsor. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

**Title VI Clauses for Deeds Transferring United States Property**

(Source: Appendix B of Appendix 4 of FAA Order 1400.11, Nondiscrimination in Federally-Assisted Programs at the Federal Aviation Administration)

**CLAUSES FOR DEEDS TRANSFERRING UNITED STATES PROPERTY (As Applicable)**

The following clauses will be included in deeds effecting or recording the transfer of real property, structures, or improvements thereon, or granting interest therein from the United States pursuant to the provisions of the Airport Improvement Program grant assurances.

**NOW, THEREFORE**, the Federal Aviation Administration as authorized by law and upon the condition that the (**Title of Sponsor**) will accept title to the lands and maintain the project constructed thereon in accordance with (**Name of Appropriate Legislative Authority**), for the (**Airport Improvement Program or other program for which land is transferred**), and the policies and procedures prescribed by the Federal Aviation Administration of the U.S. Department of Transportation in accordance and in compliance with all requirements imposed by Title 49, Code of Federal Regulations, U.S. Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation pertaining to and effectuating the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252; 42 U.S.C. § 2000d to 2000d-4), does hereby remise, release, quitclaim and convey unto the (**Title of Sponsor**) all the right, title and interest of the U.S. Department of Transportation/Federal Aviation Administration in and to said lands described in (**Exhibit A attached hereto or other exhibit describing the transferred property**) and made a part hereof.

**(HABENDUM CLAUSE)**

**TO HAVE AND TO HOLD** said lands and interests therein unto (**Title of Sponsor**) and its successors forever, subject, however, to the covenants, conditions, restrictions and reservations herein contained as follows, which will remain in effect for the period during which the real property or structures are used for a purpose for which Federal financial assistance is extended or for another purpose involving the provision of similar services or benefits and will be binding on the (**Title of Sponsor**), its successors and assigns.

The (**Title of Sponsor**), in consideration of the conveyance of said lands and interests in lands, does hereby covenant and agree as a covenant running with the land for itself, its successors and assigns, that (1) no person will on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination with regard to any facility located wholly or in part on, over, or under such lands hereby conveyed [.] [and]\* (2) that the (**Title of Sponsor**) will use the lands and interests in lands and interests in lands so conveyed, in compliance with all requirements imposed by or pursuant to Title 49, Code of Federal Regulations, U.S. Department of Transportation, Subtitle A, Office of the Secretary, Part 21, Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, Effectuation of Title VI of the Civil Rights Act of 1964, and as said Regulations and Acts may be amended[, and (3) that in the event of breach of any of the above-mentioned non-discrimination conditions, the Department will have a right to enter or re-enter said lands and facilities on said land, and that above described land and facilities will thereon revert to and vest in and become the absolute property of the Federal Aviation Administration and its assigns as such interest existed prior to this instruction].\*

(\*Reverter clause and related language to be used only when it is determined that such a clause is necessary in order to make clear the purpose of Title VI.)

#### **Title VI Clauses for Transfer of Real Property Acquired or Improved Under the Activity, Facility, or Program**

(Source: Appendix C of Appendix 4 of FAA Order 1400.11, Nondiscrimination in Federally-Assisted Programs at the Federal Aviation Administration)

#### **CLAUSES FOR TRANSFER OF REAL PROPERTY ACQUIRED OR IMPROVED UNDER THE ACTIVITY, FACILITY, OR PROGRAM (As Applicable)**

The following clauses will be included in deeds, licenses, leases, permits, or similar instruments entered into by the (**Title of Sponsor**) pursuant to the provisions of the Airport Improvement Program grant assurances.

- A. The (grantee, lessee, permittee, etc. as appropriate) for himself/herself, his/her heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree [in the case of deeds and leases add "as a covenant running with the land"] that:
  1. In the event facilities are constructed, maintained, or otherwise operated on the property described in this (deed, license, lease, permit, etc.) for a purpose for which a Federal Aviation Administration activity, facility, or program is extended or for another purpose involving the provision of similar services or benefits, the (grantee, licensee, lessee, permittee, etc.) will maintain and operate such facilities and services in compliance with all requirements imposed by the Nondiscrimination Acts and Regulations listed in the Pertinent List of Nondiscrimination Authorities (as may be amended) such that no person on the grounds of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities.
- B. With respect to licenses, leases, permits, etc., in the event of breach of any of the above Nondiscrimination covenants, (**Title of Sponsor**) will have the right to terminate the (lease, license, permit, etc.) and to enter, re-enter, and repossess said lands and facilities thereon, and hold the same as if the (lease, license, permit, etc.) had never been made or issued.\*
- C. With respect to a deed, in the event of breach of any of the above Nondiscrimination covenants, the (**Title of Sponsor**) will have the right to enter or re-enter the lands and facilities thereon, and the above described lands and facilities will there upon revert to and vest in and become the absolute property of the (**Title of Sponsor**) and its assigns.\*

(\*Reverter clause and related language to be used only when it is determined that such a clause is necessary to make clear the purpose of Title VI.)

#### **Title VI Clauses for Construction/Use/Access to Real Property Acquired Under the Activity, Facility or Program**

(Source: Appendix D of Appendix 4 of FAA Order 1400.11, Nondiscrimination in Federally-Assisted Programs at the Federal Aviation Administration)

**CLAUSES FOR CONSTRUCTION/USE/ACCESS TO REAL PROPERTY ACQUIRED UNDER THE ACTIVITY, FACILITY OR PROGRAM (As applicable)**

The following clauses will be included in deeds, licenses, permits, or similar instruments/agreements entered into by (*Title of Sponsor*) pursuant to the provisions of the Airport Improvement Program grant assurances.

- A. The (grantee, licensee, permittee, etc., as appropriate) for himself/herself, his/her heirs, personal representatives, successors in interest, and assigns, as a part of the consideration hereof, does hereby covenant and agree (in the case of deeds and leases add, “as a covenant running with the land”) that (1) no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities, (2) that in the construction of any improvements on, over, or under such land, and the furnishing of services thereon, no person on the ground of race, color, or national origin, will be excluded from participation in, denied the benefits of, or otherwise be subjected to discrimination, (3) that the (grantee, licensee, lessee, permittee, etc.) will use the premises in compliance with all other requirements imposed by or pursuant to the List of Pertinent Nondiscrimination Authorities.
- B. With respect to (licenses, leases, permits, etc.), in the event of breach of any of the above nondiscrimination covenants, (*Title of Sponsor*) will have the right to terminate the (license, permit, etc., as appropriate) and to enter or re-enter and repossess said land and the facilities thereon, and hold the same as if said (license, permit, etc., as appropriate) had never been made or issued.\*
- C. With respect to deeds, in the event of breach of any of the above nondiscrimination covenants, (*Title of Sponsor*) will there upon revert to and vest in and become the absolute property of (*Title of Sponsor*) and its assigns.\*

(\*Reverter clause and related language to be used only when it is determined that such a clause is necessary to make clear the purpose of Title VI.)

**Title VI List of Pertinent Nondiscrimination Authorities**

(Source: Appendix E of Appendix 4 of FAA Order 1400.11, Nondiscrimination in Federally-Assisted Programs at the Federal Aviation Administration)

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the “contractor”) agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d *et seq.*, 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin);
- 49 CFR part 21 (Non-discrimination In Federally-Assisted Programs of The Department of Transportation—Effectuation of Title VI of The Civil Rights Act of 1964);
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 *et seq.*), as amended, (prohibits discrimination on the basis of disability); and 49 CFR part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 *et seq.*), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms “programs or activities” to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act of 1990, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing

entities (42 U.S.C. §§ 12131 – 12189) as implemented by Department of Transportation regulations at 49 CFR parts 37 and 38;

- The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).

## **8. CLEAN AIR AND WATER POLLUTION CONTROL.**

(Reference: 49 CFR § 18.36(i)(12)) Note, when the DOT adopts 2 CFR 200, this reference will change to 2 CFR § 200 Appendix II(G))

### **APPLICABILITY.**

Incorporate in all professional service agreements, construction contracts and subcontracts that exceed \$100,000. (Note that the 2 CFR 200 will raise this level to \$150,000)

### **MANDATORY CONTRACT LANGUAGE.**

#### **CLEAN AIR AND WATER POLLUTION CONTROL**

Contractors and subcontractors agree:

1. That any facility to be used in the performance of the contract or subcontract or to benefit from the contract is not listed on the Environmental Protection Agency (EPA) List of Violating Facilities;
2. To comply with all the requirements of Section 114 of the Clean Air Act, as amended, 42 U.S.C. 1857 et seq. and Section 308 of the Federal Water Pollution Control Act, as amended, 33 U.S.C. 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 Acts, respectively, and all other regulations and guidelines issued thereunder;
3. That, as a condition for the award of this contract, the contractor or subcontractor will notify the awarding official of the receipt of any communication from the EPA indicating that a facility to be used for the performance of or benefit from the contract is under consideration to be listed on the EPA List of Violating Facilities;
4. To include or cause to be included in any construction contract or subcontract which exceeds \$100,000 the aforementioned criteria and requirements.

## **9. CONTRACT WORKHOURS AND SAFETY STANDARDS ACT REQUIREMENTS.**

(Reference: 2 CFR § 200 Appendix II (E))

### **APPLICABILITY.**

Incorporate in all professional service agreements, construction contracts and subcontracts that exceed \$100,000.

### **MANDATORY CONTRACT LANGUAGE.**

#### **CONTRACT WORKHOURS AND SAFETY STANDARDS ACT REQUIREMENTS**

1. Overtime Requirements.

No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic, including watchmen and guards, in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; 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 therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the 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 or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph 1 above, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty 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 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 monies 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. Subcontractors.

The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs 1 through 4 and also a clause requiring the subcontractor 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.

## **10. COPELAND “ANTI-KICKBACK” ACT.**

(Reference: 2 CFR § 200 Appendix II(D), 29 CFR parts 3 & 5)

### **APPLICABILITY.**

Incorporate into all construction contracts and subcontracts that exceed \$2,000 and are financed under the AIP program.

### **MANDATORY CONTRACT LANGUAGE.**

The United States Department of Labor Wage and Hours Division oversees the Copeland “Anti-Kickback” Act requirements. All contracts and subcontracts must meet comply with the Occupational Safety and Health Act of 1970.

United States Department of Labor Wage and Hours Division can provide information regarding any specific clauses or assurances pertaining to the Copeland “Anti-Kickback” Act requirements required to be inserted in solicitations, contracts or subcontracts.

## **11. DAVIS-BACON REQUIREMENTS.**

(Reference: 2 CFR § 200 Appendix II(D))

### **APPLICABILITY.**

Incorporate into all construction contracts and subcontracts that exceed \$2,000 and are financed under the AIP program.

### **MANDATORY CONTRACT LANGUAGE.**

The mandatory language is as follows:

#### **DAVIS-BACON REQUIREMENTS**

##### **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 the Secretary of Labor under the Copeland Act (29 CFR Part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalent thereof) due

at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

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 provisions of paragraph (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 29 CFR Part 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 (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 easily be seen by the workers.

(ii)(A) The contracting officer shall require that any class of laborers or mechanics, including helpers, 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 or the 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 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 work, all or part of the wages required by the contract, the Federal Aviation Administration 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 worker, 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 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 costs incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship 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 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request 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 them to the applicant, sponsor, or owner, as the case may be, for transmission to the Federal Aviation Administration, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the sponsoring government agency (or the applicant, sponsor, or owner).

(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 provided under 29 CFR § 5.5(a)(3)(ii), the appropriate information is being maintained under 29 CFR § 5.5 (a)(3)(i) and that such information is correct and complete;
- (2) That each laborer and 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 Sponsor, the Federal Aviation Administration 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 an 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 that 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 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. In the event the Employment and Training Administration withdraws approval of a training program, the contractor 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 any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR Part 5.5.

#### 7. Contract Termination: Debarment.

A breach of the contract clauses in paragraph 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 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 reference 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.

## **12. DEBARMENT AND SUSPENSION (NON-PROCUREMENT).**

(Reference: 2 CFR part 180 (Subpart C), 2 CFR part 1200, DOT Order 4200.5 DOT Suspension & Debarment Procedures & Ineligibility)

### **APPLICABILITY.**

The contract agreement that ultimately results from this solicitation is a "covered transaction" as defined by Title 2 CFR Part 180. Bidder must certify at the time they submit their proposal that neither it nor its principals are presently debarred or suspended by any Federal department or agency from participation in this transaction. The bidder with the successful bid further agrees to comply with Title 2 CFR Part 1200 and Title 2 CFR Part 180, Subpart C by administering each lower tier subcontract that exceeds \$25,000 as a "covered transaction".

Incorporate in all contracts and subcontracts that exceed \$25,000.

### **MANDATORY CONTRACT LANGUAGE.**

#### **CERTIFICATE REGARDING DEBARMENT AND SUSPENSION (BIDDER OR OFFEROR)**

By submitting a bid/proposal under this solicitation, the bidder or offeror certifies that at the time the bidder or offeror submits its proposal that neither it nor its principals are presently debarred or suspended by any Federal department or agency from participation in this transaction.

#### **CERTIFICATION REGARDING DEBARMENT AND SUSPENSION (SUCCESSFUL BIDDER REGARDING LOWER TIER PARTICIPANTS)**

The successful bidder, by administering each lower tier subcontract that exceeds \$25,000 as a "covered transaction", must verify each lower tier participant of a "covered transaction" under the project is not presently debarred or otherwise disqualified from participation in this federally assisted project. The successful bidder will accomplish this by:

1. Checking the System for Award Management at website: <http://www.sam.gov>
2. Collecting a certification statement similar to the Certificate Regarding Debarment and Suspension (Bidder or Offeror), above.
3. Inserting a clause or condition in the covered transaction with the lower tier contract

If the FAA later determines that a lower tier participant failed to tell a higher tier that it was excluded or disqualified at the time it entered the covered transaction, the FAA may pursue any available remedy, including suspension and debarment.

### **13. DISADVANTAGED BUSINESS ENTERPRISE.**

(Reference: 49 CFR part 26)

#### **APPLICABILITY.**

The Disadvantaged Business Enterprise requirements found in 49 CFR part 26, apply to all AIP-funded projects and must be included in all contracts and subcontracts. This includes both project with contract goals and project relying on race/gender neutral means.

#### **MANDATORY CONTRACT LANGUAGE.**

The mandatory language that must be used on AIP funded project contracts is as follows. Other than to insert appropriate Sponsor information into the noted spaces, the Sponsor must not modify these contract clauses:

#### **DISADVANTAGED BUSINESS ENTERPRISES**

**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.

**Prompt Payment (§26.29)**- The prime contractor agrees to pay each subcontractor under this prime contract for satisfactory performance of its contract no later than {specify number} days from the receipt of each payment the prime contractor receives from {Name of recipient}. The prime contractor agrees further to return retainage payments to each subcontractor within {specify the same number as above} days after the subcontractor's work is satisfactorily completed. Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of the {Name of Recipient}. This clause applies to both DBE and non-DBE subcontractors.

### **14. ENERGY CONSERVATION REQUIREMENTS.**

(Reference 2 CFR § 200 Appendix II(H))

#### **APPLICABILITY.**

The Energy Conservation Requirements found in 2 CFR § 200 Appendix II(H), apply to all AIP-funded construction and equipment projects and must be included in all contracts and subcontracts.

#### **MANDATORY CONTRACT LANGUAGE.**

The regulation does not prescribe mandatory language, however the following clause represents sample language that meets the intent of 2 CFR § 200 Appendix II(H):

#### **ENERGY CONSERVATION REQUIREMENTS**

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).

### **15. EQUAL OPPORTUNITY CLAUSE AND SPECIFICATIONS.**

(Reference 41 CFR § 60-1.4, Executive Order 11246)

#### **APPLICABILITY.**

Incorporate contract language and specifications into all construction contracts and subcontracts that exceed \$10,000 and are financed under the AIP program.

### **MANDATORY CONTRACT LANGUAGE.**

41 CFR § 60-1.4 provides the mandatory contract language, but allows such necessary changes in language to be made to identify properly the parties and their undertakings. 41 CFR § 60-4.3 provides the mandatory specifications.

### **EQUAL OPPORTUNITY CLAUSE**

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 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, 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 procedures 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 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 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.

### **STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION CONTRACT SPECIFICATIONS**

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 (OFCCP), U.S. 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:

- (1) Black (all) persons having origins in any of the Black African racial groups not of Hispanic origin);
- (2) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin regardless of race);
- (3) 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
- (4) 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 shall 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 18.7a through 18.7p 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 a geographical area 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 in meeting 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 non-working training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees shall be employed by the contractor during the training period and the contractor shall have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees shall 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 onsite 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 at 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 therefore along with whatever additional actions the contractor 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 female 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 agreement; 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 foremen, 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 or 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.
- l. 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 non-segregated except that separate or single user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
- o. 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 supervisor's 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 (18.7a through 18.7p). The efforts of a contractor association, joint contractor union, contractor community, or other similar groups of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 18.7a through 18.7p 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, if the 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 Order if a specific 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 18.7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment 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 number, 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 this 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).

## **16. FEDERAL FAIR LABOR STANDARDS ACT (FEDERAL MINIMUM WAGE).**

(Reference: 29 USC § 201, et seq.)

### **APPLICABILITY.**

The federal minimum wage provisions are contained in the Fair Labor Standards Act (FLSA) which is administered by the United States Department of Labor Wage and Hour Division. All contracts and subcontracts must meet comply with the FLSA, including the recordkeeping standards of the Act.

### **MANDATORY CONTRACT LANGUAGE.**

All contracts and subcontracts that result from this solicitation incorporate the following provisions by reference, with the same force and effect as if given in full text. The contractor has full responsibility to monitor compliance to the referenced statute or regulation. The contractor must address any claims or disputes that pertain to a referenced requirement directly with the Federal Agency with enforcement responsibilities.

Requirement	Federal Agency with Enforcement Responsibilities
Federal Fair Labor Standards Act (29 USC 201)	U.S. Department of Labor – Wage and Hour Division

## 17. LOBBYING AND INFLUENCING FEDERAL EMPLOYEES.

(Reference: 49 CFR part 20, Appendix A)

### APPLICABILITY.

The Lobbying and Influencing Federal Employees prohibition found in 49 CFR part 20, Appendix A, applies to all AIP-funded projects and must be included in all contracts and subcontracts.

### MANDATORY CONTRACT LANGUAGE.

The mandatory language that must be used on AIP funded project contracts is as follows:

#### LOBBYING AND INFLUENCING FEDERAL EMPLOYEES

The bidder or offeror certifies by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

- 1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the bidder or offeror, to any person for influencing or attempting to influence an officer or employee of an 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.

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.

## 18. NONSEGREGATED FACILITIES REQUIREMENT.

(Reference: 41 CFR § 60-1.8)

### APPLICABILITY.

Incorporate in all construction contracts and subcontracts that exceed \$10,000. The notices must be placed within the solicitation for proposals. The actual certification must be incorporated in the contract agreement.

### MANDATORY CONTRACT LANGUAGE AND NOTICE.

#### NOTICE OF NONSEGREGATED FACILITIES REQUIREMENT

#### Notice to Prospective Federally Assisted Construction Contractors

1. A Certification of Non-segregated Facilities shall be submitted prior to the award of a federally-assisted construction contract exceeding \$10,000 which is not exempt from the provisions of the Equal Opportunity Clause.
2. Contractors receiving federally-assisted construction contract awards exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause will be required to provide for the forwarding of the following notice to prospective subcontractors for supplies and construction contracts where the subcontracts exceed \$10,000 and are not exempt from the provisions of the Equal Opportunity Clause.

3. The penalty for making false statements in offers is prescribed in 18 U.S.C. § 1001.

**Notice to Prospective Subcontractors of Requirements for Certification of Non-Segregated Facilities**

1. A Certification of Non-segregated Facilities shall be submitted prior to the award of a subcontract exceeding \$10,000, which is not exempt from the provisions of the Equal Opportunity Clause.

2. Contractors receiving subcontract awards exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause will be required to provide for the forwarding of this notice to prospective subcontractors for supplies and construction contracts where the subcontracts exceed \$10,000 and are not exempt from the provisions of the Equal Opportunity Clause.

3. The penalty for making false statements in offers is prescribed in 18 U.S.C. § 1001.

**CERTIFICATION OF NONSEGREGATED FACILITIES**

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, time clocks, 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 subcontractors prior to the award of 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.

**19. OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970.**

(Reference 20 CFR part 1910)

**APPLICABILITY.**

The United States Department of Labor Occupational Safety & Health Administration (OSHA) oversees the workplace health and safety standards wage provisions from the Occupational Safety and Health Act of 1970. All contracts and subcontracts must meet comply with the Occupational Safety and Health Act of 1970.

**MANDATORY CONTRACT LANGUAGE.**

All contracts and subcontracts that result from this solicitation incorporate the following provisions by reference, with the same force and effect as if given in full text. The contractor has full responsibility to monitor compliance to the referenced statute or regulation. The contractor must address any claims or disputes that pertain to a referenced requirement directly with the Federal Agency with enforcement responsibilities.

<b>Requirement</b>	<b>Federal Agency with Enforcement Responsibilities</b>
Occupational Safety and Health Act of 1970 (20 CFR Part 1910)	U.S. Department of Labor – Occupational Safety and Health Administration

**20. RIGHT TO INVENTIONS.**

(Reference 2 CFR § 200 Appendix II(F))

**APPLICABILITY.**

The requirement for rights to inventions and materials found in 2 CFR § 200 Appendix II(F) applies to all AIP-funded projects and must be included in all contracts and subcontracts.

**MANDATORY CONTRACT LANGUAGE.**

The regulation does not prescribe mandatory language, however the following clause represents sample language that meets the intent of 2 CFR § 200 Appendix II(F).

**RIGHTS TO INVENTIONS**

All rights to inventions and materials generated under this contract are subject to requirements and regulations issued by the FAA and the Sponsor of the Federal grant under which this contract is executed.

**21. TERMINATION OF CONTRACT.**

(Reference 2 CFR § 200 Appendix II(B))

**APPLICABILITY.**

Incorporate in all contracts and subcontracts that exceed \$10,000.

**MANDATORY CONTRACT LANGUAGE.**

**TERMINATION OF CONTRACT**

- a. The Sponsor may, by written notice, terminate this contract in whole or in part at any time, either for the Sponsor's convenience or because of failure to fulfill the contract obligations. Upon receipt of such notice services must 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 Sponsor.
- b. If the termination is for the convenience of the Sponsor, an equitable adjustment in the contract price will be made, but no amount will be allowed for anticipated profit on unperformed services.
- c. If the termination is due to failure to fulfill the contractor's obligations, the Sponsor may take over the work and prosecute the same to completion by contract or otherwise. In such case, the contractor is liable to the Sponsor for any additional cost occasioned to the Sponsor thereby.
- d. If, after notice of termination for failure to fulfill contract obligations, it is determined that the contractor had not so failed, the termination will be deemed to have been effected for the convenience of the Sponsor. In such event, adjustment in the contract price will be made as provided in paragraph 2 of this clause.
- e. The rights and remedies of the sponsor provided in this clause are in addition to any other rights and remedies provided by law or under this contract.

**22. TRADE RESTRICTION.**

(Reference: 49 CFR part 30)

**APPLICABILITY.**

The trade restriction clause applies to all AIP-funded projects and must be included in all contracts and subcontracts.

**MANDATORY CONTRACT LANGUAGE.**

The mandatory language is as follows:

**TRADE RESTRICTION CLAUSE**

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 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 person 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 said list for use on the project, the Federal Aviation Administration may direct through the Sponsor 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 on the certification of a prospective subcontractor unless it has knowledge that the certification is erroneous.

The contractor shall provide immediate written notice to the sponsor 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 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 the 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 a false, fictitious, or fraudulent certification may render the maker subject to prosecution under Title 18, United States Code, Section 1001.

## **23. TEXTING WHEN DRIVING.**

(References: Executive Order 13513, and DOT Order 3902.10)

### **APPLICABILITY.**

In accordance with Executive Order 13513, "Federal Leadership on Reducing Text Messaging While Driving" (10/1/2009) and DOT Order 3902.10 "Text Messaging While Driving" (12/30/2009), FAA encourages recipients of Federal grant funds to adopt and enforce safety policies that decrease crashes by distracted drivers, including policies to ban text messaging while driving when performing work related to a grant or sub-grant.

### **MANDATORY CONTRACT LANGUAGE.**

By adopting the Applicability Language, the following contract language will meet the intent and requirement for Texting When Driving:

#### **TEXTING WHEN DRIVING**

In accordance with Executive Order 13513, "Federal Leadership on Reducing Text Messaging While Driving" (10/1/2009) and DOT Order 3902.10 "Text Messaging While Driving" (12/30/2009), FAA encourages recipients of Federal grant funds to adopt and enforce safety policies that decrease crashes by distracted drivers, including policies to ban text messaging while driving when performing work related to a grant or sub-grant.

The Contractor must promote policies and initiatives for employees and other work personnel that decrease crashes by distracted drivers, including policies to ban text messaging while driving. The Contractor must include these policies in each third party subcontract involved on this project.

## 24. VETERAN'S PREFERENCE.

(Reference: 49 USC § 47112(c))

### APPLICABILITY.

The Veteran's preference clause found in 49 USC § 47112(c) applies to all AIP-funded projects and must be included in all contracts and subcontracts that involve labor

### MANDATORY CONTRACT LANGUAGE.

The regulation does not prescribe mandatory language, however the following clause represents sample language that meets the intent of 49 USC § 47112(c) is as follows:

#### VETERAN'S PREFERENCE

In the employment of labor (except in executive, administrative, and supervisory positions), preference must be given to Vietnam era veterans, Persian Gulf veterans, Afghanistan-Iraq war veterans, disabled veterans, and small business concerns owned and controlled by disabled veterans as defined in Title 49 United States Code, Section 47112. However, this preference shall apply only where the individuals are available and qualified to perform the work to which the employment relates.

## 25. APPENDICES.

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.

<u>Economic Area</u>	<u>Goal (percent)</u>
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	3.5

IN - Dubois, Knox, Perry, Pike, Spencer  
 KY - Hancock, Hopkins, McLean, Mublenberg, Ohio, Union, Webster

081 Terre Haute, IN:	
Non-SMSA Counties -	2.5
IL - Clark, Crawford	
IN - Parke	
083 Chicago, IL:	
SMSA Counties:	19.6
1600 Chicago, IL -	
IL - Cook, DuPage, Kane, Lake, McHenry, Will	
3740 Kankakee, IL -	9.1
IL - Kankakee	
Non-SMSA Counties	18.4
IL - Bureau, DeKalb, Grundy, Iroquois, Kendall, LaSalle, Livingston, Putnam	
IN - Jasper, Laporte, Newton, Pulaski, Starke	
084 Champaign - Urbana, IL:	
SMSA Counties:	
1400 Champaign - Urbana - Rantoul, IL -	7.8
IL - Champaign	
Non-SMSA Counties -	4.8
IL - Coles, Cumberland, Douglas, Edgar, Ford, Piatt, Vermilion	
085 Springfield - Decatur, IL:	
SMSA Counties:	
2040 Decatur, IL -	7.6
IL - Macon	
7880 Springfield, IL -	4.5
IL - Mendard, Sangamon	
Non-SMSA Counties	4.0
IL - Cass, Christian, Dewitt, Logan, Morgan, Moultrie, Scott, Shelby	
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 -	2.5
IL - McLean	
6120 Peoria, IL -	4.4
IL - Peoria, Tazewell, Woodford	
Non-SMSA Counties -	3.3
IL - Fulton, Knox, McDonough, Marshall, Mason, Schuyler, Stark, Warren	
088 Rockford, IL:	
SMSA Counties:	
6880 Rockford, IL -	6.3
IL - Boone, Winnebago	
Non-SMSA Counties -	4.6
IL - Lee, Ogle, Stephenson	
098 Dubuque, IA:	
Non-SMSA Counties -	0.5

IL - JoDaviess  
 IA - Atlamakee, Clayton, Delaware, Jackson, Winnesheik  
 WI - Crawford, Grant, Lafayette

099 Davenport, Rock Island, Moline, IA - IL:	
SMSA Counties:	
1960 Davenport, Rock Island, Moline, IA - IL -	4.6
IL - Henry, Rock Island	
IA - Scott	
Non-SMSA Counties -	3.4
IL - Carroll, Hancock, Henderson, Mercer, Whiteside	
IA - Clinton, DesMoines, Henry, Lee, Louisa, Muscatine	
MO - Clark	
107 St. Louis, MO:	
SMSA Counties:	
7040 St. Louis, MO - IL -	14.7
IL - Clinton, Madison, Monroe, St. Clair	
MO - Franklin, Jefferson, St. Charles, St. Louis, St. Louis City	
Non-SMSA Counties -	11.4
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	

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 Contractor 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.

**SECTION III**  
Special Provisions  
for  
**IMPROVE RUNWAY 8/26 SAFETY AREA**

**ILLINOIS PROJECT: 3CK-4404**  
**S.B.G. PROJECT: 3-17-SBGP-XX**

At

LAKE IN THE HILLS AIRPORT  
LAKE IN THE HILLS, ILLINOIS

December 3, 2015

Prepared By:

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

14255-01-00

DANIEL L. TAPPIN  
062-047260  
REGISTERED  
PROFESSIONAL  
ENGINEER  
ILLINOIS  
D. TAPPIN  
EXPIRES 12/30/17

**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 Lake in the Hills Airport, Lake in the Hills, 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.

**INDEX TO SPECIAL PROVISIONS**

<b><u>ITEM – DESCRIPTION</u></b>	<b><u>PAGE NUMBER</u></b>
<b>DIVISION I – GENERAL PROVISIONS</b>	<b>1</b>
SECTION 40 – Scope of Work .....	1
SECTION 50 – Control Of Work .....	2
SECTION 60 – Control Of Materials .....	3
SECTION 70 – Legal Relations And Responsibility To Public .....	4
SECTION 80 – Prosecution And Progress .....	5
SECTION 90 – Measurement And Payment .....	5
<b>DIVISION II – PAVING CONSTRUCTION DETAILS</b>	<b>6</b>
ITEM 150510 – Engineer's Field Office .....	6
ITEM 150520 – Mobilization.....	7
ITEM 152000 – Excavation And Embankment .....	8
ITEM 152531 – Exploration Trench .....	12
ITEM 152540 – Soil Stabilization Fabric .....	14
ITEM 152620 – Foundation Removal .....	15
ITEM 156000 – Erosion Control.....	17
ITEM 208515 – Porous Granular Embankment.....	20
ITEM 209000 – Crushed Aggregate Base Course .....	23
ITEM 401000 – Bituminous Surface Course - Superpave (Method I) .....	25
ITEM 401650 – Bituminous Pavement Milling .....	26
ITEM 401900 – Remove Bituminous Pavement.....	27
ITEM 403000 – Bituminous Base Course - Superpave (Method I).....	28
ITEM 510500 – Tie Down/Ground Rod.....	29
ITEM 602000 – Bituminous Prime Coat.....	30
ITEM 603000 – Bituminous Tack Coat .....	31
ITEM 610000 – Structural Portland Cement Concrete .....	32
ITEM 620000 – Pavement Marking .....	34

<b>DIVISION III – FENCING</b>	<b>36</b>
ITEM 162000 – Chain Link Fence .....	36
ITEM 163000 – Construction Fencing .....	39
<b>DIVISION IV – DRAINAGE</b>	<b>40</b>
ITEM 701000 – Pipe For Storm Sewers And Culverts .....	40
ITEM 705000 – Pipe Underdrains For Airports.....	41
ITEM 751000 – Manholes, Catch Basins, Inlets & Inspection Holes.....	44
ITEM 752000 – Concrete Culverts, Headwalls and Misc. Drainage Structures .....	45
ITEM 754000 – Concrete Gutters, Ditches, and Flumes .....	46
<b>DIVISION V – TURFING</b>	<b>47</b>
ITEM 901000 – Seeding .....	47
ITEM 905000 – Topsoiling .....	50
ITEM 908000 – Mulching .....	52
<b>DIVISION VI - LIGHTING INSTALLATION</b>	<b>53</b>
ITEM 108000 – Installation Of Underground Cable For Airports .....	53
ITEM 110000 – Installation Of Airport Underground Electrical Duct .....	56
ITEM 125000 – Installation Of Airport Lighting Systems .....	59
<b>DIVISION VIII – MISCELLANEOUS</b>	<b>65</b>
ITEM 770908 – Remove Septic System .....	65
ITEM 800024 – Building Demolition.....	67
ITEM 800037 – Hangar Relocation.....	70
ITEM 800053 – Electrical Service .....	72
ITEM 800120 – Hangar Foundation and Floor .....	74
ITEM 800142 – Relocate Flag Pole .....	77
ITEM 910000 – Roadway Signage .....	78
<b>IDOT DIVISION OF AERONAUTICS POLICY MEMORANDA</b>	<b>A</b>
<b>IDOT DESIGN STANDARDS</b>	<b>B</b>
<b>STORM WATER POLLUTION PREVENTION PLAN</b>	<b>C</b>
<b>ENVIORMENTAL HAZARD REQUIREMENTS FOR BUILDING RELOCATION</b>	<b>D</b>

---

**POLICY MEMORANDA – APPENDIX A INDEX**

---

- 87-2 DENSITY ACCEPTANCE OF BITUMINOUS PAVEMENTS
- 87-4 DETERMINATION OF BULK SPECIFIC GRAVITY (d) OF COMPACTED BITUMINOUS MIXES
- 96-1 ITEM 610, STRUCTURAL PORTLAND CEMENT CONCRETE: JOB MIX FORMULA APPROVAL & PRODUCTION TESTING
- 96-2 REQUIREMENTS FOR LABORATORY, TESTING, QUALITY CONTROL, AND PAVING OF HMA CONCRETE MIXTURES
- 96-3 REQUIREMENTS FOR QUALITY ASSURANCE ON PROJECTS WITH BITUMINOUS CONCRETE PAVING
- 97-2 PAVEMENT MARKING PAINT ACCEPTANCE
- 2001-1 REQUIREMENTS FOR COLD WEATHER CONCRETING
- 2003-1 REQUIREMENTS FOR LABORATORY, TESTING, QUALITY CONTROL, AND PAVING OF SUPERPAVE BITUMINOUS CONCRETE MIXTURES FOR AIRPORTS

---

**IDOT DESIGN STANDARDS – APPENDIX B INDEX**

---

- 601101-01 CONCRETE HEADWALL FOR PIPE DRAIN
- 602401-03 MANHOLE TYPE A
- 602406-06 MANHOLE TYPE A 6' DIAMETER
- 602416-04 MANHOLE TYPE A 8' DIAMETER
- 602701-02 MANHOLE STEPS
- 604001-04 FRAME AND LIDS TYPE 1

## **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. **The Contractor shall have a sweeper on site and maintain all 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 not 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 not 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) Operational Safety on Airports During Construction.

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: Lake in the Hills Airport

PROJECT TITLE: Improve Runway 8/26 Safety Area;  
Construct Taxiway A Extension

PROJECT NUMBERS: IL Project: 3CK-4404

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 **sole** responsibility of the Contractor to ensure the submittal of adequate and accurate documentation in order to satisfy the contract material certification requirements **prior** 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 MANUAL FOR DOCUMENTATION OF AIRPORT MATERIALS 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 **not** 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 3 working day (72 hour) 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:

#### **LAKE IN THE HILLS AIRPORT**

<b><u>Utility Service or Facility</u></b>	<b><u>Contact (Person)</u></b>	<b><u>Contact (Phone)</u></b>
Airfield Utilities	Mike Peranich – Airport Manager	815-479-7960
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
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	

## **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. Statements:

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**

#### **150-2.1**

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**

#### **150-3.1**

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**

**150-3.1**

ADD:

Payment will be made under:

**ITEM AR150520      MOBILIZATION – PER LUMP SUM.**

## **ITEM 152000 – EXCAVATION AND EMBANKMENT**

### **DESCRIPTION**

#### **152-1.1**

ADD:

All excess excavation material shall be hauled to onsite stockpiles as shown on the Plans or as designated by the Resident Engineer at no additional cost to the contract. Clean Construction Demolition Debris (CCDD) testing will be required to be completed by the Contractor at no additional cost to the contract only for those materials, earth or otherwise, that are to be disposed of offsite.

Compaction control tests shall be in accordance with ASTM D698 (Standard Proctor) for aircraft weights of less than 60,000.

#### **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. 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 9<sup>th</sup> 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 D698 (Standard Proctor) for aircraft weights of less than 60,000 pounds. 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 5<sup>th</sup> paragraph of this section and REPLACE with:

Any excess excavation material shall be hauled to onsite stockpiles as shown on the Plans or as designated by the Resident Engineer 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**

#### **152-3.2**

DELETE: This section.

#### **152-3.3**

DELETE: This section.

### **BASIS OF PAYMENT**

#### **152-4.1**

DELETE: This section.

#### **152-4.2**

DELETE: This section.

#### **152-4.3**

DELETE: This section.

#### **152-4.4**

DELETE: This section.

#### **152-4.5**

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 AS152410 UNCLASSIFIED EXCAVATION – PER CUBIC YARD.**

## **ITEM 152531 – EXPLORATION TRENCH**

### **DESCRIPTION**

#### **152-1.1**

This item shall consist of constructing an exploratory trench for the purpose of locating existing utilities or other obstructions within the construction limits of the proposed improvements as directed by the Engineer. Specifically, this item is to identify the depth of the existing gas main at locations where proposed improvements cross to identify if a conflict exists.

The Contractor shall have the option of using mechanical trenching or vacuum excavation equipment for the purposes of locating existing utilities.

### **EQUIPMENT AND MATERIALS**

#### **152-2.1**

The locating trench shall be excavated using mechanical trenching equipment.

Vacuum equipment shall be truck mounted with a minimum 1000 cfm vacuum, 15" Hg and 4" hose.

### **CONSTRUCTION METHODS**

#### **152-3.1**

Exploratory excavation of the gas main is required within two weeks after the time the contract commences. The Contractor shall determine the depth of the existing gas main at critical locations designated in the field by the Resident Engineer.

The location of the trench shall be as directed by the Engineer and shall be 18" minimum in width and not less than 72" in depth measured from the existing ground elevation so as to allow for proper investigation of the trench. When an existing utility or obstruction is encountered, each side of the locating trench shall be excavated to a distance of ten feet to establish the line and grade of the item. Any tile or underdrain disturbed shall be immediately repaired and no surface runoff shall be allowed to enter into the tile or drain.

The depth of the trench shall be as necessary to uncover the existing utilities or other obstructions and of adequate width to allow investigation of the investigated item in the trench.

The exploration trenches shall be excavated at the locations required by the Engineer.

#### **152-3.2**

After the trench has been inspected by the Engineer, the excavated material shall be used to backfill the trench. The Contractor shall repair all areas disturbed by the construction of the locating trench to its original condition. The restoration shall include any necessary topsoiling, seeding, fertilizing and mulching or aggregate backfill and compaction under paved areas. All restoration shall conform to the Standard Specifications and/or these Special Provisions.

**METHOD OF MEASUREMENT**

**152-4.1**

The locating trench will be measured for payment in lineal feet of actual trench constructed and accepted. The exposure distance of ten feet on either side of the utility or obstruction will not be measured for payment.

The Engineer will not differentiate between mechanical excavation or vacuum excavation for the purpose of measurement.

**BASIS OF PAYMENT**

**152-5.1**

The locating trench shall be paid for at the contract unit price per linear foot, which shall be full compensation for all materials, equipment, labor, tools and any necessary incidentals required to complete this item of work. The landscaping including grading and topsoiling required to restore the areas of trenching or aggregate backfill and compaction under paved areas shall not be paid for separately, but shall be considered incidental to this item.

Payment will be made under:

**ITEM AR152531      EXPLORATION TRENCH - PER LINEAR FOOT.**

**ITEM 152540 – SOIL STABILIZATION FABRIC**

**BASIS OF PAYMENT**

**152-5.1**

ADD:

Payment will be made under:

**ITEM AR152540      SOIL STABILIZATION FABRIC – PER SQUARE YARD.**

**ITEM AS152540      SOIL STABILIZATION FABRIC – PER SQUARE YARD.**

## **ITEM 152620 – FOUNDATION REMOVAL**

### **DESCRIPTION**

#### **152-1.1**

This item shall consist of removing the foundations of existing hangars to be relocated. This item does not include the removal of the foundation for the demolition of the existing airport administration building.

### **EQUIPMENT AND MATERIALS**

#### **152-2.1**

Burning of any structure or removal material will not be allowed in the performance of this work. The use of explosives will not be permitted in the performance of this work.

### **CONSTRUCTION METHODS**

#### **152-3.1**

The Contractor shall make his own investigation into the types of materials to be encountered during foundation removal. Record drawings of the initial construction for the hangars to be relocated are unavailable. At a minimum, the Contractor shall assume that the foundations consist of a floor slab, with a 12" wide x 12" deep strip footing supporting an 8" wide wall that is 3-feet in height.

#### **152-3.2**

The existing foundation shall be fully removed to a depth of 3-feet below finished subgrade elevation.

#### **152-3.3**

The remaining hole or void which exists following the foundation removal shall be filled to within 4" of existing adjacent ground level (outside of proposed pavement limits) and to subgrade elevations (within proposed pavement limits) with sand or clay material in conformance with Section 152 of the specifications. Topsoil material shall be placed in the top 4" of the fill in areas outside of proposed pavements. The site shall be graded as designated on the plans. Areas outside of the grading limits shall be graded to drain.

Any unfilled hole, void, or any other hazard left unattended during periods of inactivity shall be properly fenced or protected by the Contractor. Care shall be taken to prevent the spread of dust and flying particles. After the demolition has begun, the work shall be carried on promptly and expeditiously until finished.

The Contractor shall break all concrete floors, pads, ramps and foundation walls into pieces not exceeding two feet (2') square. All floor drains, sanitary sewers or incoming waterlines shall be abandoned to the satisfaction of the Engineer. The Contractor shall remove all contents and miscellaneous materials from within the structure and dispose of said materials at an approved/licensed landfill or dumping area.

The Contractor shall leave the site free of rubble and debris and in a condition satisfactory to the Engineer. All rubble and debris shall be disposed of by the Contractor off the airport property at a landfill or approved dumping area. The Contractor shall provide the Engineer with a ticket or receipt from the landfill or dumping area for each load of material hauled from the project site.

**METHOD OF MEASUREMENT**

**152-4.1**

Foundation removal will be measured for payment in square yards of foundation removed in plan view. No additional measurements shall be made for the depth of vertical removal required to remove the foundation to 3-feet below proposed finished subgrade.

Backfill and compaction of the void left after removal shall not be measured for payment.

**BASIS OF PAYMENT**

**152-5.1**

Foundation Removal shall be paid for at the contract unit price per square, which shall be full compensation for all materials, equipment, labor, tools and any necessary incidentals required to complete this item of work. The landscaping including grading and topsoiling required to restore the areas of foundation removal outside the limits of grading shall not be paid for separately, but shall be considered incidental to this item.

Payment for backfilling the resultant void with unclassified excavation material will not be paid for separately.

Removal of the foundation for the airport administration building shall not be paid under this item and is included within the work for Item AR800024, BUILDING DEMOLITION.

Payment will be made under:

**ITEM AR152620      FOUNDATION REMOVAL – 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.

#### **156-2.8 EROSION CONTROL BLANKET**

ADD:

Erosion Control Blanket shall conform to Article 1081.10(b) of the Standard Specifications for Road and Bridge Construction. The blanket shall be secured with biodegradable stakes in accordance with Article 1081.10(e). Metal staples and/or stakes will not be allowed.

### **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.

#### **156-3.8 EROSION CONTROL BLANKET**

ADD:

Erosion Control Blanket shall be placed in accordance with Article 251.04 of the Standard Specifications for Road and Bridge Construction.

Within 24 hours from the time seeding has been performed, the blanket shall be placed. Prior to placing the mat or blanket, the areas to be covered shall be relatively free of all rocks or clods over 1-½ inches in diameter, and all sticks or other foreign material that will prevent the close contact of the mat or blanket with the seed bed. If as a result of a rain, the prepared seed bed becomes crusted or eroded, or if the eroded places, ruts or depressions exist for any reason, the Contractor will be required to rework the soil until it is smooth and to reseed such areas which are reworked. After the area has been properly shaped, fertilized and seeded, the mat or blanket shall be laid out flat, evenly and smoothly, without stretching the material.

The blanket shall be laid in accordance with the manufacturer's recommendations. All ends and edges shall be tightly butted together.

The blanket shall be held in place by means of stakes. The stakes shall be driven at a 90-degree angle to the plane of the soil. Stakes shall be spaced not more than 3 feet apart in 3 rows for each strip, with

a row along each edge and one row alternately spaced in the middle. All ends shall be fastened by stakes spaced 6 inches apart across the width.

Once turf growth has been established, all non-biodegradable components shall be removed by the contractor. This would include any item that would interfere with the mowing of the new turf or which might damage mowing equipment. Furthermore, the contractor shall fill with topsoil or smoothly grade any ruts or gullies that developed during the turf grow in period to the satisfaction of the Owner. This work shall be considered incidental to this item.

**156-3.9**

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**

**156-4.2**

DELETE: This section.

**156-4.3**

REVISE: This section to read:

Temporary Seeding shall be measured for payment per acre for one application only. Subsequent temporary seeding required due to non-establishment or further construction operations shall be considered as maintenance and shall not be measured for further payment, but shall be considered incidental to the contract. Temporary mulching shall not be measured for payment but shall be considered incidental to Temporary Seeding.

**156-4.4**

DELETE: This section.

**BASIS OF PAYMENT**

**156-5.1**

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 Checks, at the contract unit price per each for Inlet Protection and at the contract unit per square yards for Erosion Control Blanket. 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.

Payment will be made under:

- |                      |   |
|----------------------|---|
| <b>ITEM AR156510</b> | <b>SILT FENCE – PER LINEAR FOOT.</b>              |
| <b>ITEM AR156511</b> | <b>DITCH CHECK – PER EACH.</b>                    |
| <b>ITEM AR156520</b> | <b>INLET PROTECTION – PER EACH.</b>               |
| <b>ITEM AR156530</b> | <b>TEMPORARY SEEDING – PER ACRE.</b>              |
| <b>ITEM AR156531</b> | <b>EROSION CONTROL BLANKET – PER SQUARE YARD.</b> |
| <br>                 |   |
| <b>ITEM AS156531</b> | <b>EROSION CONTROL BLANKET – PER SQUARE YARD.</b> |

## ITEM 208515 – POROUS GRANULAR EMBANKMENT

### 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

<u>Sieve Size</u>	<u>Percent Passing</u>
*4"	<b>90<math>\pm</math>10</b>
2"	<b>50<math>\pm</math>25</b>
#200	<b>0<math>\pm</math>10</b>

(b) Gravel or Crushed Gravel

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

#### **208-4.1**

DELETE: This Entire Section.

#### **208-4.2**

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.

#### **208-4.3**

DELETE: This Entire Section.

### **BASIS OF PAYMENT**

#### **208-5.1**

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 AS208515      POROUS GRANULAR EMBANKMENT – PER CUBIC YARD.**

## **ITEM 209000 – 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 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 less (Standard Proctor ASTM D698).

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**

#### **209-4.1**

DELETE: This Entire Section.

#### **209-4.2**

DELETE: This Entire Section.

ADD:

The Crushed Aggregate Base Course – 8” 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.

#### **209-4.3**

DELETE: This Entire Section.

**BASIS OF PAYMENT**

**209-5.1**

DELETE: Entire Section.

ADD:

Payment shall be made at the contract unit price per square yard for Crushed Aggregate Base Course – 8". 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 AR209608      CRUSHED AGG. BASE COURSE – 8" – PER SQUARE YARD.**

**ITEM AS209608      CRUSHED AGG. BASE COURSE – 8" – PER SQUARE YARD.**

## **ITEM 401000 – 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 under 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**

#### **401-6.1**

Payment will be made under:

**ITEM AR401610 BITUMINOUS SURFACE COURSE – PER TON.**

**ITEM AS401610 BITUMINOUS SURFACE COURSE – PER TON.**

## **ITEM 401650 – BITUMINOUS PAVEMENT MILLING**

### **DESCRIPTION**

#### **401-1.1**

ADD:

At the Airport's discretion, some or all of the millings may be stockpiled at the Airport for use on future projects. Should the Airport not elect to retain any portion of the millings, the Contractor shall dispose of the millings offsite at no additional cost to the contract. Material shall be stockpiled at the location(s) shown in the Plans or as directed by the Resident Engineer.

A portion of the millings will be used to construct a perimeter road at the South Transient Apron Site as shown in the Plans.

### **CONSTRUCTION METHODS**

#### **401-3.1**

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**

#### **401-5.1**

ADD:

Placement and compaction of millings for the perimeter road at the South Transient Apron Site will not be paid and shall be considered incidental to the contract.

Payment will be made under:

**ITEM AR401650      BITUMINOUS PAVEMENT MILLING – PER SQUARE YARD.**

## **ITEM 401900 – REMOVE BITUMINOUS PAVEMENT**

### **DESCRIPTION**

#### **401-1.1**

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. **No extra compensation will be allowed for any variations in the pavement sections actually encountered.**

Should the Contractor elect to remove the existing bituminous pavement by the milling method, at the Airport's discretion, some or all of the millings shall be stockpiled at the Airport for use on future projects. Should the Airport not elect to retain any portion of the millings, the Contractor shall dispose of the millings offsite at no additional cost to the contract. Pavement areas removed not by milling shall be disposed of offsite at no additional cost to the contract.

### **CONSTRUCTION METHODS**

#### **401-2.1**

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**

#### **401-3.1**

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 not be measured for payment.

### **BASIS OF PAYMENT**

#### **401-5.1**

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 bituminous pavement removal.

Payment will be made under:

**ITEM AR401900 REMOVE BITUMINOUS PAVEMENT – PER SQUARE YARD.**

**ITEM AS401900 REMOVE BITUMINOUS PAVEMENT – PER SQUARE YARD.**

## **ITEM 403000 – 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 under 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**

#### **403-6.1**

Payment will be made under:

**ITEM AR403610 BITUMINOUS BASE COURSE – PER TON.**

**ITEM AS403610 BITUMINOUS BASE COURSE – PER TON.**

**ITEM 510500 – TIE DOWN/GROUND ROD**

**MATERIALS**

**510500-2.1**

ADD:

Materials required for this item shall include mooring eyes (Neenah R-3490 or approved equal), and all necessary anchor rods and 610 concrete to install and secure the mooring eyes.

**BASIS OF PAYMENT**

**510500-5.1**

ADD:

Payment will be made under:

**ITEM AR510510      TIE DOWN – PER EACH.**

**ITEM AS510510      TIE DOWN – PER EACH.**

## **ITEM 602000 – BITUMINOUS PRIME COAT**

### **MATERIALS**

#### **602-2.1 BITUMINOUS MATERIAL**

ADD:

At the Contractor's option, Penetrating Emulsified Prime (PEP) may be used. The use of PEP shall be as outlined in the Standard Specifications for Road and Bridge Construction, Article 403.02.

### **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**

#### **602-5.1**

ADD:

Payment will be made under:

**ITEM AR602510 BITUMINOUS PRIME COAT – PER GALLON.**

**ITEM AS602510 BITUMINOUS PRIME COAT – PER GALLON.**

**ITEM 603000 – BITUMINOUS TACK COAT**

**MATERIALS**

**603-2.1 BITUMINOUS MATERIAL**

ADD:

At the Contractor's option, Penetrating Emulsified Prime (PEP) may be used. The use of PEP shall be as outlined in the Standard Specifications for Road and Bridge Construction, Article 403.02.

**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**

**603-5.1**

ADD:

Payment will be made under:

**ITEM AR603510 BITUMINOUS TACK COAT – PER GALLON.**

**ITEM AS603510 BITUMINOUS TACK COAT – PER GALLON.**

## **ITEM 610000 – STRUCTURAL PORTLAND CEMENT CONCRETE**

### **DESCRIPTION**

#### **610-1.1**

ADD:

This item shall consist of furnishing and installing structural concrete to protect existing gas main where less than 2'-6" of cover will be provided after grading operations are complete. Prior to beginning grading operations, the Contractor shall verify the limits of the gas main where insufficient cover will be provided and install the protective pad in accordance with the details shown in the plans.

This item shall not be used to protect existing gas mains where the Contractor elects to continuously cross active gas main. Costs for protective pads or other measures used to protect existing gas main except as noted above shall be borne by the Contractor and no payment will be made.

This item shall not be used to pay for miscellaneous concrete work associated with other items of work, such as, but not limited to tiedowns, sign foundations, etc.

### **MATERIALS**

#### **610-2.9 STEEL REINFORCEMENT**

REVISE:

Welded wire fabric shall be provided for the 8-inch thick concrete protective pad in accordance with the plan details. The welded wire fabric shall provide a minimum of 0.05% area of steel in both directions and meet the requirements of AASHTO M 55, ASTM A 82 or ASTM A 185, plain type, flat stock only.

### **CONSTRUCTION METHODS**

#### **610-3.11 PLACING CONCRETE**

ADD:

Subgrade prepared for the 8-inch thick concrete protective pad shall be compacted to the satisfaction of the Resident Engineer and shall not be soft or yielding. Joints shall be scored at regular intervals not exceeding 10' center to center spacing.

#### **610-3.12 FILLING JOINTS**

REVISE this section to read:

Joints shall not be required to be filled for concrete protective pad(s) constructed under this item.

### **METHOD OF MEASUREMENT**

#### **610-4.3**

ADD:

The quantities of structural Portland Cement Concrete used for fence and gate post foundations, hangar floors, foundations, manholes, concrete encasement for in-ground duct or for any other incidental concrete work shall not be measured for payment but shall be considered incidental to the associated pay items.

**610-4.4**

ADD:

The quantities of structural Portland Cement Concrete used for construction of the 8-inch concrete protective pad shall be measured by the cubic yard or portion thereof actually placed, except for that portion that exceeds the plan dimensions shown in the plans unless so ordered by the Resident Engineer.

Welded wire fabric steel reinforcement shall not be measured for payment but shall be considered incidental to the concrete entrance pad.

**610-4.5**

ADD:

Excavation required for the installation of the fence and gate post foundations, concrete protective pad, hangar floors, foundations, manholes, concrete encasement for in-ground duct or any other incidental concrete construction shall not be measured for payment, but shall be considered incidental to the associated pay items. Excess materials shall be hauled stockpiled on Airport property at a location to be designated by the Airport at no additional cost to the contract. Backfilling along edges of exposed concrete shall be considered incidental.

**BASIS OF PAYMENT**

**610-5.2**

ADD:

Payment shall be made at the contract unit price per cubic yard for Structural PC Concrete placed to construct the concrete protective pad. These prices shall be full compensation for furnishing all materials and for all excavation, subgrade preparation and subbase preparation, steel reinforcement and joint sawing and sealing, hauling and placement of the materials, and for all labor, equipment, tools, and incidentals necessary to complete the item.

No direct payment shall be made for excavation required for the placement of any Structural PC Concrete, be it excavation for fence and gate post foundations, direct bury or concrete encased duct installation, concrete protective pad construction, or any other incidental concrete installation. Excavation and subgrade preparation shall be considered incidental to the contract unit prices for the respective pay items requiring excavation.

No direct payment shall be made for steel reinforcement. Steel reinforcement shall be considered incidental to the construction of the concrete protective pad.

Structural PC concrete used to construct protective pads as required by Nicor to protect existing gas main at Contractor designated haul routes shall not be paid for, but shall be considered incidental.

Structural PC concrete used for any other purpose on this project shall not be paid for, but shall be considered incidental to the associated pay items.

Payment will be made under:

**ITEM AR610510 STRUCTURAL PC CONCRETE – PER CUBIC YARD.**

## **ITEM 620000 – 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.

#### **620-3.7 PAVEMENT MARKING REMOVAL**

REVISE this Section to read:

The Contractor shall remove existing and temporary markings as shown in the plans or as directed by the Resident Engineer using water blasting or other approved method.

#### **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 Contractor shall dispose of these wastes in strict compliance with all applicable state, local and federal environmental statutes and regulations.

### **METHOD OF MEASUREMENT**

#### **620-4.1**

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.

The quantity of removal to be paid for shall be the number of square feet removed in conformance with the specifications and accepted by the Engineer.

