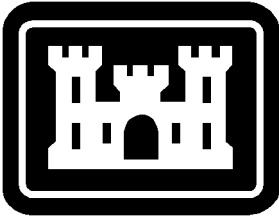


SOLICITATION NO: W912P6-09-B-0006



**US Army Corps  
of Engineers®**

CHICAGO DISTRICT  
LEADERS IN CUSTOMER CARE

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**CADY MARSH DITCH WETLAND  
MITIGATION**

**SOLICITATION AND SPECIFICATIONS**

**SOLICITATION  
March 06, 2009**

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<b>SOLICITATION, OFFER AND AWARD</b>			1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700)		RATING	PAGE OF PAGES 1   55	
2. CONTRACT NO.		3. SOLICITATION NO. W912P6-09-B-0006	4. TYPE OF SOLICITATION <input checked="" type="checkbox"/> SEALED BID (IFB) <input type="checkbox"/> NEGOTIATED (RFP)	5. DATE ISSUED 06 Mar 2009	6. REQUISITION/PURCHASE NO. W81G6690219721		
7. ISSUED BY U. S. ARMY ENGINEER DISTRICT, CHICAGO 111 NORTH CANAL STREET SUITE 600 CHICAGO IL 60606-7206			CODE W912P6	8. ADDRESS OFFER TO (If other than Item 7)		CODE	
TEL: FAX:			<b>See Item 7</b>		TEL: FAX:		

NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder".

### SOLICITATION

9. Sealed offers in original and 1 copies for furnishing the supplies or services in the Schedule will be received at the place specified in Item 8, or if handcarried, in the depository located in Refer to the above Block #7 until 02:00 PM local time 08 Apr 2009  
(Hour) (Date)

CAUTION - LATE Submissions, Modifications, and Withdrawals: See Section L, Provision No. 52.214-7 or 52.215-1. All offers are subject to all terms and conditions contained in this solicitation.

10. FOR INFORMATION CALL:	A. NAME ANITA R SIMPKINS	B. TELEPHONE (Include area code) (NO COLLECT CALLS) 312.846.5372	C. E-MAIL ADDRESS anita.r.simpkins@lrc02.usace.army.mil
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X	B	SUPPLIES OR SERVICES AND PRICES/ COSTS	2 - 6	<b>PART III - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS</b>			
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	G	CONTRACT ADMINISTRATION DATA		X	M	EVALUATION FACTORS FOR AWARD	55
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### OFFER (Must be fully completed by offeror)

NOTE: Item 12 does not apply if the solicitation includes the provisions at 52.214-16, Minimum Bid Acceptance Period.

12. In compliance with the above, the undersigned agrees, if this offer is accepted within \_\_\_\_\_ calendar days (60 calendar days unless a different period is inserted by the offeror) from the date for receipt of offers specified above, to furnish any or all items upon which prices are offered at the price set opposite each item, delivered at the designated point(s), within the time specified in the schedule.

13. DISCOUNT FOR PROMPT PAYMENT (See Section I, Clause No. 52.232-8)			
14. ACKNOWLEDGMENT OF AMENDMENTS (The offeror acknowledges receipt of amendments to the SOLICITATION for offerors and related documents numbered and dated):		AMENDMENT NO.	DATE

15A. NAME AND ADDRESS OF OFFEROR	CODE	FACILITY	16. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER (Type or print)
----------------------------------	------	----------	---

15B. TELEPHONE NO (Include area code)	<input type="checkbox"/>	15C. CHECK IF REMITTANCE ADDRESS IS DIFFERENT FROM ABOVE - ENTER SUCH ADDRESS IN SCHEDULE.	17. SIGNATURE	18. OFFER DATE
---------------------------------------	--------------------------	--	---------------	----------------

### AWARD (To be completed by Government)

19. ACCEPTED AS TO ITEMS NUMBERED	20. AMOUNT	21. ACCOUNTING AND APPROPRIATION	
22. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION: <input type="checkbox"/> 10 U.S.C. 2304(c)( ) <input type="checkbox"/> 41 U.S.C. 253(c)( )		23. SUBMIT INVOICES TO ADDRESS SHOWN IN	ITEM
24. ADMINISTERED BY (If other than Item 7) CODE		25. PAYMENT WILL BE MADE BY CODE	
26. NAME OF CONTRACTING OFFICER (Type or print) TEL: EMAIL:		27. UNITED STATES OF AMERICA (Signature of Contracting Officer)	28. AWARD DATE

IMPORTANT - Award will be made on this Form, or on Standard Form 26, or by other authorized official written notice.

BID NOTES**Competition for this acquisition is restricted to SMALL BUSINESS CONCERNS (Total Small Business Set-Aside)**

a. *Project Title: Cady Marsh Ditch Project Mitigation: Implementation of Wet Savanna at Little Calumet River in Northwest Indiana*

b. *Project Description:* Under the documents provided herein, the Contractor will be required to provide all necessary labor, transportation, materials and equipment to perform the following work. This project involves restoring 2 acres of native wet savanna, including the clearing, herbiciding and removal of invasive woody and herbaceous plant material and the seeding and planting of native species and monitor, maintain and submit annual monitoring reports for the 2-acre wet savanna planting for a period of three (3) years after the initial installation year, which will be four (4) years from the award date of the proposed contract, or until performance standards have been met.

a. *Applicable Services Contract Wage Rates:* Wage Determination No.: 2005-2191, Revision No.: 6, Date of Revision: 05/29/2008

b. *NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM CODE:* 813312, with a small business size standard of \$7,000,000.00 Million

c. **Bidders shall submit all questions to Anita R. Simpkins via facsimile at (312) 886-5475. Report any transmission problems to Ms. Simpkins at (312) 846-5372 or Michael Jones at (312) 846-5375.**

d. *PRE-BID MEETING/SITE VISITATION:* The Contractor is STRONGLY ENCOURAGED to visit the site of the work in order to acquaint itself as to site conditions and other problems incident to the prosecution of the work.

The Pre-Bid Meeting and Site Visitation is Scheduled for Wednesday, March 18, 2009 at 1:30 P.M. All interested bidders will meet at Griffith Town Hall, 111 North Broad Street, in the Lower Level Conference Room, Griffith, IN 46319. The Site Visit will follow shortly after the Pre-Bid Meeting. The USACE's Point of Contact for this meeting is Mr. Douglas Anderson at 1-219-923-1763. **Note: In no event will failure to inspect the site constitute grounds for a claim after contract award.**

Section B - Supplies or Services and Prices

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001	<b>Mobilization and Demobilization</b>	1	Lump Sum		
	FIRM FIXED PRICE (FFP)				
	PURCHASE REQUEST NUMBER: W81G6690219721				

---

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0002	<b>Project and Safety Signs</b>	1	Lump Sum		
	FFP				
	PURCHASE REQUEST NUMBER: W81G6690219721				

---

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003	<b>Site Management and Monitoring</b>	1	Lump Sum		
	FFP				
	PURCHASE REQUEST NUMBER: W81G6690219721				

---

NET AMT

ITEM NO SUPPLIES/SERVICES  
0004

**Debris Removal and Disposal**

This Item identifies information that relates directly to Sub-Items 0004AA and 0004AB; it is not to be scheduled separately for delivery, identified separately for shipment or performance, or priced separately for payment purposes. In that regard, the Offeror shall set forth its pricing at Sub-Items 0004AA and 0004AB. PURCHASE REQUEST NUMBER: W81G6690219721

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ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0004AA		2	Net Ton (2,000 LB)		
	<b>First 2 Tons - Debris Removal and Disposal</b>				
	FFP				
	PURCHASE REQUEST NUMBER: W81G6690219721				

---

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0004AB		1	Net Ton (2,000 LB)		
	<b>Over 2 Ton - Debris Removal and Disposal</b>				
	FFP				
	PURCHASE REQUEST NUMBER: W81G6690219721				

---

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0005	<b>Clearing</b> FFP PURCHASE REQUEST NUMBER: W81G6690219721	2	Acre		

---

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0006	<b>Broadcast and Selective Herbiciding</b> FFP PURCHASE REQUEST NUMBER: W81G6690219721	2	Acre		

---

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0007	<b>Native Seeding</b> FFP PURCHASE REQUEST NUMBER: W81G6690219721	2	Acre		

---

NET AMT

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0008	<b>Tree Planting</b> FFP PURCHASE REQUEST NUMBER: W81G6690219721	20	Each		

---

NET AMT

**TOTAL BID PRICE (ITEMS 0001 THROUGH 0008): \$** \_\_\_\_\_

## Section E - Inspection and Acceptance

## CLAUSES INCORPORATED BY FULL TEXT

## 52.246-4 INSPECTION OF SERVICES--FIXED-PRICE (AUG 1996)

(a) Definitions. "Services," as used in this clause, includes services performed, workmanship, and material furnished or utilized in the performance of services.

(b) The Contractor shall provide and maintain an inspection system acceptable to the Government covering the services under this contract. Complete records of all inspection work performed by the Contractor shall be maintained and made available to the Government during contract performance and for as long afterwards as the contract requires.

(c) The Government has the right to inspect and test all services called for by the contract, to the extent practicable at all times and places during the term of the contract. The Government shall perform inspections and tests in a manner that will not unduly delay the work.

(d) If the Government performs inspections or tests on the premises of the Contractor or a subcontractor, the Contractor shall furnish, and shall require subcontractors to furnish, at no increase in contract price, all reasonable facilities and assistance for the safe and convenient performance of these duties.

(e) If any of the services do not conform with contract requirements, the Government may require the Contractor to perform the services again in conformity with contract requirements, at no increase in contract amount. When the defects in services cannot be corrected by reperformance, the Government may (1) require the Contractor to take necessary action to ensure that future performance conforms to contract requirements and (2) reduce the contract price to reflect the reduced value of the services performed.

(f) If the Contractor fails to promptly perform the services again or to take the necessary action to ensure future performance in conformity with contract requirements, the Government may (1) by contract or otherwise, perform the services and charge to the Contractor any cost incurred by the Government that is directly related to the performance of such service or (2) terminate the contract for default.

(End of clause)



## 52.246-20 WARRANTY OF SERVICES (MAY 2001)

## (a) Definition.

"Acceptance," as used in this clause, means the act of an authorized representative of the Government by which the Government assumes for itself, or as an agent of another, ownership of existing and identified supplies, or approves specific services, as partial or complete performance of the contract.

(b) Notwithstanding inspection and acceptance by the Government or any provision concerning the conclusiveness thereof, the Contractor warrants that all services performed under this contract will, at the time of acceptance, be free from defects in workmanship and conform to the requirements of this contract. The Contracting Officer shall give written notice of any defect or nonconformance to the Contractor within 30 calendar days from the date of discovery of the defect or nonconformance. This notice shall state either (1) that the Contractor shall correct or reperform any defective or nonconforming services, or (2) that the Government does not require correction or reperformance.

(c) If the Contractor is required to correct or reperform, it shall be at no cost to the Government, and any services corrected or reperformed by the Contractor shall be subject to this clause to the same extent as work initially performed. If the Contractor fails or refuses to correct or reperform, the Contracting Officer may, by contract or otherwise, correct or replace with similar services and charge to the Contractor the cost occasioned to the Government thereby, or make an equitable adjustment in the contract price.

(d) If the Government does not require correction or reperformance, the Contracting Officer shall make an equitable adjustment in the contract price.

(End of clause)

## CLAUSES INCORPORATED BY FULL TEXT

## 252.246-7000 MATERIAL INSPECTION AND RECEIVING REPORT (MAR 2008)

(a) At the time of each delivery of supplies or services under this contract, the Contractor shall prepare and furnish to the Government a material inspection and receiving report in the manner and to the extent required by Appendix F, Material Inspection and Receiving Report, of the Defense FAR Supplement.

(b) Contractor submission of the material inspection and receiving information required by Appendix F of the Defense FAR Supplement by using the Wide Area WorkFlow (WAWF) electronic form (see paragraph (b) of the clause at 252.232-7003) fulfills the requirement for a material inspection and receiving report (DD Form 250). Two copies of the receiving report (paper copies of either the DD Form 250 or the WAWF report) shall be distributed with the shipment, in accordance with Appendix F, Part 4, F-401, Table 1, of the Defense FAR Supplement.

(End of clause)

Section F - Deliveries or Performance

CLAUSES INCORPORATED BY FULL TEXT

52.211-8 TIME OF DELIVERY (JUN 1997)

(a) The Government requires delivery to be made according to the following schedule:

REQUIRED DELIVERY SCHEDULE

**SEE SPECIFICATION SECTION 32 92 19.10 "NATIVE SEEDING" FOR THE DELIVERY SCHEDULE.**

**For the purpose of assessing liquidated damages, the contractor shall complete the entire work of the contract no later than 1,460 calendar days following the contractor's acknowledgement of the Notice to Proceed Letter.**

The Government will evaluate equally, as regards time of delivery, offers that propose delivery of each quantity within the applicable delivery period specified above. Offers that propose delivery that will not clearly fall within the applicable required delivery period specified above, will be considered nonresponsive and rejected. The Government reserves the right to award under either the required delivery schedule or the proposed delivery schedule, when an offeror offers an earlier delivery schedule than required above. If the offeror proposes no other delivery schedule, the required delivery schedule above will apply.

OFFEROR'S PROPOSED DELIVERY SCHEDULE

\_\_\_\_\_

Within Days

After Date

Item No. Quantity of Contract

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

(b) Attention is directed to the Contract Award provision of the solicitation that provides that a written award or acceptance of offer mailed, or otherwise furnished to the successful offeror, results in a binding contract. The Government will mail or otherwise furnish to the offeror an award or notice of award not later than the day award is dated. Therefore, the offeror should compute the time available for performance beginning with the actual date of award, rather than the date the written notice of award is received from the Contracting Officer through the ordinary mails. However, the Government will evaluate an offer that proposes delivery based on the Contractor's date of receipt of the contract or notice of award by adding (1) five calendar days for delivery of the award through the ordinary mails, or (2) one working day if the solicitation states that the contract or notice of award will be transmitted electronically. (The term "working day" excludes weekends and U.S. Federal holidays.) If, as so computed, the offered delivery date is later than the required delivery date, the offer will be considered nonresponsive and rejected.

(End of clause)

#### CLAUSES INCORPORATED BY FULL TEXT

##### 52.242-15 STOP-WORK ORDER (AUG 1989)

(a) The Contracting Officer may, at any time, by written order to the Contractor, require the Contractor to stop all, or any part, of the work called for by this contract for a period of 90 days after the order is delivered to the Contractor, and for any further period to which the parties may agree. The order shall be specifically identified as a stop-work order issued under this clause. Upon receipt of the order, the Contractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the order during the period of work stoppage. Within a period of 90 days after a stop-work is delivered to the Contractor, or within any extension of that period to which the parties shall have agreed, the Contracting Officer shall either--

(1) Cancel the stop-work order; or

(2) Terminate the work covered by the order as provided in the Default, or the Termination for Convenience of the Government, clause of this contract.

(b) If a stop-work order issued under this clause is canceled or the period of the order or any extension thereof expires, the Contractor shall resume work. The Contracting Officer shall make an equitable adjustment in the delivery schedule or contract price, or both, and the contract shall be modified, in writing, accordingly, if--

(1) The stop-work order results in an increase in the time required for, or in the Contractor's cost properly allocable to, the performance of any part of this contract; and

(2) The Contractor asserts its right to the adjustment within 30 days after the end of the period of work stoppage; provided, that, if the Contracting Officer decides the facts justify the action, the Contracting Officer may receive and act upon the claim submitted at any time before final payment under this contract.

(c) If a stop-work order is not canceled and the work covered by the order is terminated for the convenience of the Government, the Contracting Officer shall allow reasonable costs resulting from the stop-work order in arriving at the termination settlement.

(d) If a stop-work order is not canceled and the work covered by the order is terminated for default, the Contracting Officer shall allow, by equitable adjustment or otherwise, reasonable costs resulting from the stop-work order.

(End of clause)

##### 52.242-17 GOVERNMENT DELAY OF WORK (APR 1984)

(a) If the performance of all or any part of the work of this contract is delayed or interrupted (1) by an act of the Contracting Officer in the administration of this contract that is not expressly or impliedly authorized by this contract, or (2) by a failure of the Contracting Officer to act within the time specified in this contract, or within a reasonable time if not specified, an adjustment (excluding profit) shall be made for any increase in the cost of performance of this contract caused by the delay or interruption and the contract shall be modified in writing accordingly. Adjustment shall also be made in the delivery or performance dates and any other contractual term or condition affected by the delay or interruption. However, no adjustment shall be made under this clause for any delay or interruption to the extent that performance would have been delayed or interrupted by any other cause, including the fault or negligence of the Contractor, or for which an adjustment is provided or excluded under any

other term or condition of this contract.

(b) A claim under this clause shall not be allowed (1) for any costs incurred more than 20 days before the Contractor shall have notified the Contracting Officer in writing of the act or failure to act involved, and (2) unless the claim, in an amount stated, is asserted in writing as soon as practicable after the termination of the delay or interruption, but not later than the day of final payment under the contract.

(End of clause)

## Section I - Contract Clauses

## CLAUSES INCORPORATED BY REFERENCE

52.202-1	Definitions	JUL 2004
52.203-3	Gratuities	APR 1984
52.203-5	Covenant Against Contingent Fees	APR 1984
52.203-7	Anti-Kickback Procedures	JUL 1995
52.203-8	Cancellation, Rescission, and Recovery of Funds for Illegal or Improper Activity	JAN 1997
52.203-10	Price Or Fee Adjustment For Illegal Or Improper Activity	JAN 1997
52.203-12	Limitation On Payments To Influence Certain Federal Transactions	SEP 2007
52.204-4	Printed or Copied Double-Sided on Recycled Paper	AUG 2000
52.209-6	Protecting the Government's Interest When Subcontracting With Contractors Debarred, Suspended, or Proposed for Debarment	SEP 2006
52.211-13	Time Extensions	SEP 2000
52.214-26	Audit and Records--Sealed Bidding	OCT 1997
52.214-27	Price Reduction for Defective Cost or Pricing Data - Modifications - Sealed Bidding	OCT 1997
52.214-28	Subcontracting Cost Or Pricing Data--Modifications--Sealed Bidding	OCT 1997
52.214-29	Order Of Precedence--Sealed Bidding	JAN 1986
52.222-3	Convict Labor	JUN 2003
52.222-4	Contract Work Hours and Safety Standards Act - Overtime Compensation	JUL 2005
52.222-7	Withholding of Funds	FEB 1988
52.222-8	Payrolls and Basic Records	FEB 1988
52.222-9	Apprentices and Trainees	JUL 2005
52.222-11	Subcontracts (Labor Standards)	JUL 2005
52.222-12	Contract Termination-Debarment	FEB 1988
52.222-14	Disputes Concerning Labor Standards	FEB 1988
52.222-15	Certification of Eligibility	FEB 1988
52.222-21	Prohibition Of Segregated Facilities	FEB 1999
52.222-26	Equal Opportunity	MAR 2007
52.222-41	Service Contract Act Of 1965	NOV 2007
52.222-50	Combating Trafficking in Persons	AUG 2007
52.223-6	Drug-Free Workplace	MAY 2001
52.223-14	Toxic Chemical Release Reporting	AUG 2003
52.225-13	Restrictions on Certain Foreign Purchases	JUN 2008
52.227-1	Authorization and Consent	DEC 2007
52.227-2	Notice And Assistance Regarding Patent And Copyright Infringement	DEC 2007
52.228-11	Pledges Of Assets	FEB 1992
52.229-3	Federal, State And Local Taxes	APR 2003
52.232-1	Payments	APR 1984
52.232-8	Discounts For Prompt Payment	FEB 2002
52.232-9	Limitation On Withholding Of Payments	APR 1984
52.232-11	Extras	APR 1984
52.232-17	Interest	OCT 2008
52.232-23 Alt I	Assignment of Claims (Jan 1986) - Alternate I	APR 1984
52.232-25	Prompt Payment	OCT 2008

52.232-33	Payment by Electronic Funds Transfer--Central Contractor Registration	OCT 2003
52.233-1	Disputes	JUL 2002
52.237-3	Continuity Of Services	JAN 1991
52.242-13	Bankruptcy	JUL 1995
52.246-25	Limitation Of Liability--Services	FEB 1997
52.248-1	Value Engineering	FEB 2000
52.249-2	Termination For Convenience Of The Government (Fixed-Price)	MAY 2004
52.249-8	Default (Fixed-Price Supply & Service)	APR 1984
52.253-1	Computer Generated Forms	JAN 1991
252.201-7000	Contracting Officer's Representative	DEC 1991
252.203-7001	Prohibition On Persons Convicted of Fraud or Other Defense-Contract-Related Felonies	DEC 2004
252.225-7001	Buy American Act And Balance Of Payments Program	JUN 2005
252.225-7002	Qualifying Country Sources As Subcontractors	APR 2003
252.226-7001	Utilization of Indian Organizations and Indian-Owned Economic Enterprises, and Native Hawaiian Small Business Concerns	SEP 2004
252.243-7002	Requests for Equitable Adjustment	MAR 1998

#### CLAUSES INCORPORATED BY FULL TEXT

##### 52.211-11 LIQUIDATED DAMAGES--SUPPLIES, SERVICES, OR RESEARCH AND DEVELOPMENT (SEP 2000)

(a) If the Contractor fails to deliver the supplies or perform the services within the time specified in this contract, the Contractor shall, in place of actual damages, pay to the Government liquidated damages of **\$729.00** per calendar day of delay.

(b) If the Government terminates this contract in whole or in part under the Default--Fixed-Price Supply and Service clause, the Contractor is liable for liquidated damages accruing until the Government reasonably obtains delivery or performance of similar supplies or services. These liquidated damages are in addition to excess costs of repurchase under the Termination clause.

(c) The Contractor will not be charged with liquidated damages when the delay in delivery or performance is beyond the control and without the fault or negligence of the Contractor as defined in the Default--Fixed-Price Supply and Service clause in this contract.

(End of clause)

##### 52.211-16 VARIATION IN QUANTITY (APR 1984)

(a) A variation in the quantity of any item called for by this contract will not be accepted unless the variation has been caused by conditions of loading, shipping, or packing, or allowances in manufacturing processes, and then only to the extent, if any, specified in paragraph (b) below.

(b) The permissible variation shall be limited to:

15% Percent increase

15% Percent decrease

This increase or decrease shall apply to **0004AA and 0004AB**.

(End of clause)

#### 52.219-14 LIMITATIONS ON SUBCONTRACTING (DEC 1996)

(a) This clause does not apply to the unrestricted portion of a partial set-aside.

(b) By submission of an offer and execution of a contract, the Offeror/Contractor agrees that in performance of the contract in the case of a contract for--

(1) Services (except construction). At least 50 percent of the cost of contract performance incurred for personnel shall be expended for employees of the concern.

(2) Supplies (other than procurement from a nonmanufacturer of such supplies). The concern shall perform work for at least 50 percent of the cost of manufacturing the supplies, not including the cost of materials.

(3) General construction. The concern will perform at least 15 percent of the cost of the contract, not including the cost of materials, with its own employees.