**BASIS OF PAYMENT**

ADD:

Payment will be made under:

<b>ITEM AR620520</b>	<b>PAVEMENT MARKING – WATERBORNE – PER SQUARE FOOT.</b>
<b>ITEM AR620525</b>	<b>PAVEMENT MARKING – BLACK BORDER – PER SQUARE FOOT.</b>
<b>ITEM AR620900</b>	<b>PAVEMENT MARKING REMOVAL – PER SQUARE FOOT.</b>
<b>ITEM AS620520</b>	<b>PAVEMENT MARKING – WATERBORNE – PER SQUARE FOOT.</b>

## DIVISION III – FENCING

### ITEM 162000 – CHAIN LINK FENCE

#### MATERIALS

##### 162-2.1 FABRIC

ADD:

Vinyl coated fence fabric shall be installed to match the existing fence. The color of the vinyl coating shall be selected by the Airport. The Contractor shall provide the set of color choices available.

##### 162-2.2 BARBED WIRE

DELETE: Entire Section. No barbed wire is required.

##### 162-2.3 FENCE POSTS, POST TOPS AND EXTENSIONS, RAIN, GATES, BRACES, STRETCHER BARS AND CLIPS

ADD:

**Line Posts.** The line posts shall be Type A, Type B or roll formed per IDOT Standard 664001-02.

**Terminal Posts (End, Corner, or Pull).** The terminal post shall be Type A, Type B or roll formed per IDOT Standard 664001-02.

**Gate Posts.** The gate posts shall be Type A or Type B. Gate posts shall have a nominal O.D. of 4" and weigh at least 7.58 pounds per foot for Type A or 5.707 pounds per foot for Type B.

**Top Rail.** The fence shall have a continuous top rail for its full length consisting of Type A, Type B or roll formed horizontal braces per IDOT Standard 664001-02. The top rail shall be fitted with couplings or welded for connecting the lengths into a continuous run. The couplings shall not be less than 6 inches long, and shall allow for expansion and contraction of the rail.

**Post Braces.** Post braces shall be provided for each gate, corner, pull and end post and shall meet the requirements for top tails.

**Post Tops.** Post tops shall consist of ornamental tops provided with a hole suitable for through passage of the top rail. The post tops shall fit over the outside of the posts and shall exclude moisture from inside the posts.

##### 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.

##### 162-2.10 SIGNS

ADD:

Sign panels shall be placed on all new fencing. The signs shall be placed at 100 foot intervals. The sign shall be red letters on white background with a red border and shall read

'RESTRICTED/AREA/KEEP OUT (three separate lines). The letters shall be a minimum of 2 ½" in height. The sign materials shall conform to Type 1 sign panels as specified in Section 720 of the IDOT "Standard Specifications for Road and Bridge Construction".

### **162-2.12 CERTIFICATION AND SHOP DRAWINGS**

ADD:

The Contractor shall provide written certification that all materials meet specification requirements prior to start of the work. Shop drawings shall be submitted to the Engineer for review and approval prior to the construction of fence.

## **CONSTRUCTION METHODS**

### **162-3.5 INSTALLING FABRIC**

REVISE: Subsection C, second sentence, to read: The fastenings shall **not** be spaced more than 14 inches on centers for line posts.

### **162-3.8 INSTALLING GATES**

ADD:

The Contractor shall install the proposed gates at the locations shown in the plans or as required by the Airport. Gates shall be installed to conform to manufacturer's recommendations and the details shown in the plans.

Gate installation shall include erection of the posts, fence, gate and warning and identifications signs required to provide a complete operating installation satisfactory to the owner. Signs on the existing gates other than gate identification and warning signs shall be removed from the existing gate and reinstalled on the new gate.

### **162-3.9 EXISTING FENCE CONNECTIONS**

ADD:

Where new fence and existing fence meet, a new terminal or end post shall be installed and the new and existing fence shall be connected to the new corner post. A brace shall be required in both the new and existing fence. Connections between new and existing fence shall be considered incidental to the contract.

### **162-3.11 FENCE AND GATE REMOVAL**

ADD:

The Contractor shall remove, without regard to height, the existing fence, rails, posts, foundations, miscellaneous hardware and gates as shown on the plans. The removed fence materials shall be disposed of off Airport property unless the Airport wishes to retain portions of the removed fence materials in which the Contractor shall haul salvageable fence pieces to the Airport maintenance yard. 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.

**162-3.13 BARBED WIRE**

Barbed wire shall not be required.

**METHOD OF MEASUREMENT**

**162-4.6**

ADD:

Sign panels shall not be paid for separately but shall be incidental to the proposed fence and gate.

**BASIS OF PAYMENT**

**162-5.6**

ADD:

Sign panels shall not be paid for separately but shall be incidental to the proposed fence.

Pavement removal and replacement to facilitate existing post removal or install new posts shall not be paid for separately but shall be considered incidental to fence or gate removal.

Payment will be made under:

<b>ITEM AR162304</b>	<b>CLASS E GATE 6'-VINYL – PER EACH.</b>
<b>ITEM AR162320</b>	<b>CLASS E GATE 20'-VINYL – PER EACH.</b>
<b>ITEM AR162404</b>	<b>CLASS E FENCE, VINYL-4' – PER LINEAR FOOT.</b>
<b>ITEM AR162900</b>	<b>REMOVE CLASS E FENCE – PER LINEAR FOOT.</b>
<b>ITEM AR162905</b>	<b>REMOVE GATE – PER EACH.</b>
<b>ITEM AR162920</b>	<b>REMOVE MANUAL SLIDE GATE – PER EACH.</b>

## **ITEM 163000 – CONSTRUCTION FENCING**

### **DESCRIPTION**

#### **163-1.1**

This item shall include the installation, maintenance and removal of temporary construction fencing as shown on the plans or as directed by the Resident Engineer.

### **MATERIALS**

#### **163-2.1**

The fence fabric shall be International Orange Polyethylene Safety Fence. The fence fabric shall be a maximum of 4 feet in height and shall be approved by the Engineer prior to installation.

### **CONSTRUCTION METHODS**

#### **163-3.1**

The protective fencing shall be tied to conventional notched metal "T" posts driven into the ground to a depth of at least 18 inches. "T" posts shall be spaced at a minimum every 6 to 8 feet along the entire length of the protective fencing.

#### **163-3.2**

A minimum of three (3) cable ties shall be placed at each fence post to secure the fence fabric to the post.

#### **163-3.3**

A tension wire or rope shall be installed as a top and bottom stringer and woven through the top and bottom row of strands to prevent sagging.

#### **163-3.4**

The fabric shall be overlapped at least three (3) feet at all joints and secured with at least three (3) cable ties at the overlaps.

### **METHOD OF MEASUREMENT**

#### **163-4.1**

The Temporary Construction Fence shall be measured in place by the number of lineal feet satisfactorily installed and maintained throughout the duration of the contract.

### **BASIS OF PAYMENT**

#### **163-5.1**

Payment shall be made at the contract unit price for TEMPORARY CONSTRUCTION FENCE, per linear foot. This price shall be full compensation for furnishing all materials, labor, equipment, maintenance and necessary incidentals to complete the item as shown on the plans and as specified herein. The removal of the fence at the completion of the project shall be included in the price for TEMPORARY CONSTRUCTION FENCE.

Payment will be made under:

**ITEM AR163000      TEMPORARY CONSTRUCTION FENCE - PER LINEAR FOOT.**

## **DIVISION IV – DRAINAGE**

### **ITEM 701000 – PIPE FOR STORM SEWERS AND CULVERTS**

#### **MATERIALS**

##### **701-2.1 GENERAL**

DELETE: Entire Section.

ADD:

Pipe shall be of the type and diameter indicated and installed at the locations shown on the plans. Pipe for storm sewers shall be concrete storm sewer pipe Class IV reinforced concrete conforming to ASTM C-76 (with joints meeting ASTM C-361) as called out in the plans.

#### **CONSTRUCTION METHODS**

##### **701-3.3 LAYING AND INSTALLING PIPE**

ADD:

When sewer installation requires tapping into an existing manhole, the hole shall be cored to allow for appropriate pipe sizing. The work shall be considered incidental to the installation of the pipe.

#### **BASIS OF PAYMENT**

##### **701-5.1**

ADD:

Payment will be made under:

<b>ITEM AR701512</b>	<b>12" RCP, CLASS IV – PER LINEAR FOOT.</b>
<b>ITEM AR701515</b>	<b>15" RCP, CLASS IV – PER LINEAR FOOT.</b>
<b>ITEM AR701524</b>	<b>24" RCP, CLASS IV – PER LINEAR FOOT.</b>
<b>ITEM AR701900</b>	<b>REMOVE PIPE – PER LINEAR FOOT.</b>

## **ITEM 705000 – PIPE UNDERDRAINS FOR AIRPORTS**

### **DESCRIPTION**

#### **705-1.1**

ADD:

Concrete headwalls for underdrain pipe shall conform to IDOT Standard 601101-01.

Existing underdrain cleanouts at locations designated in the Plans shall be replaced with new Type 1 Cleanouts using the plan details.

### **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 conform 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/m <sup>2</sup> )	3.5 (120) min.	ASTM D 3776
Grab tensile strength lbs. (N)	100 (450) min.	ASTM D 4632 <sup>1/</sup>
Grab elongation @ break (%)	20 min.	ASTM D 4632 <sup>1/</sup>
Apparent opening size (AOS No.)		ASTM D 4751 <sup>2/</sup>
Nonwoven	30 (600 μm) min	
Woven	50 (300 μm) min	

- 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.

#### **705-3.6 BACKFILLING**

ADD:

Backfilling material for voids left by underdrain removal under proposed pavement areas shall consist of IDOT CA-6 material compacted to 95% of the maximum density in accordance with ASTM D698 (Standard Proctor). This cost shall be considered incidental to the associated pay item.

#### **705-3.10 UNDERDRAIN REMOVAL**

ADD:

This work shall consist of removal of existing underdrain pipes of various types and sizes. Trenches resulting from underdrain removal shall be backfilled and compacted in accordance with Section 701-3.5 for areas under proposed pavements. Pipe removed shall be disposed of off airport property.

### **METHOD OF MEASUREMENT**

#### **705-4.1**

ADD as the last sentence of the first paragraph:

The footage of underdrain removal to be paid for shall be the number of linear feet of underdrain satisfactorily removed and disposed of off airport property, measured along the centerline of the pipe from removal limits.

**BASIS OF PAYMENT**

**705-5.1**

ADD:

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

DELETE the fourth paragraph and REPLACE with:

The contract unit price per linear foot for underdrain pipe removal and per each for underdrain collections structure removal shall be full payment for furnishing all materials, and for all excavation, earth backfill, select granular backfill placement, compaction, and for all labor, equipment and tools necessary to complete this item to the satisfaction of the Engineer.

Payment will be made under:

- |                      |   |
|----------------------|---|
| <b>ITEM AR705506</b> | <b>6" PERFORATED UNDERDRAIN – PER LINEAR FOOT.</b>  |
| <b>ITEM AR705610</b> | <b>CONCRETE HEADWALL FOR UNDERDRAIN – PER EACH.</b> |
| <b>ITEM AR705635</b> | <b>UNDERDRAIN COLLECTION STRUCTURE – PER EACH.</b>  |
| <b>ITEM AR705640</b> | <b>UNDERDRAIN CLEANOUT – PER EACH.</b>              |
| <b>ITEM AR705900</b> | <b>REMOVE UNDERDRAIN – PER LINEAR FOOT.</b>         |
| <b>ITEM AR705905</b> | <b>REMOVE COLLECTION STRUCTURE – PER EACH.</b>      |
| <b>ITEM AR705924</b> | <b>REPLACE UNDERDRAIN CLEANOUT – PER EACH.</b>      |
| <br>                 |   |
| <b>ITEM AS705924</b> | <b>REPLACE UNDERDRAIN CLEANOUT – PER EACH.</b>      |

## **ITEM 751000 – MANHOLES, CATCH BASINS, INLETS & INSPECTION HOLES**

### **DESCRIPTION**

#### **751-1.1**

ADD:

Specifically, this item consists of the construction of inlets and manholes as shown on the plans or as directed by the Engineer.

Type A manholes with four (4) foot diameters shall conform to IDOT Standard 602406-06.

Type A manholes with six (6) foot diameters shall conform to IDOT Standard 602401-03.

Type 1 frames and grates (open and closed lids) shall conform to IDOT Standard 604001-03.

Manhole – Special is the construction of a manhole around an existing structure to remain in airfield pavement using the details shown in the Plans.

### **CONSTRUCTION METHODS**

#### **751-3.1 EXCAVATION**

ADD:

(f) DEWATERING – The Contractor shall, at all times, provide and maintain in operation pumping and/or well point equipment for the complete dewatering of the excavation. No structure shall be permitted to be constructed in an excavated area in which any amount of water flows or is pooled.

#### **751-3.11 INLET/MANHOLE REMOVAL**

This work shall consist of the removal of existing concrete drainage inlets and manholes of various types and sizes. Trenches resulting from the inlet and manhole removal shall be backfilled and compacted in accordance with Section 152 Excavation and Embankment for areas in proposed turf or backfilled and compacted in accordance with Section 701-3.5 for areas under proposed pavements. Manholes and inlets shall be disposed of by the Contractor off Airport property.

### **BASIS OF PAYMENT**

#### **751-5.1**

ADD:

Payment for MANHOLE – SPECIAL shall include the removal and disposal of those portions of the existing brick/block structure required to construct the new manhole around the existing structure as shown in the Plans. Pavement removal and replacement required shall be paid under Remove Bituminous Pavement and Bituminous Surface Course.

Payment will be made under:

<b>ITEM AR751540</b>	<b>MANHOLE 4' – PER EACH.</b>
<b>ITEM AR751560</b>	<b>MANHOLE 6' – PER EACH.</b>
<b>ITEM AR751570</b>	<b>MANHOLE – SPECIAL – PER EACH.</b>
<b>ITEM AR751983</b>	<b>RECONSTRUCT MANHOLE – PER EACH.</b>

**ITEM 752000 – CONCRETE CULVERTS, HEADWALLS  
AND MISC. DRAINAGE STRUCTURES**

**BASIS OF PAYMENT**

**752-5.1**

ADD:

Payment will be made under:

**ITEM AR752412      PRECAST REINFORCED CONC. FES 12” – PER EACH.**

---

**ITEM 754000 – CONCRETE GUTTERS, DITCHES, AND FLUMES**

**DESCRIPTION**

**754-1.1**

ADD:

Specifically, this item consists of the removal of existing concrete combination curb and gutter at the locations shown in the Plans or as directed by the Engineer.

**BASIS OF PAYMENT**

**754-5.1**

ADD:

Payment will be made under:

**ITEM AR754904 REMOVE COMB CURB & GUTTER – PER LINEAR FOOT.**

## DIVISION V – TURFING

### ITEM 901000 – SEEDING

#### DESCRIPTION

##### 901-1.1

ADD:

Restoration, seeding and mulching beyond the limits of seeding and mulching shown in the plans (such as around electrical trenching areas, haul roads, staging areas, storage areas) 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:

<u>NUTRIENTS</u>	<u>POUNDS PER ACRE</u>
Nitrogen Fertilizer Nutrients	90
Phosphorus Fertilizer Nutrients	90
Potassium Fertilizer Nutrients	<u>90</u>
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: Entire Section

ADD:

- (a) Description: This work shall consist of furnishing, transporting and installing all seeds, plant or other materials required for:
1. Any remedial operations in conformance with the plans as specified in these special provisions or as directed by the Resident Engineer.
- (b) General Requirements: The site will be in the following condition:
1. The grade will be shaped to the elevation shown on the plans.
  2. 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".
- (c) Seeding Equipment: Seeding equipment shall meet the following requirements. Any other equipment deemed necessary shall be subject to the approval of the Resident Engineer.
1. Disc: Any disc new for the use shall be in a good state of repair with sound, unbroken blades. The disc shall be weighted if necessary to achieve the required tillage depth.
  2. No-Till Planters and Drills: Rangeland type drills and no-till planters shall be designed specifically for the seeding of native grasses and forbs with depth control bands set at 1/4" - 1/8".
  3. Seedbed Preparation: Seedbed preparation methods shall be approved by the Resident 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 Resident Engineer.
- (d) Seeding Methods: The Contractor shall submit for approval by the Resident Engineer and schedule for seeding and/or planting at least two weeks prior to the scheduled commencement of work. Broadcast seeders will not be allowed. Seeder will be a drill type planter. The Resident Engineer shall examine and then approve any equipment to be used. Prior to starting work, all seeding equipment shall be calibrated and adjusted to sow seeds at the proper seeding rate. Equipment shall be operated in a manner to insure complete coverage of the entire area to be seeded. The Resident Engineer shall be notified forty-eight (48) hours prior to beginning the seeding operations. Any gaps between areas of growth greater than eight square feet shall be re-sown and/or replanted.
1. No-till or Drill Method: Rolling of the Seedbed will not be required with the use of rangeland type grass drill or no-till planters.

### **901-3.3 WET APPLICATION METHOD**

DELETE: Entire Section.

### **METHOD OF MEASUREMENT**

#### **901-4.1**

ADD:

Areas of seeding not showing a uniform stand of grass in density and color shall not be approved for payment. Such areas shall be reseeded to the Owner's satisfaction at the Contractor's cost.

**BASIS OF PAYMENT**

**901-5.1**

ADD: Payment will be made under:

**ITEM AR901510      SEEDING – PER ACRE.**

## **ITEM 905000 – TOPSOILING**

### **DESCRIPTION**

#### **905-1.1**

ADD:

Existing topsoil shall be stripped from excavation and embankment areas and below proposed pavements and stockpiled outside of the grading limits. The surface of all disturbed areas shall be covered with a layer of topsoil to facilitate drainage and the growth of turf.

### **CONSTRUCTION METHODS**

#### **905-3.1 GENERAL**

DELETE: The first sentence.

ADD:

A 4 inch minimum layer of topsoil shall be spread evenly over the disturbed areas outside the proposed pavement to facilitate drainage and the growth of turf.

#### **905-3.3 OBTAINING TOPSOIL**

DELETE: The third paragraph.

#### **905-3.4 PLACING TOPSOIL**

CHANGE:

In the first sentence the word “uniform” to “minimum”.

ADD:

When constructing Item 152, the contractor shall consider the thickness of topsoil to be spread over the compacted surface to ensure that final grade constructed including the topsoil is to the lines and grades shown in the plans.

### **METHOD OF MEASUREMENT**

#### **905-4.1**

DELETE: This section.

ADD:

Topsoil shall be measured and paid as specified under Item 152 of these special provisions.

#### **905-4.2**

DELETE: This section.

**BASIS OF PAYMENT**

**905-5.1**

DELETE: This section.

ADD:

No individual payment will be made for the spreading of topsoil. Topsoiling shall be considered incidental to Item 152.

## **ITEM 908000 – MULCHING**

### **908-1.1**

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.

### **BASIS OF PAYMENT**

#### **908-5.1**

ADD:

Payment will be made under:

**ITEM AR908515      HEAVY DUTY HYDRAULIC MULCH – PER ACRE.**

## **DIVISION VI - LIGHTING INSTALLATION**

### **ITEM 108000 – INSTALLATION OF UNDERGROUND CABLE FOR AIRPORTS**

#### **DESCRIPTION**

##### **108-1.1**

DELETE: The 3<sup>rd</sup> sentence of the first paragraph.

ADD:

This item of work shall consist of the underground installation of 600V cables direct buried, 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:

- 1/C #8, 600V XLP-USE, direct buried, in duct bank and conduit

##### **108-2.4 CABLE CONNECTIONS**

DELETE: The first and second sentence of paragraph **D. The Taped or Heat-Shrunked 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 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.

### **108-3.5 SPLICING**

DELETE: The first and second paragraph of Section **D. Taped or Heat-Shrunked Splices**.

ADD:

Contractor shall use cast splicing kits as described in Article 108-2.4 for any splices made inside the electric handholes. 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. Contractor shall also leave minimum 30" of slack on each side of the 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**

### **108-4.1**

DELETE: This Section.

### **108-4.2**

REVISE: This Section to read as follows.

The length of 1/C #8 600V XLP-USE installed direct buried, 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 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 secondary cables between utility transformers and service pedestals shall not be measured for payment, but shall be included in the lump sum bid price for New Electric Service.

## **BASIS OF PAYMENT**

### **108-5.1**

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 110000 – INSTALLATION OF AIRPORT UNDERGROUND ELECTRICAL DUCT**

### **DESCRIPTION**

#### **110-1.1**

ADD:

This item shall consist of the construction of new GRS conduit jacked, concrete encased duct banks, and split duct, 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 PVC concrete encased split duct over existing utility services of the appropriate size to accommodate said utility. Split duct will only be required if the existing utility services are not already in conduit. The Contractor shall not order any materials until such time that the existing utilities have been located and a determination made that protection by split duct will be required. As a minimum, the Contractor shall assume 4" split duct to 6" split duct will be required.

Split duct shall be encased in a minimum of 3" of concrete surrounding the 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 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 Standard 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.

### **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 Standard Proctor laboratory density.

### **METHOD OF MEASUREMENT**

#### **110-4.1**

DELETE: This Section.

ADD:

The quantity of concrete encased duct, split duct and jacked GRS 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.

The cost of secondary conduits between utility transformers and service pedestals shall not be measured for payment, but shall be included in the lump sum bid price for Electrical Service – Runway Lighting or Electrical Service – T-Hangars as may be the case.

### **BASIS OF PAYMENT**

#### **110-5.1**

DELETE: Entire Section.

ADD:

Payment will be made at the contract unit price per lineal foot for each type and size of GRS conduit, concrete encased duct and split duct 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:

<b>ITEM AR110312</b>	<b>2" STEEL DUCT, JACKED – PER LINEAR FOOT.</b>
<b>ITEM AR110504</b>	<b>4-WAY CONCRETE ENCASED DUCT – PER LINEAR FOOT.</b>
<b>ITEM AR110550</b>	<b>SPLIT DUCT – PER LINEAR FOOT.</b>

## **ITEM 125000 – INSTALLATION OF AIRPORT LIGHTING SYSTEMS**

### **DESCRIPTION**

#### **125-1.1**

ADD:

Airfield lighting improvements and modifications shall include:

- Installation of new elevated retroreflective markers.
- Installation of new splice cans.
- Relocation of stake mounted threshold and taxiway lights.
- Removal of existing airfield stake mounted lights and retroreflective markers.
- Installation of unlighted airfield guidance signs

#### **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 in-pavement 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.

**125-1.8**

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.

**125-1.9**

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.

**125-1.10**

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:

<u>Item</u>	<u>Specification</u>	<u>Advisory Circular</u>
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 150/5345-44K
REIL	L-849	AC 150/5345-51B
Light base, load bearing	L-868	AC 150/5345-42H
Light base, non-load bearing	L-867	AC 150/5345-42H
Elevated Marker	L-853	AC 150/5345-39D

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

### **125-2.8 LIGHT CANS**

ADD:

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

### **125-2.14 LIGHT AND MARKER REMOVAL**

ADD:

Existing airfield stake mounted lights and retroreflective markers 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.

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

### **125-2.15 ELEVATED RETROREFLECTIVE MARKERS**

ADD:

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

### **125-2.16 UNLIGHTED AIRFIELD GUIDANCE SIGNS**

ADD:

Unlighted airfield guidance signs shall be as detailed in the plans, in conformance with FAA Advisory Circular 150/5345-44K. Concrete for sign foundation shall be in accordance with Item 610.

## **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.

### **METHOD OF MEASUREMENT**

#### **125-4.1**

DELETE: Entire section.

ADD:

The quantities to be paid for under this item shall consist of:

- (a) The number of elevated retroreflective markers, unlighted airfield guidance signs and splice cans installed in place as complete units, ready for operation and accepted by the Engineer.
- (b) The number of relocated stake mounted lights (threshold or taxiway lights) installed in place as complete units, ready for operation and accepted by the Engineer. The removal of the lights shall not be measured separately.
- (c) The number of stake mounted lights and elevated retroreflective markers removed 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.

Payment will be made at the contract unit price for each complete unlighted airfield guidance sign (paid as TAXI GUIDANCE SIGN, SPECIAL) 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, assembly, and installation of these materials, and for all labor, equipment, tools, and incidentals necessary to complete this item. No distinction will be made for number of characters, size of sign, single or double sided, or mounting method for payment purposes.

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:

<b>ITEM AR125100</b>	<b>ELEVATED RETROREFLECTIVE MARKER – PER EACH.</b>
<b>ITEM AR125461</b>	<b>TAXI GUIDANCE SIGN, SPECIAL – PER EACH.</b>
<b>ITEM AR125565</b>	<b>SPLICE CAN – PER EACH.</b>
<b>ITEM AR125961</b>	<b>RELOCATE STAKE MOUNTED LIGHT – PER EACH.</b>
<b>ITEM AR800164</b>	<b>REMOVE RETROREFLECTIVE MARKER – PER EACH.</b>
<b>ITEM AS125100</b>	<b>ELEVATED RETROREFLECTIVE MARKER – PER EACH.</b>
<b>ITEM AS125461</b>	<b>TAXI GUIDANCE SIGN, SPECIAL – PER EACH.</b>

## **DIVISION VIII – MISCELLANEOUS**

### **ITEM 770908 – REMOVE SEPTIC SYSTEM**

#### **DESCRIPTION**

##### **770-1.1**

This work shall consist of the removal of an existing septic system for the airport administration building by pumping and complete removal of septic tanks, control boxes, distribution boxes, septic field lines and other related items as shown on the plans or as directed by the Engineer, in accordance with all applicable federal, state and local rules and regulations. **The exact type and extents of the existing septic system are unknown. No additional payment to account for conditions found in the field will be made.**

This work shall also include the Contractor's filing for and subsequent obtaining of all permits required for removal of existing sanitary septic systems.

#### **MATERIALS**

##### **770-2.1**

All materials used in the performance of this work shall comply with all federal, state and local rules and regulations.

#### **CONSTRUCTION METHOD**

##### **770-3.1 SEPTIC SYSTEM REMOVAL**

Prior to beginning removal operations, the Contractor shall verify that the septic system is no longer required, i.e., that the septic system was only being used by the airport administration building.

The Contractor shall locate and remove all portions of the existing sanitary septic system, including, but not limited to, all connecting pipes, distribution boxes, tanks, etc., to the satisfaction of the Engineer.

All adjacent concrete structures or pads shall be removed. No additional payment shall be made for concrete removal associated with the removal of any sanitary system.

The Contractor shall remove the contents of each septic tank found. The size and number of existing tank(s) is unknown. This removal shall be performed by a state licensed septic pumper/hauler. Following septic tank content removal, the Contractor shall remove the entire tank, distribution boxes, unsuitable clay/embankment material, etc., and fill/compact the remaining void with Trench Backfill per Section 701 of the specifications.

#### **METHOD OF MEASUREMENT**

##### **770-4.1**

The number of sanitary septic systems removed shall be counted and measured by the completed unit per lump sum for the entire project.

Trench backfill used to fill any resultant voids shall not be measured for payment.

**BASIS OF PAYMENT**

**770-5.1**

Payment will be made at the contract unit price for REMOVE SEPTIC SYSTEM. This price shall be full compensation for removal, hauling, furnishing all materials, labor, equipment and for any preparation, dumping fees and proper disposal, including any excavation of unsuitable materials, as well as any incidentals necessary to complete the item as shown on the plans and as specified.

Trench backfill will not be paid for separately but shall be considered incidental to REMOVE SEPTIC SYSTEM.

Exploratory trench required in locating the existing septic system shall be paid under Item AR152531, Exploration Trench.

Payment will be made under:

**ITEM AR770908      REMOVE SEPTIC SYSTEM – PER LUMP SUM.**

## **ITEM 800024 – BUILDING DEMOLITION**

### **DESCRIPTION**

#### **800024-1.1**

This item shall consist of furnishing all materials, labor, equipment, tools, and incidentals necessary to completely remove the Terminal/Administrative building/structure, its contents, its foundation, floor and/or supporting structure to the satisfaction of the Engineer.

The Contractor shall visit the site and acquaint himself with the demolition work required. Site visits shall be coordinated with the Airport Manager.

All shrubs, bushes, concrete pads or ramps, concrete stairs, sidewalks and miscellaneous refuse located within the site boundaries shall be removed as shown on the plans or as directed by the Engineer.

All concrete steps, patios, decks attached to the building/structure being demolished shall not be measured separately for payment, but shall be removed and considered incidental to the demolition.

If the structure to be demolished has water or sanitary service that is part of a public or private water or sewer system, the appurtenant service shall be disconnected or plugged as required by local agencies. Disconnecting these services shall not be measured separately for payment but shall be considered incidental to the demolition of the building.

Prior to undertaking the required demolition, the Contractor shall give ample notice to the Owner, occupant and Engineer for the removal of any or all usable equipment presently located within the confines of the demolition, and obtain all permits necessary for the demolition and disposal of all building/structure material. After approval by the Engineer that usable equipment has been removed, any and all equipment or material left in the area shall be disposed of by the Contractor off airport property.

#### **800024-1.2 UTILITIES**

The Contractor shall be responsible for locating all utility lines within the area of the demolition. It shall be the Contractor's responsibility to protect and maintain all utilities that are to remain active throughout the extent of the contract. Existing utilities that are to be abandoned because of the demolition shall be cut, sealed and abandoned. This work shall be done in cooperation with the utility companies involved and shall conform to all federal, state, and local requirements.

## **CONSTRUCTION METHODS**

### **00024-2.1**

At the locations shown on the plans, the Contractor shall completely demolish and remove the existing building/structures from the project site. The foundation walls and concrete floors shall also be completely removed, where applicable. The remaining hole or void which exists within the limits of all new pavement embankment following the structure floor and foundation removal shall be filled and compacted with unclassified excavation material in conformance with Section 152 of the specifications. At the contractor's option, aggregate base material meeting Section 208 may be used for backfill. Aggregate base material backfill shall be compacted to not less than 95% of Standard Proctor laboratory density. The remaining hole or void which exists within the limits of turf areas following the floor/foundation removal shall be filled to within 4" of existing adjacent ground level or per the grading plan with unclassified excavation material in conformance with Section 152.

Any unfilled basement, hole, void, or any other hazard left unattended during periods of inactivity shall be properly fenced or protected by the Contractor. Care shall be taken to prevent the spread of dust and flying particles. After the demolition has begun, the work shall be carried on promptly and expeditiously until finished.

The Contractor shall break all concrete floors, pads, ramps and foundation walls into pieces not exceeding two feet (2') square. All floor drains, sanitary sewers or incoming waterlines shall be abandoned to the satisfaction of the Engineer. The Contractor shall remove all contents and miscellaneous materials from within the structure and dispose of said materials at an approved/licensed landfill or dumping area.

Burning of any structure or removal material will not be allowed in the performance of this work. The use of explosives will not be permitted in the performance of this work.

The entire site as shown on the plans, or as directed by the Engineer, shall be smoothly graded and turfed where applicable. Turfing shall include topsoiling, permanent seeding and mulching of those areas designated on the plans. The Contractor shall leave the site free of rubble and debris, and in a condition satisfactory to the Engineer. All rubble and debris shall be disposed of by the Contractor off the airport property at a landfill or approved dumping area. The Contractor shall provide the Engineer with a ticket or receipt from the landfill or dumping area for each load of material hauled from the project site.

## **METHOD OF MEASUREMENT**

### **800024-4.1**

The Building Demolition will be measured as lump sum for the entire site. The various types of buildings and hangars will not be measured separately but shall be measured as a completed unit for the entire site as lump sum. The cost of all granular material backfill and clay backfill shall not be paid for separately, but shall be considered incidental to Building Demolition pay item.

## **BASIS OF PAYMENT**

### **800024-3.1**

This work will be paid for at the contract lump sum price, which shall be compensation in full for the complete removal and disposal of the existing structure, floor, foundation, gravel driveways, concrete walkways and all debris and any necessary incidentals for the entire site.

Payment for backfill and compaction of the resultant void with unclassified excavation material and granular material will not be paid for separately.

Payment will be made under:

**ITEM AR800024            BUILDING DEMOLITION – PER LUMP SUM.**

## **ITEM 800037 – HANGAR RELOCATION**

### **DESCRIPTION**

#### **800-1.1 GENERAL**

The hangar buildings shall be relocated as shown on the plans and as specified herein. It is the intent of these documents that the work described herein shall include all labor, materials, equipment and transportation necessary to furnish and install, complete and ready to occupy the buildings.

The hangar floors and foundations are paid for separately under Hangar Foundation and Floor (Type A and Type B).

Hangar Relocation Type A shall consist of the Box Hangar relocation.

Hangar Relocation Type B shall consist of the Port-a-Port Hangar relocation.

Caulking used in Hangar P30 was noted to contain asbestos during project design. The Contractor shall take all precautions necessary and under applicable law during relocation of this structure. See Appendix D of these Special Provisions.

The Contractor shall obtain a building permit from the Village of Lake in the Hills prior to initiating construction on the building. As a requirement for this permit, the Contractor shall certify that all materials, components, systems and the complete construction of the building is in complete conformance with the codes, ordinances, requirements, laws and regulations of local requirements.

The Contractor will also be responsible to coordinate and obtain all necessary utility service to the hangars.

The Contractor shall obtain and pay for all licenses, permits and inspections required by the above laws, ordinances and rules for the entire building relocation called for in these specifications and the accompanying plans.

Contractor shall provide his own layouts, elevations, and dimensional control for all portions of the project and the Contractor's drawings shall coincide with elevations and notes shown on plans.

The Contractor shall prepare detailed design calculations, shop drawings and erection drawings for all parts of the work. Before commencing any work or providing any material, the Contractor shall submit for review all drawings relating to the construction, arrangement or disposition of the equipment entering into the contract and show the complete equipment with manufacturer's specifications of same and also show all equipment and components to be relocated.

Shop drawings of all distribution panels, power and lighting systems, fixtures, wires, cables, devices, plumbing systems, water and sanitary services, plumbing fixtures etc., shall be submitted for record, as well as complete details of all systems not shown in detail on the drawings.

SHOP DRAWINGS SHALL BE FULLY DESCRIPTIVE OF ALL THE MATERIALS AND EQUIPMENT TO BE INCORPORATED AND RELOCATED INTO THIS PROJECT. THE CONTRACTOR SHALL CAREFULLY CHECK ALL HIS SHOP DRAWINGS MAKING SURE THEY ARE COMPLETE IN ALL DETAIL AND COVER THE SPECIFIC ITEMS AS HEREINAFTER SPECIFIED.

## **MATERIALS**

### **800-2.1 GENERAL**

The Contractor shall furnish all necessary anchor bolts, floor sockets, and other miscellaneous items as required for a complete hangar facility.

## **CONSTRUCTION METHODS**

### **800-3.1**

The construction methods used on this project shall be in general conformance to construction methods presently being used in the building construction industry. The methods used shall be in conformance with all local ordinances, requirements, codes, laws and regulations.

Should the Contractor elect to disassemble and reassemble the hangar(s), he shall take note of the requirements listed in Appendix D of these Special Provisions.

At the completion of the relocation effort, the Contractor shall have the relocated structures inspected to certify the structures are suitable for occupancy. A report detailing the findings of the inspection shall be sealed by a licensed Structural Engineer registered with the State of Illinois, and copies of the report shall be filed with the Village of Lake in the Hills Building Department.

## **METHOD OF MEASUREMENT**

### **800-4.1**

Hangar Relocation - Type A and Hangar Relocation - Type B will be measured for payment as per each, constructed in place and accepted as a complete unit. The cost of all new materials necessary for the completion of each hangar shall not be paid for separately, but shall be considered incidental to Hangar Relocation respective pay item.

## **BASIS OF PAYMENT**

### **800-5.1**

Payment shall be made at the contract price per each for HANGAR RELOCATION - TYPE A and HANGAR RELOCATION - TYPE B. Payment will be based on completed work performed in strict accordance with the drawings and specifications. This price shall be full compensation for furnishing, preparing and transporting of these materials, installation and for all labor, equipment, tools, and incidentals necessary to complete this item.

Reports certifying structural worthiness and suitability for building occupancy shall not be paid for separately, but shall be considered incidental to the building relocation effort.

Should the Contractor elect to disassemble and reassemble the hangar(s), he shall take note of the requirements listed in Appendix D of these Special Provisions. No additional payment for environmental hazards abatement shall be made.

Payment will be made under:

**ITEM AR800037 HANGAR RELOCATION – TYPE A – PER EACH.**  
**ITEM AR800118 HANGAR RELOCATION – TYPE B – PER EACH.**

## **ITEM 800053 – ELECTRICAL SERVICE**

### **DESCRIPTION**

#### **800-1.1**

Items Electrical Service – Runway Lighting and Electrical Service – T-Hangars, shall include all labor and materials to install new electric service pedestal with utility meter base, power panelboard, L-854 radio controller, timeclock, controls and relays for Runway lighting circuit and new electric service disconnects, wireways, conduit, cable, junction boxes and grounding for relocated hangars as detailed on the plans and specified herein.

### **MATERIALS**

#### **800-2.1**

New electric service for runway lighting shall be 60A, 120/240V, single phase at the location shown on the plans. The Contractor shall install new unitstrut frame for all the components shown and secondary cables and conduits from the existing utility transformer. New power pedestal shall be furnished and installed as the location shown on the plans with following components:

- a. Galvanized Unistrut frame, posts and concrete foundations as detailed on the plans.
- b. Utility meter base as required by the utility company. Utility company shall install utility meter.
- c. 100A, 120/240V power panel in NEMA 3R enclosure with main circuit breaker and branch circuit breakers as indicated on the plans.
- d. Grounding system with ground rod and grounding conductors as detailed on the plans.
- e. FAA L-855 Radio Controller in NEMA 3R enclosure, complete with controls, relays and antenna.
- f. Runway lighting controller in NEMA 3R enclosure, complete with photocell, timeclock, selector switches, contactors and relays.
- g. ALL cables/conduits between utility transformer, utility meter, power panel, L-854 Radio Controller and Runway Lighting Controller.

#### **800-2.2**

New electric services for relocated hangars shall be (2) 60A, 120/240V, single phase at the location shown on the plans. The Contractor shall install new wireway and (2) 60A 240V NEMA 3R disconnects to feed relocated hangars as shown on the plans. New electric services for repower relocated hangars shall be furnished and installed at the location shown on the plans with the following components:

- a. Wireway, conductors and conduits at new electric service location, attached to the structure as detailed on the plans.
- b. Underground cable and conduit from service location to the relocated hangars.
- c. (2) 60A service disconnects in NEMA 3R enclosure.
- d. Grounding system with ground rod and grounding conductors as detailed on the plans.
- e. NEMA 3R junction boxes attached to the structure as shown on the plans.
- f. Cable and conduits as required to feed relocated hangars.

ALL cables/conduits between existing service location, disconnects and hangar power panels.

### **CONSTRUCTION METHODS**

#### **800-3.1**

Contractor shall furnish and install power, controls and communication cable/conduits as required for

a complete and operational system. Contractor shall coordinate with ComEd for new electric service. Contractor shall install secondary cables and conduits from the existing utility transformer to the utility meter. ComEd shall terminate conductors and install a new utility meter.

### **METHOD OF MEASUREMENT**

#### **800-4.1**

The quantity for all electrical work associated with new electric service pedestals for runway lighting shall be lump sum, including but not limited to: new electric service, power pedestal, power panel, disconnects, grounding, L-854 radio controller, runway lighting controller, cable/conduits and ComEd coordination.

#### **800-4.2**

The quantity for all electrical work associated with new electric services for relocated hangars shall be lump sum, including but not limited to: new electric service, wireway, disconnects, grounding, junction boxes, all cable/conduits and ComEd coordination.

### **BASIS OF PAYMENT**

#### **800-5.1**

Electrical work shall be paid for under a lump sum basis, which will include all electrical items and accessories as specified herein.

Payment will be made under:

<b>ITEM AR800053</b>	<b>ELECTRICAL SERVICE – RUNWAY LIGHTING – PER LUMP SUM.</b>
<b>ITEM AR800064</b>	<b>ELECTRICAL SERVICE – T-HANGARS – PER LUMP SUM.</b>

## **ITEM 800120 – HANGAR FOUNDATION AND FLOOR**

### **DESCRIPTION**

#### **800-1.1 GENERAL**

The hangar buildings are constructed on continuous concrete spread footing and foundation walls with concrete slab on grade. The floor consists of a concrete slab on grade. The Contractor shall provide foundation designs sealed by a licensed Structural Engineer registered with the State of Illinois meeting the requirements set forth by the Village of Lake in the Hills building codes unless superseded by the requirements set forth below. At a minimum, the foundation design shall consist of 6" concrete slab and 4' deep frost wall supported by a perimeter strip footing. The strip footing and slab on grade shall be placed on 6" IDOT CA-6 material meeting the requirements of Item 208 as noted below.

Fill required to raise the building pad to proper elevation shall be obtained from site grading efforts and shall be compacted to not less than 98% of maximum density at optimum moisture as determined by compaction control tests specified in Division VII for aircraft with gross weights of less than 60,000 lbs. (Standard Proctor ASTM D698). Topsoil and other unsuitable materials shall not be used in the building pad construction.

### **MATERIALS**

#### **800-2.1 GENERAL**

Concrete - All concrete work used in the foundations shall conform to the requirements of Item 610 Structural Portland Cement Concrete. PCC shall be air entrained with a minimum compressive strength of 4,000 psi at 28 days. Cold weather protection of the concrete, if required, will be considered incidental and will not be paid for separately.

Reinforcement – Reinforcing bars shall be deformed bars grade 40 or 60 conforming to ASTM D615 or ASTM D616. Welded wire fabric shall conform to the requirements of AASHTO M 55, ASTM A 82, or ASTM A 185, plain type, flat stock only.

Rigid Cavity Wall Insulation- Insulation shall be 2" thick by 2'-0" depth styrofoam board.

Vapor Barrier – The Contractor shall provide a polyethylene sheeting (or equal) vapor barrier below the proposed building floor of sufficient thickness and strength for local conditions.

Certification of Materials – The Contractor shall provide written certification that the materials used on the project meet the above requirements.

The Contractor shall supply a certificate of elevation from a registered professional engineer from the State of Illinois to verify finished floor and top of foundation elevations.

#### **800-2.2 FLOOR/PAD FINISH**

The building floor shall receive a steel trowel finish.

#### **800-2.3 CONCRETE FLOOR SEAL**

Concrete floors shall be sealed with Sealtight CS-309 curing compound by W.R. Meadows, or equal, per the manufacturer's specifications. All interior and exterior concrete floor slabs shall receive two coats of Sealtight TIAH, or equal, per the manufacturer's specifications. Curing compound and sealer shall be compatible with each other.

## **CONSTRUCTION METHODS**

### **800-3.1**

The construction methods used on this project shall be in general conformance to construction methods presently being used in the building construction industry. The methods used shall be in conformance with all local ordinances, requirements, codes, laws and regulations.

The Contractor shall note that the concrete floor shall be placed on a minimum of six (6) inches of IDOT CA-6 material as specified under Item 208 AGGREGATE BASE COURSE and compacted to not less than 98% of maximum density at optimum moisture as determined by compaction control tests specified in Division VII for aircraft with gross weights of less than 60,000 lbs. (Standard Proctor ASTM D698).

Compacted granular material shall be used as backfill on the inside of foundation walls, around footings and at other locations shown on the drawings. Compacted granular material shall be required on the outside of foundation walls where pavements, sidewalks and concrete pads are located adjacent to the building, and where piping passes through the foundation wall. Trenches below the 6" base course and under the proposed floor slab or footings shall be backfilled with compacted granular material. Granular material shall be approved by the Engineer and shall be compacted with mechanical tampers to a minimum of 95% of the maximum standard Proctor dry density.

The Contractor shall note the different types of finishes on formed and unformed concrete surfaces. All exposed exterior walls to 1 foot below finish grade and all exposed interior walls as noted on the drawings shall receive a rubbed finish.

The Contractor shall submit a concrete pouring sequence to the Engineer for review. The pouring sequence shall be submitted with the shop drawings.

The Contractor shall build in all anchors, toggles, bolts, flashing, wall plugs, nailing strips, beams, frames, etc. as may be required. These materials shall be placed according to the directions of those who furnish them or as directed by the Engineer.

The Contractor shall coordinate with the Airport, and shall construct the foundation system so as to minimize any damage to the bituminous pavements and floor constructed by others. Any damage to the existing pavements shall be repaired by the building Contractor to the satisfaction of the Owner at no additional cost to the contract.

## **METHOD OF MEASUREMENT**

### **800-4.1**

The Hangar Foundation and Floor – Type A and Hangar Foundation and Floor Type B will be measured for payment as per each, constructed in place and accepted as a complete unit. The cost of all granular material shall not be paid for separately, but shall be considered incidental to Hangar Foundation and Floor respective pay item.

## **BASIS OF PAYMENT**

### **800-5.1**

Payment shall be made at the contract price per each for HANGAR FOUNDATION AND FLOOR TYPE A AND HANGAR FOUNDATION AND FLOOR - TYPE B. Payment will be based on completed work performed in strict accordance with the drawings and specifications. This price shall be full

compensation for foundation design, furnishing, preparing and transporting of these materials and for all labor, equipment, tools, and incidentals necessary to complete this item including excavation, backfill, compacted granular and earthen materials, reinforcement, foundation insulation, curing and finishing.

Payment will be made under:

**ITEM AR800120 HANGAR FOUNDATION AND FLOOR – TYPE A – PER EACH**  
**ITEM AR800128 HANGAR FOUNDATION AND FLOOR – TYPEB – PER EACH**

## **ITEM 800142 – RELOCATE FLAG POLE**

### **DESCRIPTION**

#### **800142-1.1**

Contractor shall furnish all labor, materials, equipment and services necessary or incidental to the completion of all work of this section as shown on the drawings, herein specified, or otherwise required for the relocation of the flag pole and relocation of decorative landscaping and exterior lighting.

### **MATERIALS**

#### **800142-2.1**

All concrete work shall conform to the requirements of Item 610 Structural Portland Cement Concrete. All electrical work shall conform to NEC, latest edition.

### **CONSTRUCTION METHODS**

#### **800142-3.1**

This work shall also consist of installing the existing flag pole on a new concrete foundation as shown on the plans. The flag pole shall be mounted to be accurately plumbed and leveled. The leveling shall be checked in the presence of the Resident Engineer and shall be to his/her satisfaction.

The Contractor shall install conduit and cabling of the type and size required for the relocation of the existing exterior lighting. Power shall be obtained from the location shown in the Plans.

### **METHOD OF MEASUREMENT**

#### **800142-4.1**

The quantity of Relocate Flag Pole installed to be paid shall be the number, per each, satisfactorily installed in accordance with applicable specifications and accepted by the Engineer. Decorative landscaping and exterior lighting relocation shall be incidental to this item. No additional compensation shall be made for removal of the existing flag pole foundation and other removals associated with this pay item.

### **BASIS OF PAYMENT**

#### **800142-5.1**

Payment shall be made at the contract unit price for Relocate Flag Pole per each. This price shall be full compensation for all materials and erection of the flag pole at proposed locations and for all materials, labor and equipment necessary to complete the work as described herein and as shown in the Plans. Labor and materials required for the relocation of the decorative landscaping and exterior lighting shall be considered incidental to this item and no additional payment shall be made.

Payment will be made under:

**ITEM AR800142      RELOCATE FLAG POLE – PER EACH.**

## **ITEM 910000 – ROADWAY SIGNAGE**

### **DESCRIPTION**

#### **910-1.1**

This work shall consist of furnishing Type 1, Type 2 or Type 3 Sign panels complete with reflectorized sign faces, legend and supplemental panels and installing them on newly erected 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**

#### **910-2.1**

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**

#### **910-3.1**

This work shall also consist of furnishing and installing metal posts of the size and type specified, utilizing the direct burial methods as detailed in the plans.

#### **910-3.2**

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.

#### **910-3.3**

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.

#### **910-3.4**

Existing signs and sign posts shall be completely removed and disposed of by the Contractor off Airport property. The excavations shall be backfilled and compacted per the requirement of Section 152.

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

**910-3.4**

Existing signs to be relocated shall be carefully removed and reinstalled at the location(s) shown in the plans or as determined by the Engineer. Any excavations required for sign removal and relocation shall be backfilled and compacted per the requirement of Section 152.

**METHOD OF MEASUREMENT**

**910-4.1**

The quantity of traffic signs installed to be paid shall be the number, per square foot, of signage 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 2 – Over 9 square feet and less than 24 square feet

Type 3 – 24 square feet or more

Signs shall be measured and paid for as Traffic Sign on a per square foot basis, regardless of Type.

The quantity of Remove Roadway Sign to be paid shall be the number of signs removed satisfactorily in accordance with applicable specifications and accepted by the Engineer. Removal of sign posts and supports shall be incidental to this item.

The quantity of Relocate Roadway Sign to be paid shall be the number of signs relocated satisfactorily in accordance with applicable specifications and accepted by the Engineer.

**BASIS OF PAYMENT**

**910-5.1**

Payment shall be made at the contract unit price for Traffic Sign per square foot, Remove Roadway Sign per each and Relocate Road Sign per each. This price shall be full compensation for all materials, erection of all signs at proposed locations and sign removals and relocations and for all materials, labor and equipment necessary to complete the work as described herein.

Payment will be made under:

<b>ITEM AR910205</b>	<b>TRAFFIC SIGN – PER SQUARE FOOT.</b>
<b>ITEM AR910915</b>	<b>REMOVE ROADWAY SIGN – PER EACH.</b>
<b>ITEM AR910975</b>	<b>RELOCATE ROADWAY SIGN – PER EACH.</b>

**IDOT DIVISION OF AERONAUTICS POLICY MEMORANDA**

State of Illinois  
Department of Transportation  
Division of Aeronautics

POLICY MEMORANDUM

February 20, 2014

Springfield

Number: 87-2

TO: CONSULTING ENGINEERS

SUBJECT: DENSITY ACCEPTANCE OF BITUMINOUS PAVEMENTS

I. 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 ( $G_{mb}$ ) in accordance with ASTM D2726 using Procedure 10.1, "For Specimens That Contain Moisture." The Theoretical Maximum Gravity ( $G_{mm}$ ) shall be determined according to ASTM D2041. 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.

- E.g. 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	$\bar{X}$	$(\bar{X} - \bar{X})$	$(\bar{X} - \bar{X})^2$
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

$$N = 4$$

$$\text{Mean } \bar{X} = 21.34 / 4 = 5.328$$

$$\text{Variance } (S)^2 = \frac{\text{Sum } (\bar{X} - \bar{X})^2}{3} = \frac{5.699}{3} = 1.900$$

$$\text{Standard Deviation } S = \sqrt{1.900} = 1.378$$

##### 3. Test for Outliers

Check for Critical "T" Values

$$T = \frac{|(X_1 - \bar{X})|}{S} = \frac{|3.96 - 5.328|}{1.378} = 0.99$$

\* Difference between the suspect test value ( $X_1$ ) and the Mean ( $\bar{X}$ ).

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 ( $\bar{X}$ ) 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

Number of observations (N)	Critical "T" Value 5% Significance Level
3	1.15
4	1.46
5	1.67
6	1.82
7	1.94
8	2.03
9	2.11
10	2.18
11	2.23
12	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).

$$Q_L = \frac{(\bar{X} - 1)}{S} = \frac{5.328 - 1}{1.378} = 3.141$$

$$Q_U = \frac{(7 - \bar{X})}{S} = \frac{7 - 5.328}{1.378} = 1.213$$

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:

$$\% \text{ Adjustment} = 0.5 \text{ PWL} + 55.0$$

$$\% \text{ Adjustment} = 0.5 (89.4) + 55.0$$

$$\% \text{ Adjustment} = 99.7$$

$$\text{Adjusted Quantities} = \% \text{ Adjustment} \times \text{Lot Quantities}$$

$$\text{Adjusted Quantities} = 0.997 \times 2000 \text{ tons}$$

$$\text{Adjusted Quantities} = 1994 \text{ tons}$$

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 April 1, 2010

State of Illinois  
Department of Transportation  
Division of Aeronautics

---

**POLICY MEMORANDUM**

February 20, 2014

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 saturated surface-dry procedure.

B. DEFINITIONS

1. Bulk Specific Gravity ( $G_{mb}$ ) ASTM 2726 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° 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 vertical 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.

$$G_{mb} = \frac{A}{B - C}$$

$G_{mb}$  = 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:

$$\% \text{ Density} = 100 \times \frac{G_{mb}}{G_m}$$

$G_{mb}$  = 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:

$$\% \text{ Air} = 100 - \% \text{ Density}$$

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 ( $G_{mb}$ ). The volume of a square yard of pavement one (1) inch 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, one (1) inch thick weighs:

$$\text{Pounds / Sq. Yd. (1" thick)} = 0.75 \times 62.37 \times G_{mb}$$

Steven J. Long, P.E. Acting Chief Engineer

Supersedes Policy Memorandum 87-4, dated January 1, 2004

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.

### 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 frequency 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 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.
- 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 on 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**

April 1, 2010

Springfield, Illinois

Number 96-2

TO: CONTRACTORS

SUBJECT: REQUIREMENTS FOR LABORATORY, TESTING, QUALITY CONTROL, AND PAVING OF HMA CONCRETE MIXTURES

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 (Hot Mix Asphalt) mixtures. 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/Consultant 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 ± 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 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 1559	Resistance to Plastic Flow of Bituminous Mixtures Using Marshall Apparatus
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 *Mix Design Methods for Asphalt Concrete Manual No. 2 (MS-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 testing 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:

1. 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 4) for each aggregate to be used in determining the Job Mix Formula, as well as mix temperature and asphalt content(s), and number of Marshall Blows for preparation of the Marshall Mix Design or number of gyrations for Superpave Mix Design, depending on which design is specified in the contract. The Contractor will verify the aggregate percentages, mix temperatures, asphalt content(s), and number of Marshall blows (or 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.]

**Marshall Tests**

Maximum Specific Gravity -- " $G_{mm}$ "

Bulk Specific Gravity -- " $G_{sb}$ "

Marshall Stability

Marshall Flow

% air voids

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 HMA Concrete Level 1 Technician Course "HMA Concrete Testing". The Contractor may also provide a Gradation Technician who has successfully completed the Department's "Gradation Technician Course" to run gradation tests only under the supervision of a HMA 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 Marshall Design Data: AC % Mix, Stability, Flow,  $G_{mb}$ ,  $G_{mm}$ , VMA, Voids (Total Mix), Voids Filled
- h) Optimum design data listing AC % Mix, Stability, Flow,  $G_{mb}$ ,  $G_{mm}$ , VMA, Voids (Total Mix), Voids Filled
- 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. Stability, AC vs. Flow and 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 complete mix design results. The Contractor shall not be permitted to use the proposed HMA mix in production for the project until this concurrence 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 mix 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 Concrete 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.
- 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 Marshall, 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 in order to comply with the approved JMF.

V. QUALITY CONTROL

A. Control Limits

Target values shall be determined from the approved JMF. The target values shall be plotted on the control charts within the following control limits:

<u>Parameter</u>	<u>Control Limits</u>	
	<u>Individual Test</u>	<u>Moving Avg. of 4</u>
% 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:

1. Combined Gradation of Hot-Bin or Combined Belt Aggregate Samples (Drier Drum). (% Passing 1/2 in., No. 4., No. 8, No. 30, and No. 200 Sieves)
2. Asphalt Content
3. Bulk Specific Gravity of Marshall Sample
4. Maximum Specific Gravity of Mixture

C. Corrective Action for Required Plant Tests

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. High Density in the Growth Curve. 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. Acceptance of Test Section. 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. No individual core can be below a minimum of 94% density.
  - b. All Marshall 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. Density Acceptance under Production Paving. 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 Concrete 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 Resident 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.

Steven J. Long, P.E.  
Acting Chief Engineer

Supersedes Policy Memorandum 96-2 dated January 16, 2007.