(4) Construction by special trade contractors. The concern will perform at least 25 percent of the cost of the contract, not including the cost of materials, with its own employees.

#### 52.222-26 EQUAL OPPORTUNITY (MAR 2007)

(a) Definition. United States, as used in this clause, means the 50 States, the District of Columbia, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam, the U.S. Virgin Islands, and Wake Island.

(b)(1) If, during any 12-month period (including the 12 months preceding the award of this contract), the Contractor has been or is awarded nonexempt Federal contracts and/or subcontracts that have an aggregate value in excess of \$10,000, the Contractor shall comply with this clause, except for work performed outside the United States by employees who were not recruited within the United States. Upon request, the Contractor shall provide information necessary to determine the applicability of this clause.

(2) If the Contractor is a religious corporation, association, educational institution, or society, the requirements of this clause do not apply with respect to the employment of individuals of a particular religion to perform work connected with the carrying on of the Contractor's activities (41 CFR 60-1.5).

(c) (1) The Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. However, it shall not be a violation of this clause for the Contractor to extend a publicly announced preference in employment to Indians living on or near an Indian reservation, in connection with employment opportunities on or near an Indian reservation, as permitted by 41 CFR 60-1.5.

(2) The Contractor shall 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. This shall include, but not be limited to, (i) employment, (ii) upgrading, (iii) demotion, (iv) transfer, (v) recruitment or recruitment

advertising, (vi) layoff or termination, (vii) rates of pay or other forms of compensation, and (viii) selection for training, including apprenticeship.

(3) The Contractor shall post in conspicuous places available to employees and applicants for employment the notices to be provided by the Contracting Officer that explain this clause.

(4) The Contractor shall, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

(5) The Contractor shall send, to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, the notice to be provided by the Contracting Officer advising the labor union or workers' representative of the Contractor's commitments under this clause, and post copies of the notice in conspicuous places available to employees and applicants for employment.

(6) The Contractor shall comply with Executive Order 11246, as amended, and the rules, regulations, and orders of the Secretary of Labor.

(7) The Contractor shall furnish to the contracting agency all information required by Executive Order 11246, as amended, and by the rules, regulations, and orders of the Secretary of Labor. The Contractor shall also file Standard Form 100 (EEO-1), or any successor form, as prescribed in 41 CFR part 60-1. Unless the Contractor has filed within the 12 months preceding the date of contract award, the Contractor shall, within 30 days after contract award, apply to either the regional Office of Federal Contract Compliance Programs (OFCCP) or the local office of the Equal Employment Opportunity Commission for the necessary forms.

(8) The Contractor shall permit access to its premises, during normal business hours, by the contracting agency or the OFCCP for the purpose of conducting on-site compliance evaluations and complaint investigations. The Contractor shall permit the Government to inspect and copy any books, accounts, records (including computerized records), and other material that may be relevant to the matter under investigation and pertinent to compliance with Executive Order 11246, as amended, and rules and regulations that implement the Executive Order.

(9) If the OFCCP determines that the Contractor is not in compliance with this clause or any rule, regulation, or order of the Secretary of Labor, this contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts, under the procedures authorized in Executive Order 11246, as amended. In addition, sanctions may be imposed and remedies invoked against the Contractor as provided in Executive Order 11246, as amended; in the rules, regulations, and orders of the Secretary of Labor; or as otherwise provided by law.

(10) The Contractor shall include the terms and conditions of this clause in every subcontract or purchase order that is not exempted by the rules, regulations, or orders of the Secretary of Labor issued under Executive Order 11246, as amended, so that these terms and conditions will be binding upon each subcontractor or vendor.

(11) The Contractor shall take such action with respect to any subcontract or purchase order as the contracting officer may direct as a means of enforcing these terms and conditions, including sanctions for noncompliance; provided, that if the Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of any direction, the Contractor may request the United States to enter into the litigation to protect the interests of the United States.

(c) Notwithstanding any other clause in this contract, disputes relative to this clause will be governed by the procedures in 41 CFR 60-1.1.

(End of clause)



52.222-35 EQUAL OPPORTUNITY FOR SPECIAL DISABLED VETERANS, VETERANS OF THE VIETNAM ERA, AND OTHER ELIGIBLE VETERANS (SEP 2006)

(a) Definitions. As used in this clause--

All employment openings means all positions except executive and top management, those positions that will be filled from within the Contractor's organization, and positions lasting 3 days or less. This term includes full-time employment, temporary employment of more than 3 days duration, and part-time employment.

Executive and top management means any employee--

(1) Whose primary duty consists of the management of the enterprise in which the individual is employed or of a customarily recognized department or subdivision thereof;

(2) Who customarily and regularly directs the work of two or more other employees;

(3) Who has the authority to hire or fire other employees or whose suggestions and recommendations as to the hiring or firing and as to the advancement and promotion or any other change of status of other employees will be given particular weight;

(4) Who customarily and regularly exercises discretionary powers; and

(5) Who does not devote more than 20 percent or, in the case of an employee of a retail or service establishment, who does not devote more than 40 percent of total hours of work in the work week to activities that are not directly and closely related to the performance of the work described in paragraphs (1) through (4) of this definition. This paragraph (5) does not apply in the case of an employee who is in sole charge of an establishment or a physically separated branch establishment, or who owns at least a 20 percent interest in the enterprise in which the individual is employed.

Other eligible veteran means any other veteran who served on active duty during a war or in a campaign or expedition for which a campaign badge has been authorized.

Positions that will be filled from within the Contractor's organization means employment openings for which the Contractor will give no consideration to persons outside the Contractor's organization (including any affiliates, subsidiaries, and parent companies) and includes any openings the Contractor proposes to fill from regularly established "recall" lists. The exception does not apply to a particular opening once an employer decides to consider applicants outside of its organization.

Qualified special disabled veteran means a special disabled veteran who satisfies the requisite skill, experience, education, and other job-related requirements of the employment position such veteran holds or desires, and who, with or without reasonable accommodation, can perform the essential functions of such position.

Special disabled veteran means--

(1) A veteran who is entitled to compensation (or who but for the receipt of military retired pay would be entitled to compensation) under laws administered by the Department of Veterans Affairs for a disability--

(i) Rated at 30 percent or more; or

(ii) Rated at 10 or 20 percent in the case of a veteran who has been determined under 38 U.S.C. 3106 to have a serious employment handicap (i.e., a significant impairment of the veteran's ability to prepare for, obtain, or retain employment consistent with the veteran's abilities, aptitudes, and interests); or

(2) A person who was discharged or released from active duty because of a service-connected disability.

Veteran of the Vietnam era means a person who--

(1) Served on active duty for a period of more than 180 days and was discharged or released from active duty with other than a dishonorable discharge, if any part of such active duty occurred--

(i) In the Republic of Vietnam between February 28, 1961, and May 7, 1975; or

(ii) Between August 5, 1964, and May 7, 1975, in all other cases; or

(2) Was discharged or released from active duty for a service-connected disability if any part of the active duty was performed--

(i) In the Republic of Vietnam between February 28, 1961, and May 7, 1975; or

(ii) Between August 5, 1964, and May 7, 1975, in all other cases.

(b) General. (1) The Contractor shall not discriminate against the individual because the individual is a special disabled veteran, a veteran of the Vietnam era, or other eligible veteran, regarding any position for which the employee or applicant for employment is qualified. The Contractor shall take affirmative action to employ, advance in employment, and otherwise treat qualified special disabled veterans, veterans of the Vietnam era, and other eligible veterans without discrimination based upon their disability or veterans' status in all employment practices such as--

(i) Recruitment, advertising, and job application procedures;

(ii) Hiring, upgrading, promotion, award of tenure, demotion, transfer, layoff, termination, right of return from layoff and rehiring;

(iii) Rate of pay or any other form of compensation and changes in compensation;

(iv) Job assignments, job classifications, organizational structures, position descriptions, lines of progression, and seniority lists;

(v) Leaves of absence, sick leave, or any other leave;

(vi) Fringe benefits available by virtue of employment, whether or not administered by the Contractor;

(vii) Selection and financial support for training, including apprenticeship, and on-the-job training under 38 U.S.C. 3687, professional meetings, conferences, and other related activities, and selection for leaves of absence to pursue training;

(viii) Activities sponsored by the Contractor including social or recreational programs; and

(ix) Any other term, condition, or privilege of employment.

(2) The Contractor shall comply with the rules, regulations, and relevant orders of the Secretary of Labor issued under the Vietnam Era Veterans' Readjustment Assistance Act of 1972 (the Act), as amended (38 U.S.C. 4211 and 4212).

(c) Listing openings. (1) The Contractor shall immediately list all employment openings that exist at the time of the execution of this contract and those which occur during the performance of this contract, including those not generated by this contract, and including those occurring at an establishment of the Contractor other than the one where the contract is being performed, but excluding those of independently operated corporate affiliates, at an appropriate local public employment service office of the State wherein the opening occurs. Listing employment

openings with the U.S. Department of Labor's America's Job Bank shall satisfy the requirement to list jobs with the local employment service office.

(2) The Contractor shall make the listing of employment openings with the local employment service office at least concurrently with using any other recruitment source or effort and shall involve the normal obligations of placing a bona fide job order, including accepting referrals of veterans and nonveterans. This listing of employment openings does not require hiring any particular job applicant or hiring from any particular group of job applicants and is not intended to relieve the Contractor from any requirements of Executive orders or regulations concerning nondiscrimination in employment.

(3) Whenever the Contractor becomes contractually bound to the listing terms of this clause, it shall advise the State public employment agency in each State where it has establishments of the name and location of each hiring location in the State. As long as the Contractor is contractually bound to these terms and has so advised the State agency, it need not advise the State agency of subsequent contracts. The Contractor may advise the State agency when it is no longer bound by this contract clause.

(d) Applicability. This clause does not apply to the listing of employment openings that occur and are filled outside the 50 States, the District of Columbia, the Commonwealth of Puerto Rico, the Commonwealth of the Northern Mariana Islands, American Samoa, Guam, the Virgin Islands of the United States, and Wake Island.

(e) Postings. (1) The Contractor shall post employment notices in conspicuous places that are available to employees and applicants for employment.

(2) The employment notices shall--

(i) State the rights of applicants and employees as well as the Contractor's obligation under the law to take affirmative action to employ and advance in employment qualified employees and applicants who are special disabled veterans, veterans of the Vietnam era, and other eligible veterans; and

(ii) Be in a form prescribed by the Deputy Assistant Secretary for Federal Contract Compliance Programs, Department of Labor (Deputy Assistant Secretary of Labor), and provided by or through the Contracting Officer.

(3) The Contractor shall ensure that applicants or employees who are special disabled veterans are informed of the contents of the notice (e.g., the Contractor may have the notice read to a visually disabled veteran, or may lower the posted notice so that it can be read by a person in a wheelchair).

(4) The Contractor shall notify each labor union or representative of workers with which it has a collective bargaining agreement, or other contract understanding, that the Contractor is bound by the terms of the Act and is committed to take affirmative action to employ, and advance in employment, qualified special disabled veterans, veterans of the Vietnam era, and other eligible veterans.

(f) Noncompliance. If the Contractor does not comply with the requirements of this clause, the Government may take appropriate actions under the rules, regulations, and relevant orders of the Secretary of Labor issued pursuant to the Act.

(g) Subcontracts. The Contractor shall insert the terms of this clause in all subcontracts or purchase orders of \$100,000 or more unless exempted by rules, regulations, or orders of the Secretary of Labor. The Contractor shall act as specified by the Deputy Assistant Secretary of Labor to enforce the terms, including action for noncompliance.

(End of clause)

## 52.228-5 INSURANCE--WORK ON A GOVERNMENT INSTALLATION (JAN 1997)

- (a) The Contractor shall, at its own expense, provide and maintain during the entire performance of this contract, at least the kinds and minimum amounts of insurance required in the Schedule or elsewhere in the contract.
- (b) Before commencing work under this contract, the Contractor shall notify the Contracting Officer in writing that the required insurance has been obtained. The policies evidencing required insurance shall contain an endorsement to the effect that any cancellation or any material change adversely affecting the Government's interest shall not be effective (1) for such period as the laws of the State in which this contract is to be performed prescribe, or (2) until 30 days after the insurer or the Contractor gives written notice to the Contracting Officer, whichever period is longer.
- (c) The Contractor shall insert the substance of this clause, including this paragraph (c), in subcontracts under this contract that require work on a Government installation and shall require subcontractors to provide and maintain the insurance required in the Schedule or elsewhere in the contract. The Contractor shall maintain a copy of all subcontractors' proofs of required insurance, and shall make copies available to the Contracting Officer upon request.

(End of clause)

## 52.233-3 PROTEST AFTER AWARD (AUG. 1996)

- (a) Upon receipt of a notice of protest (as defined in FAR 33.101) or a determination that a protest is likely (see FAR 33.102(d)), the Contracting Officer may, by written order to the Contractor, direct the Contractor to stop performance of the work called for by this contract. The order shall be specifically identified as a stop-work order issued under this clause. Upon receipt of the order, the Contractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the order during the period of work stoppage. Upon receipt of the final decision in the protest, the Contracting Officer shall either--
- (1) Cancel the stop-work order; or
  - (2) Terminate the work covered by the order as provided in the Default, or the Termination for Convenience of the Government, clause of this contract.
- (b) If a stop-work order issued under this clause is canceled either before or after a final decision in the protest, the Contractor shall resume work. The Contracting Officer shall make an equitable adjustment in the delivery schedule or contract price, or both, and the contract shall be modified, in writing, accordingly, if--
- (1) The stop-work order results in an increase in the time required for, or in the Contractor's cost properly allocable to, the performance of any part of this contract; and
  - (2) The Contractor asserts its right to an adjustment within 30 days after the end of the period of work stoppage; provided, that if the Contracting Officer decides the facts justify the action, the Contracting Officer may receive and act upon a proposal at any time before final payment under this contract.
- (c) If a stop-work order is not canceled and the work covered by the order is terminated for the convenience of the Government, the Contracting Officer shall allow reasonable costs resulting from the stop-work order in arriving at the termination settlement.
- (d) If a stop-work order is not canceled and the work covered by the order is terminated for default, the Contracting Officer shall allow, by equitable adjustment or otherwise, reasonable costs resulting from the stop-work order.

(e) The Government's rights to terminate this contract at any time are not affected by action taken under this clause.

(f) If, as the result of the Contractor's intentional or negligent misstatement, misrepresentation, or miscertification, a protest related to this contract is sustained, and the Government pays costs, as provided in FAR 33.102(b)(2) or 33.104(h)(1), the Government may require the Contractor to reimburse the Government the amount of such costs. In addition to any other remedy available, and pursuant to the requirements of Subpart 32.6, the Government may collect this debt by offsetting the amount against any payment due the Contractor under any contract between the Contractor and the Government.

(End of clause)

#### 52.233-4 APPLICABLE LAW FOR BREACH OF CONTRACT CLAIM (OCT 2004)

United States law will apply to resolve any claim of breach of this contract.

(End of clause)

#### 52.243-1 CHANGES--FIXED-PRICE (AUG 1987) - ALTERNATE I (APR 1984)

(a) The Contracting Officer may at any time, by written order, and without notice to the sureties, if any, make changes within the general scope of this contract in any one or more of the following:

- (1) Description of services to be performed.
- (2) Time of performance (*i.e.*, hours of the day, days of the week, etc.).
- (3) Place of performance of the services.

(b) If any such change causes an increase or decrease in the cost of, or the time required for, performance of any part of the work under this contract, whether or not changed by the order, the Contracting Officer shall make an equitable adjustment in the contract price, the delivery schedule, or both, and shall modify the contract.

(c) The Contractor must assert its right to an adjustment under this clause within 30 days from the date of receipt of the written order. However, if the Contracting Officer decides that the facts justify it, the Contracting Officer may receive and act upon a proposal submitted before final payment of the contract.

(d) If the Contractor's proposal includes the cost of property made obsolete or excess by the change, the Contracting Officer shall have the right to prescribe the manner of the disposition of the property.

(e) Failure to agree to any adjustment shall be a dispute under the Disputes clause. However, nothing in this clause shall excuse the Contractor from proceeding with the contract as changed.

(End of clause)

## 52.244-2 SUBCONTRACTS (JUN 2007)

(a) Definitions. As used in this clause--

Approved purchasing system means a Contractor's purchasing system that has been reviewed and approved in accordance with Part 44 of the Federal Acquisition Regulation (FAR).

Consent to subcontract means the Contracting Officer's written consent for the Contractor to enter into a particular subcontract.

Subcontract means any contract, as defined in FAR Subpart 2.1, entered into by a subcontractor to furnish supplies or services for performance of the prime contract or a subcontract. It includes, but is not limited to, purchase orders, and changes and modifications to purchase orders.  
purchase orders.

(b) When this clause is included in a fixed-price type contract, consent to subcontract is required only on unpriced contract actions (including unpriced modifications or unpriced delivery orders), and only if required in accordance with paragraph (c) or (d) of this clause.

(c) If the Contractor does not have an approved purchasing system, consent to subcontract is required for any subcontract that—

(1) Is of the cost-reimbursement, time-and-materials, or labor-hour type; or

(2) Is fixed-price and exceeds—

(i) For a contract awarded by the Department of Defense, the Coast Guard, or the National Aeronautics and Space Administration, the greater of the simplified acquisition threshold or 5 percent of the total estimated cost of the contract; or

(ii) For a contract awarded by a civilian agency other than the Coast Guard and the National Aeronautics and Space Administration, either the simplified acquisition threshold or 5 percent of the total estimated cost of the contract.

(d) If the Contractor has an approved purchasing system, the Contractor nevertheless shall obtain the Contracting Officer's written consent before placing the following subcontracts:

NONE

(e)(1) The Contractor shall notify the Contracting Officer reasonably in advance of placing any subcontract or modification thereof for which consent is required under paragraph (b), (c), or (d) of this clause, including the following information:

(i) A description of the supplies or services to be subcontracted.

(ii) Identification of the type of subcontract to be used.

(iii) Identification of the proposed subcontractor.

(iv) The proposed subcontract price.

(v) The subcontractor's current, complete, and accurate cost or pricing data and Certificate of Current Cost or Pricing Data, if required by other contract provisions.

(vi) The subcontractor's Disclosure Statement or Certificate relating to Cost Accounting Standards when such data are required by other provisions of this contract.

(vii) A negotiation memorandum reflecting—

(A) The principal elements of the subcontract price negotiations;

(B) The most significant considerations controlling establishment of initial or revised prices;

(C) The reason cost or pricing data were or were not required;

(D) The extent, if any, to which the Contractor did not rely on the subcontractor's cost or pricing data in determining the price objective and in negotiating the final price;

(E) The extent to which it was recognized in the negotiation that the subcontractor's cost or pricing data were not accurate, complete, or current; the action taken by the Contractor and the subcontractor; and the effect of any such defective data on the total price negotiated;

(F) The reasons for any significant difference between the Contractor's price objective and the price negotiated; and

(G) A complete explanation of the incentive fee or profit plan when incentives are used. The explanation shall identify each critical performance element, management decisions used to quantify each incentive element, reasons for the incentives, and a summary of all trade-off possibilities considered.

(2) The Contractor is not required to notify the Contracting Officer in advance of entering into any subcontract for which consent is not required under paragraph (c), (d), or (e) of this clause.

(f) Unless the consent or approval specifically provides otherwise, neither consent by the Contracting Officer to any subcontract nor approval of the Contractor's purchasing system shall constitute a determination—

(1) Of the acceptability of any subcontract terms or conditions;

(2) Of the allowability of any cost under this contract; or

(3) To relieve the Contractor of any responsibility for performing this contract.

(g) No subcontract or modification thereof placed under this contract shall provide for payment on a cost-plus-a-percentage-of-cost basis, and any fee payable under cost-reimbursement type subcontracts shall not exceed the fee limitations in FAR 15.404-4(c)(4)(i).

(h) The Contractor shall give the Contracting Officer immediate written notice of any action or suit filed and prompt notice of any claim made against the Contractor by any subcontractor or vendor that, in the opinion of the Contractor, may result in litigation related in any way to this contract, with respect to which the Contractor may be entitled to reimbursement from the Government.

(i) The Government reserves the right to review the Contractor's purchasing system as set forth in FAR Subpart 44.3.

(j) Paragraphs (c) and (e) of this clause do not apply to the following subcontracts, which were evaluated during negotiations:

NONE

\_\_\_\_\_

\_\_\_\_\_

(End of clause)

52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es):

[www.arnet.gov](http://www.arnet.gov)

(End of clause)

252.204-7004 CENTRAL CONTRACTOR REGISTRATION (52.204-7) ALTERNATE A (SEP 2007)

(a) Definitions. As used in this clause--

“Central Contractor Registration (CCR) database” means the primary Government repository for contractor information required for the conduct of business with the Government.

“Commercial and Government Entity (CAGE) code” means--

(1) A code assigned by the Defense Logistics Information Service (DLIS) to identify a commercial or Government entity; or

(2) A code assigned by a member of the North Atlantic Treaty Organization that DLIS records and maintains in the CAGE master file. This type of code is known as an “NCAGE code.”

“Data Universal Numbering System (DUNS) number” means the 9-digit number assigned by Dun and Bradstreet, Inc. (D&B) to identify unique business entities.

“Data Universal Numbering System +4 (DUNS+4) number” means the DUNS number assigned by D&B plus a 4-character suffix that may be assigned by a business concern. (D&B has no affiliation with this 4-character suffix.) This 4-character suffix may be assigned at the discretion of the business concern to establish additional CCR records for identifying alternative Electronic Funds Transfer (EFT) accounts (see Subpart 32.11 of the Federal Acquisition Regulation) for the same parent concern.

“Registered in the CCR database” means that--

(1) The Contractor has entered all mandatory information, including the DUNS number or the DUNS+4 number, into the CCR database;

(2) The Contractor's CAGE code is in the CCR database; and

(3) The Government has validated all mandatory data fields, to include validation of the Taxpayer Identification Number (TIN) with the Internal Revenue Service, and has marked the records “Active.” The Contractor will be required to provide consent for TIN validation to the Government as part of the CCR registration process.

(b)(1) By submission of an offer, the offeror acknowledges the requirement that a prospective awardee shall be registered in the CCR database prior to award, during performance, and through final payment of any contract, basic agreement, basic ordering agreement, or blanket purchasing agreement resulting from this solicitation.

(2) The offeror shall enter, in the block with its name and address on the cover page of its offer, the annotation “DUNS” or “DUNS +4” followed by the DUNS or DUNS +4 number that identifies the offeror's name and address



exactly as stated in the offer. The DUNS number will be used by the Contracting Officer to verify that the offeror is registered in the CCR database.

(c) If the offeror does not have a DUNS number, it should contact Dun and Bradstreet directly to obtain one.

(1) An offeror may obtain a DUNS number-

(i) If located within the United States, by calling Dun and Bradstreet at 1-866-705-5711 or via the Internet at <http://www.dnb.com>; or

(ii) If located outside the United States, by contacting the local Dun and Bradstreet office.

(2) The offeror should be prepared to provide the following information:

(i) Company legal business.

(ii) Tradestyle, doing business, or other name by which your entity is commonly recognized.

(iii) Company Physical Street Address, City, State, and Zip Code.

(iv) Company Mailing Address, City, State and Zip Code (if separate from physical).

(v) Company Telephone Number.

(vi) Date the company was started.

(vii) Number of employees at your location.

(viii) Chief executive officer/key manager.

(ix) Line of business (industry).

(x) Company Headquarters name and address (reporting relationship within your entity).

(d) If the Offeror does not become registered in the CCR database in the time prescribed by the Contracting Officer, the Contracting Officer will proceed to award to the next otherwise successful registered Offeror.

(e) Processing time, which normally takes 48 hours, should be taken into consideration when registering. Offerors who are not registered should consider applying for registration immediately upon receipt of this solicitation.

(f) The Contractor is responsible for the accuracy and completeness of the data within the CCR database, and for any liability resulting from the Government's reliance on inaccurate or incomplete data. To remain registered in the CCR database after the initial registration, the Contractor is required to review and update on an annual basis from the date of initial registration or subsequent updates its information in the CCR database to ensure it is current, accurate and complete. Updating information in the CCR does not alter the terms and conditions of this contract and is not a substitute for a properly executed contractual document.

(g)

(1)

(i) If a Contractor has legally changed its business name, "doing business as" name, or division name (whichever is shown on the contract), or has transferred the assets used in performing the contract, but has not completed the necessary requirements regarding novation and change-of-name agreements in Subpart 42.12, the Contractor shall provide the responsible Contracting Officer a minimum of one business day's written notification of its intention to (A) change the name in the CCR database; (B) comply with the requirements of Subpart 42.12 of the FAR; and (C)

agree in writing to the timeline and procedures specified by the responsible Contracting Officer. The Contractor must provide with the notification sufficient documentation to support the legally changed name.

(ii) If the Contractor fails to comply with the requirements of paragraph (g)(1)(i) of this clause, or fails to perform the agreement at paragraph (g)(1)(i)(C) of this clause, and, in the absence of a properly executed novation or change-of-name agreement, the CCR information that shows the Contractor to be other than the Contractor indicated in the contract will be considered to be incorrect information within the meaning of the "Suspension of Payment" paragraph of the electronic funds transfer (EFT) clause of this contract.

(2) The Contractor shall not change the name or address for EFT payments or manual payments, as appropriate, in the CCR record to reflect an assignee for the purpose of assignment of claims (see FAR Subpart 32.8, Assignment of Claims). Assignees shall be separately registered in the CCR database. Information provided to the Contractor's CCR record that indicates payments, including those made by EFT, to an ultimate recipient other than that Contractor will be considered to be incorrect information within the meaning of the "Suspension of payment" paragraph of the EFT clause of this contract.

(h) Offerors and Contractors may obtain information on registration and annual confirmation requirements via the internet at <http://www.ccr.gov> or by calling 1-888-227-2423, or 269-961-5757.

(End of clause)

#### 252.204-7006 BILLING INSTRUCTIONS (OCT 2005)

When submitting a request for payment, the Contractor shall--

- (a) Identify the contract line item(s) on the payment request that reasonably reflect contract work performance; and
- (b) Separately identify a payment amount for each contract line item included in the payment request.

(End of clause)

252.243-7001 PRICING OF CONTRACT MODIFICATIONS (DEC 1991)

When costs are a factor in any price adjustment under this contract, the contract cost principles and procedures in FAR part 31 and DFARS part 231, in effect on the date of this contract, apply.

## Section J - List of Documents, Exhibits and Other Attachments

DRAWING SHEETS

<u>SHEET NO.</u>	<u>SHEET REF. NO.</u>	<u>SHEET TITLE</u>
01	G-01	LOCALITY AND VICINITY MAPS
02	G-02	INDEX, SYMBOLS AND GENERAL NOTES
03	C-01	WORK LIMITS AND CONTROL
04	C-02	CLEARING, GRUBBING AND RESTORATION PLAN
05	C-03	PLANTING DETAILS

WD 05-2191 (Rev.-6) was first posted on www.wdol.gov on 06/03/2008

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REGISTER OF WAGE DETERMINATIONS UNDER  
THE SERVICE CONTRACT ACT  
By direction of the Secretary of Labor

U.S. DEPARTMENT OF LABOR  
EMPLOYMENT STANDARDS ADMINISTRATION  
WAGE AND HOUR DIVISION  
WASHINGTON D.C. 20210

Shirley F. Ebbesen                    Division of  
Director                                Wage Determinations

Wage Determination No.: 2005-2191  
Revision No.: 6  
Date Of Revision: 05/29/2008

State: Indiana

Area: Indiana Counties of Benton, Jasper, La Porte, Lake, Newton, Porter, Pulaski,  
Starke

\*\*Fringe Benefits Required Follow the Occupational Listing\*\*

OCCUPATION CODE - TITLE	MINIMUM WAGE RATE
01000 - Administrative Support And Clerical Occupations	
01011 - Accounting Clerk I	15.42
01012 - Accounting Clerk II	17.71
01013 - Accounting Clerk III	19.09
01020 - Administrative Assistant	25.46
01040 - Court Reporter	18.87
01051 - Data Entry Operator I	13.59
01052 - Data Entry Operator II	15.69
01060 - Dispatcher, Motor Vehicle	20.57
01070 - Document Preparation Clerk	13.05
01090 - Duplicating Machine Operator	13.05
01111 - General Clerk I	12.53
01112 - General Clerk II	13.60
01113 - General Clerk III	16.34
01120 - Housing Referral Assistant	21.38
01141 - Messenger Courier	10.45
01191 - Order Clerk I	12.96
01192 - Order Clerk II	14.53
01261 - Personnel Assistant (Employment) I	16.79
01262 - Personnel Assistant (Employment) II	18.80
01263 - Personnel Assistant (Employment) III	20.94
01270 - Production Control Clerk	20.56
01280 - Receptionist	13.05
01290 - Rental Clerk	16.79
01300 - Scheduler, Maintenance	18.36
01311 - Secretary I	18.36
01312 - Secretary II	19.41
01313 - Secretary III	21.38
01320 - Service Order Dispatcher	18.87
01410 - Supply Technician	25.46
01420 - Survey Worker	17.17
01531 - Travel Clerk I	12.62
01532 - Travel Clerk II	13.64
01533 - Travel Clerk III	14.76
01611 - Word Processor I	13.24
01612 - Word Processor II	16.52
01613 - Word Processor III	18.16
05000 - Automotive Service Occupations	
05005 - Automobile Body Repairer, Fiberglass	20.44
05010 - Automotive Electrician	20.96
05040 - Automotive Glass Installer	19.86
05070 - Automotive Worker	19.86
05110 - Mobile Equipment Servicer	18.11
05130 - Motor Equipment Metal Mechanic	24.01
05160 - Motor Equipment Metal Worker	19.86
05190 - Motor Vehicle Mechanic	23.53
05220 - Motor Vehicle Mechanic Helper	17.03

05250 - Motor Vehicle Upholstery Worker	19.00
05280 - Motor Vehicle Wrecker	19.86
05310 - Painter, Automotive	20.96
05340 - Radiator Repair Specialist	19.86
05370 - Tire Repairer	15.22
05400 - Transmission Repair Specialist	24.01
07000 - Food Preparation And Service Occupations	
07010 - Baker	13.09
07041 - Cook I	12.99
07042 - Cook II	14.40
07070 - Dishwasher	10.15
07130 - Food Service Worker	10.15
07210 - Meat Cutter	14.37
07260 - Waiter/Waitress	9.93
09000 - Furniture Maintenance And Repair Occupations	
09010 - Electrostatic Spray Painter	18.23
09040 - Furniture Handler	13.87
09080 - Furniture Refinisher	18.23
09090 - Furniture Refinisher Helper	14.81
09110 - Furniture Repairer, Minor	16.52
09130 - Upholsterer	18.23
11000 - General Services And Support Occupations	
11030 - Cleaner, Vehicles	11.17
11060 - Elevator Operator	11.17
11090 - Gardener	14.05
11122 - Housekeeping Aide	11.44
11150 - Janitor	12.47
11210 - Laborer, Grounds Maintenance	12.86
11240 - Maid or Houseman	10.97
11260 - Pruner	11.64
11270 - Tractor Operator	13.70
11330 - Trail Maintenance Worker	12.86
11360 - Window Cleaner	13.64
12000 - Health Occupations	
12010 - Ambulance Driver	15.71
12011 - Breath Alcohol Technician	18.40
12012 - Certified Occupational Therapist Assistant	19.56
12015 - Certified Physical Therapist Assistant	21.18
12020 - Dental Assistant	14.83
12025 - Dental Hygienist	30.29
12030 - EKG Technician	24.49
12035 - Electroneurodiagnostic Technologist	24.49
12040 - Emergency Medical Technician	15.71
12071 - Licensed Practical Nurse I	16.40
12072 - Licensed Practical Nurse II	18.40
12073 - Licensed Practical Nurse III	20.59
12100 - Medical Assistant	14.39
12130 - Medical Laboratory Technician	17.68
12160 - Medical Record Clerk	16.98
12190 - Medical Record Technician	17.38
12195 - Medical Transcriptionist	16.22
12210 - Nuclear Medicine Technologist	31.86
12221 - Nursing Assistant I	10.49
12222 - Nursing Assistant II	11.78
12223 - Nursing Assistant III	12.52
12224 - Nursing Assistant IV	14.08
12235 - Optical Dispenser	15.39
12236 - Optical Technician	14.38
12250 - Pharmacy Technician	14.86
12280 - Phlebotomist	14.08
12305 - Radiologic Technologist	28.44
12311 - Registered Nurse I	27.92
12312 - Registered Nurse II	30.22
12313 - Registered Nurse II, Specialist	30.22
12314 - Registered Nurse III	37.59
12315 - Registered Nurse III, Anesthetist	37.59
12316 - Registered Nurse IV	45.03
12317 - Scheduler (Drug and Alcohol Testing)	21.39
13000 - Information And Arts Occupations	
13011 - Exhibits Specialist I	19.55
13012 - Exhibits Specialist II	24.23
13013 - Exhibits Specialist III	29.65
13041 - Illustrator I	20.05
13042 - Illustrator II	25.06

13043	- Illustrator III	30.64
13047	- Librarian	27.85
13050	- Library Aide/Clerk	13.72
13054	- Library Information Technology Systems Administrator	25.66
13058	- Library Technician	15.80
13061	- Media Specialist I	17.49
13062	- Media Specialist II	19.55
13063	- Media Specialist III	21.81
13071	- Photographer I	16.66
13072	- Photographer II	18.66
13073	- Photographer III	23.16
13074	- Photographer IV	28.32
13075	- Photographer V	34.15
13110	- Video Teleconference Technician	14.47
14000	- Information Technology Occupations	
14041	- Computer Operator I	16.52
14042	- Computer Operator II	17.91
14043	- Computer Operator III	19.92
14044	- Computer Operator IV	22.77
14045	- Computer Operator V	24.51
14071	- Computer Programmer I (1)	22.61
14072	- Computer Programmer II (1)	
14073	- Computer Programmer III (1)	
14074	- Computer Programmer IV (1)	
14101	- Computer Systems Analyst I (1)	
14102	- Computer Systems Analyst II (1)	
14103	- Computer Systems Analyst III (1)	
14150	- Peripheral Equipment Operator	16.52
14160	- Personal Computer Support Technician	24.29
15000	- Instructional Occupations	
15010	- Aircrew Training Devices Instructor (Non-Rated)	29.94
15020	- Aircrew Training Devices Instructor (Rated)	36.55
15030	- Air Crew Training Devices Instructor (Pilot)	40.21
15050	- Computer Based Training Specialist / Instructor	29.94
15060	- Educational Technologist	27.62
15070	- Flight Instructor (Pilot)	40.21
15080	- Graphic Artist	22.91
15090	- Technical Instructor	27.45
15095	- Technical Instructor/Course Developer	25.09
15110	- Test Proctor	19.62
15120	- Tutor	16.63
16000	- Laundry, Dry-Cleaning, Pressing And Related Occupations	
16010	- Assembler	8.85
16030	- Counter Attendant	8.85
16040	- Dry Cleaner	11.44
16070	- Finisher, Flatwork, Machine	8.85
16090	- Presser, Hand	8.85
16110	- Presser, Machine, Drycleaning	8.85
16130	- Presser, Machine, Shirts	8.85
16160	- Presser, Machine, Wearing Apparel, Laundry	8.85
16190	- Sewing Machine Operator	12.26
16220	- Tailor	13.13
16250	- Washer, Machine	9.73
19000	- Machine Tool Operation And Repair Occupations	
19010	- Machine-Tool Operator (Tool Room)	20.30
19040	- Tool And Die Maker	27.21
21000	- Materials Handling And Packing Occupations	
21020	- Forklift Operator	16.10
21030	- Material Coordinator	21.40
21040	- Material Expediter	21.40
21050	- Material Handling Laborer	16.24
21071	- Order Filler	13.39
21080	- Production Line Worker (Food Processing)	16.10
21110	- Shipping Packer	16.19
21130	- Shipping/Receiving Clerk	16.19
21140	- Store Worker I	13.06
21150	- Stock Clerk	17.12
21210	- Tools And Parts Attendant	16.10
21410	- Warehouse Specialist	16.10
23000	- Mechanics And Maintenance And Repair Occupations	
23010	- Aerospace Structural Welder	29.96
23021	- Aircraft Mechanic I	23.25
23022	- Aircraft Mechanic II	29.96
23023	- Aircraft Mechanic III	31.40

23040	- Aircraft Mechanic Helper	17.69
23050	- Aircraft, Painter	22.10
23060	- Aircraft Servicer	19.99
23080	- Aircraft Worker	20.92
23110	- Appliance Mechanic	20.45
23120	- Bicycle Repairer	15.75
23125	- Cable Splicer	24.80
23130	- Carpenter, Maintenance	30.56
23140	- Carpet Layer	23.44
23160	- Electrician, Maintenance	32.37
23181	- Electronics Technician Maintenance I	24.16
23182	- Electronics Technician Maintenance II	25.24
23183	- Electronics Technician Maintenance III	26.85
23260	- Fabric Worker	19.39
23290	- Fire Alarm System Mechanic	23.12
23310	- Fire Extinguisher Repairer	19.20
23311	- Fuel Distribution System Mechanic	23.32
23312	- Fuel Distribution System Operator	18.42
23370	- General Maintenance Worker	19.00
23380	- Ground Support Equipment Mechanic	23.25
23381	- Ground Support Equipment Servicer	19.99
23382	- Ground Support Equipment Worker	20.92
23391	- Gunsmith I	19.20
23392	- Gunsmith II	21.66
23393	- Gunsmith III	24.09
23410	- Heating, Ventilation And Air-Conditioning Mechanic	21.36
23411	- Heating, Ventilation And Air Contditiioning Mechanic (Research Facility)	
22.41		
23430	- Heavy Equipment Mechanic	24.65
23440	- Heavy Equipment Operator	26.92
23460	- Instrument Mechanic	22.78
23465	- Laboratory/Shelter Mechanic	22.85
23470	- Laborer	13.12
23510	- Locksmith	21.72
23530	- Machinery Maintenance Mechanic	23.41
23550	- Machinist, Maintenance	26.15
23580	- Maintenance Trades Helper	16.29
23591	- Metrology Technician I	22.78
23592	- Metrology Technician II	24.35
23593	- Metrology Technician III	25.82
23640	- Millwright	27.75
23710	- Office Appliance Repairer	20.38
23760	- Painter, Maintenance	21.11
23790	- Pipefitter, Maintenance	25.61
23810	- Plumber, Maintenance	24.32
23820	- Pneudraulic Systems Mechanic	24.10
23850	- Rigger	22.78
23870	- Scale Mechanic	21.67
23890	- Sheet-Metal Worker, Maintenance	27.23
23910	- Small Engine Mechanic	17.27
23931	- Telecommunications Mechanic I	26.88
23932	- Telecommunications Mechanic II	27.95
23950	- Telephone Lineman	27.68
23960	- Welder, Combination, Maintenance	18.98
23965	- Well Driller	24.33
23970	- Woodcraft Worker	24.10
23980	- Woodworker	15.94
24000	- Personal Needs Occupations	
24570	- Child Care Attendant	10.83
24580	- Child Care Center Clerk	13.09
24610	- Chore Aide	9.23
24620	- Family Readiness And Support Services Coordinator	14.63
24630	- Homemaker	14.01
25000	- Plant And System Operations Occupations	
25010	- Boiler Tender	24.75
25040	- Sewage Plant Operator	20.05
25070	- Stationary Engineer	26.05
25190	- Ventilation Equipment Tender	19.96
25210	- Water Treatment Plant Operator	20.46
27000	- Protective Service Occupations	
27004	- Alarm Monitor	14.77
27007	- Baggage Inspector	11.37
27008	- Corrections Officer	28.70
27010	- Court Security Officer	28.70



27030 - Detection Dog Handler	15.44
27040 - Detention Officer	28.70
27070 - Firefighter	27.04
27101 - Guard I	11.36
27102 - Guard II	15.44
27131 - Police Officer I	30.33
27132 - Police Officer II	33.11
28000 - Recreation Occupations	
28041 - Carnival Equipment Operator	11.55
28042 - Carnival Equipment Repairer	12.18
28043 - Carnival Equipment Worker	9.42
28210 - Gate Attendant/Gate Tender	13.85
28310 - Lifeguard	11.91
28350 - Park Attendant (Aide)	15.10
28510 - Recreation Aide/Health Facility Attendant	8.94
28515 - Recreation Specialist	15.46
28630 - Sports Official	12.34
28690 - Swimming Pool Operator	17.47
29000 - Stevedoring/Longshoremen Occupational Services	
29010 - Blocker And Bracer	20.52
29020 - Hatch Tender	20.52
29030 - Line Handler	20.52
29041 - Stevedore I	19.37
29042 - Stevedore II	21.66
30000 - Technical Occupations	
30010 - Air Traffic Control Specialist, Center (HFO) (2)	36.93
30011 - Air Traffic Control Specialist, Station (HFO) (2)	25.49
30012 - Air Traffic Control Specialist, Terminal (HFO) (2)	28.07
30021 - Archeological Technician I	16.95
30022 - Archeological Technician II	18.96
30023 - Archeological Technician III	26.32
30030 - Cartographic Technician	26.33
30040 - Civil Engineering Technician	21.15
30061 - Drafter/CAD Operator I	16.95
30062 - Drafter/CAD Operator II	18.96
30063 - Drafter/CAD Operator III	21.22
30064 - Drafter/CAD Operator IV	28.96
30081 - Engineering Technician I	16.98
30082 - Engineering Technician II	19.05
30083 - Engineering Technician III	21.74
30084 - Engineering Technician IV	26.94
30085 - Engineering Technician V	33.19
30086 - Engineering Technician VI	45.66
30090 - Environmental Technician	23.27
30210 - Laboratory Technician	20.51
30240 - Mathematical Technician	26.15
30361 - Paralegal/Legal Assistant I	19.23
30362 - Paralegal/Legal Assistant II	23.82
30363 - Paralegal/Legal Assistant III	29.15
30364 - Paralegal/Legal Assistant IV	35.29
30390 - Photo-Optics Technician	26.33
30461 - Technical Writer I	26.13
30462 - Technical Writer II	33.19
30463 - Technical Writer III	40.14
30491 - Unexploded Ordnance (UXO) Technician I	23.48
30492 - Unexploded Ordnance (UXO) Technician II	28.40
30493 - Unexploded Ordnance (UXO) Technician III	34.08
30494 - Unexploded (UXO) Safety Escort	23.48
30495 - Unexploded (UXO) Sweep Personnel	23.48
30620 - Weather Observer, Combined Upper Air Or Surface Programs (2)	21.01
30621 - Weather Observer, Senior (2)	23.48
31000 - Transportation/Mobile Equipment Operation Occupations	
31020 - Bus Aide	16.05
31030 - Bus Driver	21.32
31043 - Driver Courier	19.14
31260 - Parking and Lot Attendant	10.54
31290 - Shuttle Bus Driver	20.81
31310 - Taxi Driver	12.96
31361 - Truckdriver, Light	20.81
31362 - Truckdriver, Medium	22.78
31363 - Truckdriver, Heavy	24.15
31364 - Truckdriver, Tractor-Trailer	24.15
99000 - Miscellaneous Occupations	
99030 - Cashier	9.94

99050 - Desk Clerk	11.01
99095 - Embalmer	24.27
99251 - Laboratory Animal Caretaker I	11.69
99252 - Laboratory Animal Caretaker II	12.86
99310 - Mortician	26.70
99410 - Pest Controller	17.55
99510 - Photofinishing Worker	12.53
99710 - Recycling Laborer	18.46
99711 - Recycling Specialist	21.91
99730 - Refuse Collector	16.94
99810 - Sales Clerk	10.89
99820 - School Crossing Guard	11.22
99830 - Survey Party Chief	21.99
99831 - Surveying Aide	15.82
99832 - Surveying Technician	19.39
99840 - Vending Machine Attendant	11.94
99841 - Vending Machine Repairer	13.81
99842 - Vending Machine Repairer Helper	11.94

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ALL OCCUPATIONS LISTED ABOVE RECEIVE THE FOLLOWING BENEFITS:

HEALTH & WELFARE: \$3.24 per hour or \$129.60 per week or \$561.60 per month

VACATION: 2 weeks paid vacation after 1 year of service with a contractor or successor; 3 weeks after 5 years, and 4 weeks after 15 years. Length of service includes the whole span of continuous service with the present contractor or successor, wherever employed, and with the predecessor contractors in the performance of similar work at the same Federal facility. (Reg. 29 CFR 4.173)

HOLIDAYS: A minimum of ten paid holidays per year, New Year's Day, Martin Luther King Jr's Birthday, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day, and Christmas Day. (A contractor may substitute for any of the named holidays another day off with pay in accordance with a plan communicated to the employees involved.) (See 29 CFR 4174)

THE OCCUPATIONS WHICH HAVE PARENTHESES AFTER THEM RECEIVE THE FOLLOWING BENEFITS (as numbered):

1) Under the SCA at section 8(b), this wage determination does not apply to any employee who individually qualifies as a bona fide executive, administrative, or professional employee as defined in 29 C.F.R. Part 541. Because most Computer System Analysts and Computer Programmers who are compensated at a rate not less than \$27.63 (or on a salary or fee basis at a rate not less than \$455 per week) an hour would likely qualify as exempt computer professionals, (29 C.F.R. 541.400) wage rates may not be listed on this wage determination for all occupations within those job families. In addition, because this wage determination may not list a wage rate for some or all occupations within those job families if the survey data indicates that the prevailing wage rate for the occupation equals or exceeds \$27.63 per hour conformance may be necessary for certain nonexempt employees. For example, if an individual employee is nonexempt but nevertheless performs duties within the scope of one of the Computer Systems Analyst or Computer Programmer occupations for which this wage determination does not specify an SCA wage rate, then the wage rate for that employee must be conformed in accordance with the conformance procedures described in the conformance note included on this wage determination.