# **APPENDIX A**

# BITUMINOUS WORKSHEET

Airport: \_\_\_\_\_ Project No.: \_\_\_\_\_ AIP No.: \_\_\_\_\_

Mix Design #: \_\_\_\_\_ Material Code: \_\_\_\_\_ Producer: \_\_\_\_\_  
Prod. #: \_\_\_\_\_

## AGGREGATE

Mat'l. Code: \_\_\_\_\_

Producer #: \_\_\_\_\_

Prod. Name \_\_\_\_\_

Location: \_\_\_\_\_

## Percent Passing

### Sieve Size

1 inch \_\_\_\_\_

3/4 inch \_\_\_\_\_

1/2 inch \_\_\_\_\_

3/8 inch \_\_\_\_\_

No. 4 \_\_\_\_\_

No. 8 \_\_\_\_\_

No. 16 \_\_\_\_\_

No. 30 \_\_\_\_\_

No. 50 \_\_\_\_\_

No. 100 \_\_\_\_\_

No. 200 \_\_\_\_\_

Washed (y/n) \_\_\_\_\_

O.D. Gravity \_\_\_\_\_

App. Gravity \_\_\_\_\_

Absorption \_\_\_\_\_

Asphalt Gravity \_\_\_\_\_ Asphalt Source \_\_\_\_\_ Asphalt Producer No. \_\_\_\_\_

## MARSHALL DATA

% Asphalt \_\_\_\_\_

M. Stability \_\_\_\_\_

Flow \_\_\_\_\_

D \_\_\_\_\_

d \_\_\_\_\_

% Air Voids \_\_\_\_\_

Q.C. Manager Name: \_\_\_\_\_ Phone number: \_\_\_\_\_

Laboratory Location: \_\_\_\_\_ Fax Number: \_\_\_\_\_

Remarks: \_\_\_\_\_

# APPENDIX B

**QUALITY CONTROL TESTING (PLANT)**

<b>PARAMETER</b>	<b>FREQUENCY</b>	<b>SAMPLE SIZE</b>	<b>TEST METHOD</b>	<b>REPORT FORM</b>
Aggregate Gradations: Hot bins for batch and continuous plants--- Individual cold-feeds or combined belt-feeds for drier drum plants.	Minimum 1 per day of production and at least 1 per 1000 tons.	CA07/11: 5000 gm CA13: 2000 gm CA16: 1500 gm Fine agg: 500 gm 1 gallon asphalt cement	ASTM C 136	AER M-9
Aggregate gradations: Stockpiles	Minimum 1 per aggregate per week per stockpile.	CA07/11: 5000 gm CA13: 2000 gm CA16: 1500 gm Fine agg: 500 gm *Note: The above test sample sizes are to be obtained from splitting down a larger sample from the stockpiles.	ASTM C 136	AER M-9
Maximum Specific Gravity	Minimum 1 per 1000 tons	1200 gm per test	ASTM D 2041	AER M-11 and AERM-14
Bulk Specific Gravity	Minimum 1 per 1000 tons	1250 gm per briquette	ASTM D 2726	AER M-11 and AERM-14
Marshall Stability and Flow	Minimum 1 per 1000 tons	1250 gm per briquette	ASTM D 1559	AER M-11 and AERM-14
% Air Voids	Minimum 1 per 1000 tons		ASTM D 3203	AER M-11 and AERM-14
Extraction	Minimum 1 per 1000 tons	1000 gm (surface) 1500 gm (base)	ASTM D 2172	AER M-11 and AERM-14
Ignition Oven Test	Minimum 1 per 1000 tons	1500 gm		AER M-14
Nuclear Asphalt Gauge	Minimum 1 per 1000 tons	1000-1100 gm	ASTM D 2145	AER M-14

### MIX DESIGN TESTING

<b>PARAMETER</b>	<b>FREQUENCY</b>	<b>SAMPLE SIZE</b>	<b>TEST METHOD</b>	<b>REPORT FORM</b>
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)

**QUALITY CONTROL TESTING (PAVER)**

<b>PARAMETER</b>	<b>FREQUENCY</b>	<b>SAMPLE SIZE</b>	<b>TEST METHOD</b>	<b>REPORT FORM</b>
Nuclear Density Test	As required by the Contractor to amintain consistent passing density	Various locations	ASTM D 2950	

# APPENDIX C

**AGGREGATE HMA BASE COURSE**

<b>Percentage by Weight Passing Sieves Job Mix Formula (JMF)</b>		
<b>Sieve Size</b>	<b>Gradation B Range 1" Maximum</b>	<b>Ideal Target</b>
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
<b>Bitumen %:</b>		
<b>Stone</b>	<b>4.5 – 7.0</b>	<b>5.5</b>

**AGGREGATE HMA SURFACE COURSE**

<b>Percentage by Weight Passing Sieves Job Mix Formula (JMF)</b>		
<b>Sieve Size</b>	<b>Gradation B Range <sup>3</sup>/<sub>4</sub>" Maximum</b>	<b>Ideal Target</b>
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

State of Illinois  
Department of Transportation  
Division of Aeronautics

---

**POLICY MEMORANDUM**

February 20, 2014

Springfield, Illinois

Number 96-3

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 2003-1, "*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 2003-1. 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:

<u>Test Parameter</u>	<u>Acceptable Limits of Precision</u>
% Passing	
1/2 in.	5.0 %
No. 4	5.0 %
No. 8	3.0 %
No. 30	2.0 %
No. 200	2.2 %
Asphalt Content	0.3 %
Maximum Specific Gravity ( $G_{mm}$ ) of Mixture	0.026
Bulk Specific Gravity ( $G_{mb}$ ) of Gyratory Brix	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, 2004

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**

January 1, 2004	Springfield, Illinois	Number: 2001-1
-----------------	-----------------------	----------------

TO: CONTRACTORS

SUBJECT: REQUIREMENTS FOR COLD WEATHER CONCRETING

I. PURPOSE

- A. This policy memorandum outlines the minimum requirements for cold weather concreting. Cold weather is defined as whenever the average ambient air temperature during day or night drops below 40°F.

II. COLD WEATHER CONCRETING PLAN

- A. The contractor shall submit a cold weather concreting plan to the Engineer for approval. Cold weather concreting operations are not allowed to proceed until the contractor's cold weather concreting plan has been approved by the Engineer.
- B. The contractor's plan shall be in compliance with this memorandum and shall address, as a minimum, the following:
1. Concrete Mix Manufacturing
  2. Concrete Mix Temperature Monitoring
  3. Base Preparation
  4. Concrete Curing and Protection
  5. In Place Concrete Temperature Monitoring
  6. Strength Test Specimens

III. MINIMUM REQUIREMENTS

A. Concrete Mix Manufacturing

1. The contractor must make the necessary adjustments so that the concrete temperature is maintained from 50°F to 90°F for placement. Acceptable methods include:
  - a) Heating the mixing water Note: If the mixing water is to be heated to a temperature above 100°F, the contractor must include a mixing sequence plan to indicate the order that each component of the mix is to be charged into the mixer.

- b) Heating the aggregates Note: The exact method of heating the aggregates shall be included as part of the cold weather concreting plan. Aggregates must be free of ice and frozen lumps. To avoid the possibility of a quick or flash set of the concrete, when either the water or aggregates are heated to above 100°F, they should be combined in the mixer first before the cement is added.

#### B. Concrete Mix Temperature

1. The contractor shall monitor the mix temperature at the plant and prior to placement in the forms. Mix that does not meet the temperature requirement of 50°F to 90°F shall be rejected for use on the project.

#### C. Base Preparation

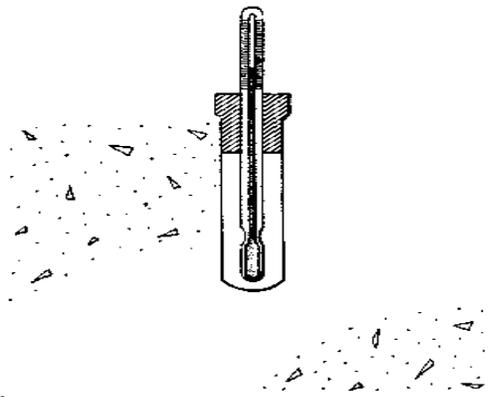
1. Paving or placing concrete on a frozen base, subbase, or subgrade is prohibited.
2. The base, subbase, or subgrade on which the concrete is to be placed shall be thawed and heated to at least 40°F. The method by which the base subbase or subgrade is to be heated shall be indicated in the contractor's cold weather concreting plan. Insulating blankets or heated enclosures may be required.

#### D. Concrete Protection and Curing

1. In addition to the curing options available in article 501-3.17 (a) (b), (c), and (d) of the Standard Specifications for Construction of Airports, the contractor shall protect the concrete in such a manner as to maintain a concrete temperature of at least 50°F for 10 days.
2. The method of concrete protection shall be by use of insulating layer or heated enclosure around the concrete. The method of protection shall be indicated in the contractor's cold weather concreting plan. When insulating layers are to be used, the thermal resistance to heat transfer (R Value in °F\*hr\*ft<sup>2</sup>/BTU) of the insulation material selected, shall be appropriate for the slab thickness being constructed and shall be indicated in the cold weather concreting plan.
3. Appendix A shows a chart and table taken from the American Concrete Institute specification, ACI 306 R Cold Weather Concreting, which may be used by the contractor in selecting the proper insulation (R Value) and insulating material which may be used.

#### E. In-Place Concrete Temperature Monitoring

1. Once the concrete is in place, the protection method used, must ensure that the concrete temperature does not fall below 50°F for the time period specified in Section (D. 1.) of this Policy Memorandum (10 days).
2. The concrete temperature on the surface and below the surface must be monitored and recorded by the contractor for the duration of the protection period in Section (D. 1.).
3. After the concrete has hardened, surface temperature can be checked with special surface thermometers or with an ordinary thermometer that is kept covered with insulating blankets. The high and low values for each 24-hour period of protection must be measured and recorded.
4. One acceptable method of checking temperature below the concrete surface is given in the Portland Cement Association (PCA) book entitled "Design and Control of Concrete Mixtures" latest edition. The method is indicated below and it should be noted that the thermometer should be capable of recording high and low values for a given 24-hour period.



5. The exact method for surface and sub-surface concrete temperature monitoring shall be indicated in the contractor's cold weather concreting plan. The maximum permissible difference between the interior and surface temperature is 35 °F. Adjustments in protection method shall be implemented if the maximum permissible difference is exceeded.

#### F. Strength specimen handling

1. The Contractor is responsible for making, transporting, and curing all samples (beams or cylinders)
2. The Contractor is required to load the testing machine and dispose of the broken pieces.
3. Onsite, indoor curing facilities, meeting the requirements of ASTM C-31, shall be required for cold weather concreting operations.

4. Sampling for strength specimens shall be according to the Contract Special Provisions. Sampled concrete shall be transported to the indoor curing facilities for the casting of strength specimens.
5. The exact location and description of the curing facilities shall be indicated in the contractor's cold weather concreting plan.
6. The method of transporting concrete sampled from the grade to the curing facilities for casting shall be indicated in the contractor's cold weather concreting plan.

Steven J. Long, P.E.  
Acting Chief Engineer

Supersedes Policy Memorandum 2001-1 dated January 1, 2001

# APPENDIX A

**Minimum exposure temperatures for concrete flatwork placed on the ground for concrete placed & surface temperature maintained at 50 F (10 C) for 3 days on ground at 35 F (2 C)**

Slab thickness, in. (m)	Minimum ambient air temperature, deg F (deg C) allowable when insulation having these values of thermal resistance R, hr-ft <sup>2</sup> -F/Btu (m <sup>2</sup> -K/W), is used			
	R = 2 (0.35)	R = 4 (0.70)	R = 6 (1.06)	R = 8 (1.41)
Cement content = 300 lb/yd <sup>2</sup> (178 kg/m <sup>2</sup> )				
4 (0.10)	*	*	*	*
8 (0.20)	*	*	*	*
12 (0.31)	*	*	*	*
18 (0.46)	42 (6)	38 (3)	32 (0)	26 (-3)
24 (0.61)	37 (3)	25 (-4)	11 (-12)	-3 (-19)
30 (0.76)	31 (-1)	15 (-9)	-1 (-18)	-17 (-27)
36 (0.91)	31 (-1)	12 (-11)	-5 (-21)	-22 (-30)
Cement content = 400 lb/yd <sup>2</sup> (237 kg/m <sup>2</sup> )				
4 (0.10)	*	*	*	*
8 (0.20)	*	*	*	*
12 (0.31)	46 (8)	44 (7)	42 (6)	40 (4)
18 (0.46)	36 (2)	22 (-6)	8 (-13)	-6 (-21)
24 (0.61)	28 (-2)	9 (-13)	-10 (-23)	-29 (-34)
30 (0.76)	21 (-6)	0 (-18)	-21 (-29)	-42 (-41)
36 (0.91)	21 (-6)	-4 (-20)	-29 (-34)	-50 (-46)
Cement content = 500 lb/yd <sup>2</sup> (296 kg/m <sup>2</sup> )				
4 (0.10)	*	*	*	*
8 (0.20)	*	*	*	*
12 (0.31)	42 (6)	36 (2)	30 (-1)	24 (-4)
18 (0.46)	30 (-1)	12 (-11)	-6 (-21)	-22 (-30)
24 (0.61)	21 (-6)	-5 (-21)	-31 (-35)	-50 (-46)
30 (0.76)	16 (-9)	-10 (-23)	-42 (-41)	-74 (-59)
36 (0.91)	16 (-9)	-18 (-28)	-50 (-46)	#
Cement content = 600 lb/yd <sup>2</sup> (356 kg/m <sup>2</sup> )				
4 (0.10)	*	*	*	*
8 (0.20)	*	*	*	*
12 (0.31)	38 (3)	26 (-3)	14 (-10)	2 (-17)
18 (0.46)	24 (-4)	0 (-18)	-24 (-31)	-48 (-44)
24 (0.61)	14 (-10)	-16 (-27)	-46 (-43)	-82 (-63)
30 (0.76)	10 (-12)	-20 (-29)	-62 (-52)	#
36 (0.91)	7 (-14)	-30 (-34)	#	#

\* > 50 F (10 C): additional heat required

# << -60 F (-51 C)

**Minimum exposure temperatures for concrete flatwork placed on the ground for concrete placed & surface temperature maintained at 50 F (10 C) for 7 days on ground at 35 F (2 C)**

Slab thickness, in. (m)	Minimum ambient air temperature, deg F (deg C) allowable when insulation having these values of thermal resistance R, hr-ft <sup>2</sup> -F/Btu (m <sup>2</sup> -K/W), is used			
	R = 2 (0.35)	R = 4 (0.70)	R = 6 (1.06)	R = 8 (1.41)
Cement content = 300 lb/yd <sup>2</sup> (178 kg/m <sup>2</sup> )				
4 (0.10)	*	*	*	*
8 (0.20)	*	*	*	*
12 (0.31)	*	*	*	*
18 (0.46)	46 (8)	42 (6)	36 (2)	30 (-1)
24 (0.61)	40 (4)	31 (-1)	22 (-6)	11 (-12)
30 (0.76)	35 (2)	22 (-6)	7 (-14)	-8 (-22)
36 (0.91)	31 (-1)	13 (-11)	-5 (-21)	-23 (-31)
Cement content = 400 lb/yd <sup>2</sup> (237 kg/m <sup>2</sup> )				
4 (0.10)	*	*	*	*
8 (0.20)	*	*	*	*
12 (0.31)	*	*	*	*
18 (0.46)	41 (5)	32 (0)	22 (-6)	12 (-11)
24 (0.61)	35 (2)	19 (-7)	-1 (-17)	-15 (-26)
30 (0.76)	28 (-2)	8 (-13)	-14 (-26)	-36 (-38)
36 (0.91)	23 (-5)	-4 (-20)	-29 (-34)	-54 (-48)
Cement content = 500 lb/yd <sup>2</sup> (296 kg/m <sup>2</sup> )				
4 (0.10)	*	*	*	*
8 (0.20)	*	*	*	*
12 (0.31)	48 (9)	44 (7)	40 (4)	36 (2)
18 (0.46)	36 (2)	22 (-6)	8 (-13)	-6 (-21)
24 (0.61)	28 (-2)	6 (-14)	-16 (-27)	-38 (-39)
30 (0.76)	22 (-6)	-7 (-22)	-36 (-38)	-64 (-53)
36 (0.91)	16 (-9)	-18 (-28)	-50 (-46)	#
Cement content = 600 lb/yd <sup>2</sup> (356 kg/m <sup>2</sup> )				
4 (0.10)	*	*	*	*
8 (0.20)	*	*	*	*
12 (0.31)	44 (7)	38 (3)	32 (0)	26 (-3)
18 (0.46)	31 (-1)	14 (-10)	-5 (-21)	-24 (-31)
24 (0.61)	22 (-6)	-5 (-21)	-32 (-36)	-61 (-52)
30 (0.76)	14 (-10)	-19 (-28)	-67 (-55)	#
36 (0.91)	7 (-14)	-30 (-34)	#	#

\* > 50 F (10 C): additional heat required

# < -60 F (-51 C)

## Thermal Resistance of Various Insulating Materials

Insulating Material	Thermal resistance "R" for these thicknesses of material*	
	1 in., hr·ft <sup>3</sup> ·F / Btu	10 mm, m <sup>3</sup> ·K / W
<b>Boards and slabs</b>		
Expanded polyurethane (R-11 exp.)	6.25	0.438
Expanded polystyrene extruded (R-11 exp.)	5	0.347
Expanded polystyrene extruded, plain	4	0.277
Glass fiber, organic bonded	4	0.277
Expanded polystyrene, molded beads	3.57	0.247
Mineral fiber with resin binder	3.45	0.239
Mineral fiber board, wet felted	2.94	0.204
Sheathing, regular density	2.63	0.182
Cellular glass	2.63	0.182
Laminated paperboard	2	0.139
Particle board (low density)	1.85	0.128
Plywood	1.25	0.087
<b>Blanket</b>		
Mineral fiber, fibrous form processed from rock, slag, or glass	3.23	0.224
<b>Loose fill</b>		
Wood fiber, soft woods	3.33	0.231
Mineral fiber (rock, slag, or glass)	2.5	0.173
Perlite (expanded)	2.7	0.187
Vermiculite (exfoliated)	2.2	0.152
Sawdust or shavings	2.22	0.154

\*Values from ASHRAE Handbook of Fundamentals, 1977, American Society of Heating, Refrigerating, and Air-Conditioning Engineers, New York.

State of Illinois  
Department of Transportation  
Division of Aeronautics

---

**POLICY MEMORANDUM**

June 12, 2014

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 (Standard Specifications) 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 87-2.

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 ±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
AASHTO T 308-09	Ignition Method for Determining Asphalt Content (Illinois Modified)
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 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 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 testing and develop a complete mix design, according to the following guidelines: Mix design submittals should be sent to IDA, Construction/Material Section, Attn: Certification and Mixtures Engineer. Note: Quality Control (QC) Managers shall be Level III QC/QA qualified and will be responsible for all mix designs. All Technicians obtaining samples and performing gradations shall have successfully completed the IDOT Mixture Aggregate Technician Course and Technicians performing mix design testing and plant sampling/testing shall have successfully completed the IDOT Bituminous Concrete Level 1 Technician Course under the Illinois Department of Transportation, Bureau of Materials & Physical Research QC/QA Training Program.

#### A. Preliminary Mix Design Submittal

Top half of the IDOT Mix Design Software Cover Sheet (QC/QA Package) should be completed for the aggregate mix design parameters and should include the following:

1. Producer name, Producer # and Producer location of each aggregate (Producers are assigned Producer numbers by IDOT Central Bureau of Materials)
2. Material code for each aggregate

3. Aggregate Gradations per ASTM C-136 (The Contractor shall obtain representative samples of each aggregate)
4. Material code for each aggregate (i.e. 022CM11, etc.)
5. Proposed Aggregate Blend (% for each aggregate) Note: Based on the gradation results, the Contractor shall select the blend percentages that comply with the Standard Specifications, Section 401/403 – 3.2 JOB MIX FORMULA, Table 2. (Appendix A)
6. Producer name, Producer #, and specific gravity of the proposed asphalt cement
7. IDOT approved PG Binder 64-22 shall be used unless otherwise specified by the IDA Engineer of Construction & Materials.

B. Mixture Design & Testing

Design Parameters

Gyrations ( $N_{des}$ ) – per Standard Specifications, Section 401/403 – 3.2 (JMF), Table 1

Asphalt Content – AC% per Standard Specifications, Section 401/403 – 3.2 (JMF), Table 2

Maximum Specific Gravity –  $G_{mm}$  (ASTM D 2041)

Bulk Specific Gravity –  $G_{mb}$  (ASTM D 2726)

% air voids –  $V_a$  (ASTM D3203) per Standard Specifications, Section 401/403 – 3.2 (JMF), Table 2

VFA % – per Standard Specifications, Section 401/403 – 3.2 (JMF), Table 1

Mixture Tests

After verification and approval by IDA of the proposed design information from step A., the Contractor shall perform mixture tests on 4 gyratory brix (4 point mix design) to determine the optimum AC content for the target Air Voids.

C. Mix Design Submittal

The Preliminary JMF including all test results shall be reported to IDA, Construction/Material Section, Attn: Certification and Mixtures with the following data:

- a) Aggregate & asphalt cement material codes
- b) Aggregate & asphalt cement producer numbers, names, and locations
- c) Percentage of each individual aggregate
- d) Aggregate 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

D. Mix Approval

Once the proposed JMF is reviewed and approved by IDA, a JMF approval letter will be issued to the contractor. Production of HMA is not authorized until a JMF letter has been issued. When a Test Section is specified as part of the contract, the proposed JMF shall be considered preliminary until it passes all Test Section requirements.

E. Change in Material Sources

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 IDA, Construction/Material Section, Attn: Certification and Mixtures Engineer and the Resident Engineer no later than the start of the next work day. 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.

- A. Gradations for Mixture Proportioning: Aggregate gradations for proportioning (ASTM C-136) are required at a minimum of one per week when mix is produced. Aggregate gradations can be either hot bin gradations for batch plants or stockpile gradations for drier drum plants. Hot bin gradations may be reported on either form AER 9 or on the Division of Highways QC/QA package "Grad 1" Tab in the Daily HMA Plant Reporting Module. Stockpile gradations shall be shown on form MI504QC from the "Print Out" Tab in the Aggregate Stockpile Module of The Division of Highways QC/QA Package.
- B. Production Mixture Testing: 1 per 1000 tons of the following (if total daily quantity is  $\leq$  200 tons (small quantity) then a mix sample is not required and this quantity may be added on to next day's total for testing. Two consecutive days without testing is not allowed.): Reflux extraction (ASTM D2172) or Ignition oven test showing gradation and AC Content, Maximum Specific Gravity (ASTM D 2041), Bulk Specific Gravity (ASTM D 2726) and % Air Voids (ASTM D 3203). Calculations of the results (including weight data) shall be shown on the "Voids 1" and "IGN & NUC AC 1" tab printouts from the Division of Highways QC/QA Package Daily HMA Plant Reporting module.

- C. A certification from the quarry for the total quantity of aggregate listing the source, gradation type, and quality designation of aggregate shipped. The Aggregate Certification of Compliance (AER18) may be used by the contractor for this purpose.
- D. Original asphalt shipping tickets listing the source and type of asphalt shipped.
- E. Check sample tests at a rate of 1/5000 tons randomly selected by the R.E. shall be sent with an identification sheet to an independent laboratory designated by the Division of Aeronautics. If the project is < 5000 tons, 1 sample selected randomly shall be sent.
- F. Bituminous Test Summary (AER 14) Note: The R.E. should make certain that the Contractor fills this form out daily (for mix production days) and distributes it daily to the Division of Aeronautics and R.E. The Contractor (QC Manager) is required to note any adjustments to the mix or to the plant (proportioning) in the "Remarks/Corrective Measures" section of the AER 14.

V. QUALITY CONTROL

- A. Control Limits (Control Charts used for projects > 4000 tons per bituminous concrete pay item)

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>	<u>Individual Test</u>	<u>Moving Avg. of 4</u>
% 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 percent's shall be based on washed samples. Dry sieve gradations (-200) shall be adjusted based on anticipated degradation in the mixing process.

- B. Control Charts (Control Charts used for projects > 4000 tons per bituminous concrete pay item)

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:

1. 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.

#### Corrective Action for Required Plant Tests

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 compaction 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 compaction 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 compaction 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. High Density in the Growth Curve. 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 determination, 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. Acceptance of Test Section. 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. Density Acceptance under Production Paving. 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 calculation.

Steven J. Long, P.E. Acting Chief Engineer

Supersedes Policy Memorandum 2003-1 dated May 1, 2014

# APPENDIX A

AGGREGATE BITUMINOUS BASE COURSE

---

Percentage by Weight Passing Sieves  
Job Mix Formula (JMF)

---

Sieve Size	Gradation B Range 1" Maximum	Ideal 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 SURFACE COURSE

---

Percentage by Weight Passing Sieves  
Job Mix Formula (JMF)

---

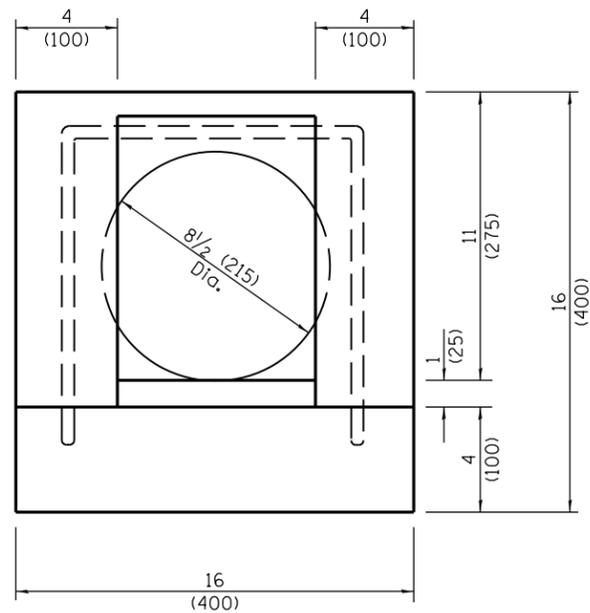
Sieve Size	Gradation B Range ¾" Maximum	Ideal Target
1 in.	100	---
¾ in.	100	100
½ in.	99 - 100	100
⅜ in.	91 - 97	94
No. 4	56 – 62	59
No. 8	36 - 42	39
No. 16	27 - 32	30
No. 30	19 - 25	22
No. 100	7 – 9	8
No. 200	5 – 7	6

---

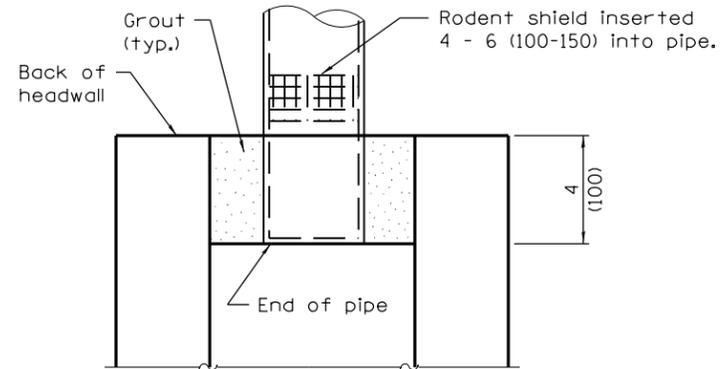
Bitumen %:		
Stone	5.0 – 7.0	6.0

---

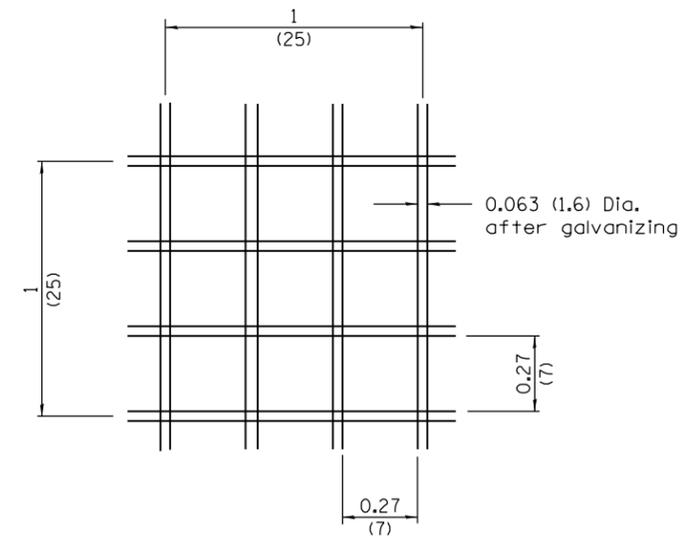
**IDOT DESIGN STANDARDS**



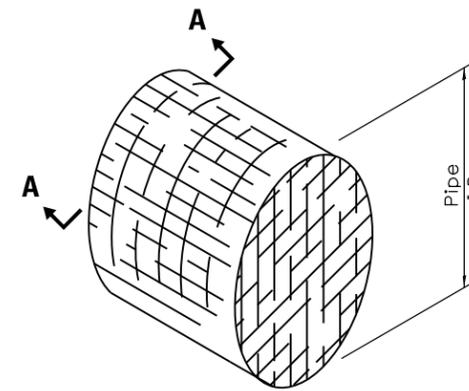
**FRONT VIEW**



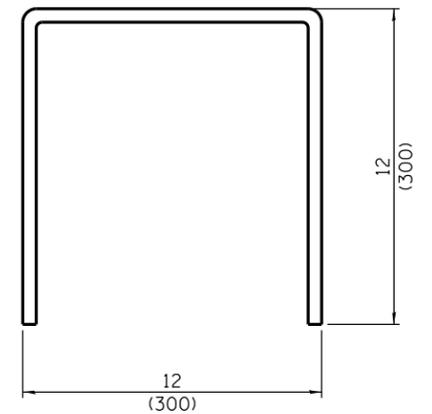
**RODENT SHIELD PLACEMENT**



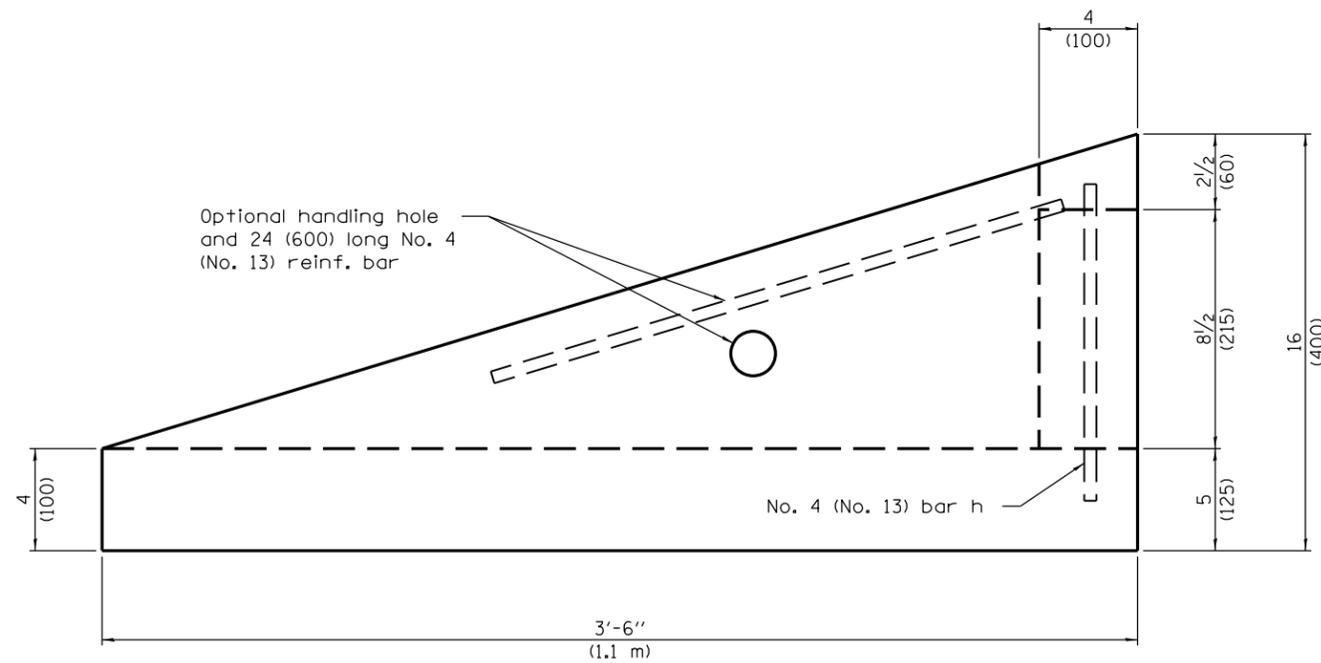
**SECTION A-A**



**DETAIL OF RODENT SHIELD**



**BAR h**



**SIDE VIEW**

**GENERAL NOTES**

An alternate paved invert meeting the approval of the Engineer may be substituted for that shown in side view.

All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation

PASSED January 1, 2009

ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2009

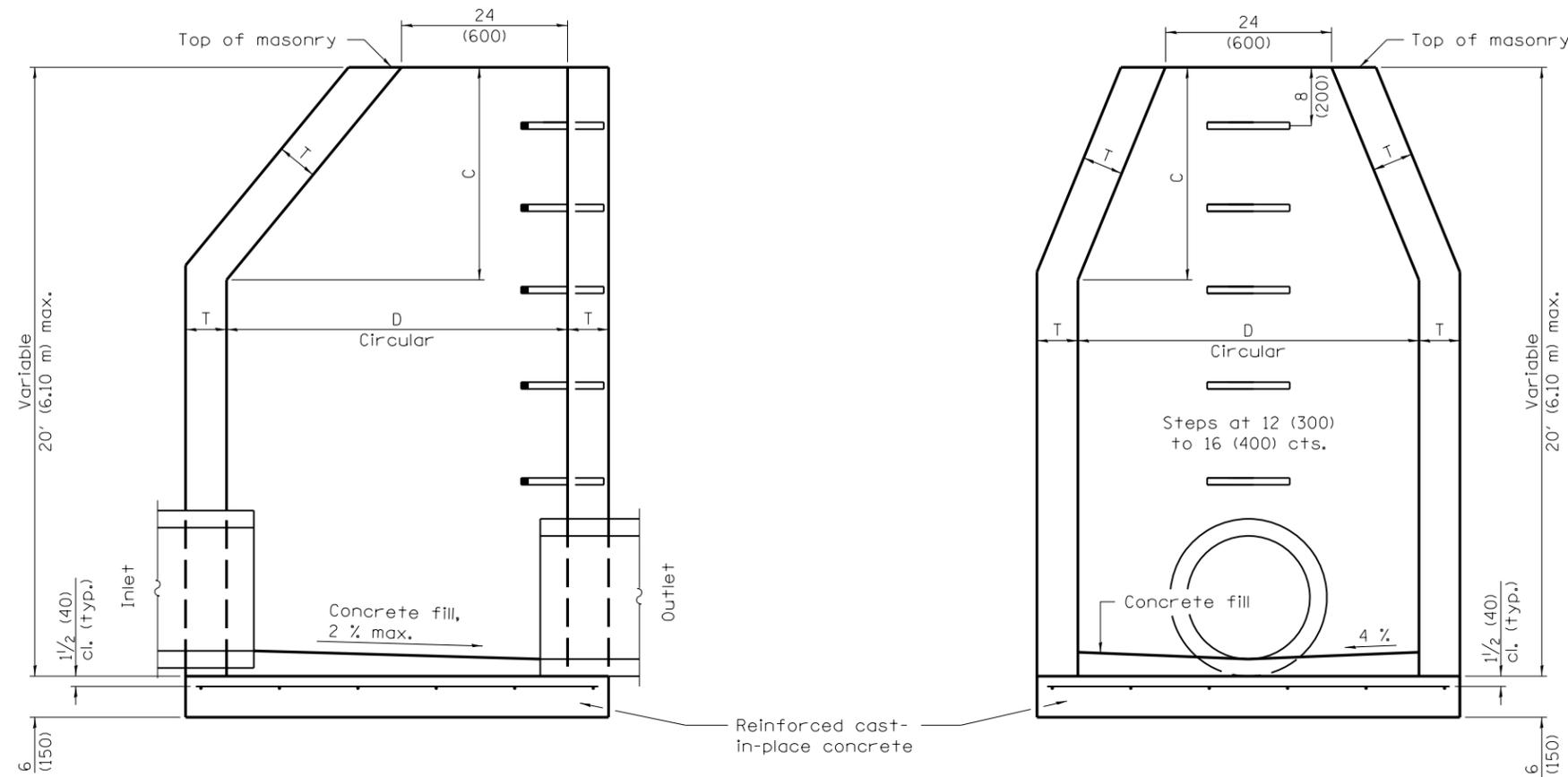
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

DATE	REVISIONS
1-1-09	Switched units to English (metric).
1-1-97	Renum. Standard 2362-4

**CONCRETE HEADWALL FOR PIPE DRAIN**

**STANDARD 601101-01**

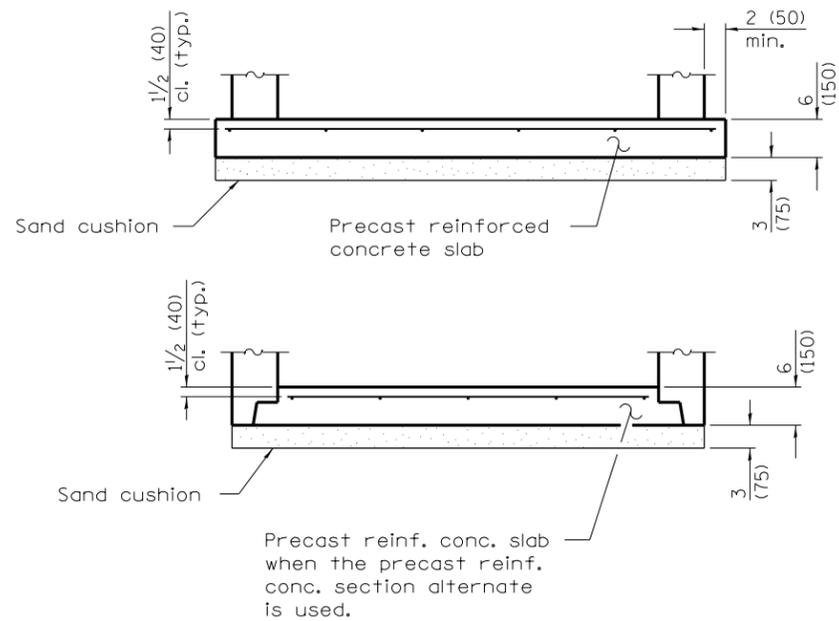


**ELEVATION - ECCENTRIC**

**ELEVATION - CONCENTRIC**

ALTERNATE MATERIALS FOR WALLS	D	C*	T (min.)
Concrete Masonry Unit	4'-0" (1.2 m)	30 (750)	5 (125)
	5'-0" (1.5 m)	3'-9" (1.15 m)	5 (125)
Brick Masonry	4'-0" (1.2 m)	30 (750)	8 (200)
	5'-0" (1.5 m)	3'-9" (1.15 m)	8 (200)
Precast Reinforced Concrete Section	4'-0" (1.2 m)	30 (750)	4 (100)
	5'-0" (1.5 m)	3'-9" (1.15 m)	5 (125)
Cast-in-place Concrete	4'-0" (1.2 m)	30 (750)	6 (150)
	5'-0" (1.5 m)	3'-9" (1.15 m)	6 (150)

\* For precast reinforced concrete sections, dimension "C" may vary from the dimension given to plus 6 (150).



**ALTERNATE BOTTOM SLAB**

**GENERAL NOTES**

Bottom slabs shall be reinforced with a minimum of 0.31 sq. in./ft. (660 sq. mm/m) in both directions with a maximum spacing of 12 (300).

Bottom slabs may be connected to the riser as determined by the fabricator; however, only a single row of reinforcement around the perimeter may be utilized.

See Standard 602701 for details of steps.

See Standard 602601 for optional Precast Reinforced Concrete Flat Slab Top.

All dimensions are in inches (millimeters) unless otherwise shown.

DATE	REVISIONS
1-1-11	Detailed rein. in slabs.
	Added max. limit to height.
	Revised general notes.
1-1-09	Switched units to
	English (metric).

**MANHOLE TYPE A**

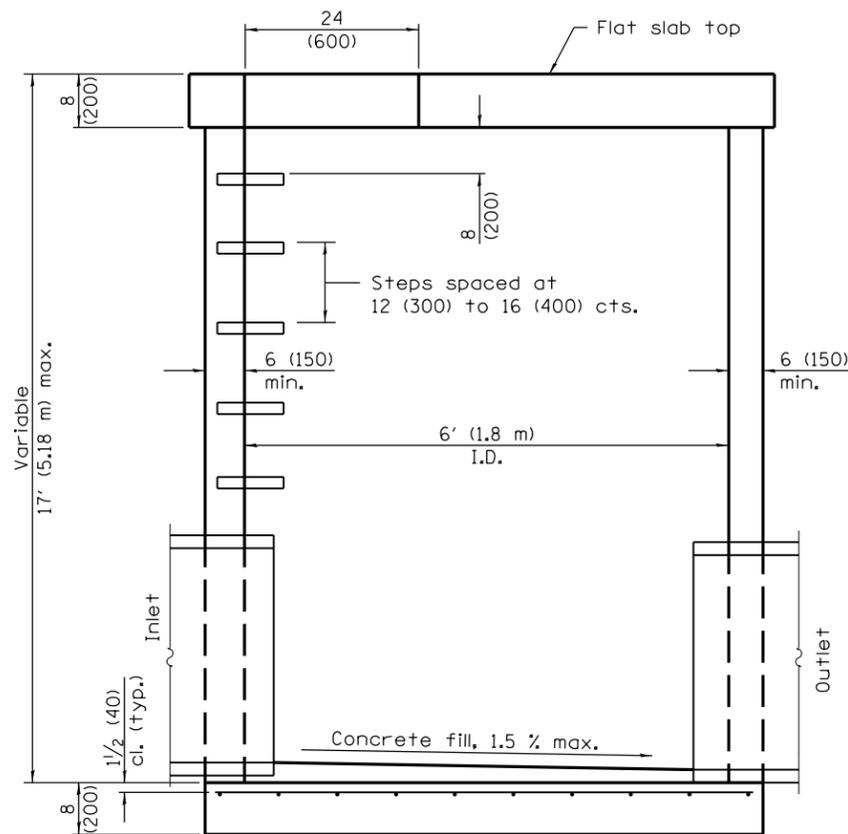
**STANDARD 602401-03**

Illinois Department of Transportation

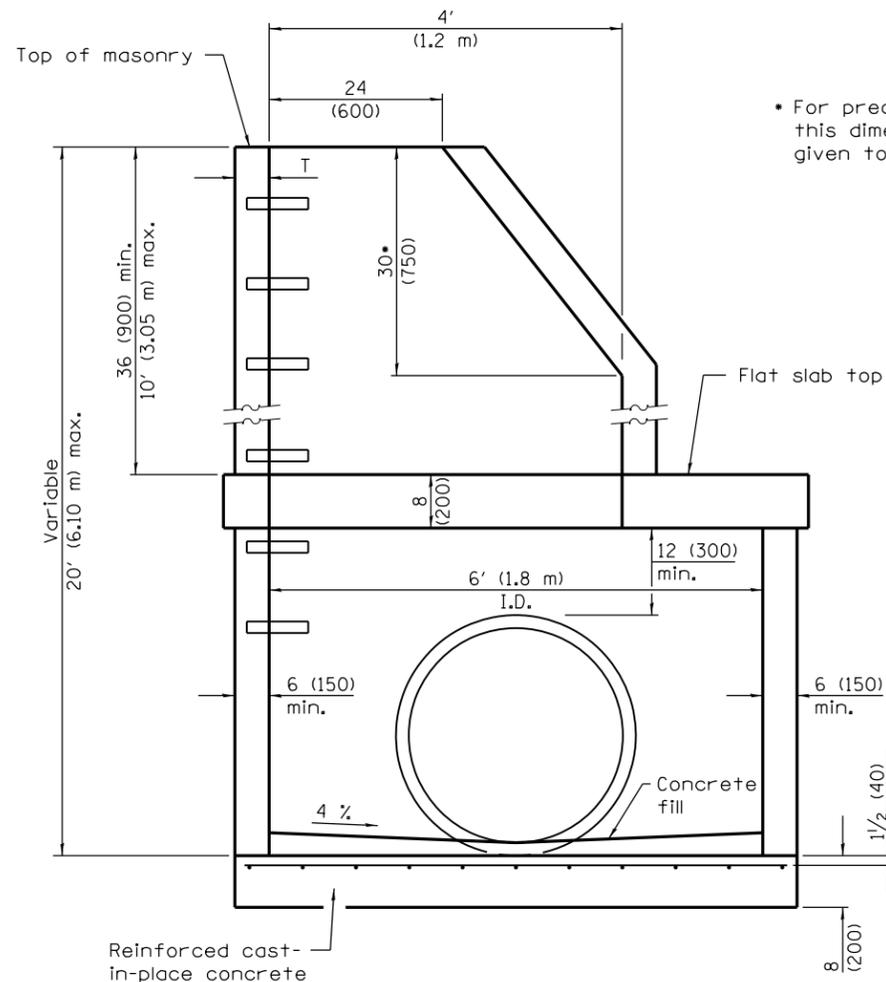
PASSED January 1, 2011  
*Michael Beard*  
 ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2011  
*Scott Schick*  
 ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

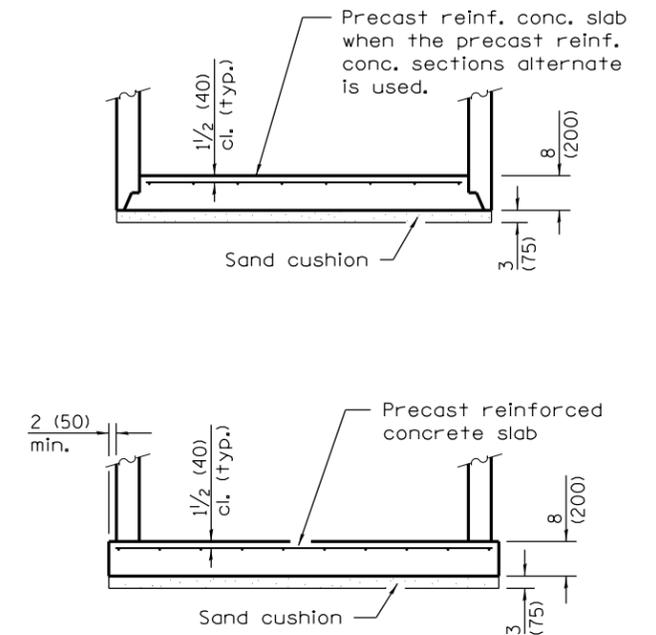


**ELEVATION**  
(with flat slab top only)

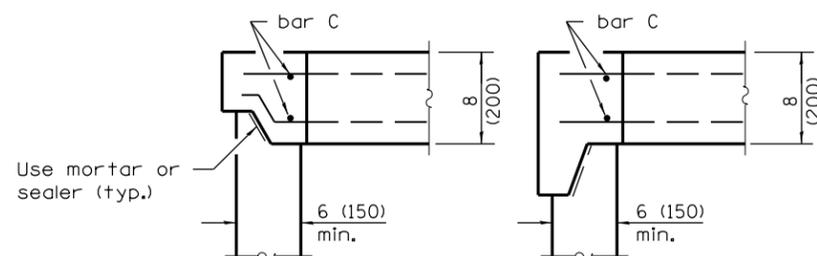


**ELEVATION**  
(with flat slab top and riser)

• For precast reinforced concrete sections, this dimension may vary from the dimension given to plus 6 (150).



**ALTERNATE BOTTOM SLABS**



**ALTERNATE JOINT CONFIGURATIONS**

ALTERNATE MATERIALS FOR WALLS	T (min)
Concrete Masonry Units	5 (125)
Precast Reinforced Concrete Sections	4 (100)
Cast-in-Place Concrete	6 (150)

**GENERAL NOTES**

Joint configuration and dimensions of flat slab top shall match and fit the riser joint detail.

Bottom slabs shall be reinforced with a minimum of 0.29 sq. in./ft. (610 sq. mm /m) in both directions with a maximum spacing of 13 (330)

Bottom slabs may be connected to the riser as determined by the fabricator; however, only a single row of reinforcement around the perimeter may be utilized.

See Standard 602701 for details of manhole steps.

All dimensions are in inches (millimeters) unless otherwise shown.

DATE	REVISIONS
1-1-14	Increased maximum heights.
	Revised General Notes.
1-1-12	Added 12 (300) min. from pipe to interm. slab, changed riser to 36 (900) min height.