Additionally, because job titles vary widely and change quickly in the computer industry, job titles are not determinative of the application of the computer professional exemption. Therefore, the exemption applies only to computer employees who satisfy the compensation requirements and whose primary duty consists of:

- (1) The application of systems analysis techniques and procedures, including consulting with users, to determine hardware, software or system functional specifications;
- (2) The design, development, documentation, analysis, creation, testing or modification of computer systems or programs, including prototypes, based on and related to user or system design specifications;
- (3) The design, documentation, testing, creation or modification of computer programs related to machine operating systems; or
- (4) A combination of the aforementioned duties, the performance of which

requires the same level of skills. (29 C.F.R. 541.400).

2) AIR TRAFFIC CONTROLLERS AND WEATHER OBSERVERS - NIGHT PAY & SUNDAY PAY: If you work at night as part of a regular tour of duty, you will earn a night differential and receive an additional 10% of basic pay for any hours worked between 6pm and 6am.

If you are a full-time employed (40 hours a week) and Sunday is part of your regularly scheduled workweek, you are paid at your rate of basic pay plus a Sunday premium of 25% of your basic rate for each hour of Sunday work which is not overtime (i.e. occasional work on Sunday outside the normal tour of duty is considered overtime work).

HAZARDOUS PAY DIFFERENTIAL: An 8 percent differential is applicable to employees employed in a position that represents a high degree of hazard when working with or in close proximity to ordnance, explosives, and incendiary materials. This includes work such as screening, blending, dying, mixing, and pressing of sensitive ordnance, explosives, and pyrotechnic compositions such as lead azide, black powder and photoflash powder. All dry-house activities involving propellants or explosives. Demilitarization, modification, renovation, demolition, and maintenance operations on sensitive ordnance, explosives and incendiary materials. All operations involving regrading and cleaning of artillery ranges.

A 4 percent differential is applicable to employees employed in a position that represents a low degree of hazard when working with, or in close proximity to ordnance, (or employees possibly adjacent to) explosives and incendiary materials which involves potential injury such as laceration of hands, face, or arms of the employee engaged in the operation, irritation of the skin, minor burns and the like; minimal damage to immediate or adjacent work area or equipment being used. All operations involving, unloading, storage, and hauling of ordnance, explosive, and incendiary ordnance material other than small arms ammunition. These differentials are only applicable to work that has been specifically designated by the agency for ordnance, explosives, and incendiary material differential pay.

**\*\* UNIFORM ALLOWANCE \*\***

If employees are required to wear uniforms in the performance of this contract (either by the terms of the Government contract, by the employer, by the state or local law, etc.), the cost of furnishing such uniforms and maintaining (by laundering or dry cleaning) such uniforms is an expense that may not be borne by an employee where such cost reduces the hourly rate below that required by the wage determination. The Department of Labor will accept payment in accordance with the following standards as compliance:

The contractor or subcontractor is required to furnish all employees with an adequate number of uniforms without cost or to reimburse employees for the actual cost of the uniforms. In addition, where uniform cleaning and maintenance is made the responsibility of the employee, all contractors and subcontractors subject to this wage determination shall (in the absence of a bona fide collective bargaining agreement providing for a different amount, or the furnishing of contrary affirmative proof as to the actual cost), reimburse all employees for such cleaning and maintenance at a rate of \$3.35 per week (or \$.67 cents per day). However, in those instances where the uniforms furnished are made of "wash and wear" materials, may be routinely washed and dried with other personal garments, and do not require any special treatment such as dry cleaning, daily washing, or commercial laundering in order to meet the cleanliness or appearance standards set by the terms of the Government contract, by the contractor, by law, or by the nature of the work, there is no requirement that employees be reimbursed for uniform maintenance costs.

The duties of employees under job titles listed are those described in the "Service Contract Act Directory of Occupations", Fifth Edition, April 2006, unless otherwise indicated. Copies of the Directory are available on the Internet. A links to the Directory may be found on the WHD home page at <http://www.dol.gov/esa/whd/> or through the Wage Determinations On-Line (WDOL) Web site at <http://wdol.gov/>.

REQUEST FOR AUTHORIZATION OF ADDITIONAL CLASSIFICATION AND WAGE RATE {Standard Form 1444 (SF 1444)}

**Conformance Process:**

The contracting officer shall require that any class of service employee which is not listed herein and which is to be employed under the contract (i.e., the work to be performed is not performed by any classification listed in the wage determination), be classified by the contractor so as to provide a reasonable

relationship (i.e., appropriate level of skill comparison) between such unlisted classifications and the classifications listed in the wage determination. Such conformed classes of employees shall be paid the monetary wages and furnished the fringe benefits as are determined. Such conforming process shall be initiated by the contractor prior to the performance of contract work by such unlisted class(es) of employees. The conformed classification, wage rate, and/or fringe benefits shall be retroactive to the commencement date of the contract. {See Section 4.6 (C)(vi)} When multiple wage determinations are included in a contract, a separate SF 1444 should be prepared for each wage determination to which a class(es) is to be conformed.

The process for preparing a conformance request is as follows:

- 1) When preparing the bid, the contractor identifies the need for a conformed (occupation) and computes a proposed rate).
- 2) After contract award, the contractor prepares a written report listing in order (proposed classification title), a Federal grade equivalency (FGE) for each proposed classification), job description), and rationale for proposed wage rate), including information regarding the agreement or disagreement of the authorized representative of the employees involved, or where there is no authorized representative, the employees themselves. This report should be submitted to the contracting officer no later than 30 days after such unlisted class(es) of employees performs any contract work.
- 3) The contracting officer reviews the proposed action and promptly submits a report of the action, together with the agency's recommendations and pertinent information including the position of the contractor and the employees, to the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, for review. (See section 4.6(b)(2) of Regulations 29 CFR Part 4).
- 4) Within 30 days of receipt, the Wage and Hour Division approves, modifies, or disapproves the action via transmittal to the agency contracting officer, or notifies the contracting officer that additional time will be required to process the request.
- 5) The contracting officer transmits the Wage and Hour decision to the contractor.
- 6) The contractor informs the affected employees.

Information required by the Regulations must be submitted on SF 1444 or bond paper.

When preparing a conformance request, the "Service Contract Act Directory of Occupations" (the Directory) should be used to compare job definitions to insure that duties requested are not performed by a classification already listed in the wage determination. Remember, it is not the job title, but the required tasks that determine whether a class is included in an established wage determination. Conformances may not be used to artificially split, combine, or subdivide classifications listed in the wage determination.

## Section K - Representations, Certifications and Other Statements of Offerors

## CLAUSES INCORPORATED BY REFERENCE

52.203-11	Certification And Disclosure Regarding Payments To Influence Certain Federal Transactions	SEP 2007
52.222-38	Compliance With Veterans' Employment Reporting Requirements	DEC 2001
52.223-13	Certification of Toxic Chemical Release Reporting	AUG 2003
52.225-18	Place of Manufacture	SEP 2006
52.226-2	Historically Black College or University and Minority Institution Representation	OCT 2008
52.230-1	Cost Accounting Standards Notices And Certification	OCT 2008
252.209-7001	Disclosure of Ownership or Control by the Government of a Terrorist Country	JAN 2009
252.225-7000	Buy American Act--Balance Of Payments Program Certificate	JAN 2009

## CLAUSES INCORPORATED BY FULL TEXT

## 52.203-2 CERTIFICATE OF INDEPENDENT PRICE DETERMINATION (APR 1985)

(a) The offeror certifies that --

(1) The prices in this offer have been arrived at independently, without, for the purpose of restricting competition, any consultation, communication, or agreement with any other offeror or competitor relating to --

(i) Those prices,

(ii) The intention to submit an offer, or

(iii) The methods of factors used to calculate the prices offered:

(2) The prices in this offer have not been and will not be knowingly disclosed by the offeror, directly or indirectly, to any other offeror or competitor before bid opening (in the case of a sealed bid solicitation) or contract award (in the case of a negotiated solicitation) unless otherwise required by law; and

(3) No attempt has been made or will be made by the offeror to induce any other concern to submit or not to submit an offer for the purpose of restricting competition.

(b) Each signature on the offer is considered to be a certification by the signatory that the signatory --

(1) Is the person in the offeror's organization responsible for determining the prices offered in this bid or proposal, and that the signatory has not participated and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) of this provision; or

(2) (i) Has been authorized, in writing, to act as agent for the following principals in certifying that those principals have not participated, and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) of this provision \_\_\_\_\_ (insert full name of person(s) in the

offeror's organization responsible for determining the prices offered in this bid or proposal, and the title of his or her position in the offeror's organization);

(ii) As an authorized agent, does certify that the principals named in subdivision (b)(2)(i) above have not participated, and will not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) above; and

(iii) As an agent, has not personally participated, and will not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) of this provision.

(c) If the offeror deletes or modifies subparagraph (a)(2) of this provision, the offeror must furnish with its offer a signed statement setting forth in detail the circumstances of the disclosure.

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.204-3 TAXPAYER IDENTIFICATION (OCT 1998)

(a) Definitions.

Common parent, as used in this provision, means that corporate entity that owns or controls an affiliated group of corporations that files its Federal income tax returns on a consolidated basis, and of which the offeror is a member.

Taxpayer Identification Number (TIN), as used in this provision, means the number required by the Internal Revenue Service (IRS) to be used by the offeror in reporting income tax and other returns. The TIN may be either a Social Security Number or an Employer Identification Number.

(b) All offerors must submit the information required in paragraphs (d) through (f) of this provision to comply with debt collection requirements of 31 U.S.C. 7701(c) and 3325(d), reporting requirements of 26 U.S.C. 6041, 6041A, and 6050M, and implementing regulations issued by the IRS. If the resulting contract is subject to the payment reporting requirements described in Federal Acquisition Regulation (FAR) 4.904, the failure or refusal by the offeror to furnish the information may result in a 31 percent reduction of payments otherwise due under the contract.

(c) The TIN may be used by the Government to collect and report on any delinquent amounts arising out of the offeror's relationship with the Government (31 U.S.C. 7701(c)(3)). If the resulting contract is subject to the payment reporting requirements described in FAR 4.904, the TIN provided hereunder may be matched with IRS records to verify the accuracy of the offeror's TIN.

(d) Taxpayer Identification Number (TIN).

\_\_\_ TIN:-----

\_\_\_ TIN has been applied for.

\_\_\_ TIN is not required because:

\_\_\_ Offeror is a nonresident alien, foreign corporation, or foreign partnership that does not have income effectively connected with the conduct of a trade or business in the United States and does not have an office or place of business or a fiscal paying agent in the United States;

- Offeror is an agency or instrumentality of a foreign government;
- Offeror is an agency or instrumentality of the Federal Government.

(e) Type of organization.

- Sole proprietorship;
- Partnership;
- Corporate entity (not tax-exempt);
- Corporate entity (tax-exempt);
- Government entity (Federal, State, or local);
- Foreign government;
- International organization per 26 CFR 1.6049-4;
- Other-----

(f) Common parent.

- Offeror is not owned or controlled by a common parent as defined in paragraph (a) of this provision.
- Name and TIN of common parent:

Name-----

TIN-----

(End of provision)

CLAUSES INCORPORATED BY FULL TEXT

52.204-5 WOMEN-OWNED BUSINESS (OTHER THAN SMALL BUSINESS) (MAY 1999)

(a) Definition. Women-owned business concern, as used in this provision, means a concern that is at least 51 percent owned by one or more women; or in the case of any publicly owned business, at least 51 percent of its stock is owned by one or more women; and whose management and daily business operations are controlled by one or more women.

(b) Representation. [Complete only if the offeror is a women-owned business concern and has not represented itself as a small business concern in paragraph (b)(1) of FAR 52.219-1, Small Business Program Representations, of this solicitation.] The offeror represents that it ( ) is a women-owned business concern.

(End of provision)

CLAUSES INCORPORATED BY FULL TEXT

52.204-8 ANNUAL REPRESENTATIONS AND CERTIFICATIONS (JAN 2006)

(a)(1) The North American Industry Classification System (NAICS) code for this acquisition is **813312**.

(2) The small business size standard is **\$7,000,000.00**.

(3) The small business size standard for a concern which submits an offer in its own name, other than on a construction or service contract, but which proposes to furnish a product which it did not itself manufacture, is 500 employees.

(b)(1) If the clause at 52.204-7, Central Contractor Registration, is included in this solicitation, paragraph (c) of this provision applies.

(2) If the clause at 52.204-7 is not included in this solicitation, and the offeror is currently registered in CCR, and has completed the ORCA electronically, the offeror may choose to use paragraph (b) of this provision instead of completing the corresponding individual representations and certifications in the solicitation. The offeror shall indicate which option applies by checking one of the following boxes:

Paragraph (c) applies.

Paragraph (c) does not apply and the offeror has completed the individual representations and certifications in the solicitation.

(c) The offeror has completed the annual representations and certifications electronically via the Online Representations and Certifications Application (ORCA) website at <http://orca.bpn.gov>. After reviewing the ORCA database information, the offeror verifies by submission of the offer that the representations and certifications currently posted electronically have been entered or updated within the last 12 months, are current, accurate, complete, and applicable to this solicitation (including the business size standard applicable to the NAICS code referenced for this solicitation), as of the date of this offer and are incorporated in this offer by reference (see FAR 4.1201); except for the changes identified below [offeror to insert changes, identifying change by clause number, title, date]. These amended representation(s) and/or certification(s) are also incorporated in this offer and are current, accurate, and complete as of the date of this offer.

FAR Clause	Title	Date	Change
-----	-----	-----	-----
-----	-----	-----	-----

Any changes provided by the offeror are applicable to this solicitation only, and do not result in an update to the representations and certifications posted on ORCA.

(End of Provision)

CLAUSES INCORPORATED BY FULL TEXT

52.209-5 CERTIFICATION REGARDING RESPONSIBILITY MATTERS (DEC 2008)



(a)(1) The Offeror certifies, to the best of its knowledge and belief, that-

(i) The Offeror and/or any of its Principals-

(A) Are ( ) are not ( ) presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency;

(B) Have ( ) have not ( ), within a three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, state, or local) contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, violating Federal criminal tax laws, or receiving stolen property; and

(C) Are ( ) are not ( ) presently indicted for, or otherwise criminally or civilly charged by a governmental entity with, commission of any of the offenses enumerated in paragraph (a)(1)(i)(B) of this provision.; and

(D) Have [ballot], have not [ballot], within a three-year period preceding this offer, been notified of any delinquent Federal taxes in an amount that exceeds \$3,000 for which the liability remains unsatisfied.

(1) Federal taxes are considered delinquent if both of the following criteria apply:

(i) The tax liability is finally determined. The liability is finally determined if it has been assessed. A liability is not finally determined if there is a pending administrative or judicial challenge. In the case of a judicial challenge to the liability, the liability is not finally determined until all judicial appeal rights have been exhausted.

(ii) The taxpayer is delinquent in making payment. A taxpayer is delinquent if the taxpayer has failed to pay the tax liability when full payment was due and required. A taxpayer is not delinquent in cases where enforced collection action is precluded.

(2) Examples. (i) The taxpayer has received a statutory notice of deficiency, under I.R.C. Sec. 6212, which entitles the taxpayer to seek Tax Court review of a proposed tax deficiency. This is not a delinquent tax because it is not a final tax liability. Should the taxpayer seek Tax Court review, this will not be a final tax liability until the taxpayer has exercised all judicial appeal rights.

(ii) The IRS has filed a notice of Federal tax lien with respect to an assessed tax liability, and the taxpayer has been issued a notice under I.R.C. Sec. 6320 entitling the taxpayer to request a hearing with the IRS Office of Appeals contesting the lien filing, and to further appeal to the Tax Court if the IRS determines to sustain the lien filing. In the course of the hearing, the taxpayer is entitled to contest the underlying tax liability because the taxpayer has had no prior opportunity to contest the liability. This is not a delinquent tax because it is not a final tax liability. Should the taxpayer seek tax court review, this will not be a final tax liability until the taxpayer has exercised all judicial appeal rights.

(iii) The taxpayer has entered into an installment agreement pursuant to I.R.C. Sec. 6159. The taxpayer is making timely payments and is in full compliance with the agreement terms. The taxpayer is not delinquent because the taxpayer is not currently required to make full payment.

(iv) The taxpayer has filed for bankruptcy protection. The taxpayer is not delinquent because enforced collection action is stayed under 11 U.S.C. 362 (the Bankruptcy Code).

(ii) The Offeror has ( ) has not ( ), within a three-year period preceding this offer, had one or more contracts terminated for default by any Federal agency.

(2) Principal, for the purposes of this certification, means an officer, director, owner, partner, or a person having primary management or supervisory responsibilities within a business entity (e.g., general manager; plant manager; head of a subsidiary, division, or business segment; and similar positions).

(b) The Offeror shall provide immediate written notice to the Contracting Officer if, at any time prior to contract award, the Offeror learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

(c) A certification that any of the items in paragraph (a) of this provision exists will not necessarily result in withholding of an award under this solicitation. However, the certification will be considered in connection with a determination of the Offeror's responsibility. Failure of the Offeror to furnish a certification or provide such additional information as requested by the Contracting Officer may render the Offeror nonresponsible.

(d) 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 paragraph (a) of this provision. The knowledge and information of an Offeror is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

(e) The certification in paragraph (a) of this provision is a material representation of fact upon which reliance was placed when making award. If it is later determined that the Offeror knowingly rendered an erroneous certification, in addition to other remedies available to the Government, the Contracting Officer may terminate the contract resulting from this solicitation for default.

(End of provision)

#### CLAUSES INCORPORATED BY FULL TEXT

##### 52.219-1 SMALL BUSINESS PROGRAM REPRESENTATIONS (MAY 2004)

(a)(1) The North American Industry Classification System (NAICS) code for this acquisition is **813312**.

(2) The small business size standard is **\$7,000,000.00**.

(3) The small business size standard for a concern which submits an offer in its own name, other than on a construction or service contract, but which proposes to furnish a product which it did not itself manufacture, is 500 employees.

(b) Representations. (1) The offeror represents as part of its offer that it ( ) is, ( ) is not a small business concern.

(2) (Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.) The offeror represents, for general statistical purposes, that it ( ) is, ( ) is not a small disadvantaged business concern as defined in 13 CFR 124.1002.

(3) (Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.) The offeror represents as part of its offer that it ( ) is, ( ) is not a women-owned small business concern.

(4) (Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.) The offeror represents as part of its offer that it ( ) is, ( ) is not a veteran-owned small business concern.

(5) (Complete only if the offeror represented itself as a veteran-owned small business concern in paragraph (b)(4) of this provision.) The offeror represents as part of its offer that it ( ) is, ( ) is not a service-disabled veteran-owned small business concern.

(6) (Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.) The offeror represents, as part of its offer, that--

(i) It ( ) is, ( ) is not a HUBZone small business concern listed, on the date of this representation, on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration, and no material change in ownership and control, principal office, or HUBZone employee percentage has occurred since it was certified by the Small Business Administration in accordance with 13 CFR part 126; and

(ii) It ( ) is, ( ) is not a joint venture that complies with the requirements of 13 CFR part 126, and the representation in paragraph (b)(6)(i) of this provision is accurate for the HUBZone small business concern or concerns that are participating in the joint venture. (The offeror shall enter the name or names of the HUBZone small business concern or concerns that are participating in the joint venture:\_\_\_\_\_.) Each HUBZone small business concern participating in the joint venture shall submit a separate signed copy of the HUBZone representation.

(c) Definitions. As used in this provision--

Service-disabled veteran-owned small business concern--

(1) Means a small business concern--

(i) Not less than 51 percent of which is owned by one or more service-disabled veterans or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more service-disabled veterans; and

(ii) The management and daily business operations of which are controlled by one or more service-disabled veterans or, in the case of a service-disabled veteran with permanent and severe disability, the spouse or permanent caregiver of such veteran.

(2) Service-disabled veteran means a veteran, as defined in 38 U.S.C. 101(2), with a disability that is service-connected, as defined in 38 U.S.C. 101(16).

"Small business concern," means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR Part 121 and the size standard in paragraph (a) of this provision.

Veteran-owned small business concern means a small business concern--

(1) Not less than 51 percent of which is owned by one or more veterans (as defined at 38 U.S.C. 101(2)) or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more veterans; and

(2) The management and daily business operations of which are controlled by one or more veterans.

"Women-owned small business concern," means a small business concern --

(1) That is at least 51 percent owned by one or more women; in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and

(2) Whose management and daily business operations are controlled by one or more women.

(d) Notice.

(1) If this solicitation is for supplies and has been set aside, in whole or in part, for small business concerns, then the clause in this solicitation providing notice of the set-aside contains restrictions on the source of the end items to be furnished.

(2) Under 15 U.S.C. 645(d), any person who misrepresents a firm's status as a small, HUBZone small, small disadvantaged, or women-owned small business concern in order to obtain a contract to be awarded under the preference programs established pursuant to section 8(a), 8(d), 9, or 15 of the Small Business Act or any other provision of Federal law that specifically references section 8(d) for a definition of program eligibility, shall--

(i) Be punished by imposition of fine, imprisonment, or both;

(ii) Be subject to administrative remedies, including suspension and debarment; and

(iii) Be ineligible for participation in programs conducted under the authority of the Act.

(End of provision)

#### CLAUSES INCORPORATED BY FULL TEXT

##### 52.219-22 SMALL DISADVANTAGED BUSINESS STATUS (OCT 1999)

(a) General. This provision is used to assess an offeror's small disadvantaged business status for the purpose of obtaining a benefit on this solicitation. Status as a small business and status as a small disadvantaged business for general statistical purposes is covered by the provision at FAR 52.219-1, Small Business Program Representation.

(b) Representations.

(1) General. The offeror represents, as part of its offer, that it is a small business under the size standard applicable to this acquisition; and either--

\_\_\_ (i) It has received certification by the Small Business Administration as a small disadvantaged business concern consistent with 13 CFR 124, Subpart B; and

(A) No material change in disadvantaged ownership and control has occurred since its certification;

(B) Where the concern is owned by one or more disadvantaged individuals, the net worth of each individual upon whom the certification is based does not exceed \$750,000 after taking into account the applicable exclusions set forth at 13 CFR 124.104(c)(2); and

(C) It is identified, on the date of this representation, as a certified small disadvantaged business concern in the database maintained by the Small Business Administration(PRO0Net); or

\_\_\_ (ii) It has submitted a completed application to the Small Business Administration or a Private Certifier to be certified as a small disadvantaged business concern in accordance with 13 CFR 124, Subpart B, and a decision on that application is pending, and that no material change in disadvantaged ownership and control has occurred since its application was submitted.

(2)\_\_\_ For Joint Ventures. The offeror represents, as part of its offer, that it is a joint venture that complies with the requirements at 13 CFR 124.1002(f) and that the representation in paragraph (b)(1) of this provision is accurate for

the small disadvantaged business concern that is participating in the joint venture. [The offeror shall enter the name of the small disadvantaged business concern that is participating in the joint venture: \_\_\_\_\_.]