**MANHOLE TYPE A**  
**6' (1.8 m) DIAMETER**

(Sheet 1 of 2)

**STANDARD 602406-06**

Illinois Department of Transportation

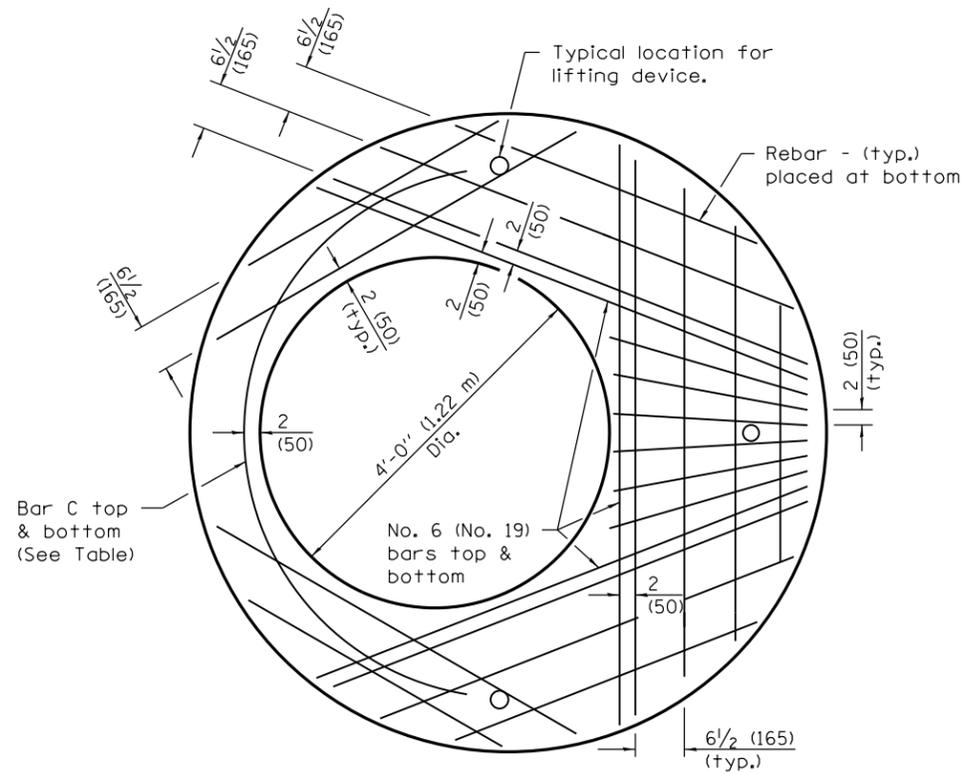
PASSED January 1, 2014

Michael Beard  
ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2014

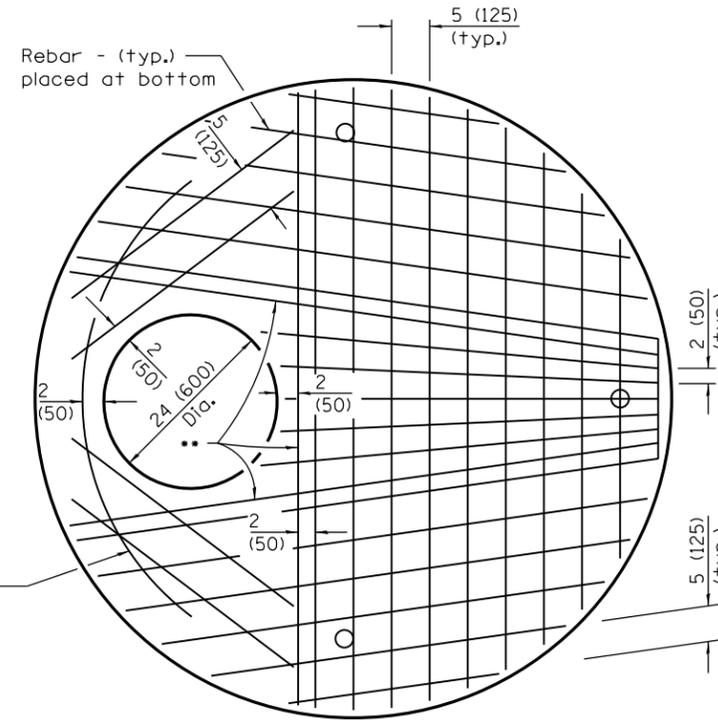
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97



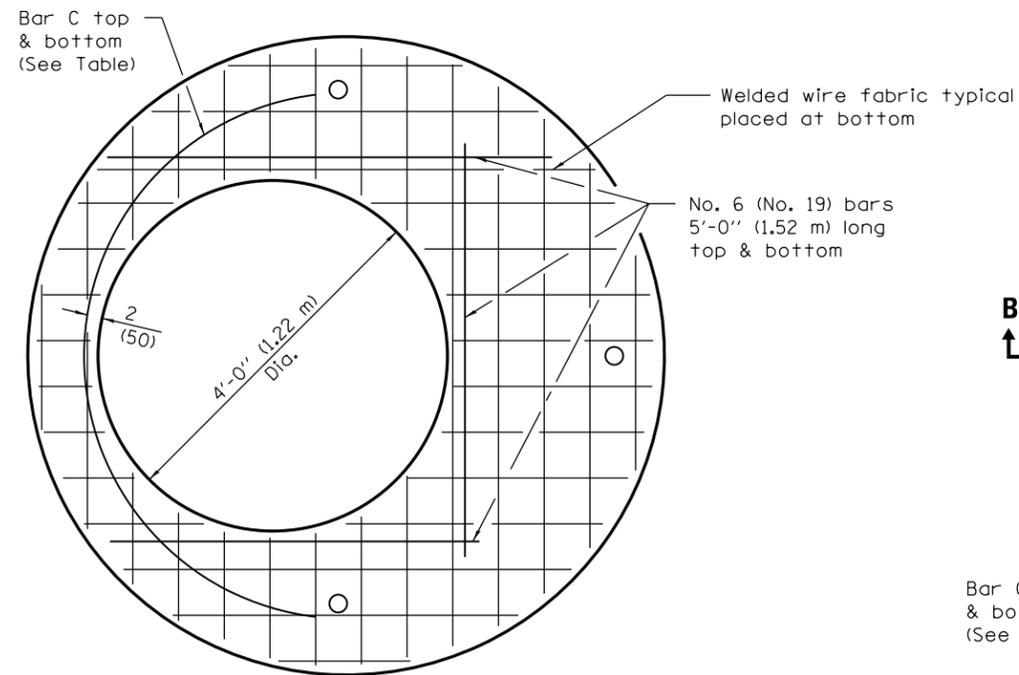
**PLAN**

Showing Rebar Reinforcement



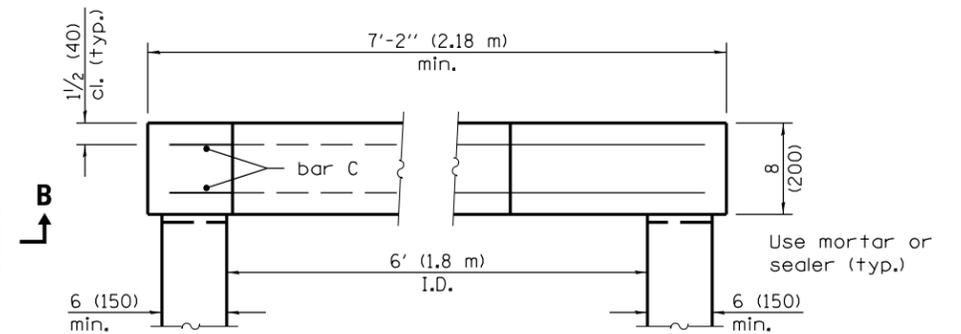
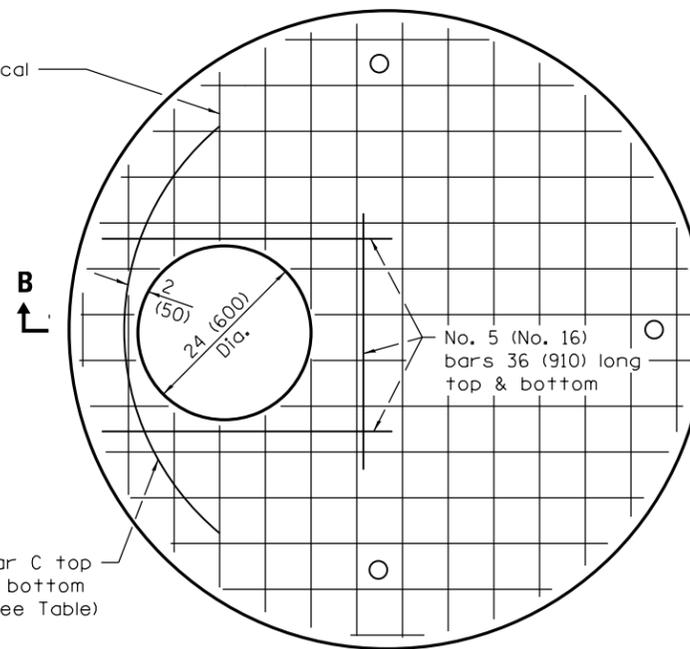
\*\* No. 6 (No. 19) bars top & bottom

Diameter of opening	Thickness	Reinforcement "As" WWF Each direction	Bar Size	No. 4 (No. 13) Bar C	
				Length	Radius
24 (600)	8 (200)	1.06 sq. in./ft. (2244 sq. mm/m)	No. 6 (No. 19)	6'-0" (1.83 m)	38 (965)
4'-0" (1.2 m)	8 (200)	0.82 sq. in./ft. (1736 sq. mm/m)	No. 6 (No. 19)	9'-0" (2.74 m)	38 (965)



**PLAN**

Showing Welded Wire Fabric Reinforcement



**SECTION B-B**

Illinois Department of Transportation

PASSED January 1, 2014

Michael Beard  
ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2014

ENGINEER OF DESIGN AND ENVIRONMENT

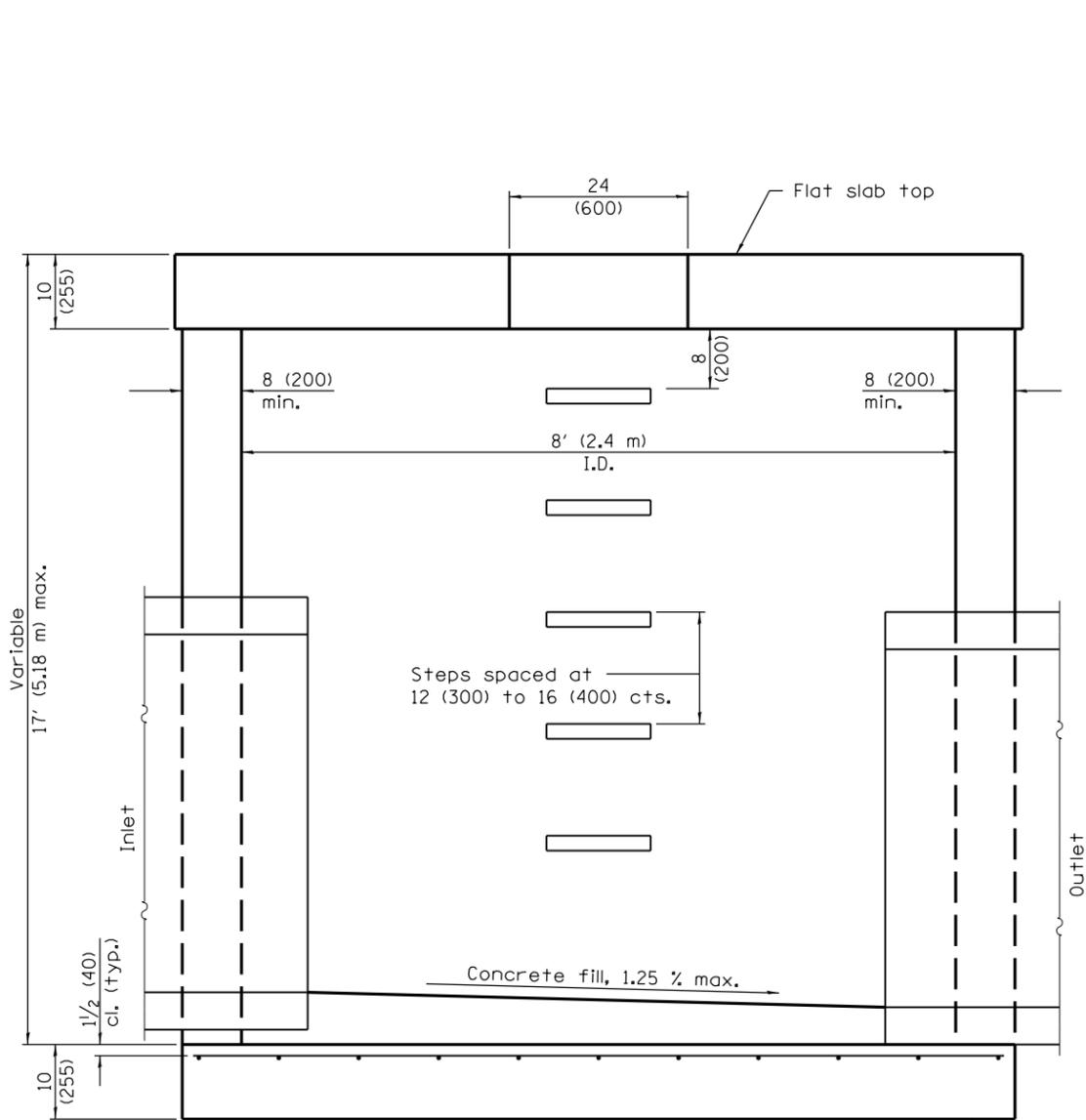
ISSUED 1-1-97

**MANHOLE TYPE A**

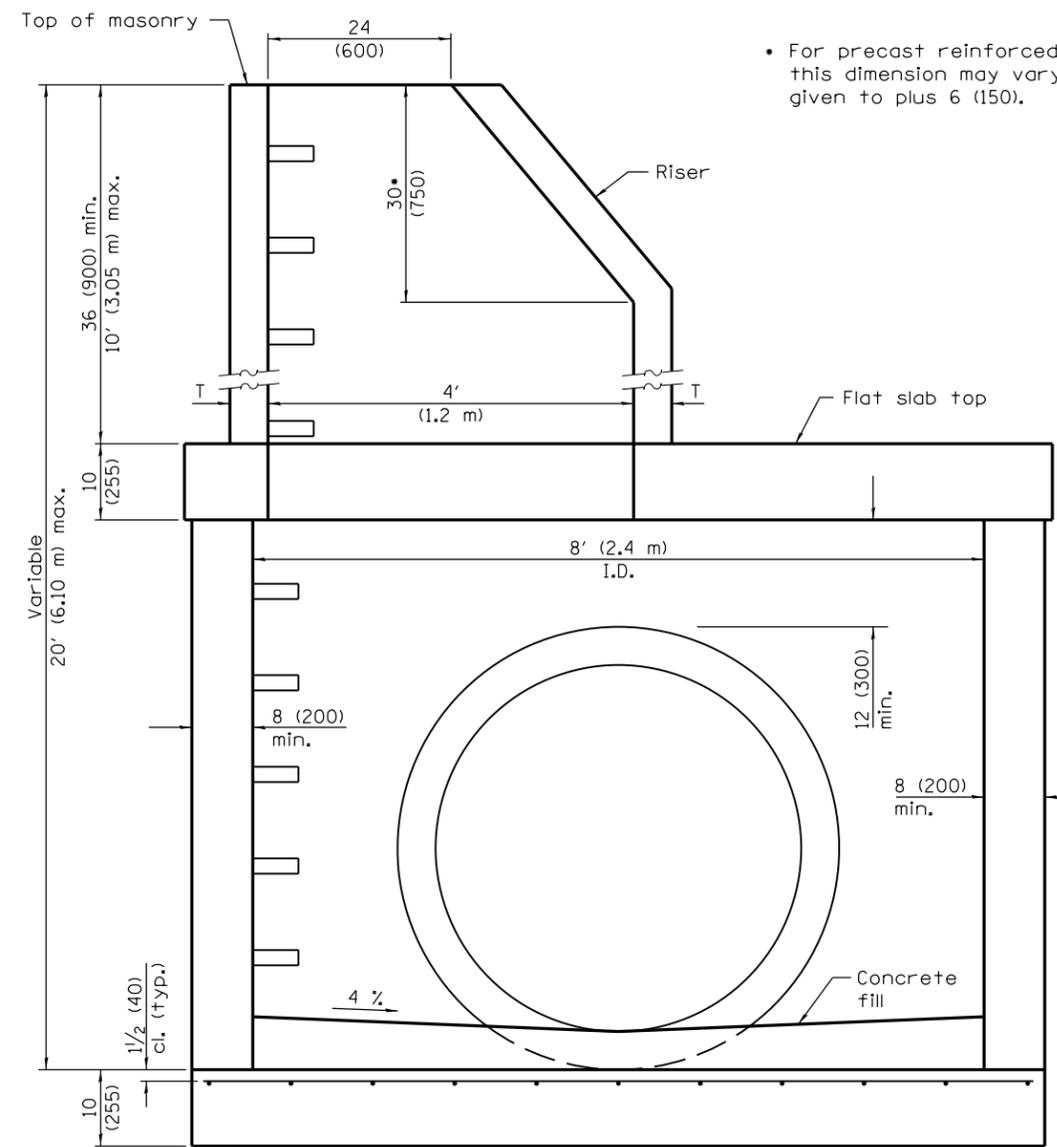
**6' (1.8 m) DIAMETER**

(Sheet 2 of 2)

**STANDARD 602406-06**

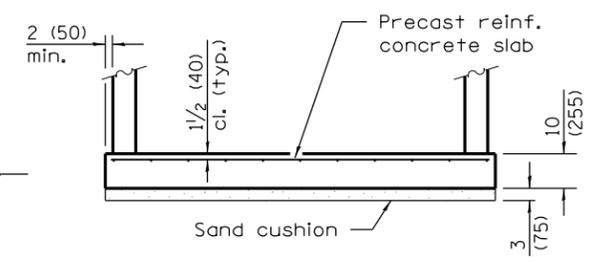
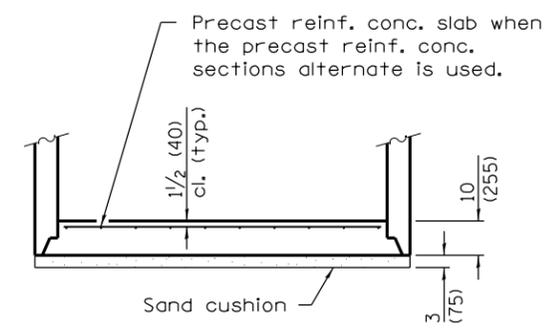


**ELEVATION**  
(With Flat Slab Top Only)



**ELEVATION**  
(With Flat Slab Top and Riser)

• For precast reinforced concrete sections, this dimension may vary from the dimension given to plus 6 (150).



**ALTERNATE BOTTOM SLABS**

**GENERAL NOTES**

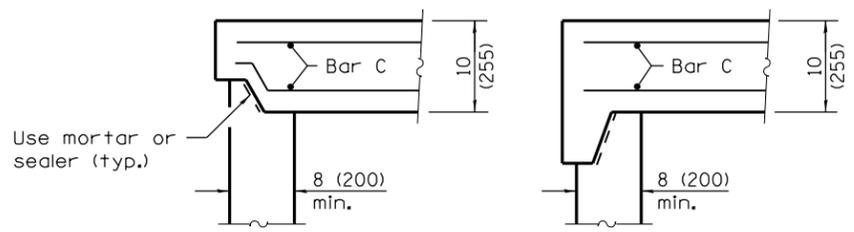
Joint configuration and dimensions of flat slab top shall match and fit the riser joint detail.

Bottom slabs shall be reinforced with a minimum of 0.34 sq. in./ft. (720 sq. mm/m) in both directions, with a maximum spacing of 11 (280).

Bottom slabs may be connected to the riser as determined by the fabricator; however, only a single row of reinforcement around the perimeter may be utilized.

See Standard 602701 for details of manhole steps.

All dimensions are in inches (millimeters) unless otherwise shown.



**ALTERNATE JOINT CONFIGURATIONS**

ALTERNATE MATERIALS FOR RISER WALLS	T (min)
Concrete Masonry Units	5 (125)
Precast Reinforced Concrete Sections	4 (100)
Cast-in-Place Concrete	6 (150)

DATE	REVISIONS
1-1-14	Increased maximum heights. Revised General Notes.
1-1-12	Changed riser to 36 (900) minimum height.

**MANHOLE TYPE A**  
**8' (2.4 m) DIAMETER**

(Sheet 1 of 2)

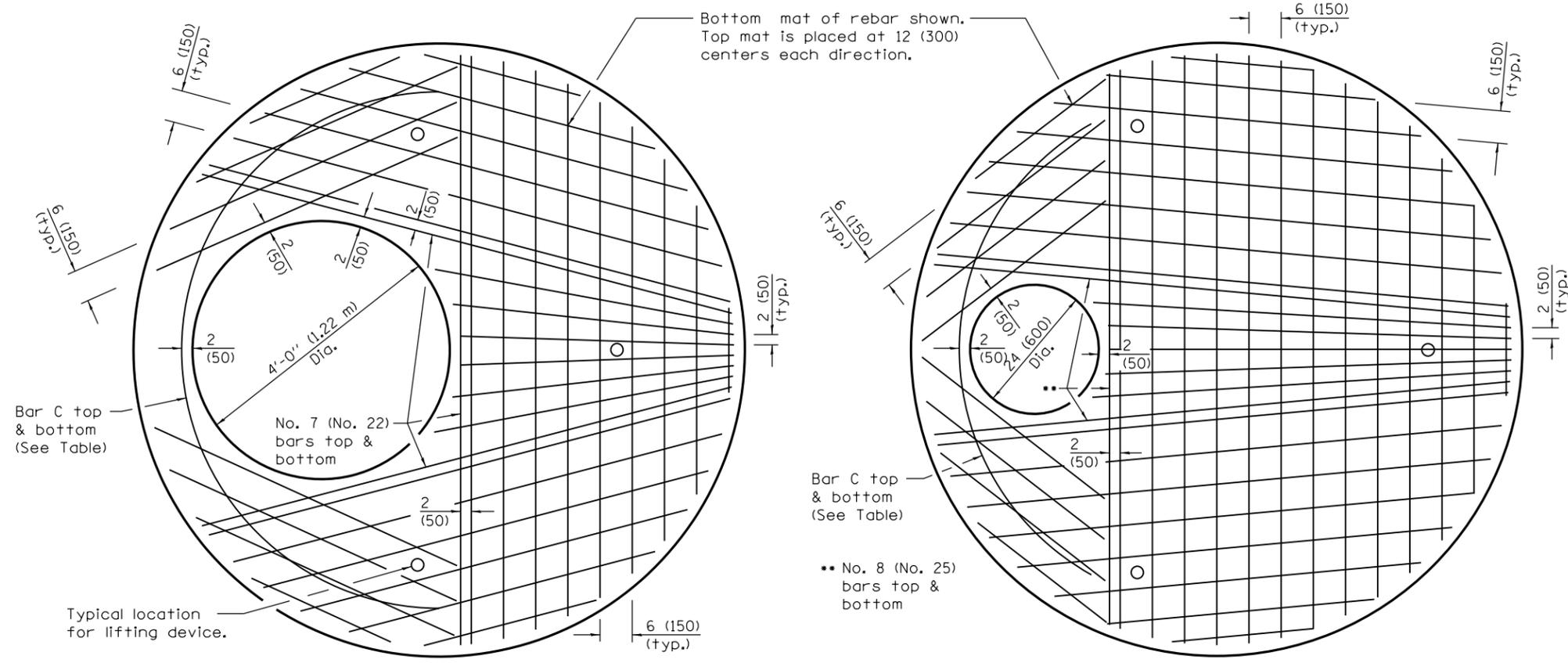
**STANDARD 602416-04**

Illinois Department of Transportation

PASSED January 1, 2014  
*Michael Beard*  
ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2014  
*[Signature]*  
ENGINEER OF DESIGN AND ENVIRONMENT

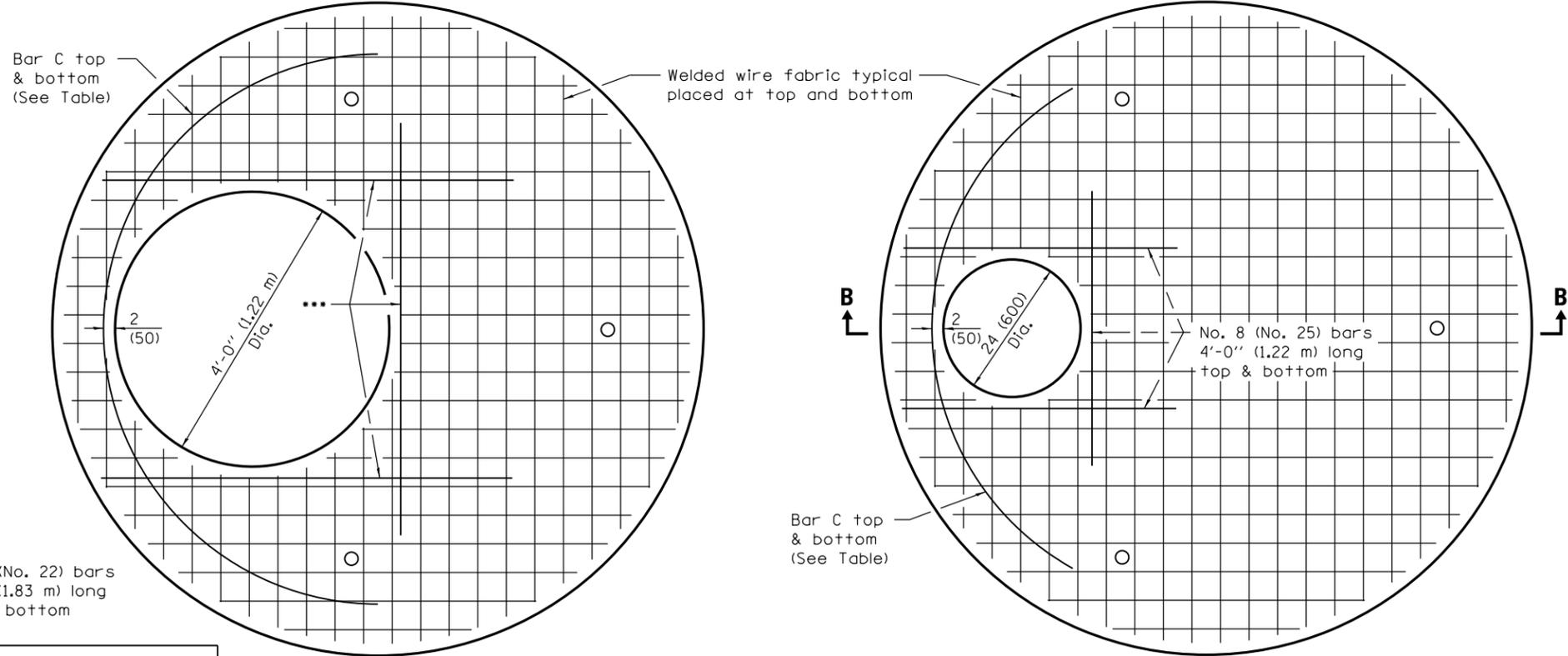
ISSUED 4-1-06



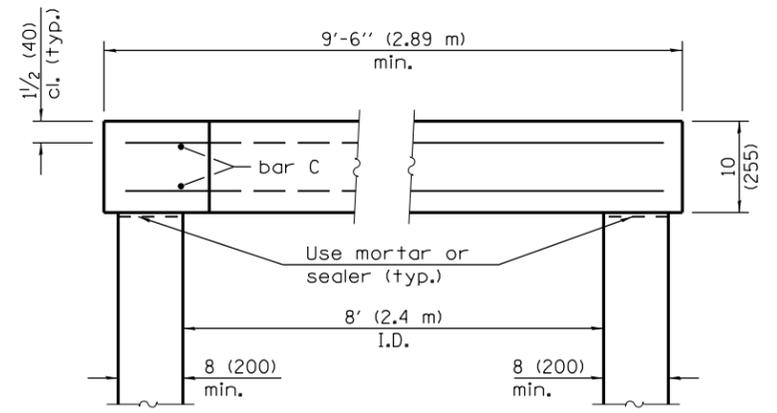
**PLAN**  
Showing Rebar Reinforcement

Diameter of opening	Reinforcement Bar Size	Reinforcement "As" WWF each direction	No. 4 (No. 13) Bar C	
			Length	Radius
24 (600)	Bottom mat No. 8 (No. 25)	Bottom mat **** 1.57 sq. in./ft. (3325 sq. mm/m)	8'-6" (2.60 m)	4'-0" (1.219 m)
	Top mat No. 4 (No. 13)	Top mat **** 0.22 sq. in./ft. (470 sq. mm/m)		
4'-0" (1.2 m)	Bottom mat No. 7 (No. 22)	Bottom mat **** 1.20 sq. in./ft. (2540 sq. mm/m)	12'-6" (3.80 m)	4'-0" (1.219 m)
	Top mat No. 4 (No. 13)	Top mat **** 0.22 sq. in./ft. (470 sq. mm/m)		

\*\*\*\* A maximum of two layers of welded wire fabric may be used to satisfy the required "As" for each mat.



**PLAN**  
Showing Welded Wire Fabric Reinforcement



**SECTION B-B**

Illinois Department of Transportation

PASSED January 1, 2014

Michael Beard  
ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2014

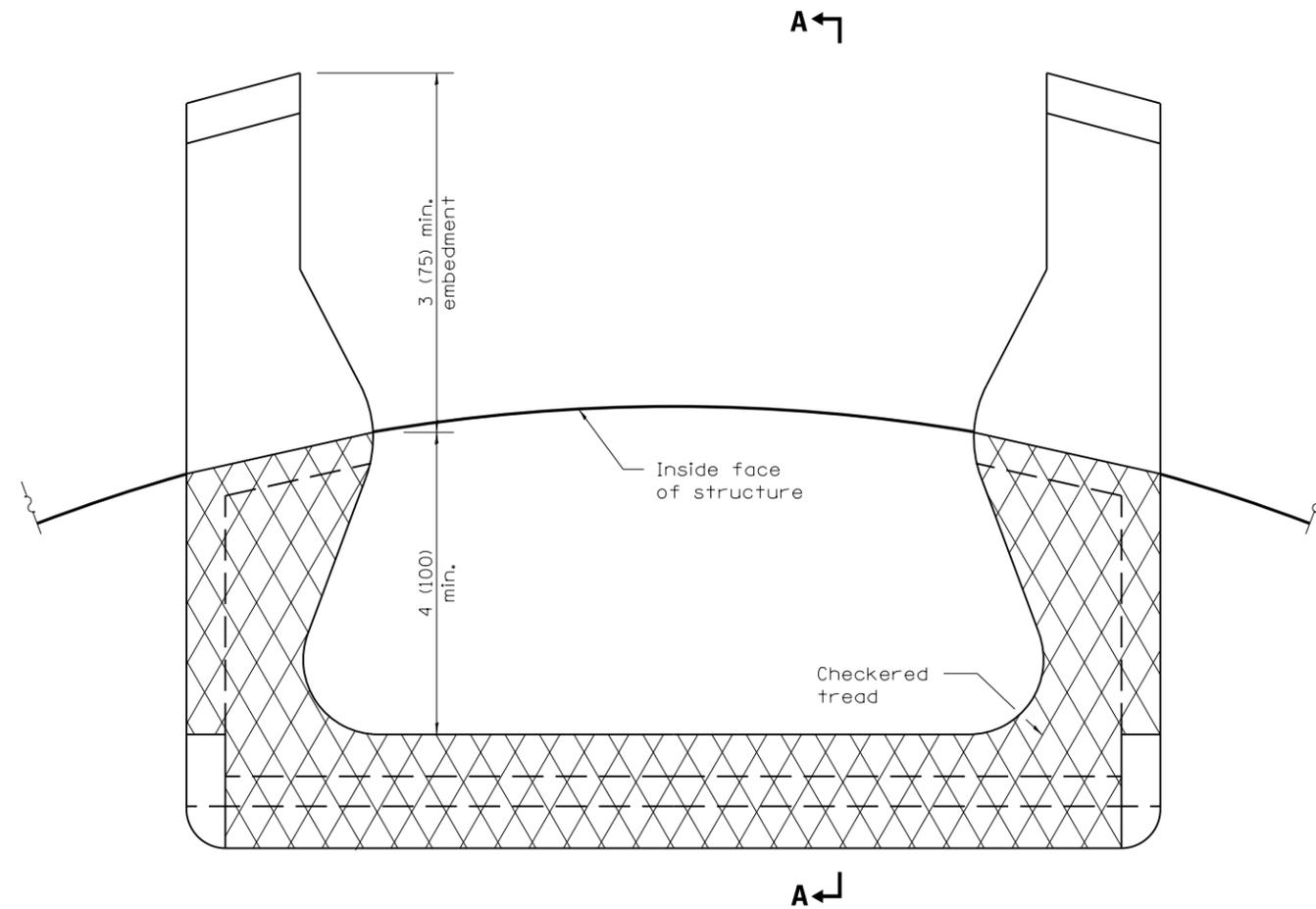
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 4-1-06

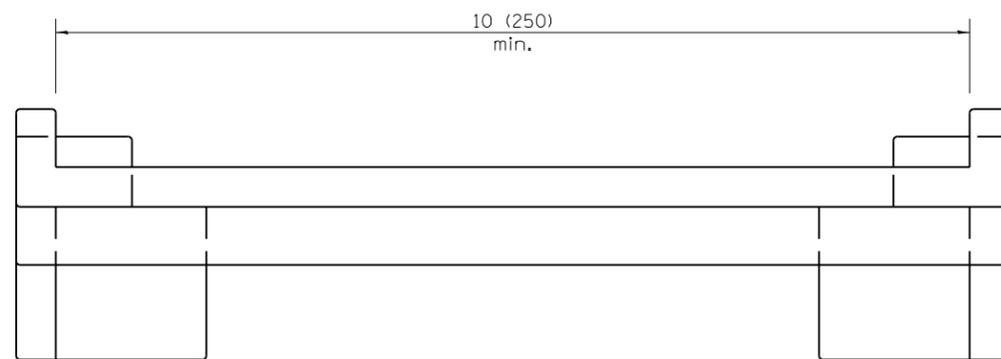
**MANHOLE TYPE A**  
**8' (2.4 m) DIAMETER**

(Sheet 2 of 2)

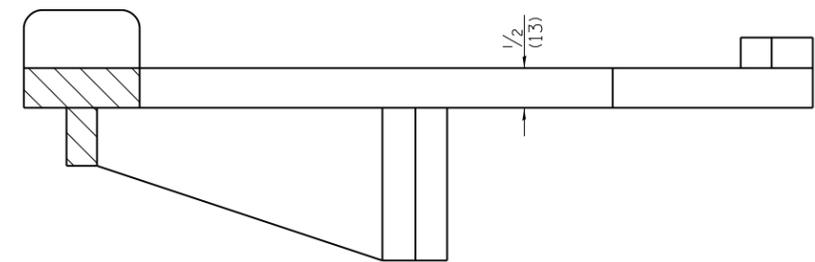
**STANDARD 602416-04**



**PLAN VIEW**



**ELEVATION VIEW**



**SECTION A-A**

All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation

PASSED January 1, 2009

ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2009

ENGINEER OF DESIGN AND ENVIRONMENT

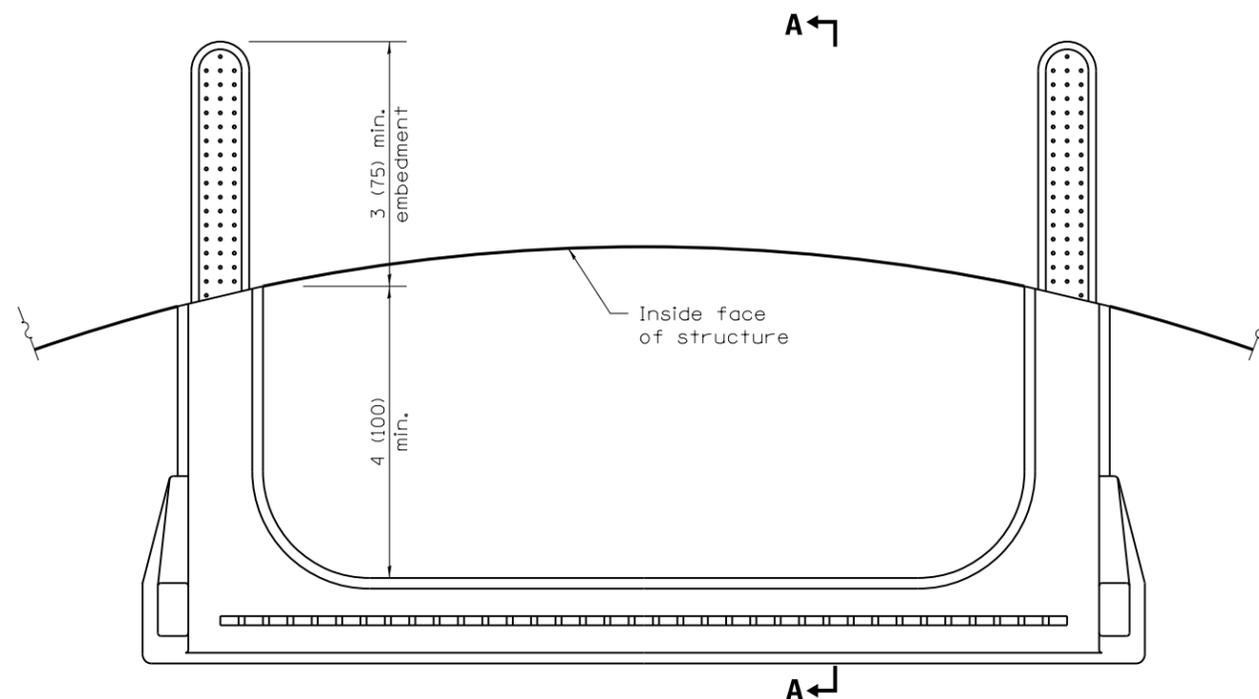
ISSUED 1-1-97

DATE	REVISIONS
1-1-09	Switched units to English (metric).
4-1-06	Revised title, drawings, and added plastic steps on sheet 2.

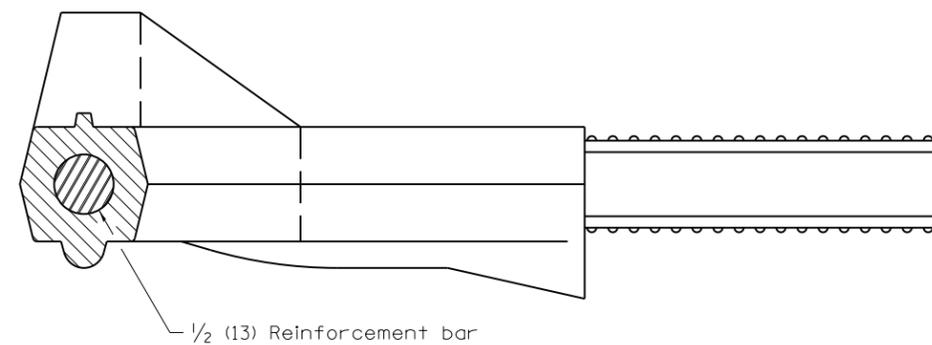
**MANHOLE STEPS**

(Sheet 1 of 2)

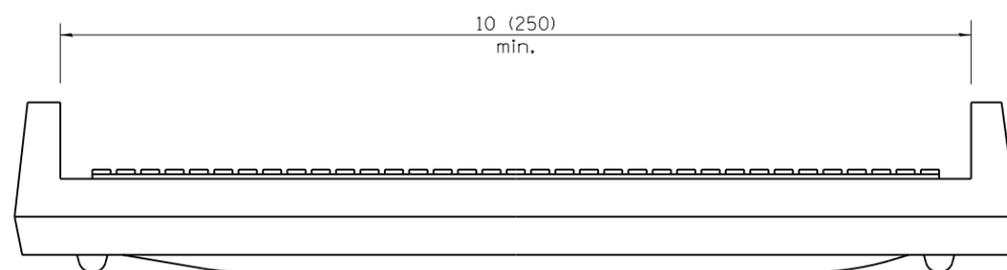
**STANDARD 602701-02**



**PLAN VIEW**



**SECTION A-A**



**ELEVATION VIEW**

Illinois Department of Transportation

PASSED January 1, 2009

*[Signature]*  
ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2009

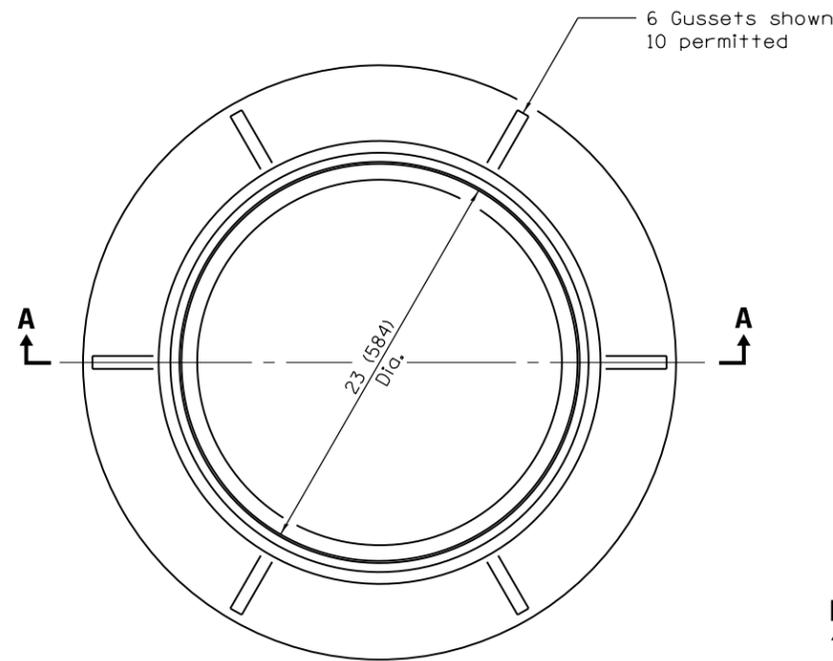
*[Signature]*  
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

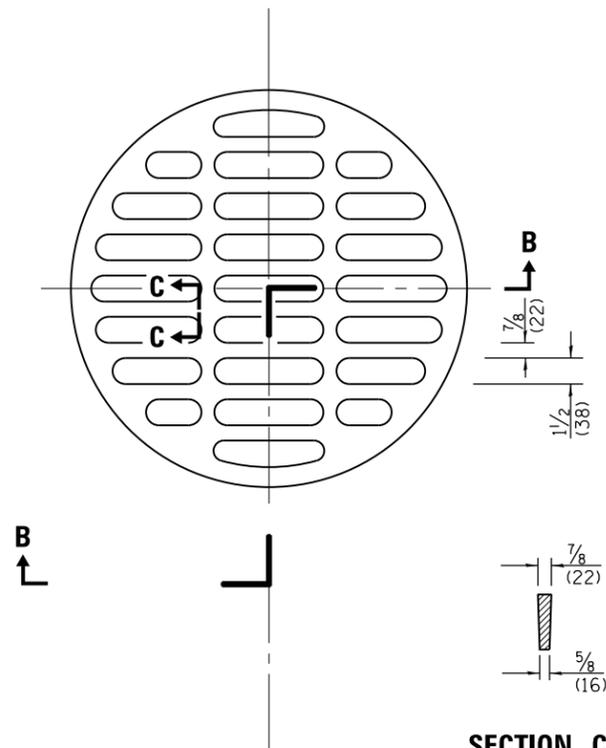
**MANHOLE STEPS**

(Sheet 2 of 2)

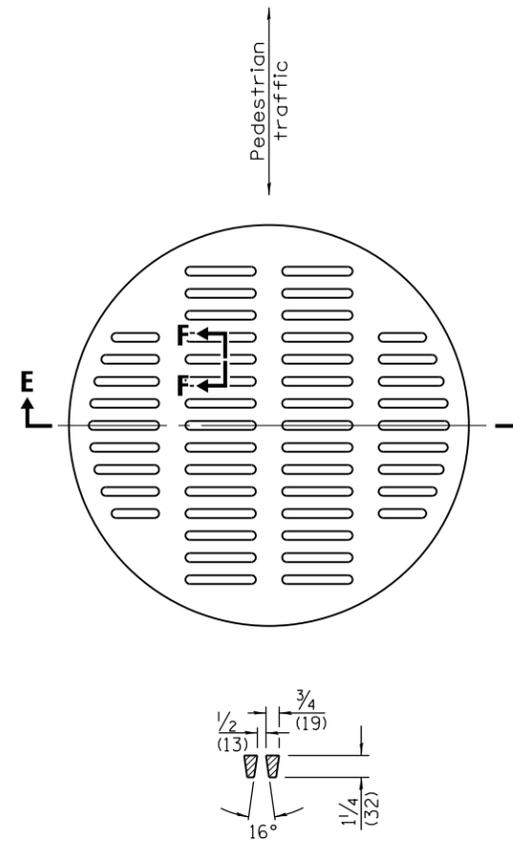
**STANDARD 602701-02**



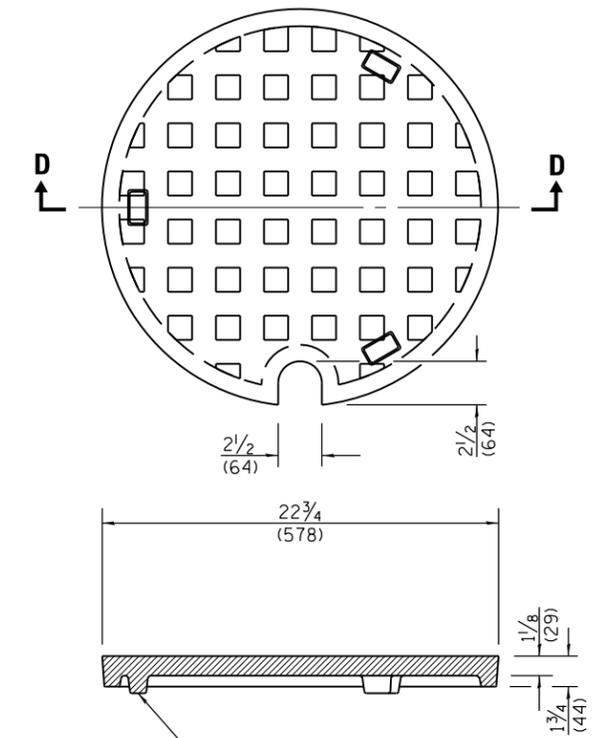
**CAST FRAME**



**SECTION C-C**



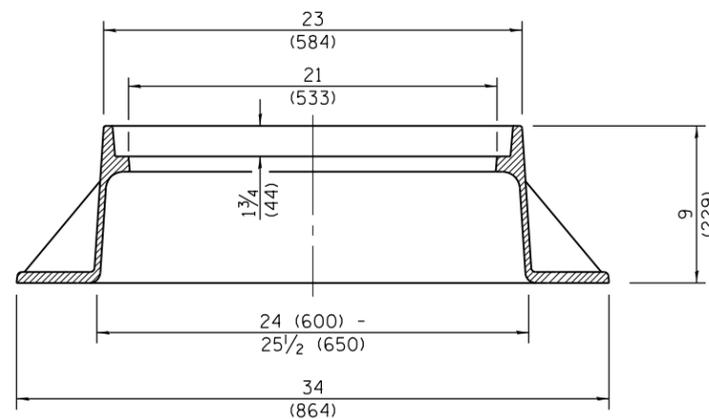
**SECTION F-F**



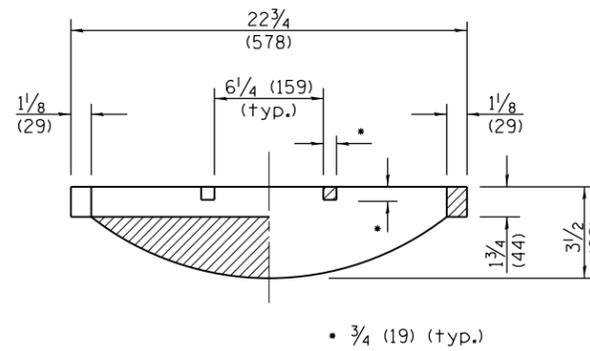
**SECTION D-D**

**CAST CLOSED LID**  
Gray Iron Lid

(3) Stacking lugs  
at 120° (optional)

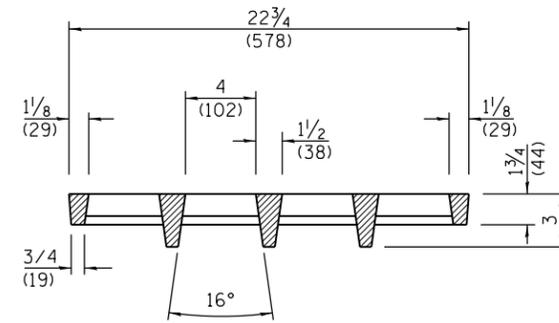


**SECTION A-A**  
Gray Iron



**SECTION B-B**

**CAST OPEN LID**



**SECTION E-E**

**ADA COMPLIANT  
CAST OPEN LID**

All dimensions are in inches (millimeters)  
unless otherwise shown.

Illinois Department of Transportation

PASSED January 1, 2015

Michael Beard  
ENGINEER OF POLICY AND PROCEDURES

APPROVED January 1, 2015

ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-15  
46-1-19

DATE	REVISIONS
1-1-15	Revised dimensioning of frame. Added ADA compliant open lid.
1-1-09	Switched units to English (metric).

**FRAME AND LIDS  
TYPE 1**

**STANDARD 604001-04**

**STORM WATER POLLUTION PREVENTION PLAN**



# Storm Water Pollution Prevention Plan



Route Lake in the Hills Airport	Marked Route	Section Lake in the Hills Airport
Project Number 3CK-4404	County McHenry	Contract Number LK012

This plan has been prepared to comply with the provisions of the National Pollutant Discharge Elimination System (NPDES) Permit No. ILR10 (Permit ILR10), issues by the Illinois Environmental Protection Agency (IEPA) for storm water discharges from construction site activities.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Print Name Antonio R. Marin	Title Senior Engineer	Agency Crawford, Murphy & Tilly, Inc.
Signature 	Date 12/02/2015	

## I. Site Description

A. Provide a description of the project location (include latitude and longitude):

The proposed project consists of the relocating and extending the existing taxiway. The taxiway is being moved 145 feet south of its current location and will be extended approximately 166' to the East. The project includes extending Runway 8/26's displaced threshold, a new connecting taxiway between the Runway and relocated Taxiway. A new transient aircraft parking area will be constructed at the south end of the hangar area to replace existing parking displaced by the relocation and extension of the taxiway. The project is located in Algonquin Township, McHenry County, IL, and north of the Village of Lake in the Hills.

Legal:  
NE ¼, Section 17, Township 43N, Range 8E of the 3rd Principal Meridian  
NW ½, Section 16, Township 43N, Range 1E of the 3rd Principal Meridian

Coordinates:  
Lat: 42 degrees 12 minutes 25.12 seconds North  
Long: 88 degrees 19 minutes 3.21 seconds West

B. Provide a description of the construction activity which is subject of this plan:

- Installation of Soil Erosion and Sediment Control Measures
- Protect trees against damage.
- Relocation of Utilities
- Terminal building demolition and hangar relocation
- Pavement removal
- Excavation and Embankment will be completed along the job site to grade out for the proposed taxiway, aprons and ditches
- Construct storm sewers and culverts
- Placement and maintenance of temporary erosion control, such as temporary ditch checks, inlet and pipe protections, temporary seeding
- Construction of pavement
- Final Grading, Landscaping, Roadway Lighting, and Signing

C. Provide the estimated duration of this project:

The project duration is approximately 4 months.

D. The total area of the construction site is estimated to be 12.9 acres.

The total area of the site estimated to be disturbed by excavation, grading or other activities is 8.5 acres.

E. The following is a weighted average of the runoff coefficient for this project after construction activities are completed:

C=0.41

F. List all soils found within project boundaries. Include map unit name, slope information and erosivity:

369A - Waupecan Silt Loam, 0-2% Slopes, Kf = 0.37  
369B - Waupecan Silt Loam, 2-4% Slopes, Kf = 0.37  
865 - Pits, Gravel

G. Provide an aerial extent of wetland acreage at the site:

Nearest wetland approximately 320 feet from project limits. No impact anticipated.  
See attached aerial map.

H. Provide a description of potentially erosive areas associated with this project:

There are no potentially erosive areas associated with the project. If erosive areas are encountered, erosion control fabric or flexible growth medium, appropriate deep root grasses and or riprap protection will be used to minimize the potential for erosion.

- I. The following is a description of soil disturbing activities by stages, their locations, and their erosive factors (e.g. steepness of slopes, length of scopes, etc.):

**Phase 1**

Site work for relocated hangars and new transient parking. Apron shoulders and ditches grades vary but the foreslopes and backslopes will be no greater than 7:1.

Relocate existing hangars and demolish existing Airport Administrative building. No regarding this phase.

**Phase 2**

Removal of a portion of the existing taxiway and construction of a portion of the new taxiway, including excavation, pavement removal, drainage, new HMA pavement construction, lighting, marking, signage and landscaping. The taxiway ditch's foreslopes and backslopes will be no greater than 7:1.

**Phase 3**

Removal of a portion of the existing Taxiway A, Runway 8/26 and a section of old Pyott Road.

Complete the new section of taxiway and Runway end pavement. This phase includes excavation, pavement removal, drainage, new HMA pavement construction, lighting, marking, signage and landscaping. The taxiway ditch's foreslopes and backslopes will be no greater than 7:1

- J. See the erosion control plans and/or drainage plans for this contract for information regarding drainage patterns, approximate slopes anticipated before and after major grading activities, locations where vehicles enter or exit the site and controls to prevent off site sediment tracking **(to be added after contractor identifies locations)**, areas of soil disturbance, the location of major structural and non-structural controls identified in the plan, the location of areas where stabilization practices are expected to occur, surface waters (including wetlands) and locations where storm water is discharged to surface water including wetlands.

- K. Identify who owns the drainage system (municipality or agency) this project will drain into:

Majority of the project water will be captured by the Airports existing/proposed storm sewer system, which is owned by the Village of Lake in the Hills. The water will outlet into the Crystal Lake Outlet Ditch.

- L. The following is a list of General NPDES ILR40 permittees within whose reporting jurisdiction this project is located.

Village of Lake in the Hills  
McHenry County  
Algonquin Township

- M. The following is a list of receiving water(s) and the ultimate receiving water(s) for this site. The location of the receiving waters can be found on the erosion and sediment control plans:

Crystal Lake Outlet Ditch (See attached wetland map)

- N. Describe areas of the site that are to be protected or remain undisturbed. These areas may include steep slopes, highly erodible soils, streams, stream buffers, specimen trees, natural vegetation, nature preserves, etc.

Lake in the Hill Fen Preserve. Contractor's south haul route passes through the preserve. All vehicles and equipment to remain on the designated haul routes. No deviations allowed. All equipment, maintenance and materials shall be stored/occur at the designated areas shown on the plans only.

- O. The following sensitive environmental resources are associated with this project, and may have the potential to be impacted by the proposed development:

- Floodplain
- Wetland Riparian
- Threatened and Endangered Species
- Historic Preservation
- 303(d) Listed receiving waters for suspended solids, turbidity, or siltation

- Receiving waters with Total Maximum Daily Load (TMDL) for sediment, total suspended solids, turbidity, or siltation
- Applicable Federal, Tribal, State or Local Programs
- Other

1. 303(d) Listed receiving waters (fill out this section if checked above):

a. The name(s) of the listed water body, and identification of all pollutants causing impairment:

b. Provide a description of how erosion and sediment control practices will prevent a discharge of sediment resulting from a storm event equal to or greater than a twenty-five (25) year, twenty-four (24) hour rainfall event:

c. Provide a description of the location(s) of direct discharge from the project site to the 303(d) water body:

d. Provide a description of the location(s) of any dewatering discharges to the MS4 and/or water body:

2. TMDL (fill out this section if checked above)

a. The name(s) of the listed water body:

b. Provide a description of the erosion and sediment control strategy that will be incorporated into the site design that is consistent with the assumptions and requirements of the TMDL:

c. If a specific numeric waste load allocation has been established that would apply to the project's discharges, provide a description of the necessary steps to meet the allocation:

P. The following pollutants of concern will be associated with this construction project:

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Soil Sediment             | <input checked="" type="checkbox"/> Petroleum (gas, diesel, oil, kerosene, hydraulic oil / fluids) |
| <input checked="" type="checkbox"/> Concrete                  | <input checked="" type="checkbox"/> Antifreeze / Coolants  |
| <input checked="" type="checkbox"/> Concrete Truck Waste      | <input checked="" type="checkbox"/> Waste water from cleaning construction equipment               |
| <input checked="" type="checkbox"/> Concrete Curing Compounds | <input checked="" type="checkbox"/> Other (specify) <u>Building Demolition - Dust</u>              |
| <input checked="" type="checkbox"/> Solid Waste Debris        | <input type="checkbox"/> Other (specify) _____   |
| <input checked="" type="checkbox"/> Paints                    | <input type="checkbox"/> Other (specify) _____   |
| <input type="checkbox"/> Solvents                             | <input type="checkbox"/> Other (specify) _____   |
| <input checked="" type="checkbox"/> Fertilizers / Pesticides  | <input type="checkbox"/> Other (specify) _____   |

**II. Controls**

This section of the plan addresses the controls that will be implemented for each of the major construction activities described in I.C. above and for all use areas, borrow sites, and waste sites. For each measure discussed, the Contractor will be responsible for its implementation as indicated. The Contractor shall provide to the Resident Engineer a plan for the implementation of the measures indicated. The Contractor and subcontractors, will notify the Resident Engineer of any proposed changes, maintenance, or modifications to keep construction activities compliant with the Permit ILR10. Each such Contractor has signed the required certification on forms which are attached to, and are a part of, this plan:

- A. **Erosion and Sediment Controls:** At a minimum, controls must be coordinated, installed, and maintained to:
1. Minimize the amount of soil exposed during construction activity;
  2. Minimize the disturbance of steep slopes;
  3. Maintain natural buffers around surface waters, direct storm water to vegetated areas to increase sediment removal and maximize storm water infiltration, unless infeasible;
  4. Minimize soil compaction and, unless infeasible, preserve topsoil.
- B. **Stabilization Practices:** Provided below is a description of interim and permanent stabilization practices, including site-specific scheduling of the implementation of the practices. Site plans will ensure that existing vegetation is preserved where attainable and disturbed portions of the site will be stabilized. Stabilization practices may include but are not limited to: temporary seeding, permanent seeding, mulching, geotextiles, sodding, vegetative buffer strips, protection of trees, preservation of mature vegetation, and other appropriate measures. Except as provided below in II(B)(1) and II(B)(2), stabilization measures shall be initiated **immediately** where construction activities have temporarily or permanently ceased, but in no case more than **one (1) day** after the construction activity in that portion of the site has temporarily or permanently ceases on all disturbed portions of the site where construction will not occur for a period of fourteen (14) or more calendar days.
1. Where the initiation of stabilization measures is precluded by snow cover, stabilization measures shall be initiated as soon as practicable.
  2. On areas where construction activity has temporarily ceased and will resume after fourteen (14) days, a temporary stabilization method can be used.

The following stabilization practices will be used for this project:

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Preservation of Mature Vegetation | <input checked="" type="checkbox"/> Erosion Control Blanket / Mulching |
| <input checked="" type="checkbox"/> Vegetated Buffer Strips           | <input type="checkbox"/> Sodding                                       |
| <input checked="" type="checkbox"/> Protection of Trees               | <input type="checkbox"/> Geotextiles                                   |
| <input checked="" type="checkbox"/> Temporary Erosion Control Seeding | <input type="checkbox"/> Other (specify) _____                         |
| <input type="checkbox"/> Temporary Turf (Seeding, Class 7)            | <input type="checkbox"/> Other (specify) _____                         |
| <input checked="" type="checkbox"/> Temporary Mulching                | <input type="checkbox"/> Other (specify) _____                         |
| <input checked="" type="checkbox"/> Permanent Seeding                 | <input type="checkbox"/> Other (specify) _____                         |

Describe how the stabilization practices listed above will be utilized during construction:

Mulch/erosion control shall be used as noted in the plans. Temporary seeding will be used on bare areas or erodible areas not ready for final seeding. Silt fence will be used to help manage water draining from the site. In areas where silt fence cannot be installed vegetative buffer stripes will be maintained to control erosion and sediment.

Describe how the stabilization practices listed above will be utilized after construction activities have been completed:

Vegetative cover will be established and become permanent and act as a barrier

- C. **Structural Practices:** Provided below is a description of structural practices that will be implemented, to the degree attainable, to divert flows from exposed soils, store flows or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. Such practices may include but are not limited to: perimeter erosion barrier, earth dikes, drainage swales, sediment traps, ditch checks, subsurface drains, pipe slope drains, level spreaders, storm drain inlet protection, rock outlet protection, reinforced soil retaining systems, gabions, and temporary or permanent sediment basins. The installation of these devices may be subject to Section 404 of the Clean Water Act.

The following stabilization practices will be used for this project:

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> Perimeter Erosion Barrier    | <input type="checkbox"/> Rock Outlet Protection |
| <input checked="" type="checkbox"/> Temporary Ditch Check        | <input type="checkbox"/> Riprap                 |
| <input checked="" type="checkbox"/> Storm Drain Inlet Protection | <input type="checkbox"/> Gabions                |
| <input type="checkbox"/> Sediment Trap                           | <input type="checkbox"/> Slope Mattress         |
| <input type="checkbox"/> Temporary Pipe Slope Drain              | <input type="checkbox"/> Retaining Walls        |

- |   |  |
|---|--|
| <input type="checkbox"/> Temporary Sediment Basin                 | <input type="checkbox"/> Slope Walls             |
| <input type="checkbox"/> Temporary Stream Crossing                | <input type="checkbox"/> Concrete Revetment Mats |
| <input checked="" type="checkbox"/> Stabilized Construction Exits | <input type="checkbox"/> Level Spreaders         |
| <input type="checkbox"/> Turf Reinforcement Mats                  | <input type="checkbox"/> Other (specify) _____   |
| <input type="checkbox"/> Permanent Check Dams                     | <input type="checkbox"/> Other (specify) _____   |
| <input type="checkbox"/> Permanent Sediment Basin                 | <input type="checkbox"/> Other (specify) _____   |
| <input type="checkbox"/> Aggregate Ditch                          | <input type="checkbox"/> Other (specify) _____   |
| <input type="checkbox"/> Paved Ditch                              | <input type="checkbox"/> Other (specify) _____   |

Describe how the structural practices listed above will be utilized during construction:

Perimeter erosion control barrier will be placed the limits of the grading and at stockpile locations. Inlet in turf will also have a closed loop of fence placed about its perimeter.  
 Storm drain inlets within the project limits or immediately adjacent will have inlet filters installed per the details in the plans.  
 Ditch checks will be installed within the swales as the grading allows.  
 All entrances to the site and staging areas will have a stabilized entrance constructed, if an existing entrance has not been previously established.

All structural practices are to remain in place and maintained until the permanent measures are established.

Describe how the structural practices listed above will be utilized after construction activities have been completed:

Once permanent controls are established and temporary items will be removed and all turf disturbed by the removal process will be re-seeded

**D. Treatment Chemicals**

Will polymer flocculents or treatment chemicals be utilized on this project:     Yes     No

If yes above, identify where and how polymer flocculents or treatment chemicals will be utilized on this project.

**E. Permanent Storm Water Management Controls:** Provided below is a description of measures that will be installed during the construction process to control volume and pollutants in storm water discharges that will occur after construction operations have been completed. The installation of these devices may be subject to Section 404 of the Clean Water act.