(c) Penalties and Remedies. Anyone who misrepresents any aspects of the disadvantaged status of a concern for the purposes of securing a contract or subcontract shall:

- (1) Be punished by imposition of a fine, imprisonment, or both;
- (2) Be subject to administrative remedies, including suspension and debarment; and
- (3) Be ineligible for participation in programs conducted under the authority of the Small Business Act.

(End of provision)

#### 52.222-22 PREVIOUS CONTRACTS AND COMPLIANCE REPORTS (FEB 1999)

The offeror represents that --

(a)  It has,  has not participated in a previous contract or subcontract subject to the Equal Opportunity clause of this solicitation;

(b)  It has,  has not, filed all required compliance reports; and

(c) Representations indicating submission of required compliance reports, signed by proposed subcontractors, will be obtained before subcontract awards.

(End of provision)

#### 52.222-25 AFFIRMATIVE ACTION COMPLIANCE (APR 1984)

The offeror represents that

(a)  it has developed and has on file,  has not developed and does not have on file, at each establishment, affirmative action programs required by the rules and regulations of the Secretary of Labor (41 CFR 60-1 and 60-2), or

(b)  has not previously had contracts subject to the written affirmative action programs requirement of the rules and regulations of the Secretary of Labor.

(End of provision)

#### 252.209-7001 DISCLOSURE OF OWNERSHIP OR CONTROL BY THE GOVERNMENT OF A TERRORIST COUNTRY (OCT 2006)

(a) "Definitions."

As used in this provision --

(a) "Government of a terrorist country" includes the state and the government of a terrorist country, as well as any political subdivision, agency, or instrumentality thereof.

(2) "Terrorist country" means a country determined by the Secretary of State, under section 6(j)(1)(A) of the Export Administration Act of 1979 (50 U.S.C. App. 2405(j)(i)(A)), to be a country the government of which has repeatedly provided support for such acts of international terrorism. As of the date of this provision, terrorist countries subject to this provision include: Cuba, Iran, North Korea, Sudan, and Syria.

(3) "Significant interest" means --

(i) Ownership of or beneficial interest in 5 percent or more of the firm's or subsidiary's securities. Beneficial interest includes holding 5 percent or more of any class of the firm's securities in "nominee shares," "street names," or some other method of holding securities that does not disclose the beneficial owner;

(ii) Holding a management position in the firm, such as a director or officer;

(iii) Ability to control or influence the election, appointment, or tenure of directors or officers in the firm;

(iv) Ownership of 10 percent or more of the assets of a firm such as equipment, buildings, real estate, or other tangible assets of the firm; or

(v) Holding 50 percent or more of the indebtedness of a firm.

(b) "Prohibition on award."

In accordance with 10 U.S.C. 2327, no contract may be awarded to a firm or a subsidiary of a firm if the government of a terrorist country has a significant interest in the firm or subsidiary or, in the case of a subsidiary, the firm that owns the subsidiary, unless a waiver is granted by the Secretary of Defense.

(c) "Disclosure."

If the government of a terrorist country has a significant interest in the Offeror or a subsidiary of the Offeror, the Offeror shall disclose such interest in an attachment to its offer. If the Offeror is a subsidiary, it shall also disclose any significant interest the government of a terrorist country has in any firm that owns or controls the subsidiary. The disclosure shall include --

(1) Identification of each government holding a significant interest; and

(2) A description of the significant interest held by each government.

(End of provision)

252.225-7000 BUY AMERICAN ACT--BALANCE OF PAYMENTS PROGRAM CERTIFICATE (JUN 2005)

(a) Definitions. Domestic end product, foreign end product, qualifying country, qualifying country end product, and United States have the meanings given in the Buy American Act and Balance of Payments Program clause of this solicitation.

(b) Evaluation. The Government--

(1) Will evaluate offers in accordance with the policies and procedures of Part 225 of the Defense Federal Acquisition Regulation Supplement; and

(2) Will evaluate offers of qualifying country end products without regard to the restrictions of the Buy American Act or the Balance of Payments Program.

(c) Certifications and identification of country of origin.

(1) For all line items subject to the Buy American Act and Balance of Payments Program clause of this solicitation, the offeror certifies that--

(i) Each end product, except those listed in paragraph (c)(2) or (3) of this provision, is a domestic end product; and

(ii) Components of unknown origin are considered to have been mined, produced, or manufactured outside the United States or a qualifying country.

(2) The offeror certifies that the following end products are qualifying country end products:

-----  
(Line Item Number Country of Origin)

-----  
(Country of Origin)

(3) The following end products are other foreign end products:

-----  
(Line Item Number)

-----  
(Country of Origin) (If known)

(End of provision)

252.225-7031 SECONDARY ARAB BOYCOTT OF ISRAEL (JUN 2005)

(a) Definitions. As used in this provision--

(1) Foreign person means any person (including any individual, partnership, corporation, or other form of association) other than a United States person.

(2) United States means the 50 States, the District of Columbia, outlying areas, and the outer Continental Shelf as defined in 43 U.S.C. 1331.

(3) United States person is defined in 50 U.S.C. App. 2415(2) and means--

(i) Any United States resident or national (other than an individual resident outside the United States who is employed by other than a United States person);

(ii) Any domestic concern (including any permanent domestic establishment of any foreign concern); and

(iii) Any foreign subsidiary or affiliate (including any permanent foreign establishment) of any domestic concern that is controlled in fact by such domestic concern.

(b) Certification. If the offeror is a foreign person, the offeror certifies, by submission of an offer, that it--

(1) Does not comply with the Secondary Arab Boycott of Israel; and

(2) Is not taking or knowingly agreeing to take any action, with respect to the Secondary Boycott of Israel by Arab countries, which 50 U.S.C. App. 2407(a) prohibits a United States person from taking.

(End of provision)

252.247-7022 REPRESENTATION OF EXTENT OF TRANSPORTATION BY SEA (AUG 1992)

(a) The Offeror shall indicate by checking the appropriate blank in paragraph (b) of this provision whether transportation of supplies by sea is anticipated under the resultant contract. The term supplies is defined in the Transportation of Supplies by Sea clause of this solicitation.

(b) Representation. The Offeror represents that it:

\_\_\_ (1) Does anticipate that supplies will be transported by sea in the performance of any contract or subcontract resulting from this solicitation.

\_\_\_ (2) Does not anticipate that supplies will be transported by sea in the performance of any contract or subcontract resulting from this solicitation.

(c) Any contract resulting from this solicitation will include the Transportation of Supplies by Sea clause. If the Offeror represents that it will not use ocean transportation, the resulting contract will also include the Defense FAR Supplement clause at 252.247-7024, Notification of Transportation of Supplies by Sea.

(End of provision)



**SOLICITATION NUMBER W912P6-09-B-0006  
LITTLE CALUMET RIVER MITIGATION PROJECT  
Supplemental Certifications**

**Bidder's shall fully complete this form and submit it along with the other items required by this Solicitation; any bidder failing to comply with this requirement will be considered non-responsive to the solicitation and its bid will be rejected.**

**Bidder:** \_\_\_\_\_

Criteria	A <sup>1/</sup>	B <sup>2/</sup>
<b>Education and Experience - Project Manager</b>		
MS in Biology, Botany, Forestry, Horticulture, Landscape Architecture, Restoration Ecology or Soil Science.		
Registered Landscape Architect, Certified Arborist, or Other License/Certification.		
Project Manager: Minimum of 10 years experience in natural area restoration.		
<b>Experience and Education - Site Supervisor and Field Staff</b>		
BS in Biology, Botany, Forestry, Horticulture, Landscape Architecture, Restoration Ecology or Soil Science.		
Registered Landscape Architect, Certified Arborist or Other License/Certification.		
Site Supervisor: Minimum of 7 years experience in natural area restoration.		
Certified to perform prescribed burns.		
Licensed to apply herbicides.		
U.S. Forest Service license to operate chain saws.		
<b>Firm Experience</b>		
Confirm that you have implemented 3 natural area restoration projects within the lower Lake Michigan Region that are at least 5 years old, at least 5 acres in size, which used only indigenous plant species (except for erosion control and fuel matrix purposes), and which can be evaluated by the USACE. For each project, include references with contact name and phone number, project photos, project description and implementation strategy.		
Confirm that you are currently implementing 3 natural area restoration projects within the lower Lake Michigan Region that are at least 5 acres in size, which are using only indigenous plant species (except for erosion control and fuel matrix purposes) and, which can be evaluated by the USACE. For each project, include references with contact name and phone number, project photos, project description and implementation strategy.		
<b>Demonstrated Assessment Abilities</b>		
Confirm that you have the ability to perform restorations and enhancements in both high quality and low quality natural area remnants within the lower Lake Michigan Region.		
Confirm that you have the ability to assess the need for, and to implement based on that need, management activities (e.g. mowing, burning, herbicide application, supplemental seeding etc.) in both natural areas and restoration areas within the lower Lake Michigan Region.		
Confirm that you have knowledge of the taxonomy of both indigenous and weedy exotic plants of northwest Indiana.		
<b>Notes:</b> 1/ Column A indicates capabilities and certifications already possessed by the bidder. 2/ Column B indicates capabilities and certifications to be possessed by the bidder prior to contract award.		

**Note:**

- **Once the government has advised bidders of their standing in the competition, the apparent low bidder will be Required to provide evidence of satisfying the above requirements within 10 calendar days of being duly notified. Acceptable types of evidence are as follows (note: the list is not all inclusive): employee work experience, copy of license & diploma, description of past projects, and references for each described project.**
- **Should the contractor (apparent low bidder) fail to comply with the aforementioned requirement, as expressed in the stated timeframe, it will be determined non-responsive to the essential requirements of the solicitation and considered ineligible for the award.**

## Section L - Instructions, Conditions and Notices to Bidders

1. **BIDS OR MODIFICATIONS TO BIDS THAT ARE RECEIVED BY FACSIMILE OR TELETYPE WILL NOT BE CONSIDERED.** All sealed Bids must be submitted in accordance with the procedures set forth in BLOCK NO. 9 of PAGE 1 of this Solicitation Document.
2. Bidders are required to acknowledge the receipt of all amendments to the Solicitation on the Standard Form 33 in the space provided, by completing Blocks 15a, 15b, and 15c. of the Amendment (Standard Form 30), by separate letter, or by telegram prior to opening of bids. Failure to acknowledge all amendments may cause rejection of the bid.
3. The Government intends to award all BID ITEMS to the Contractor at its bid prices stated in the above Bid Schedule.
4. Split awards or multiple award contracts will not result from this Solicitation.
5. The Contractor is required to complete the entire bid schedule to be considered responsive to the solicitation and eligible for a contract award.
6. **SF 33 BACK (Page 2 of the Solicitation)**: Bidders shall fully complete all the required areas located under the section designated as “**OFFER**” (refer to Item Numbers 12 through 16)
7. **SECTION K (REPRESENTATIONS AND CERTIFICATIONS & SUPPLEMENTAL CERTIFICATIONS DATA SHEET)**: The bidder must fully complete Section K and the Supplemental Certifications Data Sheet of this Solicitation and submit it along with all other documents required by this Solicitation. Bids received without said Certifications fully completed may be rejected, and considered non-responsive and ineligible for award.
8. **CENTRAL CONTRACTOR’S REGISTRATION (CCR) POLICY**: In accordance with Subpart 4.11 of the Federal Acquisition Regulation, prospective contractors must be registered in the CCR to be awarded a contract. Registration can be completed on-line at [www.ccr.gov](http://www.ccr.gov).
9. Requests for solicitation packages made by telephone, fax or e-mail will not be honored.

## CLAUSES INCORPORATED BY REFERENCE

52.214-15	Period For Acceptance Of Bids	APR 1984
52.219-6	Notice Of Total Small Business Set-Aside	JUN 2003
252.227-7017	Identification and Assertion of Use, Release, or Disclosure Restrictions	JUN 1995

## CLAUSES INCORPORATED BY FULL TEXT

## 52.204-6 DATA UNIVERSAL NUMBERING SYSTEM (DUNS) NUMBER (APR 2008)

(a) The offeror shall enter, in the block with its name and address on the cover page of its offer, the annotation "DUNS" or "DUNS+4" followed by the DUNS number or "DUNS+4" that identifies the offeror's name and address exactly as stated in the offer. The DUNS number is a nine-digit number assigned by Dun and Bradstreet, Inc. The DUNS+4 is the DUNS number plus a 4-character suffix that may be assigned at the discretion of the offeror to establish additional CCR records for identifying alternative Electronic Funds Transfer (EFT) accounts (see Subpart 32.11) for the same concern.

(b) If the offeror does not have a DUNS number, it should contact Dun and Bradstreet directly to obtain one.

(1) An offeror may obtain a DUNS number--

(i) Via the Internet at <http://fedgov.dnb.com/webform> or if the offeror does not have internet access, it may call Dun and Bradstreet at 1-866-705-5711 if located within the United States; or

(ii) If located outside the United States, by contacting the local Dun and Bradstreet office. The offeror should indicate that it is an offeror for a U.S. Government contract when contacting the local Dun and Bradstreet office.

(2) The offeror should be prepared to provide the following information:

(i) Company legal business name.

(ii) Tradestyle, doing business, or other name by which your entity is commonly recognized.

(iii) Company physical street address, city, state and Zip Code.

(iv) Company mailing address, city, state and Zip Code (if separate from physical).

(v) Company telephone number.

(vi) Date the company was started.

(vii) Number of employees at your location.

(viii) Chief executive officer/key manager.

(ix) Line of business (industry).

(x) Company Headquarters name and address (reporting relationship within your entity).

(End of provision)

#### 52.214-3 AMENDMENTS TO INVITATIONS FOR BIDS (DEC 1989)

(a) If this solicitation is amended, then all terms and conditions which are not modified remain unchanged.

(b) Bidders shall acknowledge receipt of any amendment to this solicitation (1) by signing and returning the amendment, (2) by identifying the amendment number and date in the space provided for this purpose on the form for submitting a bid, (3) by letter or telegram, or (4) by facsimile, if facsimile bids are authorized in the solicitation. The Government must receive the acknowledgment by the time and at the place specified for receipt of bids.

(End of provision)

#### 52.214-4 FALSE STATEMENTS IN BIDS (APR 1984)

Bidders must provide full, accurate, and complete information as required by this solicitation and its attachments. The penalty for making false statements in bids is prescribed in 18 U.S.C. 1001.

(End of provision)

#### 52.214-5 SUBMISSION OF BIDS (MAR 1997)

(a) Bids and bid modifications shall be submitted in sealed envelopes or packages (unless submitted by electronic means) (1) addressed to the office specified in the solicitation, and (2) showing the time and date specified for receipt, the solicitation number, and the name and address of the bidder.

(b) Bidders using commercial carrier services shall ensure that the bid is addressed and marked on the outermost envelope or wrapper as prescribed in subparagraphs (a)(1) and (2) of this provision when delivered to the office specified in the solicitation.

(c) Telegraphic bids will not be considered unless authorized by the solicitation; however, bids may be modified or withdrawn by written or telegraphic notice.

(d) Facsimile bids, modifications, or withdrawals, will not be considered unless authorized by the solicitation.

(e) Bids submitted by electronic commerce shall be considered only if the electronic commerce method was specifically stipulated or permitted by the solicitation.

(End of provision)

#### 52.214-6 EXPLANATION TO PROSPECTIVE BIDDERS (APR 1984)

Any prospective bidder desiring an explanation or interpretation of the solicitation, drawings, specifications, etc., must request it in writing soon enough to allow a reply to reach all prospective bidders before the submission of their bids. Oral explanations or instructions given before the award of a contract will not be binding. Any information given a prospective bidder concerning a solicitation will be furnished promptly to all other prospective bidders as an amendment to the solicitation, if that information is necessary in submitting bids or if the lack of it would be prejudicial to other prospective bidders.

(End of provision)

52.214-7 LATE SUBMISSIONS, MODIFICATIONS, AND WITHDRAWALS OF BIDS (NOV 1999)

(a) Bidders are responsible for submitting bids, and any modifications or withdrawals, so as to reach the Government office designated in the invitation for bids (IFB) by the time specified in the IFB. If no time is specified in the IFB, the time for receipt is 4:30 p.m., local time, for the designated Government office on the date that bids are due.

(b)(1) Any bid, modification, or withdrawal received at the Government office designated in the IFB after the exact time specified for receipt of bids is "late" and will not be considered unless it is received before award is made, the Contracting Officer determines that accepting the late bid would not unduly delay the acquisition; and--

(i) If it was transmitted through an electronic commerce method authorized by the IFB, it was received at the initial point of entry to the Government infrastructure not later than 5:00 p.m. one working day prior to the date specified for receipt of bids; or

(ii) There is acceptable evidence to establish that it was received at the Government installation designated for receipt of bids and was under the Government's control prior to the time set for receipt of bids.

(2) However, a late modification of an otherwise successful bid that makes its terms more favorable to the Government, will be considered at any time it is received and may be accepted.

(c) Acceptable evidence to establish the time of receipt at the Government installation includes the time/date stamp of that installation on the bid wrapper, other documentary evidence of receipt maintained by the installation, or oral testimony or statements of Government personnel.

(d) If an emergency or unanticipated event interrupts normal Government processes so that bids cannot be received at the Government office designated for receipt of bids by the exact time specified in the IFB and urgent Government requirements preclude amendment of the IFB, the time specified for receipt of bids will be deemed to be extended to the same time of day specified in the solicitation on the first work day on which normal Government processes resume.

(e) Bids may be withdrawn by written notice received at any time before the exact time set for receipt of bids. If the IFB authorizes facsimile bids, bids may be withdrawn via facsimile received at any time before the exact time set for receipt of bids, subject to the conditions specified in the provision at 52.214-31, Facsimile Bids. A bid may be withdrawn in person by a bidder or its authorized representative if, before the exact time set for receipt of bids, the identity of the person requesting withdrawal is established and the person signs a receipt for the bid.

(End of provision)

52.214-12 PREPARATION OF BIDS (APR 1984)

(a) Bidders are expected to examine the drawings, specifications, Schedule, and all instructions. Failure to do so will be at the bidder's risk.

(b) Each bidder shall furnish the information required by the solicitation. The bidder shall sign the bid and print or type its name on the Schedule and each continuation sheet on which it makes an entry. Erasures or other changes must be initialed by the person signing the bid. Bids signed by an agent shall be accompanied by evidence of that agent's authority, unless that evidence has been previously furnished to the issuing office.

(c) For each item offered, bidders shall (1) show the unit price, including, unless otherwise specified, packaging, packing, and preservation and (2) enter the extended price for the quantity of each item offered in the "Amount" column of the Schedule. In case of discrepancy between a unit price and an extended price, the unit price will be presumed to be correct, subject, however, to correction to the same extent and in the same manner as any other mistake.

(d) Bids for supplies or services other than those specified will not be considered unless authorized by the solicitation.

(e) Bidders must state a definite time for delivery of supplies or for performance of services, unless otherwise specified in the solicitation.

(f) Time, if stated as a number of days, will include Saturdays, Sundays, and holidays.

(End of provision)

#### 52.214-15 PERIOD FOR ACCEPTANCE OF BIDS (APR 1984)

In compliance with the solicitation, the bidder agrees, if this bid is accepted within 60calendar days from the date specified in the solicitation for receipt of bids, to furnish any or all items upon which prices are bid at the price set opposite each item, delivered at the designated point(s), within the time specified in the Schedule.

(End of clause)

#### 52.216-1 TYPE OF CONTRACT (APR 1984)

The Government contemplates award of a **FIRM FIXED PRICE SERVICE** contract resulting from this solicitation.

(End of provision)

#### 52.219-6 NOTICE OF TOTAL SMALL BUSINESS SET-ASIDE (JUN 2003)

(a) Definition.

"Small business concern," as used in this clause, means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the size standards in this solicitation.

(b) General. (1) Offers are solicited only from small business concerns. Offers received from concerns that are not small business concerns shall be considered nonresponsive and will be rejected.

(2) Any award resulting from this solicitation will be made to a small business concern.

(c) Agreement. A small business concern submitting an offer in its own name shall furnish, in performing the contract, only end items manufactured or produced by small business concerns in the United States or its outlying areas. If this procurement is processed under simplified **acquisition** procedures and the total amount of this contract does not exceed \$25,000, a small business concern may furnish the product of any domestic firm. This paragraph

does not apply to construction or service contracts.

(End of clause)

52.231-5000 EQUIPMENT OWNERSHIP AND OPERATING EXPENSE SCHEDULE  
MAR 1995)--EFARS

(a) This clause does not apply to terminations. See 52.249-5000, Basis for Settlement of Proposals and FAR Part 49.

(b) Allowable cost for construction and marine plant and equipment in sound workable condition owned or controlled and furnished by a contractor or subcontractor at any tier shall be based on actual cost data for each piece of equipment or groups of similar serial and series for which the Government can determine both ownership and operating costs from the contractor's accounting records. When both ownership and operating costs cannot be determined for any piece of equipment or groups of similar serial or series equipment from the contractor's accounting records, costs for that equipment shall be based upon the applicable provisions of EP 1110-1-8, Construction Equipment Ownership and Operating Expense Schedule, Region II. Working conditions shall be considered to be average for determining equipment rates using the schedule unless specified otherwise by the contracting officer. For equipment not included in the schedule, rates for comparable pieces of equipment may be used or a rate may be developed using the formula provided in the schedule. For forward pricing, the schedule in effect at the time of negotiations shall apply. For retroactive pricing, the schedule in effect at the time the work was performed shall apply.

(c) Equipment rental costs are allowable, subject to the provisions of FAR 31.105(d)(ii) and FAR 31.205-36. Rates for equipment rented from an organization under common control, lease-purchase arrangements, and sale-leaseback arrangements, will be determined using the schedule, except that actual rates will be used for equipment leased from an organization under common control that has an established practice of leasing the same or similar equipment to unaffiliated lessees.

(d) When actual equipment costs are proposed and the total amount of the pricing action exceeds the small purchase threshold, the contracting officer shall request the contractor to submit either certified cost or pricing data, or partial/limited data, as appropriate. The data shall be submitted on Standard Form 1411, Contract Pricing Proposal Cover Sheet.

(End of clause)

52.233-2 SERVICE OF PROTEST (SEP 2006)

(a) Protests, as defined in section 33.101 of the Federal Acquisition Regulation, that are filed directly with an agency, and copies of any protests that are filed with the Government Accountability Office (GAO), shall be served on the Contracting Officer (addressed as follows) by obtaining written and dated acknowledgment of receipt from

**Regina G. Blair, Contracting Officer**  
**US Army Corps of Engineer – Chicago District Office**  
**111 North Canal Street, Suite 600**  
**Chicago, Illinois 60606**

(b) The copy of any protest shall be received in the office designated above within one day of filing a protest with the GAO.

(End of provision)

52.237-1 SITE VISIT (APR 1984)

Offerors or quoters are urged and expected to inspect the site where services are to be performed and to satisfy themselves regarding all general and local conditions that may affect the cost of contract performance, to the extent that the information is reasonably obtainable. In no event shall failure to inspect the site constitute grounds for a claim after contract award.