- Such practices may include but are not limited to: storm water detention structures (including wet ponds), storm water retention structures, flow attenuation by use of open vegetated swales and natural depressions, infiltration of runoff on site, and sequential systems (which combine several practices).

The practices selected for implementation were determined on the basis of the technical guidance in Chapter 41 (Construction Site Storm Water Pollution Control) of the IDOT Bureau of Design & Environment Manual. If practices other than those discussed in Chapter 41 are selected for implementation or if practices are applied to situations different from those covered in Chapter 41, the technical basis for such decisions will be explained below.

- Velocity dissipation devices will be placed at discharge locations and along the length of any outfall channel as necessary to provide a non-erosive velocity flow from the structure to a water course so that the natural physical and biological characteristics and functions are maintained and protected (e.g. maintenance of hydrologic conditions such as the hydroperiod and hydrodynamics present prior to the initiation of construction activities).

Description of permanent storm water management controls:

The majority of the storm water will be routed tot eh Airport’s existing management controls, which is predominately a dry bottom detention system.

**Approved State or Local Laws:** The management practices, controls, and provisions contained in this plan will be

in accordance with IDOT specifications, which are at least as protective as the requirements contained in the Illinois Environmental Protection Agency's Illinois Urban Manual. Procedures and requirements specified in applicable sediment and erosion site plans or storm water management plans approved by local officials shall be described or incorporated by reference in the space provided below. Requirements specified in sediment and erosion site plans, site permits, storm water management site plans or site permits approved by local officials that are applicable to protecting surface water resources are, upon submittal of an NOI, to be authorized to discharge under the Permit ILR10 incorporated by reference and are enforceable under this permit even if they are not specifically included in the plan.

Description of procedures and requirements specified in applicable sediment and erosion site plans or storm water management plans approved by local officials:

All management practices, controls and other provisions provided in the plans are in accordance with the Illinois Urban Manual or the IL DOT Standard Specifications for Road and Bridge Construction.

F. **Contractor Required Submittals:** Prior to conducting any professional services at the site covered by this plan, the Contractor and each subcontractor responsible for compliance with the permit shall submit to the Resident Engineer a Contractor Certification Statement, BDE 2342a.

1. The Contractor shall provide a construction schedule containing an adequate level of detail to show major activities with implementation of pollution prevention BMPs, including the following items:

- Approximate duration of the project, including each stage of the project
- Rainy season, dry season, and winter shutdown dates
- Temporary stabilization measures to be employed by contract phases
- Mobilization time frame
- Mass clearing and grubbing/roadside clearing dates
- Deployment of Erosion Control Practices
- Deployment of Sediment Control Practices (including stabilized construction entrances/exits)
- Deployment of Construction Site Management Practices (including concrete washout facilities, chemical storage, refueling locations, etc.)
- Paving, saw-cutting, and any other pavement related operations
- Major planned stockpiling operations
- Time frame for other significant long-term operations or activities that may plan non-storm water discharges such as dewatering, grinding, etc.
- Permanent stabilization activities for each area of the project

2. The Contractor and each subcontractor shall provide, as an attachment to their signed Contractor Certification Statement, a discussion of how they will comply with the requirements of the permit in regard to the following items and provide a graphical representation showing location and type of BMPs to be used when applicable:

- Vehicle Entrances and Exits - Identify type and location of stabilized construction entrances and exits to be used and how they will be maintained.
- Material delivery, Storage, and Use - Discuss where and how materials including chemicals, concrete curing compounds, petroleum products, etc. will be stored for this project.
- Stockpile Management - Identify the location of both on-site and off-site stockpiles. Discuss what BMPs will be used to prevent pollution of storm water from stockpiles.
- Waste Disposal - Discuss methods of waste disposal that will be used for this project.
- Spill Prevention and Control - Discuss steps that will be taken in the event of a material spill (chemicals, concrete curing compounds, petroleum, etc.).
- Concrete Residuals and Washout Wastes - Discuss the location and type of concrete washout facilities to be used on this project and how they will be signed and maintained.
- Litter Management - Discuss how litter will be maintained for this project (education of employees, number of dumpsters, frequency of dumpster pick-up, etc.).
- Vehicle and Equipment Cleaning and Maintenance - Identify where equipment cleaning and maintenance locations for this project and what BMPs will be used to ensure containment and spill prevention.
- Dewatering Activities - Identify the controls which will be used during dewatering operations to ensure sediments will not leave the construction site.
- Polymer Flocculants and Treatment Chemicals - Identify the use and dosage of treatment chemicals and provide the Resident Engineer with Material Safety Data Sheets. Describe procedures on how the chemicals will be used and identify who will be responsible for the use and application of these chemicals. The selected individual must be trained on the established procedures.
- Additional measures indicated in the plan.

### III. Maintenance

When requested by the Contractor, the Resident Engineer will provide general maintenance guides to the Contractor for the practices associated with this project. The following additional procedures will be used to maintain, in good and effective operating conditions, the vegetation, erosion and sediment control measures and other protective measures identified in this plan. It will be Contractor's responsibility to attain maintenance guidelines for any manufactured BMPs which are to be installed and maintained per manufacture's specifications.

- Silt Fence - Sediment will be removed when one third of the fabric height. Repair tears, gaps or undermining. Restore leaning fence and ensure it remains taught.
- Seeding – Bare soils within the construction limits will be seeded. Areas where a uniform cover of at least 70% has not been achieved will be reseeded immediately.
- Erosion Control Blanket/Mulching – Any area that fails will be repaired immediately.
- Tree Protection – Any temporary fence that tears or falls down will be repaired immediately.
- Ditch Checks – Sediment will be removed once it reaches 50% of the structure height. Any ditch checks that fail will need to be repaired or replaced immediately.
- Vegetative Buffer – Buffers shall be inspected regularly and repair/clean any areas of sediment deposit or rill formation.
- Construction Entrance/Exit – Sediment will be removed once the entrance has become ineffective. Any repairs or material replacement will occur immediately. Contractor will be required to sweep pavements if sediment tracking occurs.

All erosion/sediment control maintenance is the responsibility of the Contractor, until the project is accepted as final by the owner and IDOT. All measures noted in the plans shall be maintained in a good working condition.

### IV. Inspections

Qualified personnel shall inspect disturbed areas of the construction site which have not yet been finally stabilized, structural control measures, and locations where vehicles and equipment enter and exit the site using IDOT Storm Water Pollution Prevention Plan Erosion Control Inspection Report (BC 2259). Such inspections shall be conducted at least once every seven (7) calendar days and within twenty-four (24) hours of the end of a storm or by the end of the following business or work day that is 0.5 inch or greater or equivalent snowfall.

Inspections may be reduced to once per month when construction activities have ceased due to frozen conditions. Weekly inspections will recommence when construction activities are conducted, or if there is 0.5" or greater rain event, or a discharge due to snowmelt occurs.

If any violation of the provisions of this plan is identified during the conduct of the construction work covered by this plan, the Resident Engineer shall notify the appropriate IEPA Field Operations Section office by e-mail at: [epa.swnoncomp@illinois.gov](mailto:epa.swnoncomp@illinois.gov), telephone or fax within twenty-four (24) hours of the incident. The Resident Engineer shall then complete and submit an "Incidence of Non-Compliance" (ION) report for the identified violation within five (5) days of the incident. The Resident Engineer shall use forms provided by IEPA and shall include specific information on the cause of noncompliance, actions which were taken to prevent any further causes of noncompliance, and a statement detailing any environmental impact which may have resulted from the noncompliance. All reports of non-compliance shall be signed by a responsible authority in accordance with Part VI. G of the Permit ILR10.

The Incidence of Non-Compliance shall be mailed to the following address:

Illinois Environmental Protection Agency  
Division of Water Pollution Control  
Attn: Compliance Assurance Section  
1021 North Grand East  
Post Office Box 19276  
Springfield, Illinois 62794-9276

Additional Inspections Required:

**V. Failure to Comply**

Failure to comply with any provisions of this Storm Water Pollution Prevention Plan will result in the implementation of a National Pollutant Discharge Elimination System/Erosion and Sediment Control Deficiency Deduction against the Contractor and/or penalties under the Permit ILR10 which could be passed on to the Contractor.



Prior to conducting any professional services at the site covered by this contract, the Contractor and every subcontractor must complete and return to the Resident Engineer the following certification. A separate certification must be submitted by each firm. Attach to this certification all items required by Section II.G of the Storm Water Pollution Prevention Plan (SWPPP) which will be handled by the Contractors/subcontractor completing this form.

Route	Marked Route	Section
Lake in the Hills Airport		Lake in the Hills Airport
Project Number	County	Contract Number
3CK-4404	McHenry	LK012

This certification statement is a part of SWPPP for the project described above, in accordance with the General NPDES Permit No. ILR10 issued by the Illinois Environmental Protection Agency.

I certify under penalty of law that I understand the terms of the Permit No. ILR10 that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification.

In addition, I have read and understand all of the information and requirements stated in SWPPP for the above mentioned project; I have received copies of all appropriate maintenance procedures; and, I have provided all documentation required to be in compliance with the Permit ILR10 and SWPPP and will provide timely updates to these documents as necessary.

- Contractor  
 Sub-Contractor

Print Name

Signature

Title

Date

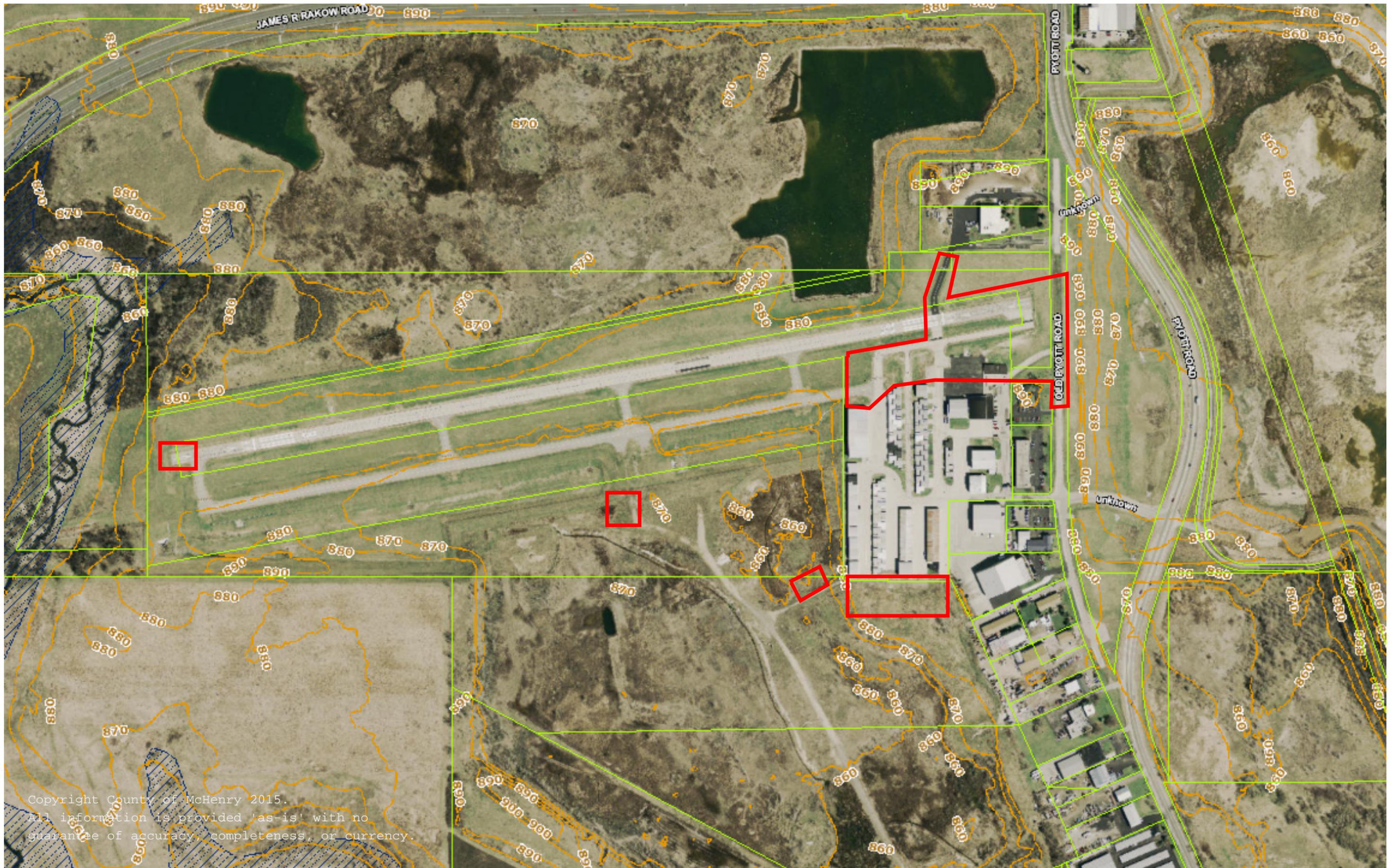
Name of Firm

Telephone

Street Address

City/State/Zip

Items which the Contractor/subcontractor will be responsible for as required in Section II.G. of SWPPP:



Copyright County of McHenry 2015.  
All information is provided 'as-is' with no  
guarantee of accuracy, completeness, or currency.

# McHenry County Property Search Legend

	Political Townships		Hospital	<b>ADID Wetlands</b>	
	Sections		Post Office		High Functional Value/High Quality Wetlands
	Tax Parcels		Library		High Quality Lakes
	City Limits		Hotel		Farmed Wetlands
	Parks	<ul style="list-style-type: none"><li>• Museum</li></ul>			Other
<ul style="list-style-type: none"><li>• Township Highway Department</li></ul>			Airports		Interstate
	Township Administration Building	<ul style="list-style-type: none"><li>• Recreational Centers</li></ul>			US Route
<ul style="list-style-type: none"><li>• Swimming Pool</li></ul>		<ul style="list-style-type: none"><li>• School</li></ul>			State Route
	Police Station		Waterways		County Route
	Fire Station		Water Bodies		Municipal Roads
	County Campus	<b>FEMA Flood Zones</b>			Township Roads
<ul style="list-style-type: none"><li>• Cemetery</li></ul>			1.0 PCT Annual Chance Flood Hazard		Private Roads
<ul style="list-style-type: none"><li>• Long Term Care Centers</li></ul>			0.2 PCT Annual Chance Flood Hazard	<b>Contours</b>	
	PROJECT WORK AREAS		Floodway		Index Contours
					Intermediate Contours

**ENVIRONMENTAL HAZARD REQUIREMENTS FOR BUILDING RELOCATION**

*Providing Quality Service  
Since 1994*

The logo features a blue triangle pointing to the right, with the company name overlaid in a bold, black, sans-serif font. The text is stacked vertically: "Midwest" on the top line, "Environmental" on the second line, and "Consulting Services, Inc." on the third line.

**Midwest  
Environmental  
Consulting Services, Inc.**

Consultants ◀ Engineers ◀ Scientists

**ASBESTOS ABATEMENT  
PROJECT DESIGN**

Prepared Especially  
For:

**LAKE IN THE HILLS AIRPORT**  
8407 Pyott Road  
Lake in the Hills, IL 60156

Project Location:

***LAKE IN THE HILLS AIRPORT***  
*8407 Pyott Road*  
*Lake in the Hills, IL 60156*

2015

MEC Project #: 15-05-250-PD

## TABLE OF CONTENTS

### **DIVISION 1**

01043	Administrative and Supervisory Requirements
01046	Cut and Patch of ACM
01091	Definitions and Standards for Asbestos Abatement
01092	Codes and Regulations for Asbestos Abatement
01200	Pre-Construction Conference and Progress Meetings
01301	Submittals
01410	Air Monitoring
01503	Temporary Facilities
01513	Temporary Pressure Differential and Air Circulation
01526	Temporary Enclosures
01527	Regulated Areas
01560	Worker Protection
01562	Respirator Protection
01563	Respiratory Protection Schedule
01564	Decontamination
01601	Materials and Equipment - Asbestos Abatement
01701	Project Close-Out
01711	Project Decontamination
01712	Certificate of Visual Inspection
01713	Cleaning and Decontamination
01714	Work Area Clearance
01800	Final Inspection

### **SPECIFICATIONS**

### **DIVISION 2**

02081	Removal of Asbestos-Containing Materials
02084	Disposal of Asbestos-Containing Waste

### **SITE WORK**

## **SECTION 1043 - PROJECT COORDINATION-ASBESTOS ABATEMENT**

### **PART 1 - GENERAL**

#### **SUMMARY**

This Section specifies administrative and supervisory requirements necessary for Project coordination including, but not necessarily limited to:

- Administrative and supervisory personnel.
- Progress Meetings
- Pre-Construction Conference
- Daily Log
- Special reports.
- Contingency Plans
- Notifications to other entities at job site.

Related Work:

#### **ADMINISTRATIVE AND SUPERVISORY PERSONNEL:**

General Superintendent: Provide a full-time General Superintendent who is experienced in administration and supervision of asbestos abatement projects including work practices, protective measures for building and personnel, disposal procedures, etc. This person is the Contractor's Representative responsible for compliance with all applicable federal, state and local regulations, particularly those relating to asbestos-containing materials.

Experience and Training: The General Superintendent must have completed a course at an EPA Training Center or equivalent certificate course in asbestos abatement procedures, and have had a minimum of two (2) years on-the-job training in asbestos abatement procedures.

Competent Person: The General Superintendent is to be a Competent Person as required by OSHA in 29 CFR 1926.

Accreditation: The General Superintendent is to be accredited as an Asbestos Abatement Supervisor in accordance with the AHERA regulation 40 CFR Part 763, Subpart E, Appendix C.

Owner occupants, etc. as to the nature of the Work being conducted including but not limited to the following:

**NOTIFICATION:** The Contractor shall be responsible for notifying all agencies, authorities having jurisdiction,

- Notify other entities at the job site of the nature of the asbestos abatement activities, locations of asbestos-containing materials, requirements relative to asbestos set forth in these Specifications and applicable regulations.
- Notify emergency service agencies including fire, ambulance, police or other agencies that may service the abatement work site in case of an emergency. Notification is to include methods of entering Work area, emergency entry and exit locations, modifications to fire notification or fire fighting equipment and/or sprinkler systems, and other information needed by agencies providing emergency services.
- Notification of Emergency: Any individual at the job site may notify emergency service agencies if necessary without effect on this Contract or Contract Sum

General The contractor shall comply with the requirements specified in Section 01301 - Submittals, and as specified herein.

Before the Start of Work submit the following to the Owners Representative for review. No Work shall begin until these submittals are returned with Owner's Representative's action stamp indicating that the submittal is returned for use without revisions or corrections. Submittals shall included, but not necessarily limited to the following:

Contingency Plans: for emergency actions.

Telephone Numbers and locations of emergency services

Notifications: sent to emergency service agencies/ authorities having jurisdiction.

Accreditation: submit evidence in form of training course certificate of accreditation of General Superintendent as an asbestos abatement Supervisor.

Staff Names Within 15 days of Notice to Proceed, submit a list of the Contractor's principal staff assignments, including the Superintendent and other personnel in attendance at the site: identify individuals, their duties and responsibilities; list their addresses and telephone numbers

Post copies of the list in the project meeting room, the temporary field office, and each temporary telephone.

### **PROGRESS MEETINGS:**

General: In addition to specific coordination and pre-installation meetings for each element of work, and other regular project meetings held for other purposes, Owner's Representative will hold general progress meetings as required. These meeting will be scheduled, where possible, at time of preparation of payment request. Require each entity then involved in planning, coordination or performance of work to be properly represented at each meeting.

### **PRE-CONSTRUCTION CONFERENCE:**

An initial progress meeting, recognized as "Pre-Construction Conference" will be convened by the Owner's Representative prior to start of any work. Meet at project site, or as otherwise directed with General Superintendent, Owner, Owner's Representative, Project Administrator, and other entities concerned with the asbestos abatement work.

72 hours advance notice will be provided to all participants prior to convening Pre-Construction Conference.

This is an organizational meeting, to review responsibilities and personnel assignments and to locate the containment and decontamination areas and temporary facilities including power, light, water, etc.

### **DAILY LOG:**

Daily Log: Maintain within the Decontamination Unit a daily log documenting the dates and time of but not limited to, the following items:

Meetings; purpose, attendees, brief discussion

Visitations; authorized and unauthorized

Personnel, by name, entering and leaving the work area

Special or unusual events, i.e. barrier breaching, equipment failures, accidents

Air monitoring tests and test results

Documentation of Contractor's completion of the following:

- Inspection of work area preparation prior to start of removal and daily thereafter.
- Removal of any sheet plastic barriers
- Contractor's inspections prior to spray back, lock back, encapsulation, enclosure or any other operation that will conceal the condition of asbestos-containing materials or the substrate from which such materials have been removed.
- Removal of waste materials from work area
- Decontamination of equipment (list items)
- Contractors final inspection/final air test analysis.

Provide two (2) copies of this log to Project Administrator on a daily basis.

Submit 3 copies of this log at final close-out of project as a project close-out submittal.

### **SPECIAL REPORTS:**

General: Except as otherwise indicated, submit special reports directly to Owner within one day of occurrence requiring special report, with copy to Owner's Representative and others affected by occurrence.

Reporting Unusual Events: When an event of unusual and significant nature occurs at site (examples: failure of pressure differential system, rupture of temporary enclosures), prepare and submit a special report listing chain of events, persons participating, response by Contractor's personnel, evaluation of results or effects, and similar pertinent information. When such events are known or predictable in advance, advise Owner in advance at earliest possible date.

Reporting Accidents: Prepare and submit reports of significant accidents, at site and anywhere else work is in progress. Record and document data and actions; comply with industry standards. For this purpose, a significant accident is defined to include events where personal injury is sustained, property loss of substance is sustained, or where the event posed a significant threat of loss or personal injury.

Report Discovered Conditions: When an unusual condition of the building is discovered during the work (e.g. leaks, termites, corrosion) prepare and submit a special report indication condition discovered.

### **CONTINGENCY PLAN:**

Contingency Plan: Prepare a contingency plan for emergencies including fire, accident, power failure, pressure differential system failure, supplied air system failure, or any other event that may require modification or abridgement of decontamination or work area isolation procedures. Include in plan specific procedures for decontamination or work area isolation. Note that nothing in this specification should impede safe exiting or providing of adequate medical attention in the event of an emergency.

Post: in clean room of Personnel Decontamination Unit telephone numbers and locations of emergency services including but not limited to fire, ambulance, doctor, hospital, police, power company, telephone company.

END OF SECTION - 01043

## **SECTION 01046 - DEFINITIONS AND STANDARDS**

### **PART 1 - GENERAL**

#### **RELATED DOCUMENTS:**

Sections 01527 and 01562  
Sections 02084  
Other Sections as specified herein

#### **QUALITY ASSURANCE**

Cutting and patching of asbestos-containing materials shall be performed in accordance with recognized and applicable standards and as herein specified. Cutting and patching of such materials shall be restricted to regulated areas and shall be performed by personnel properly attired.

#### **SUBMITTALS**

Before the Start of Work: Submit the following to the Owner's Representative for review. Begin no work until these submittals are returned with Owner's Representative's action stamp indicating that the submittal is returned for unrestricted use or final-but-restricted use.

Tools: equipped with HEPA vacuum dust collection attachments

### **PART 2 - PRODUCTS**

Provide local exhaust ventilation systems that comply with ANSI 29.2-1971.

Products for encapsulation are specified in Section 09805.

### **PART 3 - EXECUTION**

Before beginning work of this section, comply with:

Section 01527 - Regulated Areas  
Section 01562 - Respiratory Protection

Perform cutting, drilling, abrading, or otherwise penetrating any asbestos-containing material in a manner that will minimize the dispersal of asbestos fibers into the air.

Provide adequate local exhaust to capture fibers produced by cutting, drilling, or abrading by means of an approved High Efficiency Particulate Absolute (HEPA) filter vacuum. Use specialized equipment such as drills or saws having integral ventilation hoods which are connected to a HEPA vacuum with a flexible hose. Handle and dispose of HEPA filters as contaminated material. See Section 02084.

Thoroughly saturate absorbent surfaces of asbestos-containing material to be penetrated with a penetrating type encapsulant. Allow encapsulant to penetrate to substrate before working on materials.

Seal edges of asbestos-containing material exposed by cutting, drilling, or abrading, etc. with two (2) coats of an approved penetrating encapsulant applied in accordance with manufacturers' printed instruction for use of the encapsulant as an asbestos coating and requirements of Section 09805.

END OF SECTION - 01046

## **SECTION 01091 - DEFINITIONS AND STANDARDS - ASBESTOS ABATEMENT**

### **PART 1 -GENERAL**

#### **SUMMARY**

General Explanation: A substantial amount of specification language constitutes definitions for terms found in other contract documents, including the drawings. (Drawings must be recognized as diagrammatic in nature and not completely descriptive of the requirements indicated thereon.) Certain terms used in Contract Documents are defined in this article.

#### **QUALITY ASSURANCE**

All Work shall conform to the applicable provisions of the codes, standards and Specifications as specified herein. Comply with specified standards as a minimum quality for the Work except where more stringent requirements apply. Where contradictions occur between codes, standards or Specifications, the more stringent shall apply.

#### **SUBMITTALS :**

Permits, Licenses and Certificates: For the owner's records, submit copies of permits, licenses, certifications, inspections reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, and similar documents, correspondence and records established in conjunction with compliance with standards and regulations bearing upon performance of the work. All such permits, licenses and certificates to be obtained by Contractor at Contractor's own expense.

#### **DEFINITIONS:**

Definitions contained in this Article are not necessarily complete, but are general to the extent that they are not defined more explicitly elsewhere in the Contract Documents.

Directed: Terms such as "directed", "requested", "authorized", "selected", "approved", "required", and "permitted" mean "directed by the Owner's Representative", "requested by the "Owner's Representative", and similar phrases. However, no implied meaning shall be interpreted to extend the Owner's Representative's responsibility into the Contractor's area of construction supervision.

Approve: The term "approved," where used in conjunction with the Owner's Representative's action on the Contractor's submittals, applications, and requests, is limited to the responsibilities and duties of the Architect stated in General and Supplementary Conditions. Such approval shall not release the Contractor from responsibility to fulfill Contract Document requirements, unless otherwise provided in the Contract Documents.

Regulation: The term "Regulations" includes laws, statutes, ordinances and lawful orders issued by authorities having jurisdiction, as well as rules, conventions and agreements within the construction industry that control performance of the Work, whether they are lawfully imposed by authorities having jurisdiction or not.

Furnish: The term "furnish" is used to mean "supply and deliver to the project site, ready for unloading, unpacking, assembly, installation, and similar operations."

Install: The term "install" is used to describe operations at project site including the actual "unloading, unpacking, assembly, erection, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning and similar operations."

Provide: The term "provide" means "to furnish and install, complete and ready for the intended use."

Installer: An "Installer" is an entity engaged by the Contractor, either as an employee, subcontractor or sub-subcontractor for performance of a particular construction activity, including installation, erection, application and similar operations. Installers are required to be experienced in the operations they are engaged to perform.

The term "experienced," when used with the term "Installer" means having a minimum of 5 previous Projects similar in size and scope to this project, and familiar with the precautions required, and has complied with requirements of the authority having jurisdiction.

Project Site is the space available to the Contractor for performance of the work, either exclusively or in conjunction with others performing other construction as part of the project. The extent of the project site is shown on the Drawings, and may or may not be identical with the description of the land upon which the project is to be built.

Testing Laboratories: A "testing laboratory" is an independent entity engaged to perform specific inspections or tests, either at the project site or elsewhere, and to report on, and, if required, to interpret, results of those inspections or tests.

Owner's Representative: This is the entity described as the "Architect" in AIA Document A201 "General Conditions of the Contract for Construction," or is the entity described as "Engineer" in Engineers Joint Contract Document Committee (EJCDC) Document 1910-8 "Standard General Conditions of the Construction Contract." All references to Architect or Engineer in the Contract Documents in all cases refer to the Owner's Representative. The Owner's Representative will represent the Owner during construction and until final payment is due. The Owner's Representative will advise and consult with the Owner. The Owner's instructions to the Contractor will be forwarded through the Owner's Representative.

General Superintendent: This is the Contractor's Representative at the work site. This person will generally be the Competent Person required by OSHA in 29 CFR 1926.

#### **DEFINITIONS RELATIVE TO ASBESTOS ABATEMENT:**

Accredited or Accreditation (when referring to a person or laboratory): A person or laboratory accredited in accordance with section 206 of Title II of the Toxic Substances Control Act (TSCA).

Aerosol: A system consisting of particles, solid or liquid, suspended in air.

Air Cell: Insulation normally used on pipes and duct work that is comprised of corrugated cardboard which is frequently comprised of asbestos combined with cellulose or refractory binders.

Air Monitoring: The process of measuring the fiber content of a specific volume of air.

Amended Water: Water to which a surfactant has been added to decrease the surface tension to 35 or less dynes.

Asbestos: The asbestiform varieties of serpentine (chrysotile), riebeckite (crocidolite), cummingtonite-grunerite, anthophyllite, and actinolite-tremolite. For purposes of determining respiratory and worker

protection both the asbestiform and non-asbestiform varieties of the above minerals and any of these materials that have been chemically treated and/or altered shall be considered as asbestos.

Asbestos-Containing Material (ACM): Any material containing more than 1% by weight of asbestos of any type or mixture of types.

Asbestos-Containing Building Material (ACBM): Surfacing ACM, thermal system insulation ACM, or miscellaneous ACM that is found in or on interior structural members or other parts of a building.

Asbestos-Containing Waste Material: Any material which is or is suspected of being or any material contaminated with an asbestos-containing material which is to be removed from a work area for disposal.

Asbestos debris: Pieces of ACBM that can be identified by color, texture, or composition, or means dust, if the dust is determined by an accredited inspector to be ACM.

Authorized Visitor: The Owner, the Owner's Representative, testing lab personnel, the Architect/Engineer, emergency personnel or a representative of any federal, state and local regulatory or other agency having authority over the project.

Barrier: Any surface that seals off the work area to inhibit the movement of fibers.

Breathing Zone: A hemisphere forward of the shoulders with a radius of approximately 6 to 9 inches.

Ceiling Concentration: The concentration of an airborne substance that shall not be exceeded.

Certified Industrial Hygienist (C.I.H.): An industrial hygienist certified in Comprehensive Practice by the American Board of Industrial Hygiene.

Demolition: The wrecking or taking out of any building component, system, finish or assembly of a facility together with any related handling operations.

Disposal Bag: A properly labeled 6 mil thick leak-tight plastic bags used for transporting asbestos waste from work and to disposal site.

Encapsulant: A material that surrounds or embeds asbestos fibers in an adhesive matrix, to prevent release of fibers.

Bridging encapsulant: an encapsulant that forms a discrete layer on the surface of an in situ asbestos matrix.

Penetrating encapsulant: an encapsulant that is absorbed by the in situ asbestos matrix without leaving a discrete surface layer.

Removal encapsulant: a penetrating encapsulant specifically designed to minimize fiber release during removal of asbestos-containing materials rather than for in situ encapsulation.

Encapsulation: Treatment of asbestos-containing materials, with an encapsulant.

Enclosure: The construction of an air-tight, impermeable, permanent barrier around asbestos-containing material to control the release of asbestos fibers into the air.

Filter: A media component used in respirators to remove solid or liquid particles from the inspired air.

Friable Asbestos Material: Material that contains more than 1.0% asbestos by weight and that can be crumbled, pulverized, or reduced to powder by hand pressure when dry.

Glovebag: A sack (typically constructed of 6 mil transparent polyethylene or polyvinylchloride plastic) with inward projecting long sleeve gloves, which are designed to enclose an object from which an asbestos-containing material is to be removed.

HEPA Filter: A High Efficiency Particulate Air (HEPA) filter capable of trapping and retaining 99.97% of asbestos fibers greater than 0.3 microns in diameter.

HEPA Filter Vacuum Collection Equipment (or vacuum cleaner): High efficiency particulate air filtered vacuum collection equipment with a filter system capable of collecting and retaining asbestos fibers. Filters should be of 99.97% efficiency for retaining fibers of 0.3 microns or larger.

High-efficiency particulate air filter: (HEPA) refers to a filtering system capable of trapping and retaining 99.97 percent of all monodispersed particles 0.3 um in diameter or larger.

Negative Pressure Respirator: A respirator in which the air pressure inside the respiratory-inlet covering is positive during exhalation in relation to the air pressure of the outside atmosphere and negative during inhalation in relation to the air pressure of the outside atmosphere.

Negative Pressure Ventilation System: A pressure differential and ventilation system.

Personal Monitoring: Sampling of the asbestos fiber concentrations within the breathing zone of an employee.

Pressure Differential and Ventilation System: A local exhaust system, utilizing HEPA filtration capable of maintaining a pressure differential with the inside of the Work Area at a lower pressure than any adjacent area, and which cleans recirculated air or generates a constant air flow from adjacent areas into the Work Area.

Protection Factor: The ratio of the ambient concentration of an airborne substance to the concentration of the substance inside the respirator at the breathing zone of the wearer. The protection factor is a measure of the degree of protection provided by a respirator to the wearer.

Repair: Returning damaged ACBM to an undamaged condition or to an intact state so as to prevent fiber release.

Respirator: A device designed to protect the wearer from the inhalation of harmful atmospheres.

Surfactant: A chemical wetting agent added to water to improve penetration, thus reducing the quantity of water required for a given operation or area.

Time Weighted Average (TWA): The average concentration of a contaminant in air during a specific time period.

Visible Emissions: Any emissions containing particulate asbestos material that are visually detectable without the aid of instruments. This does not include condensed uncombined water vapor.

Wet Cleaning: The process of eliminating asbestos contamination from building surfaces and objects by using cloths, mops, or other cleaning utensils which have been dampened with amended water or diluted

removal encapsulant and afterwards thoroughly decontaminated or disposed of as asbestos-contaminated waste.

Work Area: The area where asbestos-related work or removal operations are performed which is defined and/or isolated to prevent the spread of asbestos dust, fibers or debris, and entry by unauthorized personnel. Work area is a Regulated Area as defined by 29 CFR 1926.

## **INDUSTRY STANDARDS**

Applicability of Standards: Except where Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into Contract Documents. Such standards are made a part of the Contract Documents by reference. Individual Sections indicate which codes and standards the Contractor must keep available at the Project Site for reference.

Referenced industry standards take precedence over standards that are not referenced but recognized in the construction industry as applicable.

Unreferenced industry standards are not directly applicable to the work, except as a general requirement of whether the work complies with recognized construction industry standards.

Publication Dates: Where compliance with an industry standard is required, comply with standard in effect as of date of Contract Documents.

Updated Standards: At the request of the Owner's Representative, Contractor or authority having jurisdiction, submit a Change Order proposal where applicable code or standard has been revised and reissued after the date of the Contract Documents and before performance of Work affected. The Owner's Representative will decide whether to issue a Change Order to proceed with the updated standard.

Conflicting Requirements: Where compliance with two or more standards is specified, and they establish different or conflicting requirements for minimum quantities or quality levels, the most stringent requirement will be enforced, unless the Contract Documents indicate otherwise. Refer requirements that are different, but apparently equal, and uncertainties as to which quality level is more stringent to the Owner's Representative for a decision before proceeding.

Minimum Quantities or Quality Levels: In every instance the quantity or quality level shown or specified shall be the minimum to be provided or performed. The actual installation may comply exactly, within specified tolerances, with the minimum quantity or quality specified, or it may exceed that minimum within reasonable limits. In complying with these requirements, indicated numeric values are minimum or maximum values, as noted, or appropriate for the context of the requirements. Refer instances of uncertainty to the Owner's Representative for decision before proceeding.

Copies of Standards: Each entity engaged in construction on the Project is required to be familiar with industry standards applicable to that entities' construction activity. Copies of applicable standards are not bound with the Contract Documents.

Where copies of standards are needed for performance of a required construction activity, the Contractor shall obtain copies directly from the publication source.

Although copies of standards needed for enforcement of requirements may be part of required submittals, the Owner's Representative reserves the right to require the Contractor to submit additional copies as necessary for enforcement of requirements.

Abbreviations and Names: Trade association names and titles of general standards are frequently abbreviated. The following acronyms or abbreviations as referenced in Contract Documents are defined to mean the associated names. Names and addresses are subject to change, and are believed to be, but are not assured to be, accurate and up-to-date as of date of Contract Documents:

AIHA	American Industrial Hygiene Association
AIA	American Institute of Architects
ANSI	American National Standards Institute
ASHRAE	American Society for Heating, Refrigerating, Air Conditioning Engineers
ASME	American Society of Mechanical Engineers
ASPE	American Society of Plumbing Engineers
ASTM	American Society for Testing and Materials
AWCI	Association of the Wall and Ceiling Industries-International
CFR	Code of Federal Regulations
DOT	Department of Transportation
EPA	Environmental Protection Agency
FS	Federal Specification (General Services Admin.)
GA	Gypsum Association
GSA	General Services Administration
IEEE	Institute of Electrical and Electronic Engineers
MIL	Military Standardization Documents
NEC	National Electrical Code (by NFPA)
NFPA	National Fire Protection Association
RFCI	Resilient Floor Coverings Institute
UL	Underwriters Laboratories

END OF SECTION - 01091

## **.SECTION 01092 - CODES, REGULATIONS, AND STANDARDS - ASBESTOS ABATEMENT**

### **PART 1 - GENERAL**

#### **SUMMARY**

This section sets forth governmental regulations and industry standards which are included and incorporated herein by reference and made a part of the specification. This section also sets forth those notices and permits which are known to the Owner and which either must be applied for and received, or which must be given to governmental agencies before start of work.

Requirements include adherence to work practices and procedures set forth in applicable codes, regulations and standards.

Requirements include obtaining permits, licenses, inspections, releases and similar documentation, as well as payments, statements and similar requirements associated with codes, regulations, and standards.

#### **CODES AND REGULATIONS**

General Applicability of Codes and Regulations, and Standards: Except to the extent that more explicit or more stringent requirements are written directly into the contract documents, all applicable codes, regulations, and standards have the same force and effect (and are made a part of the contract documents by reference) as if copied directly into the contract documents, or as if published copies are bound herewith.

Contractor Responsibility: The Contractor shall assume full responsibility and liability for the compliance with all applicable Federal, State, and local regulations pertaining to work practices, hauling, disposal, and protection of workers, visitors to the site, and persons occupying areas adjacent to the site. The Contractor is responsible for providing medical examinations and maintaining medical records of personnel as required by the applicable Federal, State, and local regulations. The Contractor shall hold the Owner and Owner's Representative harmless for failure to comply with any applicable work, hauling, disposal, safety, health or other regulation on the part of himself, his employees, or his subcontractors.

Federal Requirements: which govern asbestos abatement work or hauling and disposal of asbestos waste materials include but are not limited to the following:

OSHA: U.S. Department of Labor, Occupational Safety and Health Administration, (OSHA), including but not limited to:

Occupational Exposure to Asbestos, Tremolite,  
Anthophyllite, and Actinolite; Final Rules  
Title 29, Part 1910, Section 1001 and  
Part 1926, Section 58 of the  
Code of Federal Regulations

Respiratory Protection  
Title 29, Part 1910, Section 134 of the  
Code of Federal Regulations

Construction Industry  
Title 29, Part 1926.1101 of the  
Code of Federal Regulations

Access to Employee Exposure and Medical Records  
Title 29, Part 1910, Section 2 of the  
Code of Federal Regulations

Hazard Communication  
Title 29, Part 1910, Section 1200 of the  
Code of Federal Regulations

Specifications for Accident Prevention Signs and Tags  
Title 29, Part 1910, Section 145 of the  
Code of Federal Regulations

DOT: U. S. Department of Transportation, including but not limited to:

Hazardous Substances  
Title 29, Part 171 and 172 of the  
Code of Federal Regulations

EPA: U. S. Environmental Protection Agency (EPA), including but not limited to:

Asbestos Hazard Emergency Response Act (AHERA) Regulation  
Asbestos Containing Materials in Schools Final Rule & Notice  
Title 40, Part 763, Sub-part E of the  
Code of Federal Regulations

Training Requirements of (AHERA) Regulation  
Asbestos Containing Materials in Schools Final Rule & Notice  
Title 40, Part 763, Sub-part E, Appendix C of the  
Code of Federal Regulations

National Emission Standard for Hazardous Air Pollutants (NESHAPS)  
National Emission Standard for Asbestos  
Title 40, Part 61, Sub-part A,  
and Sub-part M (Revised Sub-part B) of the  
Code of Federal Regulations

State Requirements: which govern asbestos abatement work or hauling and disposal of asbestos waste materials include but are not limited to the following:

Illinois-  
Rules for Asbestos Abatement for Public and Private Schools and Commercial and Public Buildings in  
Illinois  
(77III Adm. Code 855)  
Department of Public Health  
535 West Jefferson Street, Springfield, IL. 62761

Local Requirements: Abide by all local requirements which govern asbestos abatement work or hauling and disposal of asbestos waste materials.

## **STANDARDS:**

General Applicability of Standards: Except to the extent that more explicit or more stringent requirements are written directly into the Contract Documents, all applicable standards have the same force and effect (and are made a part of the Contract Documents by reference) as if copied directly into the Contract Documents, or as if published copies are bound herewith.

Contractor Responsibility: The Contractor shall assume full responsibility and liability for the compliance with all standards pertaining to work practices, hauling, disposal, and protection of workers, visitors to the site, and persons occupying areas adjacent to the site. The Contractor shall hold the Owner and Owner's Representative harmless for failure to comply with any applicable standard on the part of himself, his employees, or his subcontractors.

Standards: which apply to asbestos abatement work or hauling and disposal of asbestos waste materials include but are not limited to the following:

American National Standards Institute (ANSI)  
1430 Broadway  
New York, New York 10018  
(212)354-3300

Fundamentals Governing the Design and Operation of Local Exhaust Systems  
Publication Z9.2-79

Practices for Respiratory Protection Publication Z88.2-80

American Society for Testing and Materials (ASTM)  
1916 Race Street  
Philadelphia, PA 19103  
(215)299-5400

Safety and Health Requirements Relating to Occupational Exposure to Asbestos  
E 849-82

Specification for Encapsulants for Friable Asbestos Containing Building  
Materials  
Proposal P-189

## **EPA GUIDANCE DOCUMENTS:**

EPA Guidance Documents: discuss asbestos abatement work or hauling and disposal of asbestos waste materials listed below for the Contractor's information only. These documents do not describe the work and are not a part of the work of this contract. EPA maintains an information number (800) 334-8571, publications can be ordered from (800) 424-9065 (554-1404 in Washington, DC):

Asbestos-Containing Materials in School Buildings - A Guidance Document. Part 1 & 2. (Orange Books)  
EPA C00090 (out of print)

Guidance for Controlling Asbestos-Containing Materials in Buildings (Purple Book) EPA 560/5-85-024

Friable Asbestos-Containing Materials in Schools: Identification and Notification Rule (40 CFR Part 763)

Evaluation of the EPA Asbestos-in-Schools Identification and Notification Rule. EPA 560/5-84-005.

Asbestos in Buildings: National Survey of Asbestos-Containing Friable Materials. EPA 560/5-84-006.

Asbestos in Buildings: Guidance for Service and Maintenance Personnel. EPA 560/5-85-018.

Asbestos Waste Management Guidance. EPA 530-SW-85-007.

Asbestos Fact Book. EPA Office of Public Affairs.

Asbestos in Buildings. Simplified Sampling Scheme for Friable Surfacing Materials.

Commercial Laboratories with Polarized Light Microscopy Capabilities for bulk asbestos identification.

A Guide to Respiratory Protection for the Asbestos Abatement Industry  
EPA -560-OPS-86-001

### **NOTICES, PERMITS AND LICENSES**

U.S. Environmental Protection Agency Send Written Notification as required by USEPA National Emission Standards for Hazardous Air Pollutants (NESHAPS) Asbestos Regulations (40 CFR 61, Subpart M) to the regional Asbestos NESHAPS.

Notification: Include the following information in the notification sent to the NESHAPS contact:

Name and address of owner or operator.

Description of the facility being demolished or renovated, including the size, age, and prior use of the facility.

Estimate of the approximate amount of friable asbestos material present in the facility in terms of linear feet of pipe, and surface area on other facility components. For facilities in which the amount of friable asbestos materials less than 80 linear meters (260 linear feet) on pipes and less than 15 square meters (160 square feet) on other facility components, explain techniques of estimation.

Location of the facility being demolished or renovated.

Scheduled starting and completion dates of demolition or renovation.

Nature of planned demolition or renovation and method(s) to be used.

Procedures to be used to comply with the requirements of USEPA National Emission Standards for Hazardous Air Pollutants (NESHAPS) Asbestos Regulations (40 CFR 61 Subpart M).

Name and location of the waste disposal site where the friable asbestos waste material will be deposited.

For facilities being demolished under an order of a State or Local governmental agency, issued because the facility is structurally unsound and in danger of imminent collapse, the name, title, and authority of the State or local governmental representative who has ordered the demolition.

### **STATE AND LOCAL AGENCIES:**

Send written notification as required by state and local regulations prior to beginning any work on asbestos-containing materials.

### **PERMITS:**

Permit: All asbestos containing waste is to be transported by and entity maintaining a current "Industrial waste hauler permit" specifically for asbestos-containing materials, as required for transporting of waste asbestos-containing materials to a disposal site.

### **LICENSES:**

Licenses: Maintain current licenses as required by applicable state or local jurisdictions for the removal, transporting, disposal or other regulated activity relative to the work of this contract.

### **POSTING AND FILING OF REGULATIONS**

Posting and Filing of Regulations: Post all notices requires by applicable federal, state and local regulations. Maintain two (2) copies of applicable federal, state and local regulations and standard. Maintain one copy of each at job site. Keep on file in Contractor's office one copy of each.

### **SUBMITTALS:**

Before Start of Work: Submit the following to the Owner's Representative for review. No work shall begin until these submittals are returned with Owner's Representative's action stamp indicating that the submittal is returned for unrestricted use or final-but-restricted use.

Permits, Licenses, and Certificates: For the Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, and similar documents, correspondence and records established in conjunction with compliance with standards and regulations bearing upon performance of the Work including:

State and Local Regulations: Submit copies of codes and regulations applicable to the work.

Notices: Submit notices required by federal, state and local regulations together with proof of timely transmittal to agency requiring the notice.

Permits: Submit copies of current valid permits required by state and local regulations.

Licenses: Submit copies of all State and local licenses and permits necessary to carry out the work of this contract.

### **PART 2 - PRODUCTS** (Not Applicable)

**PART 3 - EXECUTION** (Not Applicable)

END OF SECTION - 01092

## **PRE-CONSTRUCTION CONFERENCE**

**General** Within 10 days after issuance of the Notice of Proceed, a preconstruction conference will be held at the location, date and time to be designated by the Owner. A minimum of 72 hours advance notice will be provided to participants.

**Agenda** The matters to be discussed will include:

1. Construction schedule and progress reports to be submitted by the Contractor as described in Section 01310.
2. Details of construction and phasing sequence, including the bar chart submitted with the Bid, lead times of equipment procurement, as well as the date by which the Contractor must have material or equipment in place in order to complete the Work within the construction schedule time limitations set in Section 00300 Paragraph 6.
3. Communication and general correspondence procedures between the involved parties. The Owner will designate his/her representative and/or Consultant at the time of this meeting.
4. The names and titles of all persons authorized by the Contractor to represent and execute documents for him/her with samples of all authorized signatures.
5. The names, addresses, and telephone numbers of all those authorized by the Contractor to act for him/her in emergencies.
6. Access and rights-of-way furnished by the Owner.
7. Forms and procedures for Contractor's Submittals as described in Section 01310.
8. Construction equipment and methods proposed by the Contractor. The Contractor shall submit a list of equipment to be used in the Work.
9. Administrative and general matters as needed.
10. Traffic control on existing access roads and parking areas for public and Contractor.
11. Location/construction of containment, decontamination areas and temporary facilities such as power, light, water, telephone, etc.
12. General means of Contractor ingress/egress into building proper (including waste removal) and those individual(s) responsible for Owner furnished keys.
13. Site and construction layout. Location of Contractor's field office.
14. Subcontractors.
15. Arrangements for Owner furnished keys.
16. Payment estimates, submittals for payment and payment application forms.
17. Progress meetings during the course of the Work.

## **WEEKLY CONSTRUCTION PROJECT MEETINGS**

**General** Construction meetings shall be held at least weekly or more frequently as needed or called by the Contractor or the Owner.

**Agenda** All matters bearing on the progress and performance of the Work since the preceding progress meetings shall be discussed and resolved, including, without limitation, any previously unresolved matters, deficiencies in the Work or the methods being employed for the Work, and problems, difficulties, or delays which may be encountered, in order that the Work may be constructed on schedule and within cost.

END OF SECTION - 1200

## **SECTION 01301 - SUBMITTALS**

### **PART 1 - GENERAL**

#### **SUMMARY**

This Section specifies administrative and procedural requirements for submittals required for performance of the Work, including:

- Contractor's construction schedule.
- Submittal schedule.
- Daily construction reports.
- Shop Drawings.
- Product Data.
- Samples.
- Miscellaneous Submittals

Administrative Submittals: Refer to other Division-1 Sections and other Contract Documents for requirements for administrative submittals. Such submittals include, but are not limited to:

- Permits
- Applications for payment
- Performance and payment bonds
- Insurance certificates
- List of Subcontractors

#### **SUBMITTAL PROCEDURES**

Coordination: Coordinate preparation and processing of submittals with performance of construction activities. Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay. Contractor shall responsibly coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals and related activities that require sequential activity.

Coordinate transmittal of different types of submittals for related elements of the work so processing will not be delayed by the need to review submittals concurrently for coordination.

The Owner's Representative reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.

Processing: Allow sufficient review time so that installation will not be delayed as a result of the time required to process submittals, including time for resubmittals.

Allow two weeks for initial review. Allow additional time if processing must be delayed to permit coordination with subsequent submittals. The Owner's Representative will promptly advise the Contractor when a submittal being processed must be delayed for coordination.

If an intermediate submittal is necessary, process the same as the initial submittal.

Allow two weeks for reprocessing each submittal.

No extension of Contract Time will be authorized because of failure to transmit submittals to the Owner's Representative sufficiently in advance of the work to permit processing.

Submittal Preparation: Place a permanent label or title block on each submittal for identification. Indicate the name of the entity that prepared each submittal on the label or title block.

Provide a space approximately 4" x 5" on the label or beside the title block on Shop Drawings to record the Contractor's review and approval markings and the action taken.

Include the following information on the label for processing and recording action taken.

- Project name.
- Date.
- Name and address of Owner's Representative.
- Name and address of Contractor.
- Name and address of subcontractor.
- Name and address of supplier.
- Name of manufacturer.
- Number and title of appropriate Specification Section.
- Drawing number and detail references, as appropriate.

Submittal Transmittal: Package each submittal appropriately for transmittal and handling. Transmit each submittal from Contractor to Owner's Representative using a transmittal form. Submittals received from sources other than the Contractor will be returned without action.

On the transmittal record relevant information and requests for data. On the form, or separate sheet, record deviations from Contract Document requirements, including minor variations and limitations. Include Contractor's certification that information complies with Contract Document requirements.

### **CONTRACTOR'S CONSTRUCTION SCHEDULE**

Schedule: Within 10 days after issuance of the Notice to Proceed, the contractor will provide a proposed detailed schedule including work dates, work shift time, number of employees, dates of start and completion including dates of preparation work, removals and final inspection dates.

Bar-Chart Schedule: Prepare a fully developed, horizontal bar-chart type Contractor's construction schedule. Submit within 10 days of the date established for "Commencement of the Work".

Provide a separate time bar for each significant construction activity. Provide a continuous vertical line to identify the first working day of each week. Use the same breakdown of units of the work as indicated in the "Schedule of Values."

Prepare the schedule on a sheet, or series of sheets, of stable transparency, or other reproducible media, of sufficient width to show data for the entire construction period.

Secure time commitments for performing critical elements of the work from parties involved. Coordinate each element on the schedule with other construction activities; include minor elements involved in the sequence of the work. Show each activity in proper sequence. Indicate graphically sequences necessary for completion of related portions of the work.

Coordinate the Contractor's construction schedule with the schedule of values, list of subcontracts, submittal schedule, progress reports, payment requests and other schedules.

Indicate completion and Clearance of each Work Area in advance of the date established for Substantial Completion. Allow time for testing and other Owner's Representative's procedures necessary for certification of Clearance and Substantial Completion.

Phasing: Provide notations on the schedule to show how the sequence of the work is affected by requirements for phased completion to permit work by separate Contractors and partial occupancy by the Owner prior to Substantial Completion.

Work Stages: Indicate important stages of construction for each major portion of the work, including testing and installation. Include indication of start and finish times for the following:

- Non-asbestos demolitions.
- Preparation of the Work Area.
- Asbestos removal.
- Clearance testing.
- Substantial Completion.

Area Separations: Provide a separate time bar to identify each Work Area or major construction area for each major portion of the work. Indicate where each element in an area must be sequenced or integrated with other activities.

Cost Correlation: At the head of the schedule, provide a two item cost correlation line, indicating "recalculated" and "actual" costs. On the line show dollar-volume of work performed as of the dates used for preparation of payment requests.

Refer to Section "Applications for Payment" for cost reporting and payment procedures.

Distribution: Following response to the initial submittal, print and distribute copies to the Owner's Representative, Owner, subcontractors, and other parties required to comply with scheduled dates. Post copies in the Project Administrator's field office, project meeting room and temporary field office.

When revisions are made, distribute to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in construction activities.

Schedule Updating: Revise the schedule after each meeting or activity, where revisions have been recognized or made. Issue the updated schedule concurrently with report of each meeting.

## **SUBMITTAL SCHEDULE**

Listing: At the end of this section is a listing of the principal submittals required for the work. This listing is not necessarily complete, nor does the listing reflect the significance of each submittal requirement. The listing is included only for the convenience of users of the Contract Documents.

After review and action on the Contractor's construction schedule, prepare a complete schedule of submittals. Submit the schedule of submittals within 10 days of the date required for establishment of the Contractor's construction schedule.

Distribution: Following response to initial submittal, print and distribute copies to the Owner's Representative, Owner, subcontractors, and other parties required to comply with submittal dates indicated. Post copies in the project meeting room and field office.

When revisions are made, distribute to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the work and are no longer involved in construction activities.

Schedule Updating: Revise the schedule after each meeting or activity, where revisions have been recognized or made. Issue the updated schedule concurrently with report of each meeting.

## **PRODUCT DATA**

Collect Product Data into a single submittal. Product Data includes printed information such as manufacturer's installation instructions, catalog cuts, standard wiring diagrams and performance curves. Where Product Data must be specially prepared because standard printed data is not suitable for use, submit as "Shop Drawings."

Mark each copy to show applicable choices and options. Where printed Product Data includes information on several products, some of which are not required, mark copies to indicate the applicable information. Include the following information:

- Manufacturer's printed recommendations.
- Compliance with recognized trade association standards.
- Compliance with recognized testing agency standards.
- Application of testing agency labels and seals.
- Notation of dimensions verified by field measurement.
- Notation of coordination requirements.

Do not submit Product Data until compliance with requirements of the Contract Documents has been confirmed.

## **MISCELLANEOUS SUBMITTALS:**

Material Safety Data Sheets: Process material safety and data sheets as "product data."

Inspection and Test Reports: Classify each inspection and test report as being either "shop drawings" or "product data" depending on whether the report is specially prepared for the project, or a standard publication of workmanship control testing at the point of production. Process inspection and test reports accordingly.

Standards: Where submittal of a copy of standards is indicated, and except where copies of standards are specified as an integral part of a "Product Data" submittal, submit a single copy of standards for the Owner's Representative's use. Where workmanship, whether at the project site or elsewhere is governed by a standard, furnish additional copies of the standard to fabricators, installers and others involved in the performance of the work.

Close-out Submittals: Refer to section "Project Close-out" and to individual sections of these specifications for specific submittal requirements of project close-out information.

Record Documents: Furnish set of original documents as maintained on the project site. Along with original marked-up record drawings provide 2 photographic copies of marked-up drawings, which, at the Contractor's option, may be reduced to not less than half size.

## **OWNER'S REPRESENTATIVE'S ACTION**

Except for submittals for record, information or similar purposes, where action and return is required or requested, the Owner's Representative will review each submittal, mark to indicate action taken, and return promptly.