(End of provision)

52.252-1 SOLICITATION PROVISIONS INCORPORATED BY REFERENCE (FEB 1998)

This solicitation incorporates one or more solicitation provisions by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. The offeror is cautioned that the listed provisions may include blocks that must be completed by the offeror and submitted with its quotation or offer. In lieu of submitting the full text of those provisions, the offeror may identify the provision by paragraph identifier and provide the appropriate information with its quotation or offer. Also, the full text of a solicitation provision may be accessed electronically at this/these address(es):

[www.arnet.gov](http://www.arnet.gov)

(End of provision)



## Section M - Evaluation Factors for Award

## CLAUSES INCORPORATED BY FULL TEXT

## 52.211-6 BRAND NAME OR EQUAL (AUG 1999)

(a) If an item in this solicitation is identified as "brand name or equal," the purchase description reflects the characteristics and level of quality that will satisfy the Government's needs. The salient physical, functional, or performance characteristics that "equal" products must meet are specified in the solicitation.

(b) To be considered for award, offers of "equal" products, including "equal" products of the brand name manufacturer, must--

(1) Meet the salient physical, functional, or performance characteristic specified in this solicitation;

(2) Clearly identify the item by--

(i) Brand name, if any; and

(ii) Make or model number;

(3) Include descriptive literature such as illustrations, drawings, or a clear reference to previously furnished descriptive data or information available to the Contracting Officer; and

(4) Clearly describe any modifications the offeror plans to make in a product to make it conform to the solicitation requirements. Mark any descriptive material to clearly show the modifications.

(c) The Contracting Officer will evaluate "equal" products on the basis of information furnished by the offeror or identified in the offer and reasonably available to the Contracting Officer. The Contracting Officer is not responsible for locating or obtaining any information not identified in the offer.

(d) Unless the offeror clearly indicates in its offer that the product being offered is an "equal" product, the offeror shall provide the brand name product referenced in the solicitation.

(End of provision)

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## SECTION 01 10 00.00 03

## GENERAL PROVISIONS

## PART 1 GENERAL

## 1.1 REFERENCES

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

## U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1

(2008) Safety -- Safety and Health Requirements

## 1.2 CERTIFICATES OF COMPLIANCE

Any certificates required for demonstrating proof of compliance of materials with specification requirements shall be executed in two copies. Each certificate shall be signed by an official authorized to certify on behalf of the manufacturing company and shall contain the name and address of the Contractor, the project name and location, and the quantity and date or dates of shipment or delivery to which the certificates apply. Copies of laboratory test reports submitted with certificates shall contain the name and address of the testing laboratory and the date or dates of the tests to which the report applies. Certification shall not be construed as relieving the Contractor from furnishing satisfactory material, if, after tests are performed on selected samples, the material is found not to meet specific requirements.

## 1.3 RESPONSIBILITY OF THE CONTRACTOR

- a. The Contractor shall be responsible for the professional quality, technical accuracy and the coordination of all designs, drawings and specifications furnished by the Contractor under this contract. The Contractor shall, without additional compensation, correct or revise designs, drawings and specifications.
- b. Neither the Government's review, approval or acceptance of, nor payment for, any of the services required under this contract shall be construed to operate as a waiver of any rights under this contract or of any cause or action arising out of the performance of this contract, and the Contractor shall be and remain liable to the Government in accordance with applicable law for all damages to the Government caused by the Contractor's negligence in connection with designs, drawings and specifications, furnished under this contract.
- c. The rights and remedies of the Government provided for under the contract are in addition to any other rights and remedies provided by law.

## 1.4 SUBMITTALS

Government approval is required for submittals with a "G" designation;

submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Schedule; G, CS

Condition of Existing Structures

Coordination with Others; G, CS

Drug Free Workplace

SD-11 Closeout Submittals

As-Built Drawings; G, CS

1.5 REAL ESTATE

All required right-of-way to do the work is available to the Contractor, and is included on the contract drawings. In the event the Contractor requires any additional access roads and storage areas, he shall obtain such areas at his own expense. The Contractor shall furnish to the Contracting Officer copies of all legal documents or leases permitting his use of private or other properties other than included in the contract.

1.6 SCHEDULE

An initial baseline Schedule shall be submitted before and available during the precoordination meeting with the COR. This schedule shall use the date of Notice to Proceed as the start date and shall show the work completed date, as indicated by specifications. In addition to the initial baseline schedule, six copies of an updated Schedule Submittal shall be included with each payment estimate/request for payment. These schedule updates shall compare the initial baseline schedule to an updated schedule showing the actual work progress to date and a projection of the work schedule for the remainder of the Contract. All schedule submittals shall include a tabulated earnings projection, in a format acceptable to the COR, that lists the estimated earnings for each month of the Contract duration.

1.7 AS-BUILT DRAWINGS

1.7.1 GENERAL

An as-built drawing is a contract drawing revised to reflect the final as-built conditions of the project because of modifications, changes, corrections to the project design required during the contract, submittals and extensions of design. The terms "drawings," "contract drawings," "drawing files," "working as-built drawings" and "final as-built drawings" refer to contract drawings that are revised to be the "RECORD DRAWING AS-BUILTS".

The Contractor shall follow procedures identified in document: "CELRC-As-Built Guidance.PDF" (Revised 11-21-2007), posted at the following web address:

<http://www.lrc.usace.army.mil/ts-d-c/support/asbuilt/As-Built-ChicagoGuidance.htm>

As a resource to contractors a web page was developed that may assist in locating a trained CADD professional to develop the as-builts or train an existing employee to develop the as-builts.

<http://www.lrc.usace.army.mil/ts-d-c/support/asbuilt/BentleyResources.htm>

#### 1.7.2 GOVERNMENT-FURNISHED FILES

The Contractor will be provided files at the beginning of the contract for use during the work which are to be maintained during the contract for the preparation of as-builts. The Contractor shall enter changes and corrections on the working drawings on a weekly basis in accordance with Paragraph "Maintenance of Working As-Built Drawings" and update the CADD as-built drawings on a monthly basis. Both paper and electronic documents shall be available at all times and shall be provided promptly to the Contracting Officer when requested. The Contractor shall be responsible for backup of electronic files during the contract and for controlling release of information.

#### 1.7.3 MAINTENANCE OF WORKING AS-BUILT DRAWINGS

The Contractor shall revise and maintain during the execution of the project two (2) sets of full-scale paper prints by red-line process to show the as-built conditions. These working as-built drawings shall be kept current and available for review on the jobsite at all times. Changes from the contract drawings that are made in the work or additional information that might be uncovered in the course of the contract shall be accurately, legibly and neatly recorded and dated as they occur by means of details and notes. All variations from the contract drawings, for whatever reason, including those occasioned by modifications, optional material and the required coordination between trades, shall be indicated. These variations shall be shown in the same general detail that is utilized in the contract drawings. Changes must be reflected on all sheets affected by the change.

The working as-built drawings will be jointly reviewed for accuracy and completeness by the COR and the Contractor prior to submission of each monthly pay estimate. If the Contractor fails to maintain the working as-built drawings as specified herein, the COR shall deduct from the monthly progress payment an amount representing the estimated cost of maintaining the working as-built drawings. The working as-built drawings shall show the following information, but not be limited thereto:

1. The location of all installed trees on the project site.
2. The actual location, kinds and sizes of all sub-surface utility lines. In order that the location of these lines and appurtenances may be determined in the event the surface openings or indicators become covered or obscured, the as-built drawings shall show, by offset dimensions to two permanently fixed surface features, the end of each run including each change in direction. Valves, splice boxes and similar appurtenances shall be located by dimensioning along the utility run from a reference point. The average depth below the surface of each run shall also be recorded.
3. The location and dimensions of any changes within the building structure.
4. Correct grade, elevations, cross section, or alignment of roads,

earthwork, structures or utilities if any changes were made from contract plans.

5. Additional as-built information that exceeds the detail shown on the Contract Drawings. These as-built conditions include those that reflect structural details, fabrication, erection, installation plans and placing details, pipe sizes, insulation material, dimensions of equipment foundations and layouts, equipment, sizes, mechanical room layouts and other extensions of design, that were not shown in the original contract documents because the exact details were not known until after the time of approved shop drawings. It is recognized that these shop drawing submittals (revised showing as-built conditions) will serve as the as-built record without actual incorporation into the contract drawings. All such shop drawing submittals must include, along with the hard copy of the drawings, CADD files of the shop drawings in a commercially available digital format, compatible with the Using Agency System (see paragraph "Computer Aided Design and Drafting (CADD) Drawings")..

6. The topography, invert elevations and grades of drainage installed or affected as part of the project contract.

7. Changes or modifications which result from the final inspection.

8. Where contract drawings or specifications present options, only the option selected shall be shown on the final as-built drawings.

9. If borrow material for this project is from sources on Government property, or if Government property is used as a spoil area, the Contractor shall furnish a contour map of the final borrow pit/spoil area elevations.

10. Modifications (change order price shall include the Contractor's incidental cost to change working and final as-built drawings to reflect modifications) and compliance with the following procedures:

- (1) Directions in the modification for posting descriptive changes shall be followed.
- (2) A Modification Equilateral Triangle (3/8" per side) shall be placed at the location of each deletion.
- (3) For new details or sections which are added to a drawing, a Modification Equilateral Triangle shall be placed by the detail or section title.
- (4) For minor changes, a Modification Equilateral Triangle shall be placed by the area changed on the drawing (each location).
- (5) For major changes to a drawing, a Modification Equilateral Triangle shall be placed by the title of the affected plan, section, or detail at each location.
- (6) For changes to schedules or drawings, a Modification Equilateral Triangle shall be placed either by the schedule heading or by the change in the schedule.
- (7) All other changes shall be annotated with a triangle and sequential number at the following locations:

bottom of the revised detail  
right hand and bottom border aligned with the revised detail  
the revision block of the title block

#### 1.7.4 RETAINAGE

a. The cost of as-built document preparation shall include all requirements of this clause:

1. Maintenance of working as-built drawings
2. Conversion of submittals and other miscellaneous documents into electronic files
3. Creation of a CD containing all required files.
4. Submittal of as-built documents in the required media forms and numbers of copies

If the Contractor fails to maintain the working as-built drawings as specified herein, the Contracting Officer will deduct from the monthly progress payment an amount that, in the Contracting Officer's judgment, represents the estimated cost of bringing the as-built documents up to date. This monthly deduction will continue until an agreement can be reached between the Contracting Officer and the Contractor regarding the accuracy and completeness of working as-built documents.

b. Retainage for the final as-built drawings in the amount of \$2,500 shall be withheld from the amounts due to the Contractor when progress under the contract reaches 80% completion. This amount shall be withheld until the Final As-Built Drawings (including CD-ROM and full-scale prints) are accepted by the Government. If an acceptable As-Built Drawing submittal is not provided within 60 calendar days from the date the Contractor received the approved working as-built drawings, the Government reserves the right to unilaterally modify the contract to de-obligate the aforementioned amount from the final Contract amount.

No separate payment will be made for providing approved as-built drawings required under this contract. All costs in connection therewith shall be considered a subsidiary obligation of the Contractor.

#### 1.7.5 PRELIMINARY SUBMITTAL

Within 15 calendar days after completion of the work, the Contractor shall prepare and deliver two (2) copies of the working as-built drawings to the COR for review and approval. These working as-built marked drawings shall be neat, legible and accurate. If upon review, the working as-built drawings are found to contain errors and/or omissions, they shall be returned to the Contractor within 15 calendar days for corrections. The Contractor shall complete the corrections and return the working as-built drawings within 15 calendar days to the COR for approval. The working as-built drawings shall be reviewed within 15 calendar days. Upon approval, the working as-built drawings will be returned to the Contractor for use in preparation of final as-built drawings.

Preparation of Other As-Built Documents. All other non-electronic documents which may include design analysis, catalog cuts, certification documents that are not available in native electronic format shall be

scanned and provided in an organized manner in Adobe .pdf format.

Partial Occupancy. For projects where portions of the contract are to be occupied or activated before overall project completion, including portions of utility systems, as-built drawings for those portions of the facility being occupied or activated shall be supplied at the time the facility is occupied or activated. This same as-built information previously furnished must also be shown on the final set of as-built drawings at project completion.

#### 1.7.6 COMPUTER AIDED DESIGN AND DRAFTING (CADD) DRAWINGS

Only personnel proficient in the preparation of CADD drawings shall be employed to modify the contract drawings or prepare additional new drawings. Additions and corrections to the contract drawings shall be equal in quality to that of the originals. Line work, line weights, lettering, layering conventions, and symbols shall be the same as the original line work, line weights, lettering, layering conventions, and symbols. If additional drawings are required, they shall be prepared using the specified electronic file format applying the same guidance specified for original drawings. Three dimensional (3D) elements shall be placed in files in their proper locations when using 3D files with spatially correct elements. The title block and drawing border to be used for any new final as-built drawings shall be identical to that used on the contract drawings. Additions and corrections to the contract drawings shall be accomplished using CADD media files supplied by the Government. All work by the Contractor shall be done on files in the format in which they are provided. Translation of files to a different format, for the purpose of As-Built production, and then retranslating back to the format originally provided, will not be acceptable. The media files will be supplied by the Contractor to the COR. The Contracting Officer will review final as-built drawings for accuracy and the Contractor shall make all required corrections, changes, additions, and deletions.

1. When final revisions have been completed, the cover sheet drawing shall show the wording "RECORD DRAWING AS-BUILT" followed by the name of the Contractor in letters at least 3/16 inch high. All other contract drawings shall be marked in the bottom right-hand corner of each drawing either "AS-BUILT" drawing denoting no revisions on the sheet, or "REVISED AS-BUILT" denoting one or more revisions. Original contract drawings shall be dated in the revision block.

2. Revision markers defined in paragraph "Markings and Indicators" shall be placed as follows:

- (1) At the detail, placed in the design file where the revised graphics are located and the revision was placed.

- (2) Right hand and bottom border in the drawing sheet file revision block of the title block in the drawing sheet file.

#### 1.7.7 FINAL AS-BUILT DRAWING SUBMITTAL

Within 30 calendar days after receipt of the approved working as-built drawings and the Chicago District provided digital contract drawings in Microstation .DGN format, the Contractor shall prepare and make the final submittal. This submittal shall include the following:

1. One CD-ROM containing the electronic files for final as-built



drawings.

(1) The CD-ROM shall be labeled with the following information:

Project Name  
Date CD was created  
Contract Number  
Contractors Name

(2) The CD-ROM shall use the same directory structure and file names as provided in the contract set by the Government.

(3) The CD-ROM shall contain the following files:

A list of files in either a Microsoft Word or ASCII text file, containing the electronic file names and sheet titles where applicable.

Microstation dgn files for all CADD files.  
Adobe PDF copy for all CADD files.

All other non-electronic documents which may include design analysis, catalog cuts, certification documents that are not available in native electronic format shall be scanned and provided in an organized manner in Adobe PDF format.

2. One set of full-scale prints

(1) The full-scale prints shall be plotted from the CD-ROM, to ensure the electronic files provided to the Government are complete and accurate.

3. One set of the approved working as-built drawings.

These contract drawings shall be modified as may be necessary to correctly show the features of the project as it has been constructed by bringing the contract drawings into agreement with approved working as-built drawings, adding such additional drawings as may be necessary.

In the event the Contractor accomplishes additional work which changes the as-built conditions of the facility, after submission and approval of the working as-built drawings, he shall be responsible for the addition of these changes to the working as-built drawings and also to the final as-built documents.

#### 1.8 INSPECTION

The presence or absence of a QA representative shall not relieve the Contractor of responsibility for the proper execution of work in accordance with the plans and specifications.

#### 1.9 CONDITION OF EXISTING STRUCTURES

Prior to commencement of operations by the Contractor at the site, a detailed survey will be made of all existing structures, including the parking lot and staging area, that may be affected by the Contractor's operations. The survey will be conducted in coordination with local interests, Contractor, Corps of Engineers Representative, and private parties concerned and will be sufficient in scope to provide advance agreement among all concerned as to the condition of the existing structures. The Contractor shall be responsible for full and active

participation in such surveys of existing structures as deemed necessary to permit determination and accurate assessment of any subsequent damage to existing structures that may be incurred during the period of the contract. Pictures or videos of all existing structures are acceptable. Damages to existing structures shall be restored to pre-existing conditions. Any re-vegetation shall be done with native grass, forb, shrub, and tree species.

#### 1.10 PRESERVATION OF HISTORICAL, ARCHAEOLOGICAL AND CULTURAL RESOURCES

If, during work activities, the Contractor observes items that might have historical or archaeological value, such observations shall be reported immediately to the Contracting Officer's Representative (COR) so that the appropriate authorities may be notified and a determination can be made as to their significance and what, if any, special disposition of the finds should be made. The Contractor shall cease all activities that may result in the destruction of these resources and shall prevent his employees from trespassing on, removing, or otherwise damaging such resources.

#### 1.11 MINIMUM AMOUNT OF INSURANCE REQUIRED

In accordance with FAR CLAUSE entitled INSURANCE - WORK IN A GOVERNMENT INSTALLATION, the following minimum insurance coverages and limits are required. The term "Installation" referred to in this clause is deemed to mean Corps of Engineers project site or Federal property.

- a. Evidence of the following minimum insurance coverages and limits, with concurrent policy expiration dates, must be received by the Department of the Army, Corps of Engineers before the Contractor can begin work. This evidence must be on a fully-completed, signed and dated ACCORD Certificate of Insurance. In addition, policy endorsements must be issued by or in behalf of the insuring company or companies naming the Department of the Army, Corps of Engineers as Additional Interest Insured regarding the work. The endorsements must also provide that the Department of the Army, Corps of Engineers receive direct written notice at least thirty (30) calendar days before the effective date of any material changes to, any cancellation of, or any non-renewal of these coverages during the time period of the Contractor's work.
- b. Should the coverages expire or be terminated during the time period of the Contractor's work, the Department of the Army, Corps of Engineers must receive an ACCORD Certificate of Insurance as evidence of renewal or replacement insurance coverage and the supporting policy endorsements as specified above. The required evidence of renewal replacement insurance must be received by either the Contracting Officer or Contracting Officer's Representative at least ten (10) calendar days before the coverage expires or is being terminated.
- c. All insuring companies must be rated A- or Excellent or better, by A.M. Best Company, an independent insurance rating service. The ACCORD Certificate must list the A.M. Best Company insurance company code of listed insurance companies being offered.

Comprehensive General Liability (Occurrence policy form only)	
General Aggregate	\$2,000,000
Products/Completed Operations	\$2,000,000

Each Occurrence \$1,000,000  
 Fire Damage Legal Liability \$ 50,000

Comprehensive Automobile Liability  
 (Including Hired Automobile Liability  
 and Non-Owned Automobile Liability)  
 Combined Single Limit \$1,000,000

Employers' Liability  
 Each Occurrence \$ 500,000  
 Policy Limit \$ 500,000  
 Each Employee \$ 500,000

Workers Compensation  
 (As required by state law or Federal law)

Umbrella Liability  
 (Occurrence policy form only)  
 Each Occurrence and Aggregate \$5,000,000

- d. Prior to commencement of work hereunder, the Contractor shall furnish to the Contracting Officer a certificate or written statement of the above required insurance. The policies evidencing required insurance shall contain an endorsement to the effect that cancellation or any material change in the policies adversely affecting the interests of the Government in such insurance shall not be effective for such period as may be prescribed by the laws of the State in which contract is to be performed and in no event less than thirty (30) calendar days after written notice thereof to the Contracting Officer.

1.12 TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER

This clause specifies the procedure for the determination of time extensions for unusually severe weather in accordance with the CONTRACT CLAUSE entitled "DEFAULT (FIXED-PRICE Supply & Service)." In order for the Contracting Officer to award a time extension under this clause, the weather experienced at the project site during the contract period must be found to be unusually severe, that is, more severe than the adverse weather anticipated for the project location during any given month.

The following schedule of monthly anticipated adverse weather delays is based on National Oceanic and Atmospheric Administration (NOAA) or similar data for the project location and will constitute the base line for monthly weather time evaluations. The Contractor's progress schedule must reflect these anticipated adverse weather delays in all weather dependent activities.

MONTHLY ANTICIPATED ADVERSE WEATHER DELAY  
 WORK DAYS BASED ON A FIVE (5) DAY WORK WEEK

JAN	FEB	MAR	APR	MAY	JUN	JUL
22	20	21	7	4	3	3
AUG	SEP	OCT	NOV	DEC		
5	3	5	7	15		

Upon acknowledgement of Notice to Proceed (NTP) and continuing throughout the contract, the Contractor shall record on the daily CQC report, the

occurrence of adverse weather and resultant impact to normally scheduled work. Actual adverse weather delay days must prevent work on critical activities for 50 percent or more of the Contractor's scheduled workday.

The number of actual adverse weather delay days shall include days impacted by actual adverse weather (even if adverse weather occurred in previous month), be calculated chronologically from the first to the last day of each month, and be recorded as full days. If the number of actual adverse weather delays exceeds the number of days anticipated in paragraph 2, above, the Contracting Officer will convert any qualifying delays to calendar days, giving full consideration for equivalent fair weather work days, and issue a modification in accordance with the contract clause entitled "Default (Fixed Price Supply & Service)".

#### 1.13 PERMITS AND RESPONSIBILITIES

It shall be the responsibility of the Contractor to obtain all permits/licenses required for this project.

#### 1.14 COORDINATION WITH OTHERS

The Contractor shall schedule and coordinate its operations affecting other Contractors, Government hired labor forces, utilities, and/or property within the work limits. Such scheduling shall be accomplished with lead time sufficient for coordination of all involved parties as necessary for timely completion of each contract feature. As evidence of this compliance with this General Provision, the Contractor shall furnish the Contracting Officer's Representative (COR) with a copy of each coordinated schedule prior to commencing operations affecting such other Contractors, utilities, and/or property.

#### 1.15 SPECIAL SAFETY REQUIREMENTS

The Contractor shall comply with all applicable Federal, state and local safety requirements including, but not limited to, those provided in EM 385-1-1.

#### 1.16 ONE CALL SYSTEMS FOR EXCAVATORS

One call systems, established by law, are operated by owners of underground facilities for excavators. Upon notification by an excavator through a one call system, all participating operators of underground facilities in a covered area will identify and locate their facilities. One call systems will be identified by contacting the following:

**INDIANA**  
INDIANA UTILITY CHECK  
1-800-382-5544

#### 1.17 ELECTRICAL POWER LINES

The Contractor shall study the contract plans and site and know in detail all locations of power lines within the rights of way. Prior to performing any work adjacent to power lines, appropriate danger signs shall be provided where any equipment scheduled for use on the site is capable of contacting such lines. To confirm the location of underground lines, the Contractor shall contact the appropriate council listed in paragraph ONE CALL SYSTEMS FOR EXCAVATORS. Aerial power lines shall either be shut off and a positive means taken to prevent the lines from being energized, or

clearances required by EM 385-1-1, Safety and Health Requirements Manual, shall be maintained. Work shall not proceed into dangerous areas without an additional workman being assigned the crew to watch the movements of other personnel and equipment to assure that designated clearances are maintained.