Compliance with specified characteristics is the Contractor's responsibility.

Action Stamp: The Owner's Representative will stamp each submittal with a uniform, self-explanatory action stamp. The stamp will be appropriately marked, as follows, to indicate the action taken:

Final Unrestricted Release: Where submittals are marked "Approved," that part of the work covered by the submittal may proceed provided it complies with requirements of the Contract Documents; final acceptance will depend upon that compliance.

Final-But-Restricted Release: When submittals are marked "Approved as Noted," that part of the work covered by the submittal may proceed provided it complies with notations or corrections on the submittal and requirements of the Contract Documents; final acceptance will depend on that compliance.

Returned for Resubmittal: When submittal is marked "Not Approved, Revise and Resubmit," do not proceed with that part of the work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise or prepare a new submittal in accordance with the notations; resubmit without delay. Repeat if necessary to obtain a different action mark.

Do not permit submittals marked "Not Approved, Revise and Resubmit" to be used at the Project site, or elsewhere where work is in progress.

Other Action: Where a submittal is primarily for information or record purposes, special processing or other activity, the submittal will be returned, marked "Action Not Required".

**PART 2 - PRODUCTS** (Not Applicable).

**PART 3 - EXECUTION** (Not Applicable).

END OF SECTION 01301

## **SECTION 01410 - AIR MONITORING - TEST LABORATORY SERVICES**

### **PART 1 - GENERAL**

#### **RELATED DOCUMENTS:**

Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division - 1 Specification Sections, apply to work of this section.

Air Monitoring: during work area clearance is described in Section 01711 Work Area Clearance.

#### **DESCRIPTION OF THE WORK**

This section describes air monitoring carried out by the owner to verify that the building beyond the work area and the outside environment remains uncontaminated. This section also sets forth airborne fiber levels both inside and outside the work area as action levels, and describes the action required by the Contractor if an action level is met or exceeded.

Air monitoring required by OSHA is work of the Contractor and is not covered in this section.

#### **AIR MONITORING:**

Work Area Isolation: The purpose of the Owner's air monitoring is to detect faults in the work area isolation such as:

- Contamination of the building outside of the work area with airborne asbestos fibers,
- Failure of filtration or rupture in the differential pressure system,
- Contamination of air outside the building envelop airborne asbestos fibers.

Should any of the above occur immediately cease asbestos abatement activities until the fault is corrected. Do not recommence work until authorized by the Owner's Representative.

Work Area Airborne Fiber Count: The Owner will monitor airborne fiber counts in the Work Area. The purpose of this air monitoring will be to detect airborne asbestos concentrations which may challenge the ability of the Work Area isolation procedures to protect the balance of the building or outside of the building from contamination by airborne fibers.

Work area clearance: To determine if the elevated airborne fiber counts encountered during abatement operations have been reduced to an acceptable level, the Owner will sample and analyze air per Section 01714 Work Area Clearance.

The Owner will be conducting air monitoring throughout the course of the project.

#### **STOP ACTION LEVELS:**

Inside Work Area: Maintain an average airborne count in the work area of less than the Stop Action Level given below for the type of respiratory protection in use. If the fiber counts rise above this figure for any sample taken, revise work procedures to lower fiber counts. If the Time Weighted Average (TWA) fiber count for any work shift or 8 hour period exceeds the Stop Action Level, stop all work except corrective action, leave pressure differential and air circulation system in operation and notify Owner's Representative. After correcting cause of high fiber levels, do not

recommence work for 24 hours unless otherwise authorized, in writing, by Owner's Representative.

<b>STOP ACTION LEVEL (f/cc)</b>	<b>IMMEDIATE STOP LEVEL (f/cc)</b>	<b>MINIMUM RESPIRATOR REQUIRED</b>	<b>MINIMUM PROTECTION FACTOR</b>
0.1	1.0	Half face	10
0.5	5.0	PAPR	50
1.0	10.0	Type C	100

If airborne fiber counts exceed Immediate Stop Level given above for type of respiratory protection in use for any period of time cease all work except corrective action. Notify Owner's Representative. Do not recommence work until fiber counts fall below Stop Action Level given above for the type of respiratory protection in use. After correcting cause of high fiber levels, do not recommence work for 24 hours unless otherwise authorized, in writing, by Owner's Representative.

Outside Work Area: If any air sample taken outside of the Work Area exceeds the base line established below, immediately and automatically stop all work except corrective action. The Owner's Representative will determine the source of the high reading and so notify the Contractor in writing.

If the high reading was the result of a failure of Work Area isolation measures initiate the following actions:

Immediately erect new critical barriers as set forth in Section 01526 Temporary Enclosures to isolate the affected area from the balance of the building. Erect Critical Barriers at the next existing structural isolation of the involved space (eg. wall, ceiling, floor).

Decontaminate the affected area in accordance with Section 01712 Cleaning & Decontamination Procedures.

Require that respiratory protection as set forth in Section 01562 Respiratory Protection be worn in affected area until area is cleared for reoccupancy in accordance with Section 01714 Work Area Clearance.

Leave Critical Barriers in place until completion of work and insure that the operation of the pressure differential system in the Work Area results in a flow of air from the balance of the building into the affected area.

If the exit from the clean room of the personnel decontamination unit enters the affected area, establish a decontamination facility consisting of a Shower Room and Changing Room as set forth in Section 01564 Decontamination Units at entry point to affected area.

After Certification of Visual Inspection in the Work Area remove critical barriers separating the work area from the affected area. Final air samples will be taken within the entire area as set forth in Section 01714 Work Area Clearance.

If the high reading was the result of other causes initiate corrective action as determined by the Owner's Representative.

Effect on Contract Sum: Complete corrective work with no change in the Contract Sum if high airborne fiber counts were caused by Contractor's activities. The Contract Sum and schedule will be adjusted for additional work caused by high airborne fiber counts beyond the Contractor's control.

Fibers Counted: The following procedure will be used to resolve any disputes regarding fiber types when a project has been stopped due to excessive airborne fiber counts.

Large Fibers: "Airborne Fibers" referred to above include all fibers regardless of composition as counted by phase contrast microscopy (PCM), unless additional analysis by transmission or scanning electron microscopy demonstrates to the satisfaction of the Owner's Representative that non-asbestos fibers are being counted. "Airborne Fibers" counted in samples analyzed by scanning or transmission electron microscopy shall be asbestos fibers, greater than 5 microns in length and greater than 0.25 microns in diameter. For purposes of stop action levels, subsequent to analysis by electron microscopy, the number of "Airborne Fibers" shall be determined by multiplying the number of fibers, regardless of composition, counted by PCM by a number equal to asbestos fibers counted divided by all fibers counted in the electron microscopy analysis.

Small Structures: "Airborne Fibers" referred to above include asbestos structures (fibers, bundles, clusters or matrices) of any diameter and any length greater than 0.5 microns.

### **ANALYTICAL METHODS:**

General The following methods will be used by the Owner in analyzing filters used to collect air samples. Sampling rates may be varied from printed standards to allow for high volume sampling.

Phase Contrast Microscopy (PCM) will be performed using the NIOSH 7400 method.

Transmission Electron Microscopy will be performed using the analysis method set forth in the AHERA regulation 40 CFR Part 763 Appendix A.

### **SAMPLE VOLUMES:**

General: The number and volume of air samples taken by the Owner will be in accordance with the following schedule. Sample volumes given may vary depending upon the analytical method used.

### **SCHEDULE OF AIR SAMPLES:**

#### Before Start of Work:

The Owner will secure the following Air Samples to establish a base line before start of work. As required by AHERA and IDPH requirements. Minimums are as follows, however, the more stringent shall apply.

Sample cassettes: Samples will be collected on 25 mm. cassettes as follows:

PCM: 0.8 micrometer mixed cellulose ester.

TEM: 0.45 micrometer mixed cellulose ester or 0.40 micrometer polycarbonate, with 5.0 micron mixed cellulose ester backing filter.

Sampling sensitivity in the table below refers to:

Detection Limit for PCM analysis as set forth in the analytical method used

Analytical Sensitivity for TEM analysis as set forth in the analytical method used or the AHERA regulation

Location Sampled	Number of Samples	Analysis Method	Sampling Sensitivity Fibers/cc.	Minimum Volume (Liters)	Rate LPM
Each Work Area	1	PCM	0.01	1,200	1-10
Each Work Area	1	hold for TEM	0.005	1,300	1-10
Outside Each Work Area	5	PCM	0.01	1,200	1-10
Outside Each Work Area	1	hold for TEM	0.005	1,300	1-10
Outside Building	5	PCM	0.01	1,200	1-10
Outside Building	1	hold for TEM	0.005	1,300	1-10

Base Line: an action level expressed in fibers per cubic centimeter which is twenty-five percent greater than the largest of the following:

Average of the PCM samples collected outside each Work Area

Average of the PCM samples collected outside the building

0.01 fibers per cubic centimeter

Samples collected for TEM analysis will be held without analysis. These samples will be analyzed under the conditions and terms set forth in "Fibers Counted" and "Affect On Contract Sum".

Daily:

From start of work of Section 01526 Temporary Enclosures through the work of Section 01711 Project Decontamination, the Owner may be taking the following samples on a daily basis.

Samples will be collected on 25 mm. cassettes with the following filter media:

PCM: 0.8 micrometer mixed cellulose ester.

Location Sampled	Number of Samples	Analysis Method Fibers/cc.	Detection Limit (Liters)	Minimum Volume	Rate LPM
Each Work Area 2		PCM	0.01	1,200	1-10
OR AS REQUIRED BY CONDITIONS					
Outside Each Work Area at Critical Barrier	1	PCM	0.01	1,200	1-10
Clean Room	1	PCM	0.01	1,200	1-10
Equip Decon	1	PCM	0.01	1,200	1-10
Outside Building	1	PCM	0.01	1,200	1-10
Output Pressure Differential Sys	1	PCM	0.01	1,200	1-10

Additional samples may be taken at Owner's or Owner's Representatives discretion. If airborne fiber counts exceed allowed limits additional samples will be taken as necessary to monitor fiber levels.

**LABORATORY TESTING:**

The services of a testing laboratory may be employed by the Owner to perform laboratory analyses of the air samples. A microscope and technician will be setup at the job site, so that verbal reports on air samples can be obtained immediately.

Written Reports: of all air monitoring tests will be posted at the job site on a daily basis.

**PART 2 - PRODUCTS** (NOT APPLICABLE)

**PART 3 - EXECUTION**

END OF SECTION - 01410

## **SECTION 01503 - TEMPORARY FACILITIES - ASBESTOS ABATEMENT**

### **PART 1 - GENERAL**

#### **RELATED DOCUMENTS:**

Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division-1 Specification Sections, apply to work of this section.

#### **DESCRIPTION OF REQUIREMENTS:**

General: Provide temporary connection to existing building utilities or provide temporary facilities as required herein or as necessary to carry out the work.

#### **SUBMITTALS**

Before the Start of Work: Submit the following to the Owner's Representative for review. Begin no work until these submittals are returned with Owner's Representative's action stamp indicating that the submittal is returned for unrestricted use or final-but-restricted use.

Scaffolding: submit list of rolling and fixed scaffolding intended for use on the project. Submit sufficient detail to indicate compliance with applicable worker safety regulations or other requirements.

Hot water heater: Submit manufacturers name, model number, size in gallons, heating capacity, power requirements.

Decontamination Unit Sub-panel: Submit product data.

Ground Fault Circuit Interrupters (GFCI): Submit product data.

Lamps and Light Fixtures: Submit product data.

Temporary Heating Units: Provide product data.

Temporary Cooling Units: Provide product data and installation instructions.

Self Contained Toilet Units: Provide product data and name of sub-contractor to be used for servicing self contained toilets. Submit method to used for servicing.

First Aid Supplies: Provide list of contents of first aid kit. Submit in form of check list.

Fire Extinguishers: Provide product data. Submit schedule indicating location at job site.

### **PART 2 - PRODUCTS**

#### **MATERIALS AND EQUIPMENT:**

General: Provide new or used materials and equipment that are undamaged and in serviceable condition. Provide only materials and equipment that are recognized as being suitable for the intended use, by compliance with appropriate standards.

#### **SCAFFOLDING:**

Provide all scaffolding, ladders and/or staging, etc. as necessary to accomplish the work of this contract. Scaffolding may be of suspension type or standing type such as metal tube and coupler, tubular welded frame, pole or outrigger type or cantilever type. The type, erection and use of all scaffolding shall comply with all applicable OSHA provisions.

Non-slip/Non-skid Surface Equip rungs of all metal ladders, etc. with an abrasive non-slip surface.

Provide a nonskid surface on all scaffold surfaces subject to foot traffic.

## **WATER SERVICE:**

**Temporary Water Service Connection:** All connections to the Owner's water system shall include back flow protection. Valves shall be temperature and pressure rated for operation of the temperatures and pressures encountered. After completion of use, connections and fittings shall be removed without damage or alteration to existing water piping and equipment. Leaking or dripping valves shall be piped to the nearest drain or located over an existing sink or grade where water will not damage existing finishes or equipment.

**Water Hoses:** Employ heavy-duty abrasion-resistant hoses with a pressure rating greater than the maximum pressure of the water distribution system to provide water into each work area and to each Decontamination Unit. Provide fittings as required to allow for connection to existing wall hydrants or spouts, as well as temporary water heating equipment, branch piping, showers, shut-off nozzles and equipment.

**Hot Water Heater:** Provide UL rated 40 gallon electric hot water heater to supply hot water for the Decontamination Unit shower. Activate from 30 amp circuit breaker located within the Decontamination Unit subpanel. Provide with relief valve compatible with water heater operation; pipe relief valve down to drip pan on floor with type L copper. Drip pans shall consist of a 12" X 12" X 6" deep pan, made of 19 gauge galvanized steel, with handles. A 3-quart kitchen saucepan may be substituted for this purpose. Drip pan shall be securely fastened to the hot water heater with bailing wire or similar material. Wiring of the hot water heater shall be in compliance with NEMA, NECA, and UL standards. *(for IDPH & AHERA JOBS)*

**Hot Water:** may be secured from the building hot water system, provided back flow protection is installed at point of connection as described in this section under Temporary Water Service connection, and if authorized in writing by the Owner's Representative.

## **ELECTRICAL SERVICE:**

**General:** Comply with applicable NEMA, NECA and UL standards and governing regulations for materials and layout of temporary electric service.

**Temporary Power:** Provide service to Decontamination Unit subpanel with minimum 60 amp, 2 pole circuit breaker or fused disconnect connected to the buildings main distribution panel. Subpanel and disconnect shall be sized and equipped to accommodate all electrical equipment required for completion of the work.

**Voltage Differences:** Provide identification warning signs at power outlets which are other than 110-120 volt power. Provide polarized outlets for plug-in type outlets, to prevent insertion of 110-120 volt plugs into higher voltage outlets. Dry type transformers shall be provided where required to provide voltages necessary for work operations.

**Ground Fault Protection:** Equip all circuits for any purpose entering Work Area with ground fault circuit interrupters (GFCI). Locate GFCI's exterior to Work Area so that all circuits are protected prior to entry to Work Area. Provide circuit breaker type ground fault circuit interrupters (GFCI) equipped with test button and reset switch for all circuits to be used for any purpose in work area, decontamination units, exterior, or as otherwise required by national electrical code, OSHA or other authority. Locate in panel exterior to Work Area.

Electrical Power Cords: Use only grounded extension cords; use "hard-service" cords where exposed to abrasion and traffic. Use single lengths or use waterproof connectors to connect separate lengths of electric cords, if single lengths will not reach areas of work.

Lamps and Light Fixtures: Provide general service incandescent lamps or fluorescent lamps of wattage indicated or required for adequate illumination as required by the work or this section. Protect lamps with guard cages or tempered glass enclosures, where fixtures are exposed to breakage by construction operations. Provide vapor tight fixtures in work area and decontamination units. Provide exterior fixtures where fixtures are exposed to the weather or moisture.

### **HEAT TEMPORARY**

Heating Units: Provide temporary heating units that have been tested and labeled by UL, FM or another recognized trade association related to the fuel being consumed. Use steam or hot water radiant heat where available, and where not available use electric resistant fin radiation supplied from a branch circuit with ground fault circuit interrupter.

### **TEMPORARY COOLING:**

Cooling Units: Provide temporary cooling units consisting of a fan coil unit inside the work area with a compressor and heat rejection coil outside.

### **SELF-CONTAINED TOILETS:**

Self-Contained Toilet Units: Provide single-occupant self-contained toilet units of the chemical type, properly vented and fully enclosed with a glass fiber reinforced polyester shell or similar non-absorbent material.

### **FIRST AID:**

First Aid Supplies: Comply with governing regulations and recognized recommendations within the construction industry.

### **FIRE EXTINGUISHERS:**

Fire Extinguishers: Provide Type "A" fire extinguishers for temporary offices and similar spaces where there is minimal danger of electrical or grease-oil-flammable liquid fires. In other locations provide type "ABC" dry chemical extinguishers, or a combination of several extinguishers of NFPA recommended types for the exposures in each case.

## **PART 3 - EXECUTION**

### **SCAFFOLDING:**

During the erection and/or moving of scaffolding, care must be exercised so that the polyethylene floor covering is not damaged.

Clean as necessary debris from non-slip surfaces.

At the completion of abatement work clean all construction aids within the work area, wrap in one layer of 6 mil polyethylene sheet and seal before removal from the Work Area.

## **INSTALLATION, GENERAL:**

**General:** Use qualified tradesmen for installation of temporary services and facilities. Locate temporary services and facilities where they will serve the entire project adequately and result in minimum interference with the performance of the Work. Require that tradesmen accomplishing this work be licensed as required by local authority for the work performed. Relocate, modify and extend services and facilities as required during the course of work so as to accommodate the entire work of the project.

## **WATER SERVICE:**

**General:** Water connection (without charge) to Owner's existing potable water system is limited to one 3/4" pipe-size connection, and a maximum flow of 10 gpm each to hot and cold water supply. Install using vacuum breakers or other back flow prevented as required by local authority. Hot water shall be supplied at a minimum temperature of 100 F. Supply hot and cold water to the Decontamination Unit in accordance with Section 01564. In addition, water shall be supplied for the following uses:

**Hoses and Drip Pans:** Maintain hose connections and outlet valves in leakage, provide a drip pan of suitable size to minimize the possibility of water damage. Drain water promptly from pans as it accumulates.

## **ELECTRICAL SERVICE:**

**General:** Provide a weatherproof, grounded temporary electric power service and distribution system of sufficient size, capacity, and power characteristics to accommodate performance of work during the construction period. Install temporary lighting adequate to provide sufficient illumination for safe work and traffic conditions in every area of work.

**Lockout:** Lockout all existing power to or through the work area as described below. Unless specifically noted otherwise existing power and lighting circuits to the Work Area are not to be used. All power and lighting to the Work Area and Decontamination facilities are to be provided from temporary electrical panel described below.

**Lockout power to Work Area** by switching off all breakers serving power or lighting circuits in work area. Label breakers with tape over breaker with notation "DANGER circuit being worked on". Lock panel and have all keys under control of Contractor's Superintendent or Owner's designated Representative.

**Lockout power to circuits running through Work Area** wherever possible by switching off all breakers serving these circuits. Label breakers with tape over breaker with notation "DANGER circuit being worked on". Sign and date danger tag. Lock panel and supply keys to Contractor, Owner and Owner's Representative. If circuits cannot be shut down for any reason, label at intervals 4'-0" on center with tags reading, "DANGER live electric circuit. Electrocutation hazard."

**Temporary Electrical Panel:** Provide temporary electrical panel sized and equipped to accommodate all electrical equipment and lighting required by the work. Connect temporary panel to existing building electrical system. Protect with circuit breaker or fused disconnect. Locate temporary panel as directed by Owner or Owner's Representative.

Power Distribution System: Provide circuits of adequate size and proper characteristics for each use. In general run wiring overhead, and rise vertically where wiring will be at least exposed to damage from construction operations.

Circuit Protection: Protect each circuit with a ground fault circuit interrupter (GFCI) of proper size located in the temporary panel. Do not use outlet type GFCI devices.

Temporary Wiring: in the Work Area shall be type UF non-metallic sheathed cable located overhead and exposed for surveillance. Do not wire temporary lighting with plain, exposed (insulated) electrical conductors. Provide liquid tight enclosures or boxes for wiring devices.

Number of Branch Circuits: Provide sufficient branch circuits as required by the work. All branch circuits are to originate at temporary electrical panel. At minimum provide the following:

One Circuit for each HEPA filtered fan unit

For power tools and task lighting, provide one temporary 4-gang outlet in the following locations. Provide a separate 110-120 Volt, 20 Amp circuit for each 4-gang outlet (4 outlets per circuit).

One outlet in the work area for each 2500 square feet of work area.

One outlet at each decontamination unit, located in equipment room.

Provide 110-120 volt 20 amp branch circuits with 4-gang outlet for Owner's exclusive use while conducting air sampling during the work as follows:

One in each work area

One at clean side of each Decontamination Unit.

One at each exhaust location for HEPA filtered fan units

Provide 110-120 volt 20 amp branch circuits with 4-gang outlet for Owner's exclusive use for conducting final air sampling as set forth in Section 01714 Work Area Clearance as follows:

Five inside work area

Two outside work area in location designated by Owner's Representative

### **TEMPORARY LIGHTING:**

Lockout: Lock out all existing power to lighting circuits in Work Area as described in section 01526 Temporary Enclosures. Unless specifically noted otherwise existing lighting circuits to the Work Area are not to be used. All lighting to the Work Area and Decontamination facilities is to be provided from temporary electrical panel described above.

Provide the following or equivalent where natural lighting or existing building lighting does not meet the required light level:

One 200-watt incandescent lamp per 1000 square feet of floor area, uniformly distributed, for general construction lighting, or equivalent illumination of a similar nature. In corridors and similar traffic areas provide one 100-watt incandescent lamp every 50 feet. In stair ways and at ladder runs, provide one lamp minimum per story, located to illuminate each landing and flight. Provide sufficient temporary lighting to ensure proper workmanship everywhere; by combined use of daylight, general lighting, and portable plug-in task lighting.

Provide lighting in areas where work is being performed as required to supply a 100 foot candle minimum light level.

Provide lighting in any area being subjected to a visual inspection as required to supply a 100 foot candle minimum light level.

Provide lighting in the Decontamination Unit as required to supply a 50 foot candle minimum light level

Number of Lighting Circuits: Provide sufficient lighting circuits as required by the work. All lighting circuits are to originate at temporary electrical panel.

Circuit Protection: Protect each circuit with a ground fault circuit interrupter (GFCI) of proper size located in the temporary panel.

#### **TEMPORARY HEAT:**

General: Provide temporary heat where indicated or needed for performance of the Work.

Maintain a minimum temperature of 70 degrees F. where finished work has been installed.

Maintain a minimum temperature of 75 degrees F. in the shower of the decontamination unit.

Maintain a minimum temperature of 70 degrees F. in the Work Area at all times that work is going on. At all other times and at completion of removal work, but before start of reconstruction work, maintain a minimum temperature of 50 degrees F.

#### **TEMPORARY COOLING:**

Required Cooling: Provide units sufficient to supply 20,000 BTU's of cooling per 8,000 cubic feet of work area.

#### **PROJECT ADMINISTRATOR'S FIELD OFFICE:**

Project Administrator's Field Office: Provide air conditioned, heated office space near the Work Area for professional person, suitably finished, furnished, equipped, locked, heated, naturally ventilated, lighted and wired with electrical power, not less than 250 sq. ft. floor area. Equip office with 1 telephone line and 1 telephone, and not less than 2 duplex convenience power outlets. In addition to 1 desk, 1 four drawer file cabinet and 3 chairs, furnish office with one 36" X 96" plan table, and one 24" X 48" work table near electrical power outlet. Provide portable office or use a suitable room as designated by Owner and relocate or add equipment as required to meet the above requirements.

#### **SANITARY FACILITIES:**

Toilets: Use of the Owner's existing toilet facilities, as indicated, will be permitted, so long as these facilities are properly cleaned and maintained in a condition acceptable to the Owner. At substantial completion, restore these facilities to the condition prevalent at the time of initial use. Written permission from the owner must be obtained, and all provisions of these specifications regarding leaving the work area are met.

#### **FIRE EXTINGUISHERS:**

Fire Extinguishers: Comply with the applicable recommendations of NFPA Standard 10 "Standard for Portable Fire Extinguishers". Locate fire extinguishers where they are most convenient and effective for their intended purpose, but provide not less than one extinguisher in each Work Area in Equipment Room and One outside Work Area in Clean Room.

END OF SECTION - 01503

## **SECTION 01513 - TEMPORARY PRESSURE DIFFERENTIAL AND AIR CIRCULATION SYSTEM**

### **PART 1 - GENERAL**

**Description:** This section covers the air distribution equipment and associated accessories required for the temporary pressure differential and air circulation system(s) including all necessary appurtenances to be furnished, installed and tested as shown on the drawings and as specified herein. All fittings connectors, hangers, supports and anchors where required, not otherwise specifically provided for in these specifications, but necessary to provide a complete and operational system(s) shall be included under this section of work. contractor's responsibility also includes continuously monitoring and recording the pressure differential between the Work Area and the building outside of the Work Area with a monitoring device incorporating a continuous recorder (e.g. strip chart).

### **RELATED DOCUMENTS:**

Heating and cooling requirements are set forth in Section 01503 Temporary Facilities - Asbestos Abatement

### **MONITORING**

Monitor pressure differential at Personnel and Equipment Decontamination Units with a differential pressure meter equipped with a continuous recorder. Meter shall be equipped with a warning type alarm buzzer which shall sound if pressure differential drops below 0.01" of water.

### **SUBMITTALS**

**Before Start of Work:** Submit design of pressure differential system to the Owner's Representative for review. Do not begin work until submittal is returned with the Owner's Representative's action stamp indicating that the submittal is returned for unrestricted use. Include in the submittal at a minimum:

Number of HEPA filtered fan units required and the calculations necessary to determine the number of machines

Description of projected air flow within Work Area and methods required to provide adequate air flow in all portions of the work area

Anticipated pressure differential across Work Area enclosures

Description of methods of testing for correct air flow and pressure differentials

Manufacturer's product data on the HEPA filtered fan units to be used

Location of the machines in the Work Area

Method of supplying adequate power to the machines and designation of building electrical panel(s) which will be supplying the power

Description of work practices to insure that airborne fibers travel away from workers  
Manufacturer's product data on equipment used to monitor pressure differential between inside and outside of Work Area

Manufacturer's product data on auxiliary generator to be used

Manufacturer's product data on auxiliary power switch to be used

On a weekly basis: Submit printout from pressure differential monitoring equipment. Mark printout with date and start of time for each day. Use printout paper that indicates elapsed time in intervals no greater than hours. Indicate on each days record times of starting and stopping abatement work, type of work in progress, breaks for lunch or other purposes, periods of stop work, and filter changes. Cut printout into segments by day, attach to 8 1/2" by 11" paper. Label with project name, contractors name and date.

## **PART 2 - PRODUCTS**

### **HEPA FILTERED FAN UNITS:**

General: Supply the required number of HEPA filtered fan units to the site in accordance with these specifications. Use units that meet the following requirements.

Cabinet: Constructed of durable materials able to withstand damage from rough handling and transportation. The width of the cabinet should be less than 30 inches to fit through standard-size doorways. Provide units whose cabinets are:

- Factory-sealed to prevent asbestos-containing dust from being released during use, transport, or maintenance
- Arranged to provide access to and replacement of all air filters from intake end
- Mounted on casters or wheels

Fans: Rate capacity of fan according to usable air-moving capacity under actual operating conditions.

HEPA Filters: Provide units whose final filter is the HEPA type with the filter media (folded into closely pleated panels) completely sealed on all edges with a structurally rigid frame.

Provide units with a continuous rubber gasket located between the filter and the filter housing to form a tight seal.

Provide HEPA filters that are individually tested and certified by the manufacturer to have an efficiency of not less than 99.97 percent when challenged with 0.3 um dioctylphthalate (DOP) particles when tested in accordance with Military Standard Number 282 and Army Instruction Manual 136-300-175A. Provide filters that bear a UL586 label to indicate ability to perform under specified conditions.

Provide filters that are marked with: the name of the manufacturer, serial number, air flow rating, efficiency and resistance, and the direction of test air flow.

Prefilters, which protect the final filter by removing the larger particles, are required to prolong the operating life of the HEPA filter. Two stages of prefiltration are required. Provide units with the following prefilters:

First-stage prefilter: low-efficiency type (e.g., for particles 100 um and larger)

Second-stage (or intermediate) filter: medium efficiency (eg., effective for particles down to 5 um)

Instrumentation: Provide units equipped with:

Magnehelic gauge or manometer to measure the pressure drop across filters and indicate when filters have become loaded and need to be changed

A table indicating the usable air-handling capacity for various static pressure readings on the Magnehelic gauge affixed near the gauge for reference, or the Magnehelic reading indicating at what point the filters should be changed, noting Cubic Feet per Minute (CFM) air delivery at that point

Elapsed time meter to show the total accumulated hours of operation

Safety and Warning Devices: Provide units with the following safety and warning devices:

- Electrical (or mechanical) lockout to prevent fan from operating without a HEPA filter
- Automatic shutdown system to stop fan in the event of a rupture in the HEPA filter or blocked air discharge
- Warning lights to indicate normal operation (green), too high a pressure drop across the filters (i.e., filter overloading) (yellow), and too low of a pressure drop (i.e., rupture in HEPA filter or obstructed discharge) (red)
- Audible alarm if unit shuts down due to operation of safety systems

Electrical components: Provide units with electrical components approved by the National Electrical Manufacturers Association (NEMA) and Underwriter's Laboratories (UL). Each unit is to be equipped with overload protection sized for the equipment. The motor, fan, fan housing, and cabinet are to be grounded.

Manufacturers: Subject to compliance with requirements, manufacturers offering products which may be incorporated in the work include, but are not limited to, the following:

#### **AUXILIARY GENERATOR:**

Auxiliary Generator: Provide a gasoline-powered self-starting generator with a capacity adequate to power a minimum of 50% of the HEPA filtered fan units in operation at any time during the work.

#### **AUXILIARY POWER SWITCH:**

Auxiliary Power Switch: Provide a switching relay which will automatically start auxiliary generator and switch over power supplied to HEPA filtered fan units to auxiliary generator.

### **PART 3 - EXECUTION**

#### **PRESSURE DIFFERENTIAL ISOLATION**

Isolate the Work Area from all adjacent areas or systems of the building with a Pressure Differential that will cause a movement of air from outside to inside at any breach in the physical isolation of the Work Area.

Relative Pressure in Work Area: Continuously maintain the work area at an air pressure that is lower than that in any surrounding space in the building, or at any location in the immediate proximity outside of the building envelope. This pressure differential when measured across any physical or critical barrier must equal or exceed a static pressure of:

Accomplish the pressure differential by exhausting a sufficient number of HEPA filtered fan units from the work area. The number of units required will depend on machine characteristics, the seal at barriers, and required air circulation. The number of units will increase with increased make-up air or leaks into the Work Area. Determine the number of units required for pressure isolation by the following procedure:

- Establish required air circulation in the work area, personnel and equipment decontamination units.
- Establish isolation by increased pressure in adjacent areas or as part of seals where required.
- Exhaust a sufficient number of units from the work area to develop the required pressure differential.
- The required number of units is the number determined above plus one additional unit.

Vent HEPA filtered fan units to outside of building unless authorized in writing by Owner's Representative.

- Mount units to exhaust directly or through disposable ductwork.
- Use only new ductwork except for sheet metal connections and elbows.

Use ductwork and fittings of same diameter or larger than discharge connection on fan unit.  
Use inflatable, disposable plastic ductwork in lengths not greater than 100 feet.  
Use spiral wire-reinforced flex duct in lengths not greater than 50 feet.  
Arrange exhaust as required to inflate duct to a rigidity sufficient to prevent flapping.  
If direction of discharge from fan unit is not aligned with duct use sheet metal elbow to change direction.  
Use six feet of spiral wire reinforced flex duct after direction change.

Isolation of elevators, stair towers, and return air intakes: Erect seals with an air space at doors to elevators and stair towers. Pressurize this space with HEPA-filtered air so that it is at a pressure greater than either the Work Area elevator shaft or stair tower.

Fabricate seal by first sealing door with duct tape and 6 mil polyethylene. Construct a barrier from 1/2" gypsum board supported by 3-5/8" 25 gauge metal studs at 16" on centers. Space face of barrier a minimum of 3" from face of door. Seal barrier with 6 mil sheet plastic and duct tape. Pressurize space with exhaust from HEPA filtered fan unit. Continuously maintain a pressure differential with this space a minimum of 0.02 inches of water higher in static pressure than any adjacent space. Locate HEPA filtered fan unit outside of work area. Fabricate a manifold as required to distribute air to individual spaces to be isolated. Provide relief venting at unit as required to prevent shut down due to low air flow while still maintaining required air pressure.

Isolation of chases and enclosed stairs: Pressurize chases and enclosed stairs with HEPA filtered air so that it is at a pressure greater than any adjacent work area. Pressurize space with exhaust from HEPA filtered fan unit. Continuously maintain a pressure differential with this space a minimum of 0.02 inches of water higher in static pressure than any adjacent work area.

Isolation of return air ductwork: Return air duct work which must be kept operating is located in the Work Area. This duct work is to be isolated from the Work Area by an enclosure forming an annular space around the duct which is positively pressurized with HEPA filtered air. Minimum requirement shall include but not be limited to the following:

Wrap the duct with 6 mil polyethylene. Seal all polyethylene seams with spray glue and duct tape.  
Enclose wrapped duct with two layers of polyethylene. Fabricate inner layer from 6 mil polyethylene with all seams sealed with spray glue and duct tape. Arrange outer layer to support inner layer. Fabricate out of reinforced sheet plastic with seams sealed with spray glue and duct tape and reinforced with staples. Support outer layer with a frame work fabricated from 2" x 4"s at 24" on center. Enclosures less than 2' - 6' in diameter may be reinforced with box strapping in lieu of wood framing.

### **AUXILIARY GENERATOR**

Provide auxiliary gasoline-powered generator located outside of the building in a location protected from the weather. Arrange so that if a power failure occurs the generator automatically starts and supplies power to a minimum of 50% of the HEPA filtered fan units in operation.

### **AIR CIRCULATION IN THE WORK AREA:**

Air Circulation: For purposes of this section air circulation refers to either the introduction of outside air to the Work Area or the circulation and cleaning of air within the Work Area.

Air circulation in the Work Area is a minimum requirement intended to help maintain airborne fiber counts at a level that does not significantly challenge the work area isolation measures. The Contractor may also use this air circulation as part of the engineering controls in his worker protection program.

Determining the Air circulation Requirements: Provide a fully operational air circulation system supplying a minimum of the following air circulation rate:

Determine Number of Units needed to achieve required air circulation according to the following procedure:

Determine the volume in cubic feet of the work area by multiplying floor area by ceiling height. Determine total air circulation requirement in cubic feet per minute (CFM) for the work area by dividing this volume by the air change rate and multiplying by 60.

Air Circulation Required in Cubic Feet of Air per Minute (CFM) =

$$\frac{\text{Volume of work area (cu. ft.)} \times \text{Number of air changes per hour}}{60 \text{ (minutes per hour)}}$$

Divide the air circulation requirement (CFM) above by capacity of HEPA filtered fan unit(s) used. Capacity of a unit for purposes of this section is the capacity in cubic feet per minute with fully loaded filters (pressure differential which causes loaded filter warning light to come on) in the machine's labeled operating characteristics.

Number of Units Needed =

$$\frac{\text{Air circulation Requirement (CFM)}}{\text{Capacity of Unit with Loaded Filters (CFM)}}$$

Add one (1) additional unit as a backup in case of equipment failure or machine shutdown for filter changing.

### **EXHAUST SYSTEM:**

Pressure differential isolation and air circulation in the Work Area are to be accomplished by an exhaust system as described below.

Exhaust all units from the Work Area to meet air circulation requirement of this section.

Location of HEPA Filtered Fan Units: Locate fan unit(s) so that makeup air enters work area primarily through decontamination facilities and traverses Work Area as much as possible. This may be accomplished by positioning the HEPA filtered fan unit(s) at a maximum distance from the worker access opening or other makeup air sources.

Place End of Unit an intake duct or its exhaust duct through an opening in the plastic barrier or wall covering. Seal plastic around the unit or duct with tape.

Vent to Outside of Building, unless authorized in writing by the Owner's Representative.

Decontamination Units: Arrange Work Area and decontamination units so that the majority of make up air comes through the Decontamination Units. Use only personnel or equipment Decontamination Unit at any time and seal the other so that make up air passes through unit in use.

Supplemental Makeup Air Inlets: Provide where required for proper air flow through the Work Area in location approved by the Owner's Representative by making openings in the plastic sheeting that allow air from outside the building into the Work Area. Locate auxiliary makeup air inlets as far as possible from the fan unit(s) (e.g., on an opposite wall), off the floor (preferably near the ceiling), and away from barriers that separate the Work Area from occupied clean areas. Cover with flaps to reseal automatically if the pressure differential system should shut down for any reason. Spray flap and around opening with spray adhesive so that if flap closes meeting surfaces are both covered with adhesive. Use adhesive that forms contact bond when dry.

### **RECIRCULATION SYSTEM:**

Pressure differential isolation and air circulation in the Work Area are to be accomplished by a recirculation system as described below.

Recirculate air in the Work Area through HEPA filtered fan units to accomplish air circulation requirements of this section.

Location of Fan Units: Locate HEPA filtered fan units so that air is circulated through all parts of the Work Area, and so that required pressure is maintained at all parts of Work Area geometry. Move units as necessary so that in any location where asbestos-containing materials are being disturbed the discharge from one HEPA filtered fan unit is blowing contamination away from workers. Direct air flow in these locations so that it is predominantly toward workers' backs at the breathing zone elevation.

### **AIR CIRCULATION IN DECONTAMINATION UNITS:**

Pressure Differential Isolation: Continuously maintain the pressure differential required for the work area in the:

Personnel Decontamination Unit: across the Shower Room with the Equipment Room at a lower pressure than the Clean room.

Equipment Decontamination Unit: Across the Holding Room with the Wash Room at a lower pressure than the Clean Room.

Air Circulation: Continuously maintain air circulation in Decontamination Units at same level as required for Work Area.

Air Movement: Arrange air circulation through the Personnel Decontamination Unit so that it produces a movement of air from the Clean Room through the Shower Room into the Equipment Room. Maintain continuous minimum velocities of Sixty (60) feet per minute in the breathing zone area of the shower and thirty (30) feet per minute in all other locations of the shower.

### **USE OF THE PRESSURE DIFFERENTIAL AND AIR CIRCULATION SYSTEM:**

General: Each unit shall be serviced by a dedicated minimum 115V-20A circuit with ground fault circuit interrupter (GFCI) supplied from temporary power supply installed under requirements of Section 01503 "Temporary Facilities." Do not use existing branch circuits to power fan units.

Testing the System: Test pressure differential system before any asbestos-containing material is wetted or removed. After the Work Area has been prepared, the decontamination facility set up, and the fan unit(s) installed, start the unit(s) (one at a time). Demonstrate operation and testing of pressure differential system to Owner's Representative.

Demonstrate Condition of Equipment for each HEPA filtered fan unit and pressure differential monitoring equipment including proper operation of the following:

- Squareness of HEPA Filter
- Condition of Seals
- Proper operation of all lights
- Proper operation of automatic shut down if exhaust is blocked
- Proper operation of alarms
- Proper operation of magnehelic gauge
- Proper operation and calibration on pressure monitoring equipment

Demonstrate Operation of the pressure differential system to the Owner's Representative will include, but not be limited to, the following:

- Plastic barriers and sheeting move lightly in toward Work Area,
- Curtain of decontamination units move lightly in toward Work Area,
- There is a noticeable movement of air through the Decontamination Unit.
- Use smoke tube to demonstrate air movement from Clean Room through Shower Room to Equipment Room.
- Use smoke tubes to demonstrate a definite motion of air across all areas in which work is to be performed.
- Use a differential pressure meter or manometer to demonstrate the required pressure differential at every barrier separating the Work Area from the balance of the building, equipment, ductwork or outside.

Modify the Pressure Differential System as necessary to demonstrate successfully the above.

Use of System During Abatement Operations:

Start fan units before beginning work (before any asbestos-containing material is disturbed). After abatement work has begun, run units continuously to maintain a constant pressure differential and air circulation until decontamination of the work area is complete. Do not turn off units at the end of the work shift or when abatement operations temporarily stop.

Do not shut down air pressure differential system during encapsulating procedures, unless authorized by the Owner's Representative in writing. Supply sufficient pre-filters to allow frequent changes.

Start abatement work at a location farthest from the fan units and proceed toward them. If an electric power failure occurs, immediately stop all abatement work and do not resume until power is restored and fan units are operating again.

At completion of abatement work, allow fan units to run as specified under section 01711, to remove airborne fibers that may have been generated during abatement work and cleanup and to purge the Work Area with clean makeup air. The units may be required to run for a longer time after decontamination, if dry or only partially wetted asbestos material was encountered during any abatement work.

Dismantling the System:

When a final inspection and the results of final air tests indicate that the area has been decontaminated, fan units may be removed from the Work Area. Before removal from the Work Area, remove and properly dispose of pre-filter, decontaminate exterior of machine and seal intake to the machine with 6 mil polyethylene to prevent environmental contamination from the filters.

END OF SECTION - 01513

## **SECTION 01526 - TEMPORARY ENCLOSURES**

### **PART 1 - GENERAL**

#### **RELATED DOCUMENTS:**

Sections 01560, 01562 and 01564.  
Other Sections as specified herein.

#### **QUALITY ASSURANCE**

Acceptable Manufacturers: Subject to compliance with requirements, manufacturers offering products which may be incorporated in the work include, but are not limited to, the following: Spray Poly as manufactured by Isotek corporation, P.O. Box 29799, New Orleans, LA 70189-0799, or equal.

Applicable Standards. All Work shall conform to the applicable provision of code standards and Specifications as specified herein.

#### **SUBMITTALS:**

Before Start of Work submit the following to the Owner's Representative for review. Do not begin work until these submittals are returned with the Owner's Representative's action stamp indicating that the submittal is returned for unrestricted use.

Strippable Coatings: Submit following:

Product description including major components and solvents.  
Test report on ASTM E84 test of surface burning characteristics.  
Manufacturer's installation instructions. Indicate portions applicable to the project and selected assemblies where the manufacturer offers alternatives.  
Material Safety Data Sheet: Submit the Material Safety Data Sheet, or equivalent, in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200) for strippable coating material proposed for use on the work. Include a separate attachment for each sheet indicating the specific worker protective equipment proposed for use with the material indicated.

Spray Cement: Submit following:

Product description including major components and solvents.  
Manufacturer's installation instructions. Indicate portions applicable to the project.  
Material Safety Data Sheet: Submit the Material Safety Data Sheet, or equivalent, in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200) for spray cement material proposed for use on the work. Include a separate attachment for each sheet indicating the specific worker protective equipment proposed for use with the material indicated.

Sheet Plastic: For fire retardant plastic submit test reports on NFPA 701 test.

Signs: Submit samples of signs to be used.

### **PART 2 - PRODUCTS**

### **SHEET PLASTIC:**

Polyethylene Sheet: A single polyethylene film in the largest sheet size possible to minimize seams, 4.0 or 6.0 mil thick as indicated, clear, frosted, or black as indicated.

### **STRIPPABLE COATINGS:**

Strippable Coatings: Provide strippable coatings in aerosol cans or premixed for spray application formulated to adhere gently to surfaces and remove cleanly by peeling off at the completion of the work.

Provide only water-based latex materials.

Provide materials manufactured for the specific application required.

Wall coating: designed to be easy to remove.

Floor coating: designed to provide a tough film which resists spread of water beneath plastic layer.

Window coating: recommended by the manufacturer for use on windows. Supply materials that are designed to be stable on glass in sunlight and resist the transmission of ultraviolet radiation.

Fire Safety: Provide materials that meet the following requirements:

When wet or while being installed:

Do not create combustible vapors,  
Have no flash point  
Are not noxious  
Department of Transportation category of non-flammable.

When dry, material must have a Class A rating as a building material and meet the following requirements when tested in accordance with ASTM E-84:

Flame Spread no greater than 20  
Fuel Contributed 0  
Smoke Developed no more than 110

Deliver materials to the job site in unopened, factory-labeled containers.

Available Manufacturers: Subject to compliance with requirements, manufacturers offering products which may be incorporated in the work include, but are not limited to, the following:

### **MISCELLANEOUS MATERIALS:**

Duct Tape: Provide duct tape in 2" or 3" widths as indicated, with an adhesive which is formulated to stick aggressively to sheet polyethylene.

Spray Cement: Provide spray adhesive in aerosol cans which is specifically formulated to stick tenaciously to sheet polyethylene.

### **PART 3 - EXECUTION**

### **SEQUENCE OF WORK:**

Carry out work of this section sequentially. Complete each activity before proceeding to the next.

**GENERAL:**

Work Area: the location where asbestos-abatement work occurs. It is a variable of the extent of work of the Contract. It may be a portion of a room, a single room, or a complex of rooms. A "Work Area" is considered contaminated during the work, and must be isolated from the balance of the building, and decontaminated at the completion of the asbestos-control work.

Completely isolate the Work Area from other parts of the building so as to prevent asbestos-containing dust or debris from passing beyond the isolated area. Should the area beyond the Work Area(s) become contaminated with asbestos-containing dust or debris as a consequence of the work, clean those areas in accordance with the procedures indicated in Section 01711. Perform all such required cleaning or decontamination at no additional cost to owner.

Place all tools, scaffolding, staging, etc. necessary for the work in the area to be isolated prior to completion of Work Area isolation.

Remove all removable furniture that has been designated uncontaminated by the Contract Documents or Owner's Representative. Also remove uncontaminated equipment, and/or supplies from the Work Area before commencing work, or completely cover with two (2) layers of polyethylene sheeting, at least 6 mil in thickness, securely taped in place with duct tape. Such furniture and equipment shall be considered outside the work area unless covering plastic or seal is breached.

Disable ventilating systems or any other system bringing air into or out of the Work Area. Disable system by disconnecting wires, removing circuit breakers, by lockable switch or other positive means that will prevent accidental premature restarting of equipment.

Lockout power to Work Area by switching off all breakers serving power or lighting circuits in work area. Label breakers with tape over breaker with notation "DANGER circuit being worked on". Lock panel and have all keys under control of Contractor's Superintendent of Owner's designated Representative.

Lockout power to circuits running through work area wherever possible by switching off all breakers or removing fuses serving these circuits. Label breakers with tape over breaker with notation "DANGER circuit being worked on". Lock panel and have all keys under control of contractor's superintendent or owner's designated representative. If circuits cannot be shut down for any reason, label at intervals 4'-0" on center with tags reading, "DANGER live electric circuit. Electrocutation hazard." Label circuits in hidden locations but which may be affected by the work in a similar manner.

Inspection Windows: Install inspection windows in locations shown on the plans or as directed by the Owner's Representative. Each inspection window is to have a 24" X 24" viewing area fabricated from 1/4" acrylic or polycarbonate sheet. Install window with top at 6'-6" above floor height in a manner that provides unobstructed vision from outside to inside of the Work Area. Protect window from damage from scratching, dirt or any coatings used during the work. A sufficient number of windows are to be installed to provide observation of all portions of the Work Area that can be made visible from adjacent areas. Inspection windows that open into uncontrolled area are to be covered with a removable plywood hatch secured by lock and key. Provide keys to Owner's Representative for all such locks.

**EMERGENCY EXITS:**

Provide emergency exits and emergency lighting as set forth below:

Emergency Exits: At each existing exit door from the Work Area provide the following means for emergency exiting:

Arrange exit door so that it is secure from outside the Work area but permits exiting from the Work Area.

Mark outline of door on Primary and Critical Barriers with luminescent paint at least 1" wide. Hang a razor knife on a string beside outline. Arrange Critical and Primary barriers so that they can be easily cut with one pass of razor knife. Paint words "EMERGENCY EXIT" inside outline with luminescent paint in letters at least one foot high and 2" thick.

Provide lighted EXIT sign at each exit.

Provide battery-operated emergency lighting that switches on automatically in the event of a power failure.

### **CONTROL ACCESS:**

Isolate the Work Area to prevent entry by building occupants into Work Area or surrounding controlled areas. Accomplish isolation by the following:

Submit to Owner's Representative a list of doors and other openings that must be secured to isolate Work Area. Include on list notation if door or opening is in an indicated exit route.

After receiving written authorization from the Owner's Representative lock all doors into Work Area. Cover any signs that direct emergency exiting, either outside or inside of Work Area, to locked doors. Do not obstruct doors required for emergency exits from Work Area or from building.

After receiving written authorization from the Owner's Representative: construct partitions or closures across any opening into Work Area. Partitions are to be a minimum of 8 feet high.

Fabricate partitions from 3-5/8", 25 gage metal studs with 1/2" gypsum board on both faces. Brace at 4'-0" on center.

Locked Access: Arrange Work Area so that the only access into Work Area is through lockable doors to personnel and equipment decontamination units.

Replace lock sets or passage sets on doors leading to decontamination units with temporary lock sets for duration of the project. Remove any deadbolts or padlocks. Use entry type lock sets that are key lockable from outside and always unlocked and operable from inside. After meeting contractor release criteria set forth in Section 01714 Work Area Clearance reinstall original locks, passage sets and lock sets and adjust for proper operation.

Provide one key for each door to Owner, and Owner's Representative and maintain one key in clean room of decontamination unit (3 total).

Visual Barrier: Where the Work Area is immediately adjacent to or within view of occupied areas, provide a visual barrier of opaque polyethylene sheeting at least 6 mil in thickness so that the work procedures are not visible to building occupants. Where this visual barrier would block natural light, substitute frosted or woven rip-stop sheet plastic in locations approved by the Owner's Representative.

Provide Warning Signs at each locked door leading to Work Area reading as follows:

Legend

Notation

**KEEP OUT**

3" Sans Serif Gothic or Block

**CONSTRUCTION**

1" Sans Serif Gothic or Block

**WORK AREA**

1" Sans Serif Gothic or Block

**PROTECTIVE CLOTHING REQUIRED  
BEYOND THIS POINT**

14 Point Gothic

Immediately inside door and outside critical barriers post an approximately 20 inch by 14 inch manufactured caution sign displaying the following legend with letter sizes and styles of a visibility required by 29 CFR 1926:

**LEGEND**

**DANGER**

**ASBESTOS**

**CANCER AND LUNG DISEASE HAZARD  
RESPIRATORS AND PROTECTIVE CLOTHING ARE REQUIRED  
IN THIS AREA**

Provide spacing between respective lines at least equal to the height of the respective upper line.

**ALTERNATE METHODS OF ENCLOSURE:**

Alternate methods of containing the Work Area may be submitted to the Owner's Representative for approval in accordance with procedures set forth in Section 01632 Product Substitution. Do not proceed with any such method(s) without prior written approval of the Owner's Representative.

**RESPIRATORY AND WORKER PROTECTION:**

Before proceeding beyond this point in providing Temporary Enclosures:

- Provide Worker Protection per Section 01560
- Provide Respiratory Protection per Section 01562
- Provide Personnel Decontamination Unit per Section 01563

Submittals shall conform to applicable requirements of Section 01301

**CRITICAL BARRIERS:**

Completely Separate the Work Area from other portions of the building, and the outside by closing all openings with sheet plastic barriers at least 6 mil in thickness, or by sealing cracks leading out of Work Area with duct tape.

Individually seal all ventilation openings (supply and exhaust), lighting fixtures, clocks, doorways, windows, convectors and speakers, and other openings into the Work Area with duct tape alone or with polyethylene sheeting at least 6 mil in thickness, taped securely in place with duct tape. Maintain seal

until all work including Project Decontamination is completed. Take care in sealing of lighting fixtures to avoid melting or burning of sheeting.

Provide Sheet Plastic barriers at least 6 mil in thickness as required to seal openings completely from the Work Area into adjacent areas. Seal the perimeter of all sheet plastic barriers with duct tape or spray cement.

Mechanically Support sheet plastic independently of duct tape or spray cement seals so that seals do not support the weight of the plastic.

Provide Pressure Differential System per Section 01513.

Clean housings and ducts of all overspray materials prior to erection of any Critical Barrier that will restrict access.

### **PREPARE AREA:**

Scaffolding: If fixed scaffolding is to be used to provide access HEPA vacuum and wet clean area prior to scaffolding installation.

Remove all electrical and mechanical items, such as lighting fixtures, clocks, diffusers, registers, escutcheon plates, etc. which cover any part of the surface to be worked on with the work.

Remove all general construction items such as cabinets, casework, door and window trim, moldings, ceilings, trim, etc., which cover the surface of the work as required to prevent interference with the work. Clean, decontaminate and reinstall all such materials, upon completion of all removal work with materials, finishes, and workmanship to match existing installations before start of work.

### **PRIMARY BARRIER:**

Protect building and other surfaces in the Work Area from damage from water and high humidity or from contamination from asbestos-containing debris, slurry or high airborne fiber levels by covering with a primary barrier as described below.

Sheet Plastic: Protect surfaces in the Work Area with two (2) layers of plastic sheeting on floor and walls, or as otherwise directed on the Contract Drawings or in writing by the Owner's Representative. Perform work in the following sequence.

Cover Floor of Work Area with 2 individual layers of clear polyethylene sheeting, each at least 6 mil in thickness, turned up walls at least 12 inches. Form a sharp right angle bend at junction of floor and wall so that there is no radius which could be stepped on causing the wall attachment to be pulled loose. Both spray-glue and duct tape all seams in floor covering. Locate seams in top layer six feet from, or at right angles to, seams in bottom layer. Install sheeting so that top layer can be removed independently of bottom layer.

Cover Sheet Plastic in areas where scaffolding is to be used with a single layer of 1/2" CDX plywood or 1/4" tempered hardboard. Wrap edges and corners of each sheet with duct tape. At completion of abatement work wrap plywood or hardboard with 2 layers of 6 mil polyethylene and move to next Work Area or dispose of as an asbestos-contaminated waste material in accordance with section 02084 of this specification.

Cover all walls in Work Area including "Critical Barrier" sheet plastic barriers with one layer of polyethylene sheeting, at least 6 mil in thickness, mechanically supported and sealed with duct tape or spray-glue in the same manner as "Critical Barrier" sheet plastic barriers. Tape all joints

including the joining with the floor covering with duct tape or as otherwise indicated on the Contract Documents or in writing by the Owner's Representative.

Stairs and Ramps: Do not cover stairs or ramps with unsecured sheet plastic. Where stairs or ramps are covered with plastic, provide 3/4" exterior grade plywood treads securely held in place, over plastic. Do not cover rungs or rails with any type of protective materials.

Repair of Damaged Polyethylene Sheeting: Remove and replace plastic sheeting which has been damaged by removal operations or where seal has failed allowing water to seep between layers. Remove affected sheeting and wipe down entire area. Install new sheet plastic only when area is completely dry.

### **ISOLATION AREA:**

Maintain isolation areas between the Work Area and adjacent building area: Form isolation area by controlling access to the space in the same manner as a Work Area. Physically isolate the space from the Work Area and adjacent areas. Accomplish physical isolation by: Erecting a second Critical Barrier a minimum of 3'-0" away from Work Area.

### **STOP WORK:**

If the Critical or Primary barrier falls or is breached in any manner stop work immediately. Do not start work until authorized in writing by the Owner's Representative.

### **EXTENSION OF WORK AREA:**

Extension of Work Area: If the Critical Barrier is breached in any manner that could allow the passage of asbestos debris or airborne fibers, then add affected area to the Work Area, enclose it as required by this Section of the specification and decontaminate it as described in Section 01711 Project Decontamination.

### **SECONDARY BARRIER:**

Secondary layer of plastic as a drop cloth to protect the primary layer from debris generated by the asbestos abatement work is specified in the appropriate work sections.