#### 1.18 BORROW/DISPOSAL SITES AND QUARRIES

This paragraph, Borrow/Disposal Sites and Quarries, applies only to the ability of the Contractor to utilize a particular borrow/disposal site or quarry, and does not address the use of materials from that site or quarry. Nothing in this paragraph, Borrow/Disposal, shall relieve the Contractor of complying with the specific testing requirements for material taken from any borrow/disposal sites or quarries as set forth in the technical provisions of this Contract.

a. Definitions. For purposes of this general provision, the following definitions apply:

(1) Government-Suggested borrow/disposal site or quarry means a site or quarry suggested by the Government for use by the Contractor concerning which all applicable Federal, state and local environmental statutory and regulatory requirements may or may not have been satisfied.

(2) Commercial/existing borrow/disposal site or quarry means a site or quarry which is either in the business of providing borrow material or has been used as a disposal site for other purposes and is available for use; and concerning which all applicable Federal, state and local environmental statutory and regulatory requirements have been satisfied.

(3) Contractor-chosen borrow/disposal site or quarry means a site or quarry chosen by the Contractor for use concerning which none or not all of the applicable Federal, state and local environmental statutory and regulatory requirements have been satisfied.

b. If a borrow/disposal site or quarry is identified in the contract specifications as Government-Suggested, it is the responsibility of the Contractor to ascertain whether or not all Federal, state and local environmental statutory and regulatory requirements have been satisfied. If any of such requirements have not been satisfied, the Contractor is required to follow the procedures set forth in paragraph d(4) below. Use of such a site or quarry must be approved by the Contracting Officer.

c. If the Contractor chooses a commercial/existing borrow/disposal site or quarry, the Contractor is not required to ensure that all applicable Federal, state and local environmental statutory and regulatory requirements have been satisfied, but is required to provide to the Government either, as a minimum, a letter from the owner/operator of the commercial/existing borrow/disposal site or quarry certifying that all environmental and operating permits have been acquired, or actual copies of all such environmental and operating permits. Use of such a site or quarry must be approved by the Contracting Officer. The Contractor shall adhere to all rules, regulations and business practices required by the owner/operator.

d. If a Contractor decides to use a Contractor-chosen borrow/disposal site or quarry, it is the Contractor's responsibility to ensure that all applicable Federal, state and local environmental statutory and regulatory requirements have been satisfied. Use of such a site or quarry must be approved by the Contracting Officer, and such approval shall not be granted unless all applicable requirements have been met and such use of the site does not pose significant environmental impacts.

(1) The specific requirements which must be met by the Contractor before a Contractor-chosen (or, when applicable, a Government-recommended) site or quarry shall be approved by the COR include, at a minimum, but are not necessarily limited to, compliance with the following environmental laws, regulations and executive orders:

Federal Laws, Regulations, and Executive Orders

Name	Agency
Section 404, Clean Water Act (Permit)	U.S. Army Corps of Engineers, Detroit District (IN/WI) Chicago District (IL)
Section 10, River and Harbor Act of 1899 (Permit)	U.S. Army Corps of Engineers
Emission Limitations, Clean Air Act	U.S. Environmental Protection Agency
Section 9, Endangered Species Act of 1973	U.S. Fish and Wildlife Service, Barrington Office (IL)
Section 703, Migratory Bird Treaty Act of 1918	U.S. Fish and Wildlife Service
Section 106, National Historic Preservation Act of 1966	Illinois Historic Preservation Agency, Springfield (IL)
Flood Plain Management, Executive Order 11988	U.S. Army Corps of Engineers, Chicago District
Surface Mining Control and Reclamation Act of 1977	Bureau of Mines
Resource Conservation and Recovery Act of 1976	U.S. Environmental Protection Agency
Toxic Substance Control Act	U.S. Environmental Protection Agency

Indiana State Statutes

Construction Within a Floodway (Permit)	Indiana Department of Natural Natural Resources, Division of Water
Section 401, Clean Water Act (Waiver of Permit)	Indiana Department of Environmental Management
Section 402, Clean Water Act (NPDES Permit)	Indiana Department of Environmental Management

It is the Contractor's responsibility to ensure that all applicable Federal, state and local environmental statutory and regulatory requirements are satisfied, regardless of their presence on, or absence from, the above list.

(2) It is the responsibility of the Government to ensure that the requirements of the National Environmental Policy Act (NEPA) have been complied with. If the Contractor decides to use a site or quarry which has not previously undergone an environmental review under NEPA (either Government-recommended or Contractor-chosen), the Contractor shall notify the Contracting Officer, who shall arrange for such an environmental review. This review and compliance process may include inter-agency coordination and the preparation and circulation for public review of environmental documentation. It is the responsibility of the Contractor to allow sufficient time in the schedule to accommodate this review and compliance process, and to provide the Contracting Officer with any and all information that the Contracting Officer deems necessary to facilitate the process. The review and compliance process requires a minimum time frame of ninety (90) calendar days, but could take substantially longer, possibly up to one year or, in unusual circumstances, even longer than one year, to complete. Any delays caused by the need to conduct an environmental review under NEPA shall be solely the responsibility of the Contractor, at no additional cost to the Government.

(3) It is also the responsibility of the Government to perform Section 7 consultation under the Endangered Species Act, to coordinate with the U.S. Fish and Wildlife Service and appropriate state wildlife agencies under the Fish and Wildlife Coordination Act, and to perform a Farmland Conversion Impact Rating under the Farmland Protection Policy Act for all Government-Suggested or Contractor-Chosen sites. This shall be accomplished concurrently with the NEPA environmental review process. It is the responsibility of the Contractor to allow sufficient time in the schedule to accommodate these consultation and coordination requirements as well as the NEPA review process, and to provide the Contracting Officer with any and all information that the Contracting Officer deems necessary to facilitate the completion of these consultation and coordination requirements.

(4) The Government cannot guarantee that any Government-Suggested or Contractor-chosen site is capable of complying with all applicable Federal, state and local environmental statutory and regulatory requirements and may reject any such site proposed for use by the Contractor for environmental reasons. If the Contracting Officer does not approve the use of a

Government-recommended or Contractor-chosen borrow/disposal site or quarry because not all applicable Federal, state or local environmental statutory and regulatory requirements have been satisfied, or because the Government determines that such site or quarry could not be used for environmental reasons as a result of the environmental review under NEPA, it is the Contractor's responsibility to locate an alternate site or quarry and to perform all necessary reviews to obtain approval of the use of such alternative site or quarry. Any delays caused by the need to locate an alternate site or quarry, shall be solely the responsibility of the Contractor, at no additional cost to the Government.

(5) Nothing in this clause shall relieve the Contractor from the responsibility of obtaining all non-environmental permits and licenses which may be required under Federal, state or local statutes, regulations and ordinances.

#### 1.19 TAX EXEMPTION

- a. This contract is a construction contract which contains separate amounts applicable to the performance of the services and the furnishing of the materials as defined in State of Indiana, Department of Revenue Information Bulletin No. 60, dated Dec 2002. Notwithstanding any other provisions of this contract, the contract price does not include any amount for Indiana Sales and Use Tax on materials to be incorporated by the Contractor or Subcontractor into the structure or improvement to real estate. The Contractor or Subcontractor should provide his supplier with a State of Indiana General Exemption Certificate for Construction Contractors (Form ST-134) with respect to such property.
- b. For the purpose of complying with the requirements of State of Indiana, Department of Revenue Information Bulletin No. 60, dated Dec 2002, the Contractor, pursuant to the requirements of the solicitation shall furnish prior to contract award a breakdown separating pricing (1) materials to be incorporated into the structure or improvement to real estate, (2) services and other obligations of the construction contract, and (3) the total contract price. This breakdown is for the sole purpose of complying with the requirements of State of Indiana, Department of Revenue Information Bulletin No. 60, dated Dec 2002 with regard to separate pricing of services and materials and has no other contractual significance.
- c. Any subcontracts awarded hereunder shall also contain separate amounts applicable to the performance of services and the furnishing of the materials.

#### 1.20 PROGRESS MEETINGS

A progress meeting will be held once every two weeks (biweekly). The meetings shall be held on-site, in the Contractor's field trailer, unless the Government elects to hold the meetings at an alternate off-site location. The day and time for conducting meetings will be mutually agreed to between the Contractor, the Government, the Local Sponsors and other participants as required, within 30 calendar days after receipt of the notice to proceed. The Contractor shall be a required to fully participate in the progress meeting.



Unless the Contracting Officer's Representative (COR) specifically indicates in writing otherwise, the Contractor shall prepare meeting agendas and meeting minutes for each meeting. The agenda and minutes shall be prepared in a format acceptable to the COR and shall contain all information required by the COR, including, but not limited to:

- a. A listing of all meeting participants;
- b. The financial progress, including original and current contract amounts, the amount paid to date, and original and current contract completion dates;
- c. A list of work completed since the last meeting;
- d. A list of work activities scheduled for the upcoming two weeks;
- e. Critical work activities in the project schedule;
- f. Old business, including summaries of the status of unresolved issues discussed at previous progress meetings;
- g. New business, including summaries of issues that need to be addressed and have not been included in previous meeting minutes;
- h. Potential items of interest to the public, local sponsor, or local community;
- i. The status of submittals, including lists of outstanding submittals, key submittals in review, and upcoming submittals;
- j. A listing of all field changes/modifications.

The progress meeting minutes shall be submitted to the Government and all other meeting participants for review and approval within seven days of the meeting. The review and approval process will allow for mutual acceptance of the minutes as written. As directed by the Government, the Contractor shall edit the minutes to add, delete, and/or correct items that were covered in the weekly meeting. The edited meeting minutes shall then be resubmitted within 7 days of the receipt of the Government comments.

#### 1.21 Contractor Performance Evaluations

It is the Corps' standard operating procedure that the Contracting Officer evaluate the Contractor's performance and prepare a performance report using the web-based application CCASS (Construction Contractor Appraisal Support System) for contracts of \$100,000 or more. After an evaluation (interim or final) is written up by the Corps, the Contractor has a 30 day period to access, review and comment on the evaluation. Accessing and using CCASS requires having specific software, called PKI certification, installed on the user's computer. The certification, a Department of Defense requirement, was implemented to provide security in electronic transactions. The certification software could cost approximately \$100 - \$125 per certificate per year and is purchased from an External Certificate Authorities (ECA) vendor, it is the responsibility of the Contractor to verify the current cost of the software. Current information about the PKI certification process, cost, and for contacting vendors can be found on the web site: <http://www.cpars.navy.mil/>. If the Contractor wishes to participate in the performance evaluation process, access to CCASS and PKI

certification is the sole responsibility of the Contractor.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

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1.2.4.1 Payment

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1.2.5.1 Payment

1.2.5.2 Unit of Measure

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

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## SECTION 01 22 00.00 10

## MEASUREMENT AND PAYMENT

## PART 1 GENERAL

## 1.1 LUMP SUM PAYMENT ITEMS

Payment items for the work of this contract for which contract lump sum payments will be made are listed in the BIDDING SCHEDULE and described below. All costs for items of work, which are not specifically mentioned to be included in a particular lump sum or unit price payment item, shall be included in the listed lump sum item most closely associated with the work involved. The lump sum price and payment made for each item listed shall constitute full compensation for furnishing all plant, labor, materials, and equipment, and performing any associated Contractor quality control, environmental protection, meeting safety requirements, tests and reports, and for performing all work required for which separate payment is not otherwise provided.

## 1.1.1 Mobilization and Demobilization (Bid Item 0001)

## 1.1.1.1 Payment

Payment will be made for costs associated with mobilization and demobilization, as defined in Special Clause PAYMENT FOR MOBILIZATION AND DEMOBILIZATION.

## 1.1.1.2 Unit of Measure

Unit of measure: lump sum.

## 1.1.2 Project and Safety Signs (Bid Item 0002)

## 1.1.2.1 Payment

Payment will be made for the fabrication, erection and maintenance of one (1) Project Identification Sign and one (1) Safety Performance Sign in accordance to Section 01 58 00.00 03 PROJECT SIGN AND SAFETY SIGN.

## 1.1.2.2 Unit of Measure

Unit of measure: lump sum.

## 1.1.3 Site Management and Monitoring (Bid Item 0003)

## 1.1.3.1 Payment

Payment will be made for costs associated with implementation, management, monitoring, maintenance, enhancement and performance standard activities at the contract lump sum price and shall constitute full compensation for all restoration activities associated with the maintenance and monitoring period as described in Section 32 01 92 RESTORATION MONITORING, MAINTENANCE, AND PERFORMANCE STANDARDS and Section 32 01 90 IMPLEMENTATION AND MANAGEMENT.

Payments shall be made yearly, for 3 years, and based on the performance criteria described in the above section. The Contractor shall be paid 30% of the lump sum price for year 1 and year 2, and the remaining 40% of the lump sum price after final approval in year 3. If the Contractor fails to establish the performance criteria in any year, none or partial amount of the payment percentage will be paid to the Contractor. The balance withheld from the previous year will then be paid the following year, if the performance criteria is met.

#### 1.1.3.2 Unit of Measure

Unit of measure: lump sum.

### 1.2 UNIT PRICE PAYMENT ITEMS

Payment items for the work of this contract on which the contract unit price payments will be made are listed in the BIDDING SCHEDULE and described below. The unit price and payment made for each item listed shall constitute full compensation for furnishing all plant, labor, materials, and equipment, and performing any associated Contractor quality control, environmental protection, meeting safety requirements, tests and reports, and for performing all work required for each of the unit price items.

#### 1.2.1 Debris Removal and Disposal (Bid Items 0004AA and 0004AB)

##### 1.2.1.1 Payment

Payment will be made for costs associated with removing all debris located on the project site as described in Section 31 31 13 CLEARING AND DEBRIS REMOVAL.

##### 1.2.1.2 Measurement

Unit of measure: ton

##### 1.2.1.3 Unit of Measure

Unit of measure: ton

#### 1.2.2 Clearing (Bid Item 0005)

##### 1.2.2.1 Payment

Payment will be made for costs associated with clearing as specified in Section 31 31 13 CLEARING AND DEBRIS REMOVAL.

##### 1.2.2.2 Unit of Measure

Unit of measure: acre

#### 1.2.3 Broadcast and Selective Herbiciding (Bid Item 0006)

##### 1.2.3.1 Payment

Payment will be made for costs associated with treating and controlling the growth of all invasive woody and herbaceous species as designated in Section 31 31 19 HERBICIDING INVASIVES.

1.2.3.2 Unit of Measure

Unit of measure: acre

1.2.4 Native Seeding (Bid Item 0007)

1.2.4.1 Payment

Payment will be made for costs associated with all activities required for native seeding as indicated on the plans and described in Section 32 92 19 NATIVE SEEDING. Payments made on this bid item of the bid schedule will be paid out as follows: 55% of total line item amount after seeding, 15% at the end of the first year of site management and monitoring, 15% at the end of the second year of site management and monitoring and 15% at the end of the third year of site management and monitoring. If the Contractor fails to establish the performance criteria in any year, none or partial amount of the payment percentage will be paid to the Contractor. The balance withheld from the previous year will then be paid the following year, if the performance criteria is met.

1.2.4.2 Unit of Measure

Unit of measure: acre

1.2.5 Tree Planting (Bid Item 0008)

1.2.5.1 Payment

Payment for costs associated with tree planting activities shall constitute full compensation for all excavation, plant, labor, materials, and incidentals necessary for the work as specified in Section 32 93 20 PLANTING.

1.2.5.2 Unit of Measure

Unit of measure: each (EA)

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

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PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

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SECTION 01 33 00

SUBMITTAL PROCEDURES

PART 1 GENERAL

1.1 SUBMITTAL IDENTIFICATION (SD)

Submittals required are identified by SD numbers and titles as follows:

SD-01 Preconstruction Submittals

Certificates of insurance.  
Surety bonds.  
List of proposed subcontractors.  
List of proposed products.  
Construction Progress Schedule.  
Submittal schedule.  
Schedule of values.  
Health and safety plan.  
Work plan.  
Quality control plan.  
Environmental protection plan.

SD-03 Product Data

Catalog cuts, illustrations, schedules, diagrams, performance charts, instructions and brochures illustrating size, physical appearance and other characteristics of materials or equipment for some portion of the work.

Samples of warranty language when the contract requires extended product warranties.

SD-04 Samples

Physical examples of materials, equipment or workmanship that illustrate functional and aesthetic characteristics of a material or product and establish standards by which the work can be judged.

Color samples from the manufacturer's standard line (or custom color samples if specified) to be used in selecting or approving colors for the project.

Field samples and mock-ups constructed on the project site establish standards by which the ensuring work can be judged. Includes assemblies or portions of assemblies which are to be incorporated into the project and those which will be removed at conclusion of the work.

SD-07 Certificates

Statements signed by responsible officials of manufacturer of product, system or material attesting that product, system or material meets specification requirements. Must be dated after award of project contract and clearly name the project.



Document required of Contractor, or of a supplier, installer or subcontractor through Contractor, the purpose of which is to further quality of orderly progression of a portion of the work by documenting procedures, acceptability of methods or personnel qualifications.

Confined space entry permits.

SD-10 Operation and Maintenance Data

Data intended to be incorporated in operations and maintenance manuals.

SD-11 Closeout Submittals

Documentation to record compliance with technical or administrative requirements or to establish an administrative mechanism.

As-built drawings.

Special warranties.

Posted operating instructions.

Training plan.

1.2 SUBMITTAL CLASSIFICATION

Submittals are classified as follows:

1.2.1 Government Approved

Government approval is required for extensions of design, critical materials, deviations, equipment whose compatibility with the entire system must be checked, and other items as designated by the Contracting Officer. Within the terms of the Contract Clause entitled "Specifications and Drawings for Construction," they are considered to be "shop drawings."

1.2.2 Information Only

All submittals not requiring Government approval will be for information only. They are not considered to be "shop drawings" within the terms of the Contract Clause referred to above.

1.3 APPROVED SUBMITTALS

The COR's approval of submittals shall not be construed as a complete check, but will indicate only that the general method of construction, materials, detailing and other information are satisfactory. Approval will not relieve the Contractor of the responsibility for any error which may exist, as the Contractor under the Contractor Quality Control (CQC) requirements of this contract is responsible for dimensions, the design of adequate connections and details, and the satisfactory construction of all work. After submittals have been approved by the Contracting Officer, no resubmittal for the purpose of substituting materials or equipment will be considered unless accompanied by an explanation of why a substitution is necessary.

1.4 DISAPPROVED SUBMITTALS

The Contractor shall make all corrections required by the Contracting

Officer or the COR and promptly furnish a corrected submittal in the form and number of copies specified for the initial submittal. If the Contractor considers any correction indicated on the submittals to constitute a change to the contract, a notice in accordance with the Contract Clause "Changes" shall be given promptly to the Contracting Officer.

#### 1.5 WITHHOLDING OF PAYMENT

Payment for materials incorporated in the work will not be made if required approvals have not been obtained.

#### 1.6 GENERAL

The Contractor shall make submittals as required by the specifications. The Contracting Officer may request submittals in addition to those specified when deemed necessary to adequately describe the work covered in the respective sections. Units of weights and measures used on all submittals shall be the same as those used in the contract drawings. Each submittal shall be complete and in sufficient detail to allow ready determination of compliance with contract requirements. Prior to submittal, all items shall be checked and approved by the Contractor's Quality Control (CQC) System Manager and each item shall be stamped, signed, and dated by the CQC System Manager indicating action taken. Proposed deviations from the contract requirements shall be clearly identified. Submittals shall include items such as: Contractor's, manufacturer's, or fabricator's drawings; descriptive literature including (but not limited to) catalog cuts, diagrams, operating charts or curves; test reports; test cylinders; samples; O&M manuals (including parts list); certifications; warranties; and other such required submittals. Submittals requiring Government approval shall be scheduled and made prior to the acquisition of the material or equipment covered thereby. Samples remaining upon completion of the work shall be picked up and disposed of in accordance with manufacturer's Material Safety Data Sheets (MSDS) and in compliance with existing laws and regulations. Six (6) copies of each submittal shall be sent to the following address:

US Army Corps of Engineers, Calumet Area Office, 906 Griffith  
Boulevard, Griffith, IN 46319.

#### 1.7 SUBMITTAL REGISTER

At the end of this section is a submittal register showing items of equipment and materials for which submittals are required by the specifications; this list may not be all inclusive and additional submittals may be required. The Contractor shall maintain a submittal register for the project in accordance with Section 01 45 02.00 10 QUALITY CONTROL SYSTEM (QCS).

#### 1.8 SCHEDULING

Submittals covering component items forming a system or items that are interrelated shall be scheduled to be coordinated and submitted concurrently. Certifications to be submitted with the pertinent drawings shall be so scheduled. Adequate time (a minimum of 30 calendar days exclusive of mailing time) shall be allowed and shown on the register for review and approval. No delay damages or time extensions will be allowed for time lost in late submittals.

#### 1.9 TRANSMITTAL FORM (ENG FORM 4025)

The sample transmittal form (ENG Form 4025) and instructions are attached to this section shall be used for submitting both Government approved and information only submittals in accordance with the instructions on the reverse side of the form. These forms are included in the QCS software that the Contractor is required to use for this contract. This form shall be properly completed by filling out all the heading blank spaces and identifying each item submitted. Special care shall be exercised to ensure proper listing of the specification paragraph and/or sheet number of the contract drawings pertinent to the data submitted for each item.

#### 1.10 DEVIATIONS

For submittals which include proposed deviations requested by the Contractor, the column "variation" of ENG Form 4025 shall be checked. The Contractor shall set forth in writing the reason for any deviations and annotate such deviations on the submittal. The Government reserves the right to rescind inadvertent approval of submittals containing unnoted deviations.

#### 1.11 CONTROL OF SUBMITTALS

The Contractor shall carefully control his procurement operations to ensure that each individual submittal is made on or before the Contractor scheduled submittal date shown on the approved "Submittal Register."

#### 1.12 GOVERNMENT APPROVED SUBMITTALS

Upon completion of review of submittals requiring Government approval, the submittals will be identified as having received approval by being so stamped and dated. 4 copies of the submittal will be retained by the Contracting Officer and 2 copies of the submittal will be returned to the Contractor.

#### 1.13 INFORMATION ONLY SUBMITTALS

Normally submittals for information only will not be returned. Approval of the Contracting Officer is not required on information only submittals. The Government reserves the right to require the Contractor to resubmit any item found not to comply with the contract. This does not relieve the Contractor from the obligation to furnish material conforming to the plans and specifications; will not prevent the Contracting Officer from requiring removal and replacement of nonconforming material incorporated in the work; and does not relieve the Contractor of the requirement to furnish samples for testing by the Government laboratory or for check testing by the Government in those instances where the technical specifications so prescribe.