END OF SECTION - 01526

## **SECTION 01527 - REGULATED AREAS**

### **PART 1 - GENERAL**

#### **RELATED WORK:**

Required supervision and OSHA Competent Person: is specified in Section 01043

Worker Protection- Asbestos Abatement: is specified in section 01560

Respiratory Protection: is specified in Section 01562

Wet Decontamination Facilities: are described in Section 01564

#### **DESCRIPTION OF WORK:**

Work of this section consists of preparing a Regulated Area for work of the following specification sections only. Do not use procedures set forth in this section in connection with any other work.

#### **SUBMITTALS**

General, The Contractor shall submit to the Owner's Representative for review drawings, data and information in accordance with the applicable requirements of Section 01301 and as herein specified. Submittals shall include product specifications and descriptions, and drawings showing details together with related accessories.

Before the Start of Work: Submit the following to the Owner's Representative for review. Begin no work until these submittals are returned with Owner's Representative's action stamp indicating that the submittal is returned for unrestricted use or final-but-restricted use.

HEPA Filtered Vacuum Cleaners: Submit product data.

Signs: Submit samples of each type of sign to be used.

Warning Tape: Submit samples.

### **PART 2 - EQUIPMENT**

HEPA Filter Vacuum Cleaners:

Available Manufacturers: Subject to compliance with requirements, manufacturers offering products which may be incorporated in the Work include, but are not limited to, the following:

Plastic Sheet: A single polyethylene film in the largest sheet size possible to minimize seams, 4.0 or 6.0 mil thick as indicated, clear, frosted, or black as indicated.

### **PART 3 - EXECUTION**

#### **SECURING WORK AREA:**

Secure work area from access by occupants, staff or users of the building. Accomplish this where possible, by locking doors, windows, or other means of access to the area, or by constructing temporary wood stud and plywood barriers.

**DEMARCATION OF REGULATED AREA:**

Demarcate each Regulated Area with a sheet plastic drop sheet as described below.  
Post warning signs that carry the following legends:

Provide signs in both English and Spanish:

**First Sign:**

Provide warning signs at each locked door leading to the controlled area reading as follows:

<u>Legend</u>	<u>Notation</u>
<b>KEEP OUT</b>	3 inch Block

**Second Sign:**

Immediately inside the locked door and outside the controlled area post an approximately 20 inch by 14 inch manufactured caution sign displaying the following legend with letter sizes and styles of a visibility required by 29 CFR 1926:

**Legend:**

**DANGER**  
**ASBESTOS**  
**CANCER AND LUNG DISEASE HAZARD**  
**RESPIRATORS AND PROTECTIVE CLOTHING ARE REQUIRED IN THIS AREA**

Where the controlled area is in a large area such as on part of a boiler room or open office area, delineate area with 3 inch wide polyethylene ribbon with the printed warning, "**CAUTION ASBESTOS REMOVAL**". Install this ribbon at between 3 and 4 feet above the floor.

**SCHEDULING:**

Work may be carried out during normal working hours in those areas which can be completely secured by lockable doors from access by building occupants and staff, and which have HVAC equipment that can be shut down and locked off. Otherwise, work is to be carried out after building occupants and cleaning staff have left.

**GENERAL PROCEDURES:**

The following precautions and procedures have application to work of this section. Workers must exercise caution to avoid release of asbestos fibers into the air:

1. Setup and management of the controlled area is to be under the supervision of a OSHA Competent Person as described in Section 01043 Project Coordination - Asbestos Abatement.

2. Before start of work comply with requirement for worker protection in section 01561, and respiratory protection in section 01562.
3. Do not allow eating, drinking, smoking, chewing tobacco or gum, or applying cosmetics in the Regulated Area.
4. Shut down any air handling equipment bringing air into or out of the Regulated Area.
5. Clean any existing dust or debris from the floor and walls, and other surface in the immediate location of the work prior to commencing work by damp-mopping or by use of a High Efficiency Particulate Air (HEPA) filtered vacuum.
6. Cover floor in vicinity of Work Area and six (6) feet beyond, with 6 mil polyethylene drop sheet. Where work is adjacent to wall, extend drop sheet up wall and secure at ceiling with duct tape. This drop sheet demarcates the boundary of the Regulated Area.
7. Seal all openings, supply and exhaust vents, and convectors within ten (10) feet of the Work Area with 6 mil polyethylene sheeting secured and completely sealed with duct tape.
8. Perform the work per the appropriate specification section while on plastic drop sheet.
9. Immediately remove any asbestos-containing debris which collects on the drop sheet either by using a HEPA vacuum or by spraying with amended water or removal encapsulant, collecting with wet paper towels, placing in a disposal bag while still wet, and cleaning surface of plastic sheet with wet paper towels.

Complete the following at completion of work in an area before stepping off drop sheet.

1. While standing on plastic sheet thoroughly HEPA vacuum ladder and any tools used and pass to worker standing off sheet
2. Worker standing off the sheet HEPA vacuum thoroughly the worker standing on the sheet.
3. Worker on the sheet thoroughly HEPA vacuum all surfaces of the plastic sheet, bags, and any other items on the sheet including his own feet.

If moving to the next Work Area in the same secured area: Worker on the drop sheet is to don clean foot covers, placing each foot, in turn, off the sheet as the foot cover is put on. Remove clean foot covers at the next Work Area while standing on the sheet. Dispose of the used foot covers along with the plastic sheet at completion of work in that area. Do not reuse foot covers to move off the sheet.

If work day is complete or if next Work Area is in another secured area: all workers remove paper suits turning them inside out while doing so. The person on the sheet step with each foot off the sheet as the foot covers are removed.

1. Fold sheet and all its contents toward the center.
2. Place the sheet in a properly labeled disposal bag.
3. Neck down the bag and collapse it with the HEPA vacuum.
4. Twist the bag shut, bend over and seal with duct tape by wrapping around bag neck at least 3 times.
5. Clean all surfaces of the Work Area by use of a HEPA filter vacuum until no visible residue remains.
6. At completion of work require all workers to complete wet decontamination procedures in accordance with Section 0156O Worker Protection - Asbestos-Abatement.

END OF SECTION - 01527

## **SECTION 01560 - WORKER PROTECTION - ASBESTOS ABATEMENT**

### **PART 1 - GENERAL**

#### **DESCRIPTION OF WORK:**

This section describes the equipment and procedures required for protecting workers against asbestos contamination and other workplace hazards except for respiratory protection.

#### **RELATED WORK SPECIFIED ELSEWHERE:**

Respiratory Protection: is specified in Section 01562.

Certificate of Workers Acknowledgment: Section 01561

#### **WORKER TRAINING:**

AHERA Accreditation: All workers are to be accredited as Abatement Workers as required by the AHERA regulation 40 CFR 763 Appendix C to Subpart E, April 30, 1987.

State and Local License: All workers are to be trained, certified and accredited as required by state or local code or regulation.

Train, in accordance with 29 CFR 1926, all workers in the dangers inherent in handling asbestos and breathing asbestos dust and in proper work procedures and personal and area protective measures. Include but do not limit the topics covered in the course to the following:

- Methods of recognizing asbestos
- Health effects associated with asbestos
- Relationship between smoking and asbestos in producing lung cancer
- Nature of operations that could result in exposure to asbestos
- Importance of and instruction in the use of necessary protective controls, practices and procedures to minimize exposure including:
  - Engineering controls
  - Work Practices
  - Respirators
  - Housekeeping procedures
  - Hygiene facilities
  - Protective clothing
  - Decontamination procedures
  - Emergency procedures
  - Waste disposal procedures
- Purpose, proper use, fitting, instructions, and limitations of respirators as required by 29 CFR 1910.134
- Appropriate work practices for the work
- Requirements of medical surveillance program
- Review of 29 CFR 1926
- Pressure Differential Systems
- Work practices including hands on or on-job training
- Personal Decontamination procedures
- Air monitoring, personal and area

## **MEDICAL EXAMINATIONS:**

Provide medical examinations for all workers who may encounter an airborne fiber level of 0.1 f/cc or greater for an 8 hour Time Weighted Average. In the absence of specific airborne fiber data provide medical examinations for all workers who will enter the Work Area for any reason. Examination shall as a minimum meet OSHA requirements as set forth in 29 CFR 1926 In addition, provide an evaluation of the individuals ability to work in environments capable of producing heat stress in the worker.

## **SUBMITTALS:**

Before Start of Work: Submit the following to the Owner's Representative for review. Do not start work until these submittals are returned with Owner's Representative's action stamp indicating that the submittal is returned for unrestricted use.

AHERA Accreditation: Submit copies of certificates from an EPA-approved AHERA Abatement Workers course for each worker as evidence that each asbestos Abatement Worker is accredited as required by the AHERA Regulation 40 CFR 763 Appendix C to Subpart E, April 30, 1987.

State and Local License: Submit evidence that all workers have been trained, certified and accredited as required by state or local code or regulation.

Certificate Worker Acknowledgment: Submit an original signed copy of the Certificate of Worker's Acknowledgment found at the end of this section, for each worker who is to be at the job site or enter the Work Area.

Report from Medical Examination: conducted within last 12 months as part of compliance with OSHA medical surveillance requirements for each worker who is to enter the Work Area. Submit, at a minimum, for each worker the following:

Name and Social Security Number

Physicians Written Opinion from examining physician including at a minimum the following:

Whether worker has any detected medical conditions that would place the worker at an increased risk of material health impairment from exposure to asbestos.

Any recommended limitations on the worker or on the use of personal protective equipment such as respirators.

Statement that the worker has been informed by the physician of the results of the medical examination and of any medical conditions that may result from asbestos exposure.

Copy of information that was provided to physician in compliance with 29 CFR 1926

Statement that worker is able to wear and use the type of respiratory protection proposed for the project, and is able to work safely in an environment capable of producing heat stress in the worker.

Notarized Certifications: Submit certification signed by an officer of the abatement contracting firm and notarized that exposure measurements, medical surveillance, and worker training records are being kept in conformance with 29 CFR 1926.

## **PART 2 - EQUIPMENT**

### **PROTECTIVE CLOTHING:**

**Coveralls:** Provide disposable full-body coveralls and disposable head covers, and require that they be worn by all workers in the Work Area. Provide a sufficient number for all required changes, for all workers in the Work Area.

**Boots:** Provide work boots with non-skid soles, and where required by OSHA, foot protective, for all workers. Provide boots at no cost to workers. Paint uppers of all boots red with waterproof enamel. Do not allow boots to be removed from the Work Area for any reason, after being contaminated with asbestos-containing material. Dispose of boots as asbestos-contaminated waste at the end of the work.

**Hard Hats:** Provide head protective (hard hats) as required by OSHA for all workers, and provide 4 spares for use by Owner's Representative, Project Administrator, and Owner. Label hats with same warning labels as used on disposal bags. Require hard hats to be worn at all times that work is in progress that may potentially cause head injury. Provide hard hats of type with plastic strap type suspension. Require hats to remain in the Work Area throughout the work. Thoroughly clean, decontaminate and bag hats before removing them from Work Area at the end of the work.

**Goggles:** Provide eye protective (goggles) as required by OSHA for all workers involved in scraping, spraying, or any other activity which may potentially cause eye injury. Thoroughly clean, decontaminate and bag goggles before removing them from Work Area at the end of the work.

**Gloves:** Provide work gloves to all workers and require that they be worn at all times in the Work Area Do not remove gloves from Work Area and dispose of as asbestos-contaminated waste at the end of the work.

### **ADDITIONAL PROTECTIVE EQUIPMENT:**

Respirators, disposable coveralls, head covers, and footwear covers shall be provided by the Contractor for the Owner, Owner's Representative, Project Administrator, and other authorized representatives who may inspect the job site. Provide two (2) respirators and six (6) complete coveralls and, where applicable, six (6) respirator filter changes per day.

## **PART 3 - EXECUTION**

### **GENERAL:**

Provide worker protection as required by the most stringent OSHA and/or EPA standards applicable to the work. The following procedures are minimums to be adhered to regardless of fiber count in the Work Area.

Each time Work Area is entered remove all street clothes in the Changing Room of the Personnel Decontamination Unit and put on new disposable coverall, new head cover, and a clean respirator. Proceed through shower room to equipment room and put on work boots.

### **DECONTAMINATION PROCEDURES:**

Require all workers to adhere to the following personal decontamination procedures whenever they leave the Work Area:

Type C Supplied Air or Powered Air-Purifying Respirators: Require that all workers use the following decontamination procedure as a minimum requirement whenever leaving the Work Area:

When exiting area, remove disposable coveralls, disposable head covers, and disposable footwear covers or boots in the equipment room.

Still wearing respirators, proceed to showers. Showering is mandatory. Care must be taken to follow reasonable procedures in removing the respirator to avoid asbestos fibers while showering. The following procedure is required as a minimum:

Thoroughly wet body including hair and face. If using a Powered Air-Purifying Respirator (PAPR) hold blower unit above head to keep canisters dry.

With respirator still in place thoroughly wash body, hair, respirator face piece, and all parts of the respirator except the blower unit and battery pack on a PAPR. Pay particular attention to seal between face and respirator and under straps.

Take a deep breath, hold it and/or exhale slowly, completely wet hair, face, and respirator. While still holding breath, remove respirator and hold it away from face before starting to breath.

Carefully wash face piece of respirator inside and out.

If using PAPR: shut down in the following sequence, first cap inlets to filter cartridges, then turn off blower unit (this sequence will help keep debris which has collected on the inlet side of filter from dislodging and contaminating the outside of the unit). Thoroughly wash blower unit and hoses. Carefully wash battery pack with wet rag. Be extremely cautious of getting water in battery pack as this will short out and destroy battery.

Shower completely with soap and water.

Rinse thoroughly.

Rinse shower room walls and floor prior to exit.

Proceed from shower to Changing Room and change into street clothes or into new disposable work items.

Air Purifying-Negative Pressure Respirators: Require that all workers use the following decontamination procedure as a minimum requirement whenever leaving the Work Area with a half or full face cartridge type respirator:

When exiting area, remove disposable coveralls, disposable headcovers, and disposable footwear covers or boots in the Equipment Room.

Still wearing respirators, proceed to showers. Showering is mandatory. Care must be taken to follow reasonable procedures in removing the respirator and filters to avoid asbestos fibers while showering. The following procedure is required as a minimum:

Thoroughly wet body from neck down.

Wet hair as thoroughly as possible without wetting the respirator filter if using an air purifying type respirator.

Take a deep breath, hold it and/or exhale slowly, complete wetting of hair, thoroughly wetting face, respirator and filter (air purifying respirator). While still holding breath, remove respirator and hold it away from face before starting to breath.

Dispose of wet filters from air purifying respirator.

Carefully wash face piece of respirator inside and out.

Shower completely with soap and water.

Rinse thoroughly.

Rinse shower room walls and floor prior to exit.

Proceed from shower to Changing Room and change into street clothes or into new disposable work items.

Remote Shower: The procedures above are to be used if the decontamination facility is used as a remote shower. If a worker cannot gain direct access to the Equipment Room require that he enter Decontamination Unit and proceed directly through Shower Room to Equipment Room. Decontamination procedure is then completed as required above.

Within Work Area:

Require that workers NOT eat, drink, smoke, chew tobacco or gum, or apply cosmetics in the Work Area. To eat, chew, drink or smoke, workers shall follow the procedure described above ,then dress in street clothes before entering the non-Work Areas of the building.

**CERTIFICATE OF WORKER'S ACKNOWLEDGMENT:**

Following this section is a Certificate of Worker Training. After each worker has been included in the Contractor's Respiratory Protection Program, completed the training program and medical examination, secure a fully executed copy of this form.

**CERTIFICATE OF WORKER'S ACKNOWLEDGMENT**

**PROJECT NAME** \_\_\_\_\_ **DATE** \_\_\_\_\_

**PROJECT ADDRESS** \_\_\_\_\_

**CONTRACTOR'S NAME** \_\_\_\_\_

**WORKING WITH ASBESTOS CAN BE DANGEROUS. INHALING ASBESTOS FIBERS HAS BEEN LINKED WITH VARIOUS TYPES OF CANCER. IF YOU SMOKE AND INHALE ASBESTOS FIBERS THE CHANCE THAT YOU WILL DEVELOP LUNG CANCER IS GREATER THAN THAT OF THE NON-SMOKING PUBLIC.**

Your employer's contract with the Owner for the above project requires that: You be supplied with the proper respirator and be trained in its use. You be trained in safe work practices and in the use of the equipment found on the job. You receive a medical examination. These things are to have been done at no cost to you.

**RESPIRATORY PROTECTION:** You must have been trained in the proper use of respirators, and informed of the type respirator to be used on the above referenced project. You must be given a copy of the written respiratory protection manual issued by your employer. You must be equipped at no cost with the respirator to be used on the above project.

**TRAINING COURSE:** You must have been trained in the dangers inherent in handling asbestos and breathing asbestos dust and in proper work procedures and personal and area protective measures. The topics covered in the course must have included the following:

- Physical characteristics of asbestos
- Health hazards associated with asbestos
- Respiratory protection
- Use of protective equipment
- Pressure Differential Systems
- Work practices including hands on or on-job training
- Personal decontamination procedures
- Air monitoring, personal and area

**MEDICAL EXAMINATION:** You must have had a medical examination within the past 12 months at no cost to you. This examination must have included: health history, pulmonary function tests and may have included an evaluation of a chest x-ray.

By signing this document you are acknowledging only that the Owner of the building you are about to work in has advised you of your rights to training and protection relative to your employer, the Contractor.

**Signature** \_\_\_\_\_ **Social Security No** \_\_\_\_\_

**Printed Name** \_\_\_\_\_ **Witness** \_\_\_\_\_

END OF SECTION - 01560

## **SECTION 01562 - RESPIRATORY PROTECTION**

### **PART 1 - GENERAL**

#### **RELATED DOCUMENTS:**

Section 01564  
Other Sections as specified herein

#### **QUALITY ASSURANCE**

North Safety Equipment  
3M Company  
Wilson Safety Products

Protect Respirators, Inc.  
Mine Safety Appliances Co.  
Survivair Comasec, Inc.

**APPLICABLE STANDARDS:** Except to the extent that more stringent requirements are written directly into the Contract Documents, the following regulations and standards have the same force and effect (and are made a part of the Contract Documents by reference) as if copied directly into the Contract Documents, or as if published copies were bound herewith. Where there is a conflict in requirements set forth in these regulations and standards, meet the more stringent requirement.

OSHA - U.S. Department of Labor Occupational Safety and Health Administration, Safety and Health Standards 29 CFR 1910, Section 1001 and Section 1910.134.29 CFR 1926.1101.

CGA - Compressed Gas Association, Inc., New York, Pamphlet G-7, "Compressed Air for Human Respiration", and Specification G-7.1 "Commodity Specification for Air".

ANSI - American National Standard Practices for Respiratory Protection, ANSI Z88.2-1980.

IDPH - Illinois Department of Public Health, Asbestos Abatement Act & Rules and Regulations, Title 77: Public Health, Chapter I, Subchapter P, Part 855, "Asbestos Abatement in Public and Private Schools"

NIOSH - National Institute for Occupational Safety and Health

MSHA - Mine Safety and Health Administration

#### **SUBMITTALS:**

**Before Start of Work** submit the following to the Owner's Representative for review. Do not begin work until these submittals are returned with the Owner's Representative's action stamp indicating that the submittal is returned for unrestricted use.

**Product Data:** Submit manufacturer's product information for each component used, including NIOSH

**System Diagram:** When a Type "C" supplied air respiratory system is required by the work, submit drawing showing assembly of components into a complete supplied air respiratory system. Include diagram showing location of compressor, filter banks, backup air supply tanks, hose line connections in Work Area(s), routing of air lines to Work Area(s) from compressor.

**Operating Instruction:** Submit complete operating and maintenance instructions for all components and systems as a whole. Submittal is to be in bound manual form suitable for field use.

Respiratory Protection Program: Submit Contractor's written respiratory protection program manual as required by OSHA 1926.134 and 1926.1101.

Respiratory Protection Schedule: Submit level of respiratory protection intended for each operation required by the project. Submit this information on the "Respiratory Protection schedule" on the form included at the end of this Section.

Historic Airborne Fiber Data: Submit airborne asbestos fiber count data from an independent air monitoring firm to substantiate selection of respiratory protection proposed. Data submitted shall include at least the following for each procedure required by the work:

Date of measurements

Operation monitored

Sampling and analytical methods used and evidence of their accuracy

Number, duration, and results of samples taken

Resume information: Submit resume and information on training for individual monitoring the operation of supplied air respiratory systems. Submit training certifications where applicable.

#### **AIR QUALITY FOR SUPPLIED AIR RESPIRATORY SYSTEMS:**

Provide air used for breathing in Type "C" supplied air respiratory systems that meets or exceeds standards set for C.G.A. type 1 (Gaseous Air) Grade H or CSA Z180.1 whichever presents the more stringent quality standard:

**ALLOWABLE CONTAMINANTS:** Supply air that has an asbestos concentration no greater than outside ambient conditions.

#### **DELIVERY:**

Deliver replacement parts, etc., not otherwise labeled by NIOSH or MSHA to job site in manufacturer's containers.

#### **PART 2 - EQUIPMENT**

##### **AIR PURIFYING RESPIRATORS**

Respirator Bodies: Provide half face or full face type respirators. Equip full face respirators with a nose cup or other anti-fogging device as would be appropriate for use in air temperatures less than 32 degrees Fahrenheit.

Filter Cartridges: Provide, at a minimum, HEPA type filters labeled with NIOSH and MSHA Certification for "Radionuclides, Radon Daughters, Dust, Fumes, Mists including Asbestos-Containing Dusts and Mists" and color coded in accordance with ANSI Z228.2 (1980). In addition, a chemical cartridge section may be added, if required, for solvents, etc., in use. In this case, provide cartridges that have each section of the combination canister labeled with the appropriate color code and NIOSH/MSHA Certification.

##### **SUPPLIED AIR RESPIRATOR SYSTEMS:**

Provide equipment capable of producing air of the quality and volume required by the above reference standards applied to the job site conditions and crew size. Comply with provisions of this specification if more stringent than the governing standard.

Face Piece and Hose: Provide full face piece and hose by same manufacturer that has been certified by NIOSH/MSHA as an approved Type "C" respirator assembly operating in pressure demand mode with a positive pressure face-piece.

Auxiliary backup system: In atmospheres which contain sufficient oxygen (greater than or equal to 19.5% oxygen) provide a pressure-demand full face piece supplied air respirator equipped with an emergency back up HEPA filter.

Escape air supply: In atmospheres which are oxygen deficient (less than 19.5% oxygen) provide a pressure-demand full face piece supplied air respirator incorporating an auxiliary self-contained breathing apparatus (SCBA) which automatically maintains an uninterrupted air supply in pressure demand mode with a positive pressure face piece.

Backup air supply: Provide a reservoir of compressed air located outside the Work Area which will automatically maintain a continuous uninterruptable source of air automatically available to each connected face piece and hose assembly in the event of compressor shut-down, contamination of air delivered by compressor, power loss or other failure. Provide sufficient capacity in the back-up air supply to allow a minimum escape time of one-half hour times the number of connections available to the Work Area. Air requirement at each connection is the air requirement of the respirators in use plus the air requirement of an average-sized adult male engaged in moderately strenuous activity.

Warning device: Provide a warning device that will operate independently of the building's power supply. Locate so that alarm is clearly audible above the noise level produced by equipment and work procedures in use in all parts of the Work Area and at the compressor. Connect alarm to warn of:

- Compressor shut down or other fault requiring use of backup air supply
- Carbon Monoxide (CO) levels in excess of 5 PPM/V

Carbon Monoxide (CO) Monitor: Continuously monitor and record on a strip chart recorder Carbon Monoxide (CO) levels. Place monitors in the air line between compressor and back-up air supply and between backup air supply and workers. Connect monitors so that they also sound an alarm as specified under "Warning Devices".

Compressor Shut Down: Interconnect monitors, alarms and compressor so that compressor is automatically shut down and the alarms sounded if any of the following occur:

- Carbon Monoxide (CO) concentrations exceed 5 PPM/v in the air line between the filter bank and backup air supply
- Compressor temperature exceeds normal operating range

Compressor Motor - Provide a compressor driven by an electric motor. Do not use a gas or diesel engines to drive compressor. Insure that electrical supply available at the work site is adequate to energize motor.

Air Intake: Locate air intake remotely from any source of automobile exhaust or any exhaust from engines, motors, auxiliary generator or buildings.

After-Cooler: Provide an after-cooler at entry to filter system which is capable of reducing temperatures to outside ambient air temperatures.

Self Contained Breathing Apparatus (SCBA): Configure system to permit the recharging of 1/2 hour 2260 PSI SCBA cylinders.

### **PART 3 - EXECUTION**

#### **GENERAL:**

Respiratory Protection Program: Comply with ANSI Z88.2 - 1980 "Practices for Respiratory Protection" and OSHA 29 CFR 1910 and 1926.

Require that respiratory protection be used at all times that there is any possibility of disturbance of asbestos-containing materials whether intentional or accidental.

Require that a respirator be worn by anyone in a Work Area at all times, regardless of activity, during a period that starts with any operation which could cause airborne fibers until the area has been cleared for re-occupancy in accordance with Section 01714.

Regardless of Airborne Fiber Levels: Require that the minimum level of respiratory protection used be half-face air-purifying respirators with high efficiency filters.

#### **FIT TESTING:**

Initial Fitting: Provide initial fitting of respiratory protection during a respiratory protection course of training set up and administered by a Certified Industrial Hygienist. Fit types of respirator to be actually worn by each individual. Allow an individual to use only those respirators for which training and fit testing has been provided.

On a Weekly Basis, check the fit of each worker's respirator by having irritant smoke blown onto the respirator from a smoke tube.

Upon Each Wearing: Require that each time an air-purifying respirator is put on it be checked for fit with a positive and negative pressure fit test in accordance with the manufacturer's instructions or ANSI Z88.2 (1980).

#### **TYPE OF RESPIRATORY PROTECTION REQUIRED:**

Provide Respiratory Protection as indicated in paragraph below. Where paragraph below does not apply, determine the proper level of protection by dividing the expected or actual airborne fiber count in the Work Area by the "protection factors" given below. The level of respiratory protection which supplies an airborne fiber level inside the respirator, at the breathing zone of the wearer, at or below the permissible exposure limit (PEL) is the minimum level of protection allowed.

Type "C" Supplied-air respirators: full face piece pressure demand supplied air respirators are to be used by all workers engaged in the removal, or demolition of pipes, structures, or equipment covered or insulated with asbestos, or in the removal or demolition of asbestos insulation or coverings, or any other activity which results in or may result in airborne asbestos fibers.

#### **PERMISSIBLE EXPOSURE LIMIT (PEL):**

8-Hour Time Weighted Average (TWA) of asbestos fibers to which any worker may be exposed shall not exceed the following.

Fibers: For purposes of this section, fibers are defined as all fibers regardless of composition as counted in the OSHA Reference Method (ORM), or NIOSH 7400 procedure.

Electron Microscopy: If Electron Microscopy is used to determine airborne fiber levels, only asbestos fibers will be enumerated, but fibers of any size detected by the testing of Section 01714 Work Area Clearance will be counted.  
Time Weighted Average (TWA) - 0.1 fibers/cubic centimeter

**RESPIRATORY PROTECTION FACTOR:**

<u>Respirator Type</u>	<u>Protection Factor</u>
Air purifying: Negative pressure respirator High efficiency filter Half face piece	10
Air purifying: Negative pressure respirator High efficiency filter full face piece	50
Powered Air Purifying (PAPR): Positive pressure respirator High efficiency filter Half or Full face piece	50
Type C supplied air: Positive pressure respirator Pressure demand or other positive pressure mode Half face piece	1,000
Type C supplied air: Positive pressure respirator Pressure demand or other positive pressure mode Full face piece	2,000
Type C supplied air: Positive pressure respirator Pressure demand or other positive pressure mode Full face piece Equipped with an auxiliary positive pressure Self-contained breathing apparatus (SCBA)	10,000
Self-contained breathing apparatus (SCBA): Positive Pressure respirator Pressure demand or other positive pressure mode Full face piece	10,000

**AIR PURIFYING RESPIRATORS:**

Negative pressure - half or full face mask: Supply a sufficient quantity of respirator filters approved for asbestos, so that workers can change filters during the work day. Require that respirators be wet-rinsed, and filters discarded, each time a worker leaves the Work Area. Require that new filters be installed each time a worker re-enters the Work Area. Store respirators and filters at the job site in the changing room and protect totally from exposure to asbestos prior to their use.

Powered air purifying - half or full face mask: Supply a sufficient quantity of high efficiency respirator filters approved for asbestos so that workers can change filters at any time that flow through the face piece decreases to the level at which the manufacturer recommends filter replacement. Require that regardless of flow, filter cartridges be replaced after 40 hours of use. Require that HEPA elements in filter cartridges be protected from wetting during showering. Require entire exterior housing of respirator, including blower unit, filter cartridges, hoses, battery pack, face mask, belt, and cords, be washed each time a worker leaves the Work Area. Caution should be used to avoid shorting battery pack during washing. Provide an extra battery pack for each respirator so that one can be charging while one is in use.

**TYPE "C" RESPIRATOR:**

Air Systems Monitor: Continuously monitor the air system operation including compressor operation, filter system operation, backup air capacity and all warning and monitoring devices at all times that system is in operation. Assign an individual, trained by manufacturer of the equipment in use or by a Certified Industrial Hygienist, in the operation and maintenance of the system to provide this monitoring. Assign no other duties to this individual which will take him away from monitoring the air system.

END OF SECTION - 01562

**01563 - RESPIRATORY PROTECTION SCHEDULE**

Project Name \_\_\_\_\_

Location \_\_\_\_\_

Date \_\_\_\_\_

Based upon airborne asbestos-fiber counts encountered on previous projects of similar type working on materials similar to those found on the above referenced project. The following level of respiratory protection is proposed for the indicated operations to maintain an Airborne Fiber Count below the specified Permissible Exposure Limit (PEL) inside the respirator face-piece.

END OF SECTION - 01563

## **SECTION 01564 - DECONTAMINATION UNITS**

### **PART 1 - GENERAL**

#### **RELATED DOCUMENTS:**

Refer to sections 01503 Temporary Facilities- Asbestos abatement for electrical requirements and requirement relative to connection of decontamination facilities to building systems such as water, sewer, and electrical

#### **QUALITY ASSURANCE**

All Work shall conform to the applicable provisions of the codes, standards and Specifications as specified herein. Comply with specified standards as a minimum quality for the Work except where more stringent requirements apply. Where contradictions occur between codes, standards or Specifications, the more stringent shall apply.

#### **SUBMITTALS**

General. The Contractor shall submit to the Owner's Representative for review drawings, data and information in accordance with the applicable requirements of Section 01301 and as herein specified. Submittals shall include product specifications and descriptions, and drawings showing details together with related accessories.

Before the Start of Work: Submit the following to the Owner's Representative for review. Do not begin work until these submittals are returned with Owner's Representative's action stamp indicating that the submittal is returned for unrestricted use or final-but-restricted use.

Personnel Decontamination Unit: Provide shop drawing showing location and assembly of personnel decontamination units.

Equipment Decontamination Unit: Provide shop drawing showing location and assembly of equipment decontamination units.

Shower Pan: Provide shop drawing.

Shower Walls: Provide product data.

Shower Head and Controls: Provide product data.

Filters: Provide product data and shop drawing of installation on decontamination unit.

Hose Bib: Provide product data.

Shower Stall: for Wash Down Station provide product data and shop drawing showing and modifications.

Elastomeric membrane: Provide product data.

Lumber: Provide product data on fire resistance treatment.

Sump Pump: Provide product data.

Signs: Submit samples of signs to be used.

## **PART 2 - PRODUCTS**

**Polyethylene Sheet:** A single polyethylene film in the largest sheet size possible to minimize seams, 4.0 or 6.0 mil thick as indicated, clear, frosted, or black as indicated.

**Reinforced Polyethylene Sheet:** Where plastic sheet is the only separation between the Work Area and building exterior, provide translucent, nylon reinforced, laminated, flame resistant, polyethylene film that conforms to requirements set forth by the National Fire Protection Association Standard 701, Small Scale Fire Test for Flame-resistant Textiles and Films. Provide largest size possible to minimize seams, 4.0 or 6.0 mil thick as indicated, frosted or black as indicated.

**Shower Pan:** Provide one piece waterproof shower pan 4' x 8' by 6" deep. Fabricate from seamless fiberglass minimum 1/16" thick reinforced with wood, 18 ga. stainless or galvanized steel with welded seams, copper or lead with soldered seams, or a seamless liner of minimum 60 mil thick elastomeric membrane.

**Shower Walls:** Provide 8' long by approximately 7' high walls fabricated from rigid, impervious, waterproof material, either corrugated fiberglass roofing or equivalent. Structurally support as necessary for stability.

**Shower Head and Controls:** Provide a factory-made shower head producing a spray of water which can be adjusted for spray size and intensity. Feed shower with water mixed from hot and cold supply lines. Arrange so that control of water temperature, flow rate, and shut off is from inside shower without outside aid.

**Filters:** Provide cascaded filter units on drain lines from showers or any other water source carrying asbestos-contaminated water from the Work Area. Provide units with disposable filter elements as indicated below. Connect so that discharged water passes primary filter and output of primary filter passes through secondary filter.

Primary Filter - Passes particles 20 microns and smaller

Secondary Filter - Passes particles 5 microns and smaller

**Hose Bib:** Provide heavy bronze angle type with wheel handle, vacuum breaker, and 3/4" National Standard male hose outlet.

**Shower Stall:** For Wash Down Station provide leak tight shower enclosure with integrated drain pan fabricated from fiberglass or other durable waterproof material, approximately 3' x 3' square with minimum 6' high sides and back. Structurally support as necessary for stability. Equip with hose bib, as specified in this section, mounted at approximately 4'-0" above drain pan. Connect drain to a reservoir, pump water from reservoir through filters to a drain or store and use for amended water. Mount filters inside shower stall on back wall beneath hose bib.

**Elastomeric membrane:** Provide uniform flat sheets of flexible sheet roofing material fabricated from EPDM (ethylene propylene diene monomers) or Neoprene (polychloroprene), in a nominal 45 mil thickness.

**Lumber:** Provide kiln dried lumber of any grade or species.

**Sump Pump:** Provide totally submersible waterproof sump pump with integral float switch. Provide unit sized to pump 2 times the flow capacity of all showers or hoses supplying water to the sump, through the filters specified herein when they are loaded to the extent that replacement is required. Provide unit capable of pumping debris, sand, plaster or other materials washed off during decontamination procedures without damage to mechanism of pump. Adjust float switch so that a minimum of 3" remains between top of liquid and top of sump pan.

Lighting Provide temporary lighting within decontamination Units as necessary to reach a lighting level of 100 foot candles.

### **MISCELLANEOUS MATERIALS**

Duct Tape provide duct tape in 2" or 3" widths as indicated, with an adhesive which is formulated to stick aggressively to sheet polyethylene

Spray Adhesive provide spray adhesive in aerosol cans which is specifically formulated to stick tenaciously to sheet polyethylene.

### **PART 3 - EXECUTION**

#### **PERSONNEL DECONTAMINATION UNIT:**

Provide a Personnel Decontamination Unit consisting of a serial arrangement of connected rooms or spaces, Changing Room, Drying Room, Shower Room, Equipment Room. Require all persons without exception to pass through this Decontamination Unit for entry into and exiting from the Work Area for any purpose. Do not allow parallel routes for entry or exit. Do not remove equipment or materials through Personnel Decontamination Unit. Provide temporary lighting within Decontamination Units as necessary to reach a lighting level of 100 foot candles.

Changing Room (clean room): Provide a room that is physically and visually separated from the rest of the building for the purpose of changing into protective clothing.

Construct using polyethylene sheeting, at least 6 mil in thickness, to provide an airtight seal between the Changing Room and the rest of the building.

Locate so that access to Work Area from Changing Room is through Shower Room.

Separate Changing Room from the building by a sheet plastic flapped doorway.

Require workers to remove all street clothes in this room, dress in clean, disposable coveralls, and don respiratory protection equipment. Do not allow asbestos-contaminated items to enter this room. Require Workers to enter this room either from outside the structure dressed in street clothes, or naked from the showers.

An existing room may be utilized as the Changing Room if it is suitably located and of a configuration whereby workers may enter the Changing Room directly from the Shower Room. Protect all surfaces of room with sheet plastic as set forth in Section 01526 Temporary Enclosures. Authorization for this must be obtained from the Owner's Representative in writing prior to start of construction. Submit written request in accordance with Section 01632 "Product Substitutions" detailing layout and protective measures proposed.

Maintain floor of changing room dry and clean at all times. Do not allow overflow water from shower to wet floor in changing room.

Damp wipe all surfaces twice after each shift change with a disinfectant solution.

Provide posted information for all emergency phone numbers and procedures.

Provide 1 storage locker per employee.

Airlock (clean Side) Provide an Airlock as shown on the drawing between Drying Room and Changing "Clean" Room. This is a transit area for workers and shall satisfy the following requirements:

Separate this room from Drying Room and Changing Room by sheet plastic flapped doorways.

Separate this room from the rest of the building with airtight walls fabricated of 6 mil polyethylene.

Separate this room from the Drying and Changing Rooms with airtight walls fabricated of 6 mil polyethylene.

Drying Room: Provide a drying room as an airlock and a place for workers to dry after showering.

Construct room by providing a pan continuous with or draining to Shower Room pan. Install a freely draining wooden or non-skid metal floor in pan at elevation of top of pan.

Separate this room from the rest of the building with airtight walls fabricated of 6 mil polyethylene.

Separate this room from the Changing Room and Shower Room with airtight walls fabricated of 6 mil polyethylene.

Separate from Changing Room by a sheet plastic flapped doorway.

Provide a continuously adequate supply of disposable bath towels.

Shower Room: Provide a completely watertight operational shower to be used for transit by cleanly dressed workers heading for the Work Area from the Changing Room, or for showering by workers headed out of the Work Area after undressing in the Equipment Room.

Construct room by providing a shower pan and 2 shower walls in a configuration that will cause water running down walls to drip into pan. Install a freely draining wooden floor in shower pan at elevation of top of pan.

Separate this room from the rest of the building with airtight walls fabricated of 6 mil polyethylene.

Separate this room from the Drying Room and Airlock with airtight walls fabricated of 6 mil polyethylene.

Provide splashproof entrances to Drying Room and Airlock with doors arranged in the following configuration:

At each entrance to the Shower Room construct a door frame out of nominal 2" x 4" lumber with 1-1/2" jambs (sides) and 1-1/2" head (top) and sill (bottom). Attach to this door frame two overlapping flaps of elastomeric membrane material, fastened at the head (top) and jambs (sides) (by clamping between a 1-1/2" x 3/4" batten and frame). Overlap the flaps a minimum of 6" in a direction that presents a shingle-like configuration to the water stream from the shower. Overlap sill (bottom) by 1-1/2" minimum. Arrange so that any air movement out of the Work Area will cause the flaps to seal against the door frame.

Provide shower head and controls.

Provide temporary extensions of existing hot and cold water and drainage, as necessary for a complete and operable shower.

Provide a soap dish and a continuously adequate supply of soap and maintain in sanitary condition.

Arrange so that water from showering does not splash into the Changing or Equipment Rooms.

Arrange water shut off and drain pump operation controls so that a single individual can shower without assistance from either inside or outside of the Work Area.

Provide flexible hose shower head.

Pump waste water to drain or to storage for use in amended water. If pumped to drain, provide 20 micron and 5 micron waste water filters in line to drain or waste water storage. Change filters daily or more often if necessary. Locate filters inside shower unit so that water lost during filter changes is caught by shower pan.

Provide hose bib.

Airlock: Provide an airlock between Shower Room and Equipment Room. This is a transit area for workers. Separate this room from Equipment Room by a sheet plastic flap doorway.

Separate this room from the rest of the building with airtight walls fabricated of 6 mil polyethylene.

Separate this room from the Equipment Room and Shower Room with airtight walls fabricated of 6 mil polyethylene.

Separate from Equipment Room by a sheet plastic flapped doorway.

Equipment Room (contaminated area): Require work equipment, footwear and additional contaminated work clothing to be left here. This is a change and transit area for workers.

Separate this room from the Work Area by a 6 mil polyethylene flapped doorway.

Separate this room from the rest of the building with airtight walls fabricated of 6 mil polyethylene. Separate this room from the Shower Room and Work Area with airtight walls fabricated of 6 mil polyethylene.

Provide a drop cloth layer of sheet plastic on floor in the Equipment Room for every shift change expected. Roll drop cloth layer of plastic from Equipment Room into Work Area after each shift change. Replace before next shift change. Provide a minimum of two (2) layers of plastic at all times. Use only clear plastic to cover floors.

Airlock (Dirty Side): Provide an airlock between Equipment Room and Work Area. This is a transit area for workers.

Separate this room from Equipment Room and Work Area by a sheet plastic flapped doorways.

Separate this room from the rest of the building with airtight walls fabricated of 6 mil polyethylene.

Separate this room from the Equipment Room and Work Area with airtight walls fabricated of 6 mil polyethylene.

Work Area: Separate Work Area from the Equipment Room by polyethylene barriers. If the airborne asbestos level in the Work Area is expected to be high, as in dry removal, add an intermediate cleaning space between the Equipment Room and the Work Area. Damp wipe clean all surfaces after each shift change. Provide one additional floor layer of 6 mil polyethylene per shift change and remove contaminated layer after each shift.

### **PERSONNEL DECONTAMINATION SEQUENCE:**

General. Require that all workers adhere to the following sequence when entering or leaving the Work Area.

Entering Work Area: Worker enters Changing Room and removes street clothing, puts on clean disposable overalls and respirator, and passes through the Shower Room into the Equipment Room.

Any additional clothing and equipment left in Equipment Room needed by the worker are put on in the Equipment Room.

Worker proceeds to Work Area.

### **Exiting Work Area:**

Before leaving the Work Area, require the worker to remove all gross contamination and debris from overalls and feet.

The worker then proceeds to the Equipment Room and removes all clothing except respiratory protection equipment.

Extra work clothing such as boots, hard hats, goggles, gloves are to be stored in contaminated end of the Equipment Room.

Disposable coveralls are placed in a bag for disposal with other material.

Require that Decontamination procedures found in Section 01560 be followed by all individuals leaving the Work Area.

After showering, the worker moves to the Changing Room and dresses in either new coveralls for another entry or street clothes if leaving.

## **EQUIPMENT DECONTAMINATION UNIT:**

**General.** Provide an Equipment Decontamination Unit consisting of a serial arrangement of rooms, Clean Room, Holding Room, Wash Room for removal of equipment and material from Work Area. Do not allow personnel to enter or exit Work Area through Equipment Decontamination Unit.

**Wash Down Station:** Provide an enclosed Shower Unit located in Work Area just outside Wash Room as an equipment, bag and container cleaning station.

Fabricate waterproof floor extending 6' - 0" beyond Wash Down station in all directions. Install seamless waterproof membrane over area and extend over curbs on all four sides. Form curbs from 2" x 4" lumber laid on the flat.

Waterproof membrane is to be fabricated from elastomeric membrane.

Waterproof membrane is to be fabricated from minimum 10 mil polyethylene.

Do not allow water to collect on waterproof membrane. Remove continuously with a wet vacuum or mops.

**Wash Room:** provide wash room for cleaning of bagged or containerized asbestos-containing waste materials passed from the Work Area.

Construct wash room of nominal 2" x wood framing and polyethylene sheeting, at least 6 mil in thickness and located so that packaged materials, after being wiped clean, can be passed to the Holding Room.

Separate this room from the Work Area by a single flapped door of 6 mil polyethylene sheeting.

**Airlock:** Provide an airlock between Wash Room and Holding Room. This is a transit area.

Separate this room from adjacent spaces by a sheet plastic flapped doorway.

Separate this room from the rest of the building and adjacent spaces with airtight walls fabricated of 6 mil polyethylene.

**Holding Room:** Provide Holding Room as a drop location for bagged asbestos-containing materials passed from the Wash Room.

Construct Holding Room of nominal 2" x wood framing and polyethylene sheeting, at least 6 mil in thickness and located so that bagged materials cannot be passed from the Wash Room through the Holding Room to the Clean Room.

Separate this room from the adjacent rooms by flapped doors fabricated from 1/16" +/- thick single ply elastomeric membrane material either EPDM or Neoprene.

Separate this room from the adjacent rooms by flap doors fabricated from 6 mil sheet plastic.

**Airlock:** Provide an airlock between Holding Room and Clean Room. This is a transit area.

Separate this room from adjacent spaces by a sheet plastic flap doorway.

Separate this room from the rest of the building and adjacent spaces with airtight walls fabricated of 6 mil polyethylene.

**Clean Room:** provide Clean Room to isolate the Holding Room from the building exterior. If possible locate to provide direct access to the Holding Room from the building exterior.

Erect Critical and Primary Barriers as described in Section 01526 "Temporary Enclosures" in an existing space. If no space exists construct Clean Room of 2X wood framing and polyethylene sheeting, at least 6 mil in thickness.  
Separate this room from the exterior by a single flap door of 6 mil polyethylene sheeting.

Load-out Area: The load-out area is the transfer area from the building to a truck or dumpster. It may be the Clean Room of the Equipment Decontamination unit or a separate room or loading dock area.

Erect Critical and Primary barriers as described in Section 01526 "Temporary Enclosures" in load-out area.  
During transfer of material from load-out area erect primary barriers as described in Section 01526 "Temporary Enclosures" as necessary to seal path from load-out area to truck or dumpster.

### **EQUIPMENT DECONTAMINATION SEQUENCE**

Take all equipment or material from the Work Area through the Equipment Decontamination Unit according to the following procedure:

At washdown station, thoroughly wet clean contaminated equipment or sealed polyethylene bags and pass into Wash Room.

When passing equipment or containers into the Wash Room, close all doorways of the Equipment Decontamination Unit, other than the doorway between the Washdown Station and the Wash Room. Keep all outside personnel clear of the Equipment Decontamination Unit.

Once inside the washroom, wet clean the bags and/or equipment.

When cleaning is complete pass items into Holding Room. Close all doorways except the doorway between the Holding room and the Clean Room.

Workers from the building exterior enter Holding Area and remove decontaminated equipment and/or containers for disposal.

Require these workers to wear full protective clothing and appropriate respiratory protection.

At no time is a worker from an uncontaminated area to enter the enclosure when a removal worker is inside.

### **CONSTRUCTION OF THE DECONTAMINATION UNITS:**

Walls and Ceiling: Construct airtight walls and ceiling using polyethylene sheeting, at least 6 mil in thickness. Attach to existing building components or a temporary framework.

Floors: Use 2 layers (minimum) of 6 mil polyethylene sheeting to cover floors in all areas of the Decontamination Units. Use only clear plastic to cover floors.

Flap Doors: Fabricated from three (3) overlapping sheets with openings a minimum of three feet (3') wide. Configure so that sheeting overlaps adjacent surfaces. Weigh sheets at bottoms as required so that they quickly close after being released. Put arrows on sheets to indicate direction of overlap and/or travel. Provide a minimum of six feet (6') between entrance and exit of any room. Provide a minimum of three feet (3') between doors to airlocks.

Ceilings If the Decontamination area is located within an area containing friable asbestos on overhead ceilings, ducts, piping, etc., provide the area with a minimum 1/4 inch hardboard or 1/2 inch plywood "ceiling" with polyethylene sheeting, at least 6 mil in thickness covering the top of the "ceiling".

Visual Barrier: Where the Decontamination area is immediately adjacent to and within view of occupied areas, provide a visual barrier of opaque polyethylene sheeting at least 6 mil in thickness so that worker privacy is maintained and work procedures are not visible to building occupants. Where the area

adjacent to the Decontamination area is accessible to the public, construct a solid barrier on the public side of the sheeting to protect the sheeting. Construct barrier with wood or metal studs covered with minimum 1/4 inch thick hardboard or 1/2 inch plywood. Where the solid barrier is provided, sheeting need not be opaque.

Electrical: Provide subpanel at Changing Room to accommodate all removal equipment. Power subpanel directly from a building electrical panel. Connect all electrical branch circuits in Decontamination unit and particularly any pumps in shower room to a ground-fault circuit protection device.

#### **CLEANING OF DECONTAMINATION UNITS:**

Clean debris and residue from inside of Decontamination Units on a daily basis or as otherwise indicated on Contract Drawings. Damp wipe or hose down all surfaces after each shift change. Clean debris from shower pans on a daily basis.

If the Changing Room of the Personnel Decontamination Unit becomes contaminated with asbestos-containing debris, abandon the entire Decontamination Unit and erect a new Decontamination Unit. Use the former Changing Room as an inner section of the new Equipment Room.

#### **SIGNS:**

Post an approximately 20 inch by 14 inch manufactured caution sign at each entrance to the Work Area displaying the following legend with letter sizes and styles of a visibility required by 29 CFR 1926: Provide signs in both English and Spanish.

#### **LEGEND**

**DANGER**

**ASBESTOS**

**CANCER AND LUNG DISEASE HAZARD  
RESPIRATORS AND PROTECTIVE CLOTHING ARE REQUIRED  
IN THIS AREA**

Provide spacing between respective lines at least equal to the height of the respective upper line.

Post an approximately 10 inch by 14 inch manufactured sign at each entrance to each Work Area displaying the following legend with letter sizes and styles of a visibility at least equal to the following: provide signs in both English and Spanish.

#### **LEGEND**

**NO FOOD, BEVERAGES OR TOBACCO PERMITTED**

**ALL PERSONS SHALL DON PROTECTIVE  
CLOTHING (COVERINGS) BEFORE  
ENTERING THE WORK AREA**

**ALL PERSONS SHALL SHOWER IMMEDIATELY  
AFTER LEAVING WORK AREA AND BEFORE  
ENTERING THE CHANGING AREA**

END OF SECTION - 01564

## **SECTION 01601 - MATERIALS AND EQUIPMENT - ASBESTOS ABATEMENT**

### **PART 1 - GENERAL**

#### **RELATED DOCUMENTS**

All other Sections related to materials and equipment.

#### **QUALITY ASSURANCE**

Standards. Refer to Section "Definitions and Standards" for applicability of industry standards to products specified.

Compatibility of Options. When the contractor is given the option of selecting between two or more products for use on the Project, the product selected shall be compatible with products previously selected, even if previously selected products were also options.

This Section specifies administrative and procedural requirements governing the Contractor's selection of products for use in the project.

The Contractor's Construction Schedule and the Schedule of Submittals are included under Section "Submittals."

#### **SUBMITTALS**

General. The Contractor shall submit to the Owner's representative for review drawings, data and information in accordance with the applicable requirements of Sections 01301 and as herein specified. Submittals shall include product specifications and descriptions, and drawings showing details together with related accessories

Required submittals. Submittals requirements are found in each Specification Section. For all General materials and equipment the Contractor shall prepare a schedule in tabular form showing each product listed. Include the manufacturer's name and proprietary product names for each item listed.

Product List Schedule. Prepare a schedule showing products specified in a tabular form acceptable to the Owners Representative. Include generic names of products required. Include the manufacturer's name and proprietary product name for each item listed.

#### **DEFINITIONS**

Definitions used in this Article are not intended to change the meaning of other terms used in the Contract Documents, such as "specialties," "systems," "structure," "finishes," "accessories," and similar terms. Such terms such are self-explanatory and have well recognized meanings in the construction industry.

"Products" are items purchased for use in performing the work or for incorporation in the Work, whether purchased for the Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.

"Named Products" are items identified by manufacturer's product name, including make or model designation, indicated in the manufacturer's published product literature, that is current as of the date of the Contract Documents.

"Materials" are products that are substantially shaped, cut, worked, mixed, finished, refined or otherwise fabricated, processed, or installed to form a part of the Work.

"Equipment" are products that may be either operational or fixed.

Operational Equipment are products with operating parts, whether motorized or manually operated, that requires temporary or permanent service connections, such as wiring or piping.

Fixed Equipment are products necessary for accomplishing the work that are used as a temporary facility during the work and removed afterward.

Required submittals: A general listing of products requiring submittals is included at the end of Section 01301 "Submittals." This listing may not be complete. Submittal requirements are found in each specification section. Prepare a schedule in tabular form showing each product listed.

## **PART 2**      **SUBMITTALS**

### **GENERAL PRODUCT REQUIREMENTS**

General. Provide products that comply with the Contract Documents, that are undamaged and, unless otherwise indicated, unused at the time of installation.

Complete. Provide products complete with all accessories, trim finish, safety guards and other devices and details needed for a complete installation and for the intended use and effect.

Standard Products. Where available, provide standard products of types that have been produced and used successfully in similar situations on other projects

### **PRODUCT SELECTION PROCEDURES**

General. Product selection is governed by the Contract documents and governing regulations, not by previous project experience. Minimum requirements for procedures governing product selection shall be as specified herein.

Non-Proprietary Specifications. When the Specifications list products or manufacturers that are available and may be incorporated in the Work, but do not restrict the Contractor to use of these products only, the contractor may propose any available product that complies with contract requirements. The Contractor shall comply with Contract Document provisions concerning "substitutions" to obtain approval for use of an unnamed product.

Descriptive Specification Requirements. Where Specifications specify a product or assembly, listing exact characteristics required, with or without use of a brand or trade name, provide a product or assembly that provides the characteristic and otherwise complies with contract requirements.

Performance Specification Requirements. Where Specifications require compliance with performance requirements, provide products that comply with these requirements, and are recommended by the manufacturer for the application indicated. General overall performance of a product is implied where the product is specified for a specific application. Manufacturer's recommendations may be contained in published product literature, or by the manufacturer's certifications of performance.

Compliance with Standards, Codes and Regulations. Where the specifications only require compliance with an imposed codes, standard or regulation, select a product that complies with the standard, codes or regulations specified.

Allowances. Refer to individual Specification Sections and "Allowance" provisions in Division-1 for allowances that control product selection, and for procedures required for processing such selections. Include the manufacturer's name and proprietary product names for each item listed.

### **Part 3**        **EXECUTION**

#### **PRODUCT DELIVERY, STORAGE, AND HANDLING**

Deliver, store and handle products in accordance with the manufacturer's recommendations, using means and methods that will prevent damage, deterioration and loss, including theft.

Schedule delivery to minimize long-term storage at the site and overcrowding of construction spaces.

Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft and other losses.

Deliver products to the site in the manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting and installing.

Inspect products upon delivery to ensure compliance with the Contract Documents, and to ensure that products are undamaged and properly protected.

Store products at the site in a manner that will facilitate inspection and measurement of quantity or counting of units.

Store heavy materials away from the project structure in a manner that will not endanger the supporting construction.

Store products subject to damage by the elements above ground, under cover in a weather tight enclosure, with ventilation adequate to prevent condensation. Maintain temperature and humidity within range required by manufacturer's instructions.

#### **INSTALLATION OF PRODUCTS**

Comply with manufacturer's instructions and recommendations for installation of products in the applications indicated. Anchor each product securely in place, accurately located and aligned with other work. Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.

END OF SECTION 01601

## **SECTION 01701 - PROJECT CLOSE-OUT - ASBESTOS ABATEMENT**

### **PART 1 - GENERAL**

Description. This section specifies administrative and procedural requirements for Project Close-out, including but not limited to:

1. Inspection procedures.
2. Project record document submittal.
3. Submittal of warranties.
4. Final cleaning.

### **PROJECT DOCUMENTS**

General. Do not use record documents for construction purposes; protect from deterioration and loss in a secure, fire resistive location; provide access to record documents for the Owner's Representative's reference during normal working hours.

Record Drawings. Maintain a clean, undamaged set of blue or black line white-prints of Contract Drawings and Shop Drawings. Mark the set to show the actual installation where the installation varies substantially from the Work as originally shown. Mark whichever drawing is most capable of showing conditions fully and accurately; where Shop drawings are used, record a cross-reference at the corresponding location on the Contract Drawings. Give particular attention to concealed elements that would be difficult to measure and record at a later date. In addition, comply with the following:

Mark record sets with red erasable pencil; use other colors to distinguish between variations in separate categories of the Work.

Mark new information that is important to the Owner, but was not shown on contract Drawings or Shop Drawings.

Note related Change Order numbers where applicable.

Organize Record Drawing sheets into manageable sets, bind with durable paper cover sheets, and print suitable titles, dates and other identifications on the cover of each set.

Record Specifications. Maintain one complete copy of the Project Specifications, including addenda, and one copy of other written construction documents such as Change Orders and modifications issued in printed form during construction. Mark these documents to show substantial variations in actual work performed in comparison with the text of the Specifications, and Modifications. Give particular attention to substitutions, selection of options and similar information on elements that are concealed or cannot otherwise be readily discerned later by direct observation. Note related Record Drawing information and Product Data. Upon completion of the Work, submit Record Specifications to the Owner's representative for the Owner's records.

Record Product Data. Maintain one copy of each Product Data Submittal. Mark these documents to show significant variations in the actual Work performed in comparison with information submitted. Include variations in products delivered to the site, and from the manufacturer's installation instructions and recommendations. Give particular attention to concealed products and portions of the Work which cannot otherwise be readily discerned later by direct observation. Note related Change Orders and mark up of Record Drawings and Specifications. Upon completion of markup, submit complete set of Record Product Data to the Owner's representative for the Owner's records.

## **SUBMITTALS**

**General.** The Contractor shall submit to the Owner's Representative for review drawings, data and information in accordance with the applicable requirements of Section 01301 and as herein specified. Submittals shall include product specifications and descriptions, and drawings showing details together with related accessories.

**Miscellaneous record Submittals.** Refer to other Specification Sections for requirements of miscellaneous record keeping and submittals in connection with actual performance of the Work. Immediately prior to the date or dates of Substantial Completion, complete miscellaneous records and place in good order, properly identified and bound or filed, ready for continued use and reference. Submit to the Owner's Representative for the Owner's records.

## **SUBSTANTIAL COMPLETION**

**Preliminary Procedures:** Before requesting inspection for certification of Substantial Completion, complete the following. List exceptions in the request.

In the Application for Payment that coincides with, or first follows, the date Substantial Completion is claimed, show 100 percent completion for the portion of the work claimed as substantially complete. Include supporting documents for completion as indicated in these Contract Documents and a statement showing an accounting of changes to the Contract Sum.

If 100 percent completion cannot be shown, include a list of incomplete items, the value of incomplete construction, and reasons the work is not complete.

Advise Owner of pending insurance change over requirements.

Submit specific warranties, workmanship bonds, maintenance agreements, final certifications and similar documents.

Obtain and submit releases enabling the Owner unrestricted use of the Work and access to services and utilities; include occupancy permits, operating certificates and similar releases.

Submit record drawings, final project photographs, damage or settlement survey, and similar final record information.

Make final change over of permanent locks and transmit keys to the Owner. Advise Owner of change over in security provisions.

Complete start up testing of systems. Discontinue or change over and remove temporary facilities from the site, along with construction tools, and similar elements.

Complete final clean up requirements, including touch up painting. Touch up and otherwise repair and restore marred exposed finishes.

**Inspection Procedures:** On receipt of a request for inspection, the Owner's Representative will either proceed with inspection or advise the Contractor of unfilled requirements. The Owner's Representative will prepare the Certificate of Substantial Completion following inspection, or advise the Contractor of construction that must be completed or corrected before the certificate will be issued. The Owner's Representative will repeat inspection when requested and assured that the work has been substantially completed. Results of the completed inspection will form the basis of requirements for final acceptance.

## **FINAL ACCEPTANCE**

**Preliminary Procedures:** Before requesting final inspection for Certification of Final Acceptance and Final Payment, complete the following. List exceptions in the request.

Submit the Final Payment Request with releases and supporting documentation not previously submitted and accepted. Include Certificates of Insurance for products and completed operations where required.

Submit an updated final statement, accounting for final additional changes to the Contract Sum.

Submit a certified copy of the Owner's Representative's final inspection list of items to be completed or corrected, stating that each item has been completed or otherwise resolved for acceptance, and the list has been endorsed and dated by the Owner's Representative.

Submit final meter readings for utilities, and similar data as of the date of Substantial Completion, or when the Owner took possession of and responsibility for corresponding elements of the Work.

Submit consent of surety to Final Payment.

Submit a final liquidated damages settlement statement.

Submit evidence of final, continuing insurance coverage complying with insurance requirements.

**Reinspection Procedure:** The Owner's Representative will reinspect the Work upon receipt of notice that the Work, including inspection list items from earlier inspections, has been completed, except items whose completion has been delayed because of circumstances acceptable to the Owner's Representative. Upon completion of reinspection, the Owner's Representative will prepare a Certificate of Final Acceptance, or advise the Contractor of work that is incomplete or of obligations that have not been fulfilled but are required for Final Acceptance. In the case where the contractor is advised that Work is incomplete or of unfulfilled obligations, the contractor shall perform the required work at no additional charge to the Owner. If necessary, reinspection will be repeated to the satisfaction of the Owner's Representative. If necessary, reinspection will be repeated.

## **PART 2 - PRODUCTS** (Not Applicable)

## **PART 3 - EXECUTION**

### **FINAL CLEANING**

**General:** General cleaning during construction is required by the General Conditions and included in Section "Temporary Facilities".

**Cleaning:** Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to the condition expected in a normal, commercial building cleaning and maintenance program. Comply with manufacturer's instructions.

Complete the following cleaning operations before requesting inspection for Certification of Substantial Completion.

Remove labels that are not permanent labels.

Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compound and other substances that are noticeable vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials.

Clean exposed exterior and interior hard-surfaced finishes to a dust-free condition, free of stains, films and similar foreign substances. Restore reflective surfaces to their original reflective condition. Leave concrete floors broom clean. Vacuum carpeted surfaces.

Wipe surfaces of mechanical and electrical equipment. Remove excess lubrication and other substances. Clean plumbing fixtures to a sanitary condition. Clean light fixtures and lamps.

Clean the site, including landscape development areas, of rubbish, litter and foreign substances. Sweep paved areas broom clean; remove stains, spills and other foreign deposits. Rake grounds that are neither paved nor planted, to a smooth even-textured surface.

Removal of Protection: Remove temporary protection and facilities installed for protection of the work during construction.

Compliance: Comply with regulations of authorities having jurisdiction and safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on the Owner's property. Do not discharge volatile, harmful or dangerous materials into drainage systems. Remove waste materials from the site and dispose of in a lawful manner.

END OF SECTION 01701

## **SECTION 01711 - PROJECT DECONTAMINATION**

### **PART 1 - GENERAL**

#### **DESCRIPTION OF REQUIREMENTS:**

**General:** Decontamination of the Work Area following asbestos abatement. The asbestos abatement Work of the Project is considered to be on damaged and/or friable asbestos materials. The Project Decontamination Work shall consist of a four step procedure with three cleanings of the Primary Barrier plastic prior to its removal and three cleanings of the work area surfaces to remove any new or existing contamination. Unless specifically indicated otherwise all asbestos materials shall be considered damaged and/or friable for the purposes of this Section. During decontamination, operation of the pressure differential system shall be used to remove airborne fibers generated by the abatement Work.

#### **RELATED WORK SPECIFIED ELSEWHERE:**

**Removal of Gross Debris** is integral with the performance of abatement work and as such is specified in the appropriate work section(s) of these specifications:

Section 02081 Removal of Asbestos-Containing Materials

**Work Area Clearance:** Air testing and other requirements which must be met before release of Contractor and reoccupancy of the work area are specified in Section 01714 Work Area Clearance.

#### **Quality Assurance**

All work shall conform to the applicable provisions of the codes, standards and Specifications as specified herein. Comply with specified standards as a minimum quality for the Work except where more stringent requirements apply. Where contradictions occur between codes, standards or Specifications, the more stringent shall apply.

#### **SUBMITTALS**

Comply with applicable requirements of Section 01301 as well as substantial completion documentation as follows:

1. Certified Visual Inspection
2. Disposal Documentation
3. Punch List

Submit test report from an independent testing laboratory on the fire resistance rating of the assembly of the spray back fire proofing on the lock back encapsulant

### **PART 3 - EXECUTION**

#### **GENERAL:**

**Work of This Section** includes the decontamination of air in the Work Area which have been contaminated by the elevated airborne asbestos fiber levels generated during abatement activities, or

which may previously have had elevated fiber levels due to friable asbestos-containing materials in the space.

Work of This Section includes the cleaning, decontamination, and removal of temporary facilities installed prior to abatement work, including:

Primary and Critical Barriers erected by work of Section 01526  
Decontamination Unit erected by work of Section 01564  
Pressure Differential System installed by work of Section 01513

Work of This Section includes the cleaning, and decontamination of all surfaces (ceiling, walls, floor) of the Work Area, and all furniture or equipment in the Work Area.

### **START OF WORK:**

Previous Work: During completion of the asbestos abatement work specified in other sections, the Secondary Barrier of polyethylene sheeting will have been removed and disposed of along with any gross debris generated by the asbestos abatement work.

Start of Work: Work of this section begins with the cleaning of the Primary Barrier. At start of work the following will be in place:

Primary Barrier: Two layers of polyethylene sheeting on floor and two layer on walls.

Critical Barrier: An airtight barrier between the Work Area and other portions of the building or the outside.

Critical Barrier Sheeting: Over lighting fixtures and clocks, ventilation openings, doorways, convectors, speakers and other openings.

Decontamination Units: For personnel and equipment in operating condition.

Pressure Differential System: In operation.

### **FIRST CLEANING:**

First Cleaning: Carry out a first cleaning of all surfaces of the work area including items of remaining sheeting, tools, scaffolding and/or staging by use of damp-cleaning and mopping, and/or a High Efficiency Particulate Air (HEPA) filtered vacuum. (Note: A HEPA vacuum may fail if used with wet material.) Do not perform dry dusting or dry sweeping. Use each surface of a cleaning cloth one time only and then dispose of as contaminated waste. Continue this cleaning until there is no visible debris from removed materials or residue on plastic sheeting or other surfaces.

Remove All Filters in Air Handling System(s) and dispose of as asbestos-containing waste in accordance with requirements of Section 02084 Disposal of Asbestos-Containing Waste Material.

Wait 96 Air Changes to allow HEPA filtered fan units to clean air of airborne asbestos fibers. Use oscillating fans as necessary to assure circulation of air in all parts of work areas during this period. Maintain Pressure Differential System in operation for the entire 96 air change period. This may vary depending upon variances that have been applied for from IDPH.

## **SECOND CLEANING:**

Second Cleaning: Carry out a second cleaning of all surfaces in the work area in the same manner as the first cleaning.

Encapsulation of substrate: Perform encapsulation of substrate or installation of spray-applied finishes or fireproofing, where required, at this time. Maintain Pressure Differential System in operation during encapsulation work. **Contractor will use a encapsulation product that will not jeopardize the building's current fire rating.** Perform work only after meeting the following requirements

Surfaces to be covered have met the requirements for a visual inspection in this section.  
Airborne fiber counts in the Work Area are at or below 0.01 fibers per cubic centimeter as measured by phase contrast microscopy.

### Removal of Primary Barriers:

Immediately following the second cleaning of the Primary plastic, remove all Primary Barrier sheeting and Material Decontamination Unit, if there is one, leaving only:

Critical Barrier: Which forms the sole barrier between the Work Area and other portions of the building or the outside.

Critical Barrier Sheeting: Over lighting fixtures and clocks, ventilation openings, doorways, convectors, speakers, and other openings.

Decontamination Unit: For personnel, in operating condition.

Pressure Differential System: Maintain in continuous operation.

## **THIRD CLEANING:**

Third cleaning: Carry out a third cleaning of all surfaces in the work area in the same manner as the first cleaning immediately after removal of Primary plastic. This cleaning is now being applied to existing room surfaces. Take care to avoid water marks or other damage to surfaces.

Contractor's Testing: At the completion of the above cleaning visually inspect all surfaces. Clean again if any dust, debris, etc. is found. At completion of this inspection sweep entire Work Area including walls, ceilings, ledges, floors and other surfaces in the Work Area with exhaust from forced-air equipment (leaf blower with approximately 1 horsepower electric motor or equivalent). Do not direct forced-air equipment at any seal in any Critical Barrier. If any debris or dust is found repeat the cleaning. Continue this process until no debris dust or other material is found while sweeping of all surfaces with forced-air equipment.

Cover carpeting in the work area with 6 mil polyethylene during Contractor's testing procedures.  
Seal plastic to baseboards with duct tape.

Cleaning Carpeting: At the completion of cleaning of all surfaces except carpeting, HEPA vacuum carpeting designated to remain in Work Areas using a floor cleaning attachment adjusted so that rubber skirting is in contact with carpet surface. Use a passive (non-power brush type) floor attachment with rubber floor seals and adjustable above-floor height. Completely clean carpeting in one direction with each pass of the floor attachment overlapping the previous pass by one-half the attachment width. At the completion of one such cleaning, vacuum clean in the same manner in a direction at right angles to the initial cleaning.

Wait 96 Air Changes to allow HEPA filtered fan units to clean air of airborne asbestos fibers. Use oscillating fans as necessary to assure circulation of air in all parts of work areas during this period. Maintain pressure differential system in operation for the entire 96 air change period. This may vary depending on if any variances have been applied for from IDPH

**LOCK BACK:**

Encapsulation of substrate: Perform encapsulation of substrate or installation of spray-applied finishes or fireproofing, where required, before Removal of Work Area Isolation as specified below. Maintain Pressure Differential System in operation during encapsulation work.

**VISUAL INSPECTION:**

After Final Cleaning Perform a Complete Visual Inspection of the entire Work Area including: all surfaces, ceiling, walls, floor, decontamination unit, all plastic sheeting, seals over ventilation openings, doorways, windows, and other openings; look for debris from any sources, residue on surfaces, dust or other matter. During visual inspection sweep entire work area including walls, ceilings, ledges, floors, and other surfaces in the room with exhaust from forced air equipment (leaf blower with approximately 1 horsepower electric motor or equivalent). If any debris, residue, dust or other matter is found repeat final cleaning and continue decontamination procedure from that point. When the area is visually clean, and if after sweeping of all surfaces with leaf blower, no debris, residue, dust or other material is found, complete the certification at the end of this section. Visual inspection is not complete until confirmed in writing, on the certification, by Project Administrator.

Temporary lighting: Provide a minimum of 100 foot candles of lighting on all surfaces in the areas to be subjected to visual inspection. Provide hand held lights providing 150 foot candles at 4 feet capable of reaching all locations in work area.

Lifts: Provide ladders, scaffolding, and lifts as required to provide access to all surfaces in the area to be subjected to visual inspection. Access is to allow touching of all surfaces.

**FINAL AIR SAMPLING PCM:**

Phase Contrast Microscopy (PCM): After the Work Area is found to be visually clean, air samples will be taken and analyzed in accordance with the procedure for Phase Contrast Microscopy set forth in Section 01714 Work Area Clearance:

If Release Criteria are not met, repeat Final Cleaning and continue decontamination procedure from that point.

If Release Criteria are met continue with the air testing by Transmission Electron microscopy.

Transmission Electron Microscopy (TEM): After the work area is found to be visually clean and PCM air sampling completed, TEM air samples will be collected and analyzed in accordance with the procedure for Transmission Electron Microscopy set forth in Section 01714 Work Area Clearance:

If Release Criteria are not met, repeat Final Cleaning and continue Decontamination procedure from that point.

If Release Criteria are met, proceed to work of Article on removal of Work Area isolation.

**FINAL AIR SAMPLING PCM:**

Work Area Size Limitation: PCM without TEM sampling will be used to clear Work Areas where the asbestos-containing materials involved in the work are below the following size limitations:

Less than or equal to 160 square feet, or 260 linear feet.

Phase Contrast Microscopy (PCM): After the work area is found to be visually clean, air samples will be taken and analyzed in accordance with the procedure for Phase Contrast Microscopy set forth in Section 01714 Work Area Clearance:

If Release Criteria are not met, repeat Final Cleaning and continue Decontamination Procedure from that point.

If Release Criteria are met, proceed to work of this Section on Removal of Work Area Isolation.

### **REMOVAL OF WORK AREA ISOLATION:**

Comply with applicable requirements of Section 01714 Work Area Clearance have been met:

Shut down and remove the Pressure Differential System. Seal HEPA filtered fan units, HEPA vacuums and similar equipment with 6 mil polyethylene sheet and duct tape to form a tight seal at intake end before being moved from Work Area.

Remove Personnel Decontamination Unit.

Remove the Critical Barriers separating the Work Area from the rest of the building. Remove any small quantities of residual material found upon removal of the plastic sheeting with wet wiping, HEPA filtered vacuum cleaners and local protection. If significant quantities, as determined by the Owner's Representative, are found then the entire area affected shall be decontaminated as specified in Section 01712 Cleaning & Decontamination Procedures.

Remove all equipment, materials, debris from the work site.

Dispose of all asbestos-containing waste material as specified in Section 02084 Disposal of Asbestos Containing Waste Material.

### **SUBSTANTIAL COMPLETION OF ABATEMENT WORK:**

Asbestos Abatement Work is Substantially Complete upon meeting the requirements of this section and Section 01714 Work Area Clearance, including submission of: Certificate of Visual Inspection, Receipts Documenting proper disposal as required by Section 02084 Disposal of Asbestos-Containing Waste Material Punch list detailing repairs to be made and incomplete items.

### **CERTIFICATE OF VISUAL INSPECTION:**

Section 01712 is a "Certificate of Visual Inspection". This certificate shall be completed by the Contractor and certified by the Project Administrator. Submit completed Certificate with Application for Final Payment. Final payment will not be made until this Certification is executed. Following this section is a "Certificate of Visual Inspection". This certification is to be completed by the Contractor and certified by the Project Administrator. Submit completed Certificate with Application for Final Payment. Final payment will not be made until this Certification is executed.

END OF SECTION - 01711



**SECTION 01712 CERTIFICATION OF VISUAL INSPECTION**

**CERTIFICATION OF VISUAL INSPECTION**

In accordance with Section 01711 "Project Decontamination" the Contractor hereby certifies that he has visually inspected the Work Area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, Decontamination Unit, sheet plastic, etc.) and has found no dust, debris or residue.

by: (Signature)\_\_\_\_\_ Date\_\_\_\_\_

(Print Name)\_\_\_\_\_

(Print Title)\_\_\_\_\_

**PROJECT ADMINISTRATOR CERTIFICATION**

The Project Administrator hereby certifies that he has accompanied the contractor on his visual inspection and verifies that this inspection has been thorough and to the best of his knowledge and belief, the Contractor's Certification above is a true and honest one.

by: (Signature)\_\_\_\_\_ Date\_\_\_\_\_

(Print Name)\_\_\_\_\_

(Print Title)\_\_\_\_\_

END OF SECTION - 01712

## **SECTION 01713 - CLEANING AND DECONTAMINATION PROCEDURES**

### **PART 1 - GENERAL**

#### **RELATED WORK:**

Section 01714  
Other Sections as Specified

**DESCRIPTION OF THE WORK:** This section covers cleaning and decontamination procedures. Cleaning and decontamination Work shall be as required to satisfy requirements of related Work and as specified herein.,

#### **RELATED WORK:**

Work area clearance Section 01714.  
Other sections as specified herein.

### **PART 2 PRODUCTS - ( NOT APPLICABLE)**

### **PART 3 EXECUTION**

#### **GENERAL:**

Complete the following before start of work of this section:

01527 Regulated Areas  
01562 Respiratory Protection

#### **WET CLEANING:**

Accomplish wet cleaning during decontamination with paper towels or disposable rags:

Immerse paper towel or rag in container of water with surfactant, or diluted removal encapsulant.  
Wring out,  
Fold into quarters,  
Wipe surface once and refold to a fresh face of cloth. Proceed in this manner until all available faces of paper towel or rag have been used.

Dispose of paper towel or rag, Do not place rag back in container to rinse out or for any other purpose. If a used towel or rag comes in contact with water, empty container and refill.

Material adhered to a surface with removal encapsulant may require the application of additional removal encapsulant to facilitate cleaning.

### **REMOVAL OF ASBESTOS-CONTAINING DEBRIS**

General. Work of this Section is limited to the cleanup of a small quantity of amassed debris which has fallen from an architectural finish, fire-proofing, or thermal insulation on pipes boilers and other thermal equipment.

Remove asbestos-containing debris and decontaminate the area involved using the following sequence:

Shut down all ventilation into room.

Seal entry to work area with 6 mil polyethylene. Slit polyethylene for entry. Install a flap to cover the slit automatically; tape slit closed after entry.

Start HEPA vacuum before entering the area.

Use the HEPA vacuum to clean a path at least 6 feet wide from the entry point of the work area to the site of the fallen material.

Remove all small debris with the HEPA vacuum.

HEPA vacuum surfaces of all pieces too large to be removed by the suction of the HEPA vacuum.

Pick up such pieces and place in the bottom of a 6 mil polyethylene disposal bag conforming to the requirements of Section 02084 Disposal of Asbestos-Containing Waste Material. Place pieces in the bag without dropping and avoiding unnecessary disturbance and release of material.

Remove all remaining visible debris with HEPA vacuum.

HEPA vacuum an area 3 feet beyond the location in which any visible debris was found in two directions each at right angles to the other.

Place a 6 mil polyethylene drop cloth in accordance with Section 01527, Local Area Protection, immediately on top of the HEPA vacuumed area before performing any repair work on site from which fall-out occurred.

HEPA vacuum the site from which material fell removing all loose material which can be removed by the vacuums suction.

Repair or remove remaining material.

HEPA vacuum ladder and/or any tools used and pass out of the work area.

HEPA vacuum all surfaces in the room starting at the top of wall and working downward to the floor. Then start at corner of floor farthest from Work Area entrance and work towards entrance.

HEPA vacuum the floor using a floor attachment with rubber floor seals and adjustable floor to attachment height. Adjust the height so that the rubber seals just touch the floor if carpeted and are within 1/16" of hard surface floors. Vacuum the floor in parallel passes with each pass overlapping the previous by one-half the width of the floor attachment. At the completion of one cleaning vacuum the floor a second time at right angles to the first.

Secure area from occupancy until air monitoring results per Section 01714 Project Decontamination indicate that area is safe for reoccupancy.

### **CLEANING AND DECONTAMINATING OBJECTS**

Perform all work of decontaminating objects wherever possible on a plastic drop sheet installed.

HEPA vacuum all surfaces of object and immediate area before moving the object.  
Pick-up object, if possible, and HEPA vacuum all surfaces.  
Hand to off-sheet worker who will wet-clean object, if possible, and place in storage location.  
Decontaminate area where object was located by HEPA vacuuming twice, in two perpendicular directions. Wet clean if necessary to remove any debris.  
Return object to its original location.

### **DECONTAMINATION OF ROOMS:**

Shut down all ventilation into space.

Seal entry to Work Area with 6 mil polyethylene. Slit polyethylene for entry. Install a flap to cover the slit automatically; tape slit closed after entry.

Install Differential Pressure System in accordance with Section 01513.

Recirculate HEPA filtered fan units in space by operating them so that discharge from machine is back into room. Use one HEPA filtered fan unit for each 2,500 cubic feet of room volume.

HEPA vacuum all surfaces in the room starting at the ceiling, then top of wall and working downward to the floor.

HEPA vacuum the floor using a floor attachment with rubber floor seals and adjustable floor to attachment height. Adjust the height so that the rubber seals just touch the floor if carpeted and are within 1/16" of hard surface floors. Vacuum the floor in parallel passes with each pass overlapping the previous by one half the width of the floor attachment. At the completion of one cleaning, vacuum the floor a second time at right angles to the first.

Operate HEPA filtered fan unit in space for 24 hours minimum.

At completion of Decontamination Work workers decontaminate in accordance. Secure area from occupancy until air monitoring results per Section 01714 Work Area Clearance indicate area is safe for reoccupancy.

END OF SECTION - 01713

## **SECTION 01714 - WORK AREA CLEARANCE**

### **PART 1 - GENERAL**

Description. This Section describes work being performed by the Owner which will be used to determine if the Contractor has satisfied the requirements of the Contract Documents. This work is not in the Total Contract Price except as described herein.

This Section sets forth required post-abatement airborne asbestos concentrations in the Work Area and describes testing procedures the Owner will use to measure these levels.

Contractor shall be responsible for all associated costs for providing additional Work Area Sample Clearance testing including remedial action required should the first set of clearance air tests fail to meet criteria in this Section. Such additional Work Area air sample clearance testing shall be conducted in accordance with this Section.

### **RELATED DOCUMENTS:**

Visual Inspection: required as a prerequisite of air testing, is set forth in Section 01711 Project Decontamination.

Air Monitoring: performed by the Owner during abatement work, is described in Section 01410 Test Laboratory Services.

### **CONTRACTOR RELEASE CRITERIA:**

The Asbestos Abatement Work Area is Cleared when the Work Area is visually clean and airborne asbestos structure concentrations have been reduced to the level specified below.

### **VISUAL INSPECTION:**

Work of this Section will not begin until the visual inspection described in Section 01711 Project Decontamination is complete and has been certified by the Project Administrator.

### **AIR MONITORING:**

To determine if the elevated airborne asbestos structure concentration encountered during abatement operations has been reduced to the specified level, the Owner will secure samples and analyze them according to the following procedures.

Aggressive sampling All air samples will be taken using aggressive sampling technique.

PCM and TEM samples will be secured as indicated below. PCM samples will be analyzed and TEM samples will be transmitted to the laboratory. If the area meets the clearance criteria by PCM, then TEM analysis will proceed.

Work Area Clearance: upon meeting the TEM Clearance requirements the work of Section 01711 Project Decontamination can continue. **If Contractor fails TEM Clearance, the Contractor will be responsible additional TEM clearance sample cost. This at owners discretion may also include additional project management cost.**

### **SCHEDULE OF AIR SAMPLES:**

The number and volume of air samples taken and analytical methods used by the Owner will be in accordance with **AHERA and IDPH requirements**. Minimum requirements are as follows, However the more stringent shall apply.

### PHASE CONTRAST MICROSCOPY:

Air Samples Taken In each homogeneous Work Area after completion of all cleaning work, a minimum of 7 samples will be taken and analyzed as follows:

Samples will be collected on 25 mm. cassettes with the following filter media:

PCM: 0.8 mixed cellulose ester in a cassette with a conductive extension cord.

<b>Location Sampled</b>	<b>Number of Samples</b>	<b>Analysis Method Fibers/cc.</b>	<b>Detection Limit</b>	<b>Minimum Volume (Liters)</b>	<b>Date LPM</b>
<b>Each Work Area</b>	5	PCM	0.01	1,200	1-10
or					
<b>Each Room of Work Area</b>	1 (5 min.)	PCM	0.01	1,200	1-10
<b>Work Area Blank</b>	1	PCM	0.01	0	open for 30 seconds
<b>Laboratory Blank</b>	1	PCM	0.01	0	Do Not Open

Analysis: Fibers on each filter will be measured using the NIOSH Method 7400 entitled "Fibers" published in the NIOSH Manual of Analytical Methods, 3rd Edition, Second Supplement, August 1987.

Fibers: referred to in this section include fibers regardless of composition as counted by the phase contrast microscopy method used.

Split Sample: One Work Area sample will be split and both halves analyzed separately for duplicate analysis.

Release Criteria: Decontamination of the work site is complete when every Work Area sample is at or below the Detection Limit above. If any sample is above the Detection Limit then the decontamination is incomplete and recleaning per section 01711 Project Decontamination is required.

### TRANSMISSION ELECTRON MICROSCOPY:

Air Samples Taken In each homogeneous work area after completion of all cleaning work, a minimum of 13 samples will be taken and analyzed as follows:

<b>Location Sampled</b>	<b>Number of Samples</b>	<b>Analysis Method</b>	<b>Analytical Sensitivity Fibers/cc.</b>	<b>Recommended Volume (Liters)</b>	<b>Rate LPM</b>
<b>Each Work Area</b>	5	TEM	0.005	1,300-1,800	1-10
<b>Outside Each Work Area</b>	5	TEM	0.005	1,300-1,800	1-10

<b>Work Area Blank</b>	1	TEM	0.005	0	Open for 30 Seconds
<b>Outside Blank</b>	1	TEM	0.005	0	Open for 30 Seconds
<b>Laboratory Blank</b>	1	TEM	0.005	0	Do Not Open

Analysis will be performed using the analysis method set forth in the AHERA Regulation 40 CFR Part 763 Appendix A.

Asbestos Structures referred to in this Section include asbestos fibers, bundles, clusters or matrices, as defined by method of analysis.

Release Criteria: Decontamination of the work site is complete if either of the following two sets of conditions are met:

Work Area Samples are below filter background levels

All Work Area sample volumes are greater than 1,199 liters for a 25 mm. sampling cassette.

The average concentration of asbestos on the five Work Area Samples does not exceed the filter background level of 70 structures per square millimeter of filter area.

Work Area Samples are not statistically different from Outside samples

All sample volumes except for blanks are greater than 560 liters for a 25 mm. sampling cassette.

The average asbestos concentration of the three blanks is below the filter background level of 70 structures per square millimeter of filter area.

Average asbestos concentrations in Work Area Samples are not statistically different from Outside samples, as determined by the Z-test calculation found in 40 CFR Part 763, Subpart E, Appendix A (Z is less than or equal to 1.65)

**If these conditions are not met then the decontamination is incomplete and the cleaning procedures of Section 01710 shall be repeated.**

Termination of Analysis: if the arithmetic mean (average) asbestos concentration on the blank filters exceed 70 structures per square millimeter of filter area the analysis will cease and new samples collected.

**LABORATORY TESTING:**

**PHASE CONTRAST MICROSCOPY:**

The services of a testing laboratory will be employed by the Owner to perform laboratory analysis of the air samples. A microscope and technician will be set up at the job site, so that verbal reports on air samples can be obtained immediately. A complete record, certified by the testing laboratory, of all air

monitoring tests and results will be furnished to the Owner's Representative, the Owner and the Contract

**TRANSMISSION ELECTRON MICROSCOPY:**

Samples will be sent by overnight courier for analysis by Transmission Electron Microscopy. Samples will not be carried on weekends, so that samples shipped on Friday will arrive on the following Monday. Verbal results will normally be available 24 hours after receipt of samples by the laboratory. The laboratory is capable of analyzing a maximum of 13 such samples from this project at any one time. All Transmission Electron Microscopy results will be available to the Contractor.

End of Section 01714

## **SECTION 01800 FINAL INSPECTION AND ACCEPTANCE**

### **FINAL INSPECTION AND ACCEPTANCE**

#### **PART 1- GENERAL**

##### **WALK THROUGH INSPECTION**

Upon completion of all Work specified in the Contract Documents, the Contractor shall perform final field walk-through inspection to verify that the overall requirements of the Contract Documents have been satisfied, and that all furniture, furnishings, material, equipment, and/or other items which were removed, shut-down disassembled, etc. during the abatement Work have been satisfactorily replaced, re-built, reinstalled, placed back into operation and/or otherwise restored to a condition equal to or exceeding the condition prior to the abatement Work. Acceptance inspections conducted on the completed Work will be witnessed and subject to the approval of the Owner.

##### **FINAL ACCEPTANCE**

When all Work has been completed, a thorough inspection will be made by the Owner in the company of the Contractor, and if the Work is found to comply with the Specifications, the Work will be formally accepted and the Contractor so notified in writing as to the Final Acceptance of the Work by the Owner.

##### **CORRECTIVE ACTION PRIOR TO FINAL ACCEPTANCE**

Should any Work be found to be inadequate, faulty, or otherwise not in accordance with these Specifications, it shall be the Contractor's responsibility to correct such Work at his/her own expense, prior to Final Acceptance.

##### **GUARANTEE PERIOD**

The period of guarantees shall commence immediately after Final Acceptance. Upon being notified of the Final Acceptance, the Contractor shall supply, to the Owner, a certificate of guarantee which shall guarantee all equipment and workmanship for a period of not less than one year or as otherwise specified in subsequent Sections of the Specifications.

##### **PART 2 - PRODUCTS** (NOT APPLICABLE)

##### **PART 3 - EXECUTION** (NOT APPLICABLE)

END OF SECTION - 01800

## **SECTION 02081 - REMOVAL OF ASBESTOS-CONTAINING MATERIALS**

### **PART 1 - GENERAL**

**Description.** The Work in this Section includes the removal of asbestos-containing materials from surfaces and/ or installations where such materials are present.

#### **RELATED WORK:**

Installation of Critical and Primary Barriers, and Work Area Isolation Procedures are set forth in Section 01526 Temporary Enclosures.

Project Decontamination procedures after removal of the Secondary Barrier are specified in Section 01711 Project Decontamination.

Disposal of asbestos-containing waste is specified in Section 02084 Disposal of Asbestos-Containing Waste Material.

#### **QUALITY ASSURANCE**

All work shall conform to the applicable provisions of the codes, standards and Specifications as specified herein. Comply with specified standards as a minimum quality for the Work except where more stringent requirements apply. Where contradictions occur between codes, standards or Specifications, the more stringent shall apply.

**Before Start of Work:** Submit the following to the Owner's Representative for review. Do not start work until these submittals are returned with Owner's Representative's action stamp indicating that the submittal is returned for unrestricted use.

**Surfactant:** Submit product data, use instructions and recommendations from manufacturer of surfactant intended for use. Include data substantiating that material complies with requirements.

**Removal Encapsulant:** Submit product data, use instructions and recommendations from manufacturer of removal encapsulant intended for use. Include data substantiating that material complies with requirements.

**NESHAP Certification:** Submit certification from manufacturer of surfactant or removal encapsulant that, to the extent required by this specification, the material, if used in accordance with manufacturer's instructions, will wet Asbestos-Containing Materials to which it is applied as required by the National Emission Standard for Hazardous Pollutants (NESHAP) Asbestos Regulations (40 CFR 61, Subpart M).

**Material Safety Data Sheet:** Submit the Material Safety Data Sheet, or equivalent, in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200) for each surfactant, encapsulating material and solvent proposed for use on the work. Include a separate attachment for each sheet indicating the specific worker protective equipment proposed for use with the material indicated.

#### **Wetting Materials::**

**Amended Water:** Provide water to which a surfactant has been added. Use a mixture of surfactant and water which results in wetting of the Asbestos-Containing Material and retardation of fiber release during disturbance of the material equal to or greater than that provided by the use of one ounce of a surfactant consisting of 50% polyoxyethylene ester and 50% polyoxyethylene ether mixed with five gallons of water.

Removal Encapsulant: Provide a penetrating type encapsulant designed specifically for removal of Asbestos-Containing Material. Use a material which results in wetting of the Asbestos-Containing Material and retardation of fiber release during disturbance of the material equal to or greater than that provided by water amended with a surfactant consisting of one ounce of a mixture of 50% polyoxyethylene ester and 50% polyoxyethylene ether in five gallons of water.

## **MISCELLANEOUS MATERIALS**

Polyethylene Sheet: A single polyethylene film in the largest sheet size possible to minimize seams, 4.0 or 6.0 mil thick as indicated, clear, frosted, or black as indicated.

Duct Tape: Provide duct tape in 2" or 3" widths as indicated, with an adhesive which is formulated to stick aggressively to sheet polyethylene.

Spray Cement: Provide spray adhesive in aerosol cans which is specifically formulated to stick tenaciously to sheet polyethylene.

Disposal Bags: Provide 6 mil thick leak-tight polyethylene bags labeled as required by Section 02084 Disposal of Asbestos Containing Waste Material.

Fiberboard Drums: Provide heavy duty leak tight fiberboard drums with tight sealing locking metal tops.

Paper board Boxes: Provide heavy duty corrugated paper board boxes coated with plastic or wax to retard deterioration from moisture. Provide in sizes that will easily fit in disposal bags.

Felt: Standard felt approximately 1/16" thick and 36" to 72" in width.

## **PART 3 - EXECUTION**

### **SECONDARY BARRIER:**

Secondary Barrier: Over the Primary Barrier, install as a drop cloth a clear 6 mil sheet plastic in all areas where asbestos removal work is to be carried out. Completely cover floor with sheet plastic. Where the work is within 10'-0" of a wall extend the Secondary Barrier up wall to ceiling. Support sheet plastic on wall with duct tape, seal top of Secondary plastic to Primary Barrier with duct tape so that debris is unable to get behind it. Provide cross strips of duct tape at wall support as necessary to support sheet plastic and prevent its falling during removal operations.

Install Secondary Barrier at the beginning of each work shift. Install only sufficient plastic for work of that shift.

Remove Secondary Barrier at end of each work shift or as work in an area is completed. Fold plastic toward center of sheet and pack in disposal bags. Keep material on sheet continuously wet until bagged.

Install Walkways of black 6 mil plastic between active removal areas and decontamination units to protect Primary Layer from tracked material. Install walkways at the beginning of, and remove at the end of, each work shift.

### **WORKER PROTECTION:**

Before beginning work with any material for which a Material Safety Data Sheet has been submitted provide workers with the required protective equipment. Require that appropriate protective equipment be used at all times.

### **WET REMOVAL:**

Thoroughly wet to satisfaction of Owner's Representative Asbestos-Containing Materials to be removed prior to stripping and/or tooling to reduce fiber dispersal into the air. Accomplish wetting by a fine spray (mist) of amended water or removal encapsulant. Saturate material sufficiently to wet to the substrate without causing excess dripping. Allow time for amended water or removal encapsulant to penetrate material thoroughly. If amended water is used, spray material repeatedly during the work process to maintain a continuously wet condition. If a removal encapsulant is used, apply in strict accordance with manufacturer's written instructions. Perforate outer covering of any installation which has been painted and/or jacketed in order to allow penetration of amended water or removal encapsulant, or use injection equipment to wet material under the covering. Where necessary, carefully strip away while simultaneously spraying amended water or removal encapsulant on the installation to minimize dispersal of asbestos fibers into the air.

Mist work area continuously with amended water whenever necessary to reduce airborne fiber levels.

Remove saturated Asbestos-Containing Material in small sections from all areas. Do not allow material to dry out. As it is removed, simultaneously pack material while still wet into disposal bags. Twist neck of bags, bend over and seal with minimum three wraps of duct tape. Clean outside and move to Wash Down Station adjacent to Material Decontamination Unit. Evacuate air from disposal bags with a HEPA filtered vacuum cleaner before sealing.

Fireproofing or Architectural Finish on Scratch Coat: Spray asbestos-containing fireproofing or architectural acoustic finish with a fine mist of amended water or removal encapsulant. Allow time for amended water or removal encapsulant to saturate materials to substrate. Do not over-saturate to cause excess dripping. Scrape materials from substrate. Remove materials in manageable quantities and control the descent to staging or floor below, if over 20' use drop chute to contain material during decent. If using amended water, spray mist surface continuously during work process. If using removal encapsulant follow manufacturer's written instructions. Remove residue remaining on scratch coat after scraping using stiff nylon bristled hand brush. Use high pressure washer only with written authorization of Owner's Representative. If a removal encapsulant is used remove residue completely before encapsulant dries. If substrate dries before complete removal of residue re-wet with amended water or removal encapsulant.

Fireproofing or Architectural Finish on Wire Lath: Spray asbestos-containing fireproofing or architectural acoustic finish with a fine mist of amended water or removal encapsulant. Allow time for amended water or removal encapsulant to saturate material completely. Do not over-saturate to cause excess dripping. If surface of material has been painted or otherwise coated cut small holes as required and apply amended water or removal encapsulant from above. Cut wire lath into 2' X 6' sections and cut hanger wires. Roll or fold up complete with Asbestos-Containing Material and hand place in container. Do not drop on floor. After removal of lath and Asbestos-Containing Material remove any overspray on decking and structure above using stiff nylon bristled brush. Use high pressure washer only with written authorization from Owner's Representative. Use one of the following methods for containing waste.

Deposit material in corrugated paper board box. When box is full duct tape closed and place in disposal bag.

Wrap material in felt and place in fiberboard drum lined with two disposal bags. Use caution to insure that all edges of wire lath that could cut plastic are covered with felt.

Place material directly in a steel drum. Seal drums when full with leak tight seal. Drum is to be leak tight in any orientation.

Pipe Insulation: Spray with a mist of amended water or removal encapsulant. Allow amended water or removal encapsulant to saturate material to substrate. If a removal encapsulant is used, use in strict accordance with manufacturer's instructions. Cut bands holding performed pipe insulation, slit jackets at seams, remove and hand-place in a disposal bag. Remove job-molded fitting insulation in chunks and hand place in a disposal bag. Do not drop to floor. Remove any residue on pipe or fitting with stiff bristle nylon hand brush. In locations where pipe fitting insulation is removed from pipe with straight runs insulated with fibrous glass or other non-asbestos-containing fibrous material, remove fibrous material 6" from the point where it contacts the asbestos-containing insulation.

END OF SECTION - 02081

## **SECTION 02084 - DISPOSAL OF ASBESTOS-CONTAINING WASTE MATERIAL**

### **PART 1 - GENERAL**

#### **RELATED DOCUMENTS:**

Section 01092 Codes and Regulations - Asbestos Abatement describes applicable federal, state and local regulations.

#### **QUALITY ASSURANCE**

All work shall conform to the applicable provisions of the codes, standards and Specifications as specified herein. Comply with specified standards as a minimum quality for the Work except where more stringent requirements apply. Where contradictions occur between codes, standards or Specifications, the more stringent shall apply.

#### **DESCRIPTION OF THE WORK:**

This section covers the disposal of Asbestos-Containing Materials. Disposal includes packaging of asbestos-containing waste materials. Disposal may be accomplished either by landfilling or converting asbestos containing materials to non asbestos waste.

#### **SUBMITTALS:**

Before Start of Work: Submit the following to the Owner's Representative for review. Do not start work until these submittals are returned with Owner's Representative's action stamp indicating that the submittal is returned for unrestricted use.

Copy of state or local license for waste hauler.

Name and address of landfill where asbestos-containing waste materials are to be buried. Include contact person and telephone number.

Product data on process to be used

Letters or other documents from the United States Environmental Protection Agency relative to the process.

Indicating that the process to be used can produce an asbestos-free product and is capable of satisfying the requirement for an acceptable "alternative" means of complying with Section 61.152(a) of the NESHAP for asbestos

Identifying process parameters or operating conditions important to the successful operation of the process

Chain of Custody form and form of waste manifest proposed

On a weekly basis submit copies of all manifests and disposal site receipts to Owner's Representative.

### **PART 2 - PRODUCTS:**

Disposal Bags: Provide 6 mil thick leak-tight polyethylene bags labeled with three labels with text as follows:

First Label:

**CAUTION  
CONTAINS ASBESTOS FIBERS  
AVOID OPENING OR BREAKING CONTAINER  
BREATHING ASBESTOS IS HAZARDOUS TO YOUR HEALTH**

Second Label: Provide in accordance with 29 CFR 1910.1200(f) of OSHA's Hazard Communication standard:

**DANGER  
CONTAINS ASBESTOS FIBERS  
AVOID CREATING DUST  
CANCER AND LUNG DISEASE HAZARD  
BREATHING AIRBORNE ASBESTOS, TREMOLITE, ANTHOPHYLLITE, OR  
ACTINOLITE FIBERS IS HAZARDOUS TO YOUR HEALTH**

Third Label: Provide in accordance with U. S. Department of Transportation regulation on hazardous waste marking. 49 CFR parts 171 and 172. Hazardous Substances: Final Rule. Published November 21, 1986 and revised February 17, 1987:

**RQ HAZARDOUS  
SUBSTANCE,  
SOLID, NOS,  
ORM-E, NA 9188  
(ASBESTOS)**

### **PART 3 - EXECUTION**

Comply with the following sections during all phases of this work:

Section 01560 Worker Protection - Asbestos Abatement  
Section 01562 Respiratory Protection

### **GENERAL:**

All waste is to be hauled by a waste hauler with all required licenses from all state and local authority with jurisdiction.

### **LOADING AND TRANSPORTING**

Load all asbestos-containing waste material in disposal bags or leak-tight drums. All materials are to be contained in one of the following

Two 6 mil disposal bags or Two 6 mil disposal bags and a fiberboard drum or Sealed steel drum with no bag.

Protect interior of truck or dumpster with Critical and Primary Barriers as described in Section 01526 Temporary Enclosures.

Carefully load containerized waste in fully enclosed dumpsters, trucks or other appropriate vehicles for transport. Exercise care before and during transport, to insure that no unauthorized persons have access to the material.

Do not store containerized materials outside of the Work Area. Take containers from the Work Area directly to a sealed truck or dumpster.

Do not transport disposal bagged materials on open trucks. Label drums with same warning labels as bags. Uncontaminated drums may be reused. Treat drums that have been contaminated as asbestos-containing waste and dispose of in accordance with this specification.

Advise the landfill operator or processor, at least ten days in advance of transport, of the quantity of material to be delivered.

**AT DISPOSAL SITE UNLOAD CONTAINERIZED WASTE:**

At a disposal site, sealed plastic bags may be carefully unloaded from the truck. If bags are broken or damaged, return to work site for rebagging. Clean entire truck and contents using procedures set forth in section 01711 Project Decontamination.

At a processing site truck and loading dock are arranged as a controlled work area and containerized waste is transferred to storage area by site personnel. All bags including broken ones will be transferred. Clean truck, using procedures set forth in section 01711 Project Decontamination.

**Retain receipts from landfill or processor for materials disposed of.**

**At completion of hauling and disposal of each load submit copy of waste manifest, chain of custody form, and landfill receipt to Owner's Representative.**

END OF SECTION - 02084



**SCOPE OF WORK:**

The Contractor shall follow all applicable IDPH, EPA, and OSHA rules and regulations.

Owner will be responsible for removing all moveable objects from inside the hangar where asbestos abatement is scheduled.

Contractor shall be responsible for the removal of the exterior caulking underneath the corrugated metal siding utilizing wet removal methods as identified on the accompanying drawings.

A 6-mil polyethylene dropcloth shall be placed underneath all areas where corrugated metal siding is to be removed. At the end of each shift, all dropcloths shall be disposed of as ACM waste.

Contractor shall erect a decontamination structure that shall house a 3-chamber decon unit. The structure shall be kept under negative pressure, and there shall be enough space within this structure to fit a panel of corrugated metal siding, as this is where the abatement of the ACM caulking will take place. Contractor shall place a 6-mil polyethylene drop cloth underneath the panel to collect all caulking that is scraped. At the end of each shift, all dropcloths shall be disposed of as ACM waste.

Contractor shall dismantle the hangar section by section, from the top down. As each panel of corrugated metal siding is removed from the hangar, Contractor shall transport it inside the decontamination structure, where all caulking shall be scraped from the panel under wet conditions. Once scraping is complete, each panel shall be decontaminated and carefully stored in a location to be agreed upon by the building owner and the Contractor. Hangar is to be reassembled by others.

Contractor shall provide the means to dismantle all panels that are high off the ground (boom lift, scaffolding, baker, etc.) All workers shall have adequate fall protection, including but not limited to safety harnesses and proper tie-offs.

All waste shall be double bagged and labeled and shall be transported from the work area in a covered gondola. Waste containers shall be labeled and leak-proof. No waste shall be left within the facility overnight.

The owner will assist the Contractor with electrical shut downs and HVAC isolation if applicable. The building owner shall be responsible for maintaining appropriate life safety code requirements, including fire protection, for the facility for the duration of the project.

**NOTES - GENERAL**

- 1 Contractor is required to visit the project site in order to submit a bid.
- 2 Drawing identifies the scope of work and is identified as "WORK AREA".
- 3 Work will be completed using all applicable requirements.
- 4 The Owner will not accept any change orders based on the Contractor's failure to recognize unique conditions.
- 5 All permits and fees that need to be filed, are the responsibility of the Contractor. A copy of these permits and receipts shall be supplied to the Owner's representative prior to start of work.
- 6 The replacement of the abated materials is not of this contract.
- 7 Contractor shall supply a licensed electrician to hook up electrical equipment if need be.
- 8 It is the Owner's responsibility to remove all moveable objects.
- 9 Contractor to use only IDPH-licensed workers.
- 10 Contractor's IDPH-licensed supervisor must be on site at all times.
- 11 Contractor is responsible for supplying electrical power and water.
- 12 All negative air shall be exhausted outside the building, if applicable.
- 13 Contractor shall be responsible for supplying adequate protection for workers.
- 14 Contractor shall comply with applicable building and safety requirements.



**Consultant:**  
**Midwest Environmental Consulting Services, Inc.**  
 4 Bonnie Lane  
 Yorkville, IL 60560  
 Ph. 630.553.3989  
 Fax 630.553.3990  
 www.mec-us.com

**CONTRACTOR TO FIELD  
 VERIFY ALL QUANTITIES:**

**Project Designer:**

**LIC #:**

**Project:**  
 Hangar P30  
 9407 Pyott Road  
 Lake in the Hills, IL 60156

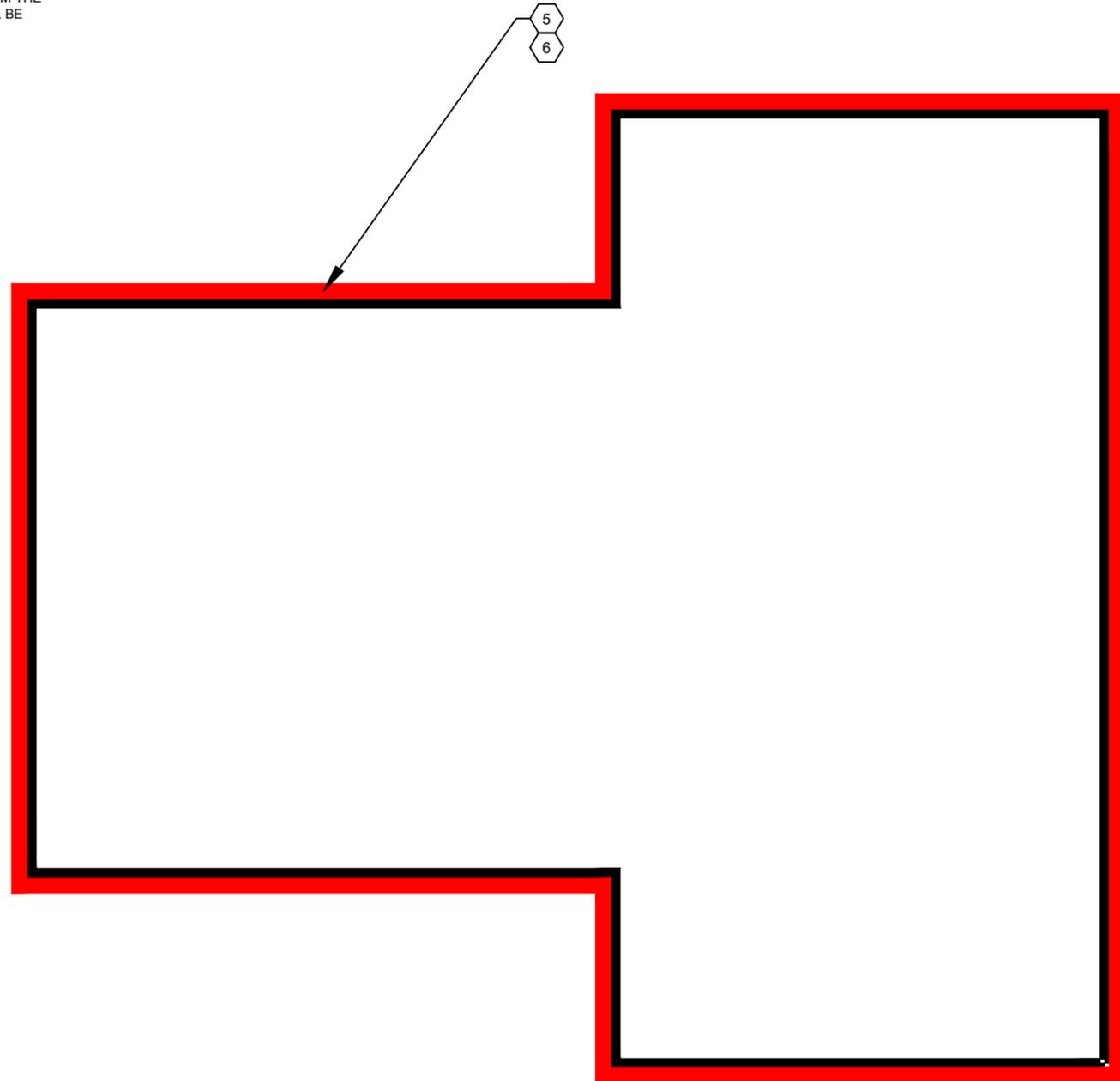
**Client:**  
 Lake in the Hills Airport  
 8407 Pyott Road  
 Lake in the Hills, IL 60156

REVISIONS		
Number:	Date:	Rev. By:
Drawn By:	Scale:	
BM	NTS	
Date:	07-09-15	
Project No:	15-05-250	
Dwg. No:	<b>G - 1</b>	

**SCOPE OF WORK /  
 GENERAL NOTES**

**GENERAL ASBESTOS ABATEMENT NOTES:**

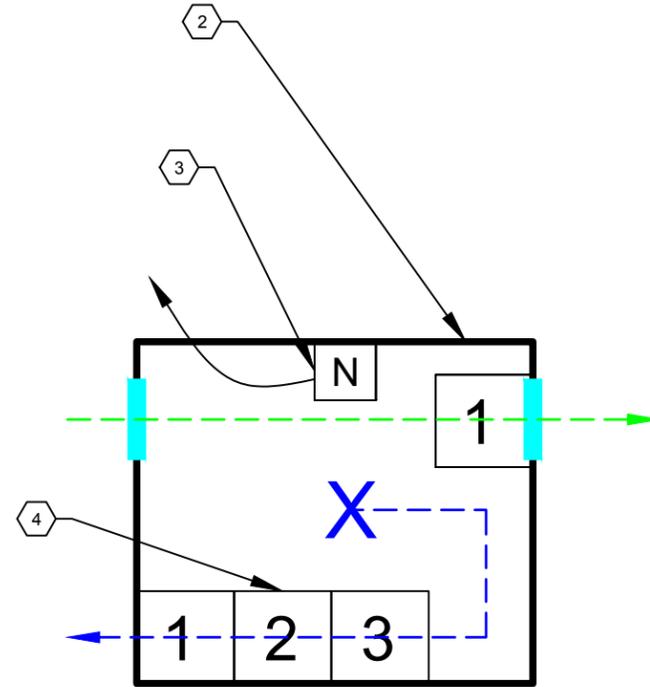
1. CONTRACTOR SHALL VERIFY ALL CONDITIONS & DIMENSIONS IN THE FIELD.
2. THE CONTRACTOR SHALL ERECT A DECONTAMINATION STRUCTURE.
3. ALL NEGATIVE AIR SHALL BE EXHAUSTED OUTSIDE THE DECONTAMINATION STRUCTURE.
4. CONTRACTOR SHALL INSTALL A REMOTE 3-CHAMBER DECON UNIT INSIDE THE DECONTAMINATION STRUCTURE.
5. CONTRACTOR SHALL PLACE A 6-MIL POLY DROP CLOTH UNDERNEATH THE PANELS TO COLLECT ALL CAULKING THAT IS SCRAPED. AT THE END OF EACH SHIFT, ALL DROP CLOTHS WILL BE DISPOSED OF AS ACM WASTE.
6. A 6-MIL POLY DROP CLOTH SHALL BE PLACED UNDERNEATH ALL AREAS WHERE CORRUGATED METAL SIDING IS TO BE REMOVED FROM THE HANGAR. AT THE END OF EACH SHIFT, ALL DROP CLOTHS WILL BE DISPOSED OF AS ACM WASTE.



HANGAR P30

**ABATEMENT LEGEND:**

-  EXTERIOR CAULK UNDER CORRUGATED METAL SIDING
-  3 CHAMBER DECON
-  NEGATIVE AIR
-  1 CHAMBER AIR LOCK
-  "Z" FLAP
-  MATERIAL TO BE DECONTAMINATED
-  PERSONNEL ROUTE



**Consultant:**  
**Midwest Environmental Consulting Services, Inc.**  
 4 Bonnie Lane  
 Yorkville, IL 60560  
 Ph. 630.553.3989  
 Fax 630.553.3990  
 www.mec-us.com

**CONTRACTOR TO FIELD VERIFY ALL QUANTITIES:**

Project Designer:

LIC #:

**Project:**  
 Hangar P30  
 9407 Pyott Road  
 Lake in the Hills, IL 60156

**Client:**  
 Lake in the Hills Airport  
 8407 Pyott Road  
 Lake in the Hills, IL 60156

REVISIONS		
Number:	Date:	Rev. By:

Drawn By: BM      Scale: NTS

Date: 07-09-15

Project No: 15-05-250

Dwg. No: **ASB - 1**

1ST FLOOR - ASBESTOS ABATEMENT PLAN