#### 1.14 STAMPS

Stamps used by the Contractor on the submittal data to certify that the submittal meets contract requirements shall be similar to the following:

CONTRACTOR  (Firm Name)
Transmittal No.  _____ Approved
_____ Approved with corrections as noted on submittal data and/or attached sheets(s).
SIGNATURE: _____
TITLE: _____
DATE: _____

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

-- End of Section --

<b>TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR MANUFACTURER'S CERTIFICATES OF COMPLIANCE</b> <i>(Read instructions on the reverse side prior to initiating this form)</i>	DATE	TRANSMITTAL NO.
---	------	-----------------

**SECTION I - REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS *(This section will be initiated by the contractor)***

TO:	FROM:	CONTRACT NO.	CHECK ONE: <input type="checkbox"/> THIS IS A NEW TRANSMITTAL <input type="checkbox"/> THIS IS A RESUBMITTAL OF TRANSMITTAL _____
SPECIFICATION SEC. NO. <i>(Cover only one section with each transmittal)</i>	PROJECT TITLE AND LOCATION		CHECK ONE: THIS TRANSMITTAL IS FOR <input type="checkbox"/> GOVT <input type="checkbox"/> APPROVAL

ITEM NO.	DESCRIPTION OF ITEM SUBMITTED <i>(Type size, model number/etc.)</i>	MFG OR CONTR. CAT., CURVE DRAWING OR BROCHURE NO. <i>(See Instruction no. 8)</i>	NO. OF COPIES	CONTRACT REFERENCE DOCUMENT		FOR CONTRACTOR USE CODE	VARIATION <i>(See instruction no. 6)</i>	FOR CE USE CODE
				SPEC. PARA. NO.	DRAWING SHEET NO.			
a.	b.	c.	d.	e.	f.	g.	h.	i.

REMARKS	I certify that the above submitted items have been reviewed in detail and are correct and in strict conformance with the contract drawings and specifications except as other wise stated  <div style="text-align: right; margin-top: 20px;">           _____            NAME AND SIGNATURE OF CONTRACTOR         </div>
---------	--

**SECTION II - APPROVAL ACTION**

ENCLOSURES RETURNED <i>(List by Item No.)</i>	NAME, TITLE AND SIGNATURE OF APPROVING AUTHORITY	DATE
---	--	------

## Instructions

1. Section I will be initiated by the contractor in the required number of copies.
2. Each transmittal shall be numbered consecutively in the space provided for "Transmittal No.". This number, in addition to the contract number, will form a serial number for identifying each submittal. For new submittals or resubmittals mark the appropriate box; in resubmittals, insert transmittal number of last submission as well as the new submittal number.
3. The "Item No." will be the same "Item No." as indicated on ENG FORM 4288-R for each entry on this form.
5. Separate transmittal form will be used for submittals under separate section of the specifications.
6. a check shall be placed in the "Variation" column when a submittal is not in accordance with the plans and specifications—also, a written statement to that effect shall be included in the space provided for "Remarks.
7. Form is self-transmittal, letter of transmittal is not required.
8. When a sample of material or Manufacturer's Certificate of Compliance is transmitted, indicate "Sample" or "Certificate" in column c, Section I.
9. U.S. Army Corps of Engineers approving authority will assign action codes as indicated below in space provided in Section I column i to each item submitted. In addition they will ensure enclosures are indicated and attached to the form prior to return to the contractor. The Contractor will assign action codes as indicated below in Section I, column g. to each item submitted.

### THE FOLLOWING ACTION CODES ARE GIVEN TO ITEMS SUBMITTED

- A – Approved as submitted.
  - B – Approved, except as noted on drawings.
  - C – Approved, except as noted on drawings. Refer to attached sheet resubmission required.
  - D – Will be returned by separate correspondence.
  - E – Disapproved (See attached).
  - F – Receipt acknowledged.
  - FX – Receipt acknowledged, does not comply as noted with contract requirements.
  - G – Other (*Specify*)
10. Approval of items does not relieve the contractor from complying with all the requirements of the contract plans and specifications.

*(Reverse of ENG form 4025-R)*

**SUBMITTAL REGISTER**

CONTRACT NO.  
W912P6-09-B-0006

TITLE AND LOCATION Cady Marsh Ditch Wetland Mitigation						CONTRACTOR											
ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH #	GOVT CLASSIFICATION REVIEWER	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION		APPROVING AUTHORITY					MAILED TO CONTR/ DATE RCD FRM APPR AUTH	REMARKS
						SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	ACTION CODE	DATE OF ACTION	DATE FWD TO APPR AUTH/ DATE RCD FROM CONTR	DATE FWD TO OTHER REVIEWER	DATE RCD FROM OTH REVIEWER	ACTION CODE	DATE OF ACTION		
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
		01 10 00.00 03	SD-01 Preconstruction Submittals Schedule	1.6	G CS												
			Condition of Existing Structures	1.9													
			Coordination with Others	1.14	G CS												
			Drug Free Workplace														
			SD-11 Closeout Submittals														
			As-Built Drawings	1.7	G CS												
		01 35 26	SD-01 Preconstruction Submittals														
			Accident Prevention Plan (APP)	1.5	G SO												
			Activity Hazard Analysis (AHA)	1.6	G SO												
		01 45 04.00 03	SD-01 Preconstruction Submittals														
			QUALITY CONTROL PLAN	3.2	G CS												
		01 57 20.02 03	SD-01 Preconstruction Submittals														
			Environmental Protection Plan	1.7	G DH												
		31 31 19	SD-03 Product Data														
			Materials Safety Data Sheets (MSDS)														
			SD-07 Certificates														
			Herbicide License														
		31 31 20	SD-03 Product Data														
			Equipment and Manpower		G CS												
			SD-07 Certificates														
			Burn Plan		G CS												
			Open Burn Permit		G CS												
			Post Burn Permit		G CS												
		32 01 90	SD-01 Preconstruction Submittals														

**SUBMITTAL REGISTER**

CONTRACT NO.  
W912P6-09-B-0006

TITLE AND LOCATION Cady Marsh Ditch Wetland Mitigation						CONTRACTOR											
ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH	GOVT CLASSIFICATION REVIEWER	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION		APPROVING AUTHORITY				MAILED TO CONTR/ DATE RCD FRM APPR AUTH	REMARKS	
						SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	ACTION CODE	DATE OF ACTION	DATE FWD TO APPR AUTH/	DATE RCD FROM CONTR	DATE FWD TO OTHER REVIEWER	DATE RCD FROM OTH REVIEWER			ACTION CODE
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
		32 01 90	Project Schedule	1.4	G CS												
		32 92 19	SD-03 Product Data														
			Quantity Check														
			Maintenance Records														
			Seed handling records														
			Seed List														
			Schedule														
			SD-07 Certificates														
			Seed	2.1													
		32 93 20	SD-03 Product Data														
			Equipment		G CS												
			Delivery														
			Warranty		G CS												
			Maintenance Record														
			Application of Pesticide														
			SD-04 Samples														
			Basal mulch	2.2	G PL												
			SD-07 Certificates														
			Plant Material														
			Pesticide														
			SD-10 Operation and Maintenance														
			Data														
			Maintenance Instructions														



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SECTION 01 35 26

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- 1.3 REGULATORY REQUIREMENTS
- 1.4 SITE QUALIFICATIONS, DUTIES AND MEETINGS
  - 1.4.1 Personnel Qualifications
    - 1.4.1.1 Site Safety and Health Officer (SSHO)
- 1.5 ACCIDENT PREVENTION PLAN (APP)
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- 1.6 ACTIVITY HAZARD ANALYSIS (AHA)

PART 2 PRODUCTS

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-- End of Section Table of Contents --

## SECTION 01 35 26

## SAFETY REQUIREMENTS

## PART 1 GENERAL

## 1.1 REFERENCES

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

## U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1 (2008) Safety -- Safety and Health Requirements

## 1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

Government acceptance is required for submittals with a "G" designation.

## SD-01 Preconstruction Submittals

Accident Prevention Plan (APP); G, SO

Activity Hazard Analysis (AHA); G, SO

## 1.3 REGULATORY REQUIREMENTS

In addition to the detailed requirements included in the provisions of this contract, comply with USACE EM 385-1-1, "Appendix A, Paragraph 11 and the following federal, state, and local, laws, ordinances, criteria, rules and regulations. Submit matters of interpretation of standards to the appropriate administrative agency for resolution before starting work. Where the requirements of this specification, applicable laws, criteria, ordinances, regulations, and referenced documents vary, the most stringent requirements govern.

## 1.4 SITE QUALIFICATIONS, DUTIES AND MEETINGS

## 1.4.1 Personnel Qualifications

## 1.4.1.1 Site Safety and Health Officer (SSHO)

Provide a site Safety and Health Officer (SSHO) at the work site at all times to perform safety and occupational health management, surveillance, inspections, and safety enforcement for the Contractor. Meet the following requirements within the SSHO:

A minimum of 5 years safety work on similar projects.

Ability to understand and recognize job hazards.  
Documented training in the company's health and safety program.  
Documented training in the use of all equipment to be used on site.  
Authority to stop work should hazards be uncovered. This authority shall be transmitted and documented by way of company letterhead.  
Speak fluent English and any other language needed to communicate advice, guidance, instructions, and safety warnings to all members of the work crew.  
Possess current American Red Cross approved adult first aid/CPR training.

#### 1.5 ACCIDENT PREVENTION PLAN (APP)

Use a qualified person to prepare the written site-specific APP. Prepare the APP in accordance with the format and requirements of USACE EM 385-1-1 and as supplemented herein. Cover all paragraph and subparagraph elements in USACE EM 385-1-1, Appendix A, "Minimum Basic Outline for Accident Prevention Plan". Specific requirements for some of the APP elements are described below. The APP shall be job-specific and address any unusual or unique aspects of the project or activity for which it is written. The APP shall interface with the Contractor's overall safety and health program. Include any portions of the Contractor's overall safety and health program referenced in the APP in the applicable APP element and made site-specific. The Government considers the Prime Contractor to be the "controlling authority" for all work site safety and health of the subcontractors. Contractors are responsible for informing their subcontractors of the safety provisions under the terms of the contract and the penalties for noncompliance, coordinating the work to prevent one craft from interfering with or creating hazardous working conditions for other crafts, and inspecting subcontractor operations to ensure that accident prevention responsibilities are being carried out. The APP shall be signed by the person and firm (senior person) preparing the APP, the Contractor, the on-site superintendent, the designated site safety and health officer.

Submit the APP to the Contracting Officer 15 calendar days prior to the date of the preconstruction conference for acceptance. Work cannot proceed without an accepted APP.

##### 1.5.1 EM 385-1-1 Contents

In addition to the requirements outlines in Appendix A of USACE EM 385-1-1, the following is required:

- a. Names and qualifications (resumes including education, training, experience and certifications) of all site safety and health personnel designated to perform work on this project to include the designated site safety and health officer and other competent and qualified personnel. Specify the duties of each position.
- b. Names and qualifications of foreman and of qualified persons.

#### 1.6 ACTIVITY HAZARD ANALYSIS (AHA)

The Activity Hazard Analysis (AHA) format shall be in accordance with USACE EM 385-1-1. Submit the AHA for review at least 15 calendar days prior to the start of each phase. Format subsequent AHAs as amendments to the APP. The analysis should be used during daily inspections to ensure the implementation and effectiveness of the activity's safety and health

controls.

The AHA list will be reviewed periodically (at least monthly) at the Contractor supervisory safety meeting and updated as necessary when procedures, scheduling, or hazards change.

Develop the activity hazard analyses using the project schedule as the basis for the activities performed. Any activities listed on the project schedule will require an AHA. The AHAs will be developed by the contractor, supplier or subcontractor and provided to the prime contractor for submittal to the Contracting Officer.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

-- End of Section --

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DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01 42 00

SOURCES FOR REFERENCE PUBLICATIONS

PART 1 GENERAL

1.1 REFERENCES

1.2 ORDERING INFORMATION

-- End of Section Table of Contents --

## SECTION 01 42 00

## SOURCES FOR REFERENCE PUBLICATIONS

## PART 1 GENERAL

## 1.1 REFERENCES

Various publications are referenced in other sections of the specifications to establish requirements for the work. These references are identified in each section by document number, date and title. The document number used in the citation is the number assigned by the standards producing organization, (e.g. ASTM B 564 Nickel Alloy Forgings). However, when the standards producing organization has not assigned a number to a document, an identifying number has been assigned for reference purposes.

## 1.2 ORDERING INFORMATION

The addresses of the standards publishing organizations whose documents are referenced in other sections of these specifications are listed below, and if the source of the publications is different from the address of the sponsoring organization, that information is also provided. Documents listed in the specifications with numbers which were not assigned by the standards producing organization should be ordered from the source by title rather than by number.

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)  
1819 L Street, NW, 6th Floor  
Washington, DC 20036  
Ph: 202-293-8020  
Fax: 202-293-9287  
E-mail: [info@ansi.org](mailto:info@ansi.org)  
Internet: <http://www.ansi.org/>

--- ANSI documents beginning with the letter "S" can be ordered from:

Acoustical Society of America (ASA)  
2 Huntington Quadrangle, Suite 1N01  
Melville, NY 11747-4502  
Ph: 516-576-2360  
Fax: 516-576-2377  
E-mail: [asa@aip.org](mailto:asa@aip.org)  
Internet: <http://asa.aip.org>

AMERICAN NURSERY AND LANDSCAPE ASSOCIATION (ANLA)  
1000 Vermont Avenue, NW, Suite 300  
Washington, DC 20005-4914  
Ph: 202-789-2900  
Fax: 202-789-1893  
Internet: <http://www.anla.org>

ASTM INTERNATIONAL (ASTM)  
100 Barr Harbor Drive, P.O. Box C700

West Conshohocken, PA 19428-2959  
Ph: 610-832-9500  
Fax: 610-832-9555  
E-mail: [service@astm.org](mailto:service@astm.org)  
Internet: <http://www.astm.org>

U.S. ARMY CORPS OF ENGINEERS (USACE)  
Order CRD-C DOCUMENTS from:  
U.S. Army Engineer Waterways Experiment Station  
ATTN: Technical Report Distribution Section, Services  
Branch, TIC  
3909 Halls Ferry Road  
Vicksburg, MS 39180-6199  
Ph: 601-634-2664  
Fax: 601-634-2388  
E-mail: [mtc-info@erdc.usace.army.mil](mailto:mtc-info@erdc.usace.army.mil)  
Internet: <http://www.wes.army.mil/SL/MTC/handbook.htm>

Order Other Documents from:  
USACE Publications Depot  
Attn: CEHEC-IM-PD  
2803 52nd Avenue  
Hyattsville, MD 20781-1102  
Ph: 301-394-0081  
Fax: 301-394-0084  
E-mail: [pubs-army@usace.army.mil](mailto:pubs-army@usace.army.mil)  
Internet: <http://www.usace.army.mil/publications>  
or <http://www.hnd.usace.army.mil/techinfo/engpubs.htm>

U.S. DEPARTMENT OF AGRICULTURE (USDA)  
Order AMS Publications from:  
AGRICULTURAL MARKETING SERVICE (AMS)  
Seed Regulatory and Testing Branch  
801 Summit Crossing Place, Suite C  
Gastonia, NC 28054-2193  
Ph: 704-810-8870  
Fax: 704-852-4189  
Internet: <http://www.ams.usda.gov/lsg/seed.htm>  
E-mail: [seed.ams@usda.gov](mailto:seed.ams@usda.gov)

Order Other Publications from:  
U.S. Department of Agriculture, Rural Utilities Service  
14th and Independence Avenue, SW, Room 4028-S  
Washington, DC 20250  
Ph: 202-720-2791  
Fax: 202-720-2166  
Internet: <http://www.usda.gov/rus>

U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA)  
Ariel Rios Building  
1200 Pennsylvania Avenue, N.W.  
Washington, DC 20460  
Ph: 202-272-0167  
Internet: <http://www.epa.gov>

--- Some EPA documents are available only from:  
National Technical Information Service (NTIS)  
5285 Port Royal Road  
Springfield, VA 22161

Ph: 703-605-6585  
Fax: 703-605-6900  
E-mail: [info@ntis.gov](mailto:info@ntis.gov)  
Internet: <http://www.ntis.gov>

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)  
8601 Adelphi Road  
College Park, MD 20740-6001  
Ph: 866-272-6272  
Fax: 301-837-0483  
Internet: <http://www.archives.gov>

Order documents from:  
Superintendent of Documents  
U.S. Government Printing Office (GPO)  
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Washington, DC 20401  
Ph: 202-512-1800  
Fax: 202-512-2104  
E-mail: [contactcenter@gpo.gov](mailto:contactcenter@gpo.gov)  
Internet: <http://www.gpoaccess.gov>

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PART 3 EXECUTION

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## SECTION 01 45 02.00 10

## QUALITY CONTROL SYSTEM (QCS)

## PART 1 GENERAL

## 1.1 Contract Administration

The Government will use the Resident Management System for Windows (RMS) to assist in its monitoring and administration of this contract. The Contractor shall use the Government-furnished Construction Contractor Module of RMS, referred to as QCS, to record, maintain, and submit various information throughout the contract period. **The Contractor module, user manuals, updates, and training information can be downloaded from the RMS web site, <http://www.rmssupport.com/home.aspx>.** This joint Government-Contractor use of RMS and QCS will facilitate electronic exchange of information and overall management of the contract. QCS provides the means for the Contractor to input, track, and electronically share information with the Government in the following areas:

- Administration
- Finances
- Quality Control
- Submittal Monitoring
- Scheduling
- Import/Export of Data

## 1.1.1 Correspondence and Electronic Communications

For ease and speed of communications, both Government and Contractor will, to the maximum extent feasible, exchange correspondence and other documents in electronic format. Correspondence, pay requests and other documents comprising the official contract record shall also be provided in paper format, with signatures and dates where necessary. Paper documents will govern, in the event of discrepancy with the electronic version.

## 1.1.2 Other Factors

Particular attention is directed to Section 01 33 00, SUBMITTAL PROCEDURES, and Section 01 45 04.00 03, CONTRACTOR QUALITY CONTROL, which have a direct relationship to the reporting to be accomplished through QCS. Also, there is no separate payment for establishing and maintaining the QCS database; all costs associated therewith shall be included in the contract pricing for the work.

## 1.2 QCS SOFTWARE

QCS is a Windows-based program that can be run on a stand-alone personal computer or on a network. The Government will make available the QCS software to the Contractor after award of the contract. Prior to the Pre-Coordination Meeting, the Contractor shall be responsible to download, install and use the latest version of the QCS software from the Government's RMS Internet Website. Upon specific justification and request by the Contractor, the Government can provide QCS on CD-ROM. Any program updates of QCS will be made available to the Contractor via the Government

RMS Website as they become available. Any questions the Contractor encounters while importing, exporting or providing contract-required data in the QCS program can be addressed to the RMS Support Center at (760) 247-0217.

### 1.3 SYSTEM REQUIREMENTS

The following is the minimum system configuration that the Contractor shall have to run QCS:

#### QCS and QAS System

##### **Hardware**

IBM-compatible PC with 1000 MHz Pentium or higher processor  
256+ MB RAM for workstation / 512+ MB RAM for server  
1 GB hard drive disk space for sole use by the QCS system  
3 1/2 inch high-density floppy drive  
Compact Disk (CD) Reader 8x speed or higher  
SVGA or higher resolution monitor (1024x768, 256 colors)  
Mouse or other pointing device  
Windows compatible printer. (Laser printer must have 4 MB+ of RAM)  
Connection to the Internet, minimum 56k BPS

##### **Software**

MS Windows 2000 or higher  
QAS-Word Processing software: MS Word 2000 or newer  
Latest version of: Netscape Navigator, Microsoft Internet Explorer, or other browser that supports HTML 4.0 or higher  
Electronic mail (E-mail) MAPI compatible  
Virus protection software that is regularly upgraded with all issued manufacturer's updates

### 1.4 RELATED INFORMATION

#### 1.4.1 QCS User Guide

After contract award, the Contractor shall download instructions for the installation and use of QCS from the Government RMS Internet Website. In case of justifiable difficulties, the Government will provide the Contractor with a CD-ROM containing these instructions.

#### 1.4.2 Contractor Quality Control(CQC) Training

The use of QCS will be discussed with the Contractor's QC System Manager during the mandatory CQC Training class.

## 1.5 CONTRACT DATABASE

Prior to the pre-coordination meeting, the Government will provide the Contractor with basic contract award data to use for QCS. The Government will provide data updates to the Contractor as needed, generally by using the Government's SFTP repository built into QCS import/export function. These updates will generally consist of submittal reviews, correspondence status, QA comments, and other administrative and QA data.

## 1.6 DATABASE MAINTENANCE

The Contractor shall establish, maintain, and update data for the contract in the QCS database throughout the duration of the contract. The Contractor shall establish and maintain the QCS database at the Contractor's site office. Submit data updates to the Government (e.g., daily reports, submittals, RFI's, schedule updates, payment requests, etc.) using the Government's SFTP repository built into QCS export function. If permitted by the Contracting Officer, e-mail or CD-ROM may be used instead of SFTP repository (see Paragraph DATA SUBMISSION VIA CD-ROM). The QCS database typically shall include current data on the following items:

### 1.6.1 Administration

#### 1.6.1.1 Contractor Information

The database shall contain the Contractor's name, address, telephone numbers, management staff, and other required items. Within 14 calendar days of receipt of QCS software from the Government, deliver Contractor administrative data in electronic format.

#### 1.6.1.2 Subcontractor Information

The database shall contain the name, trade, address, phone numbers, and other required information for all subContractors. A subcontractor must be listed separately for each trade to be performed. Assign each subcontractor/trade a unique Responsibility Code, provided in QCS. Within 14 calendar days of receipt of QCS software from the Government, deliver subcontractor administrative data in electronic format.

#### 1.6.1.3 Correspondence

Identify all Contractor correspondence to the Government with a serial number. Prefix correspondence initiated by the Contractor's site office with "S". Prefix letters initiated by the Contractor's home (main) office with "H". Letters shall be numbered starting from 0001. (e.g., H-0001 or S-0001). The Government's letters to the Contractor will be prefixed with "C".

#### 1.6.1.4 Equipment

The Contractor's QCS database shall contain a current list of equipment planned for use or being used on the jobsite, including the most recent and planned equipment inspection dates.

#### 1.6.1.5 Management Reporting

QCS includes a number of reports that Contractor management can use to track the status of the project. The value of these reports is reflective

of the quality of the data input, and is maintained in the various sections of QCS. Among these reports are: Progress Payment Request worksheet, QA/QC comments, Submittal Register Status, Three-Phase Inspection checklists.

#### 1.6.1.6 Request For Information (RFI)

Exchange all Requests For Information (RFI) using the Built-in RFI generator and tracker in QCS.

#### 1.6.2 Finances

##### 1.6.2.1 Pay Activity Data

The QCS database shall include a list of pay activities that the Contractor shall develop in conjunction with the project schedule. The sum of all pay activities shall be equal to the total contract amount, including modifications. Group pay activities Contract Line Item Number (CLIN); the sum of the activities shall equal the amount of each CLIN. The total of all CLINs equals the Contract Amount.

##### 1.6.2.2 Payment Requests

Prepare all progress payment requests using QCS. Complete the payment request worksheet, prompt payment certification, and payment invoice in QCS. Update the work completed under the contract, measured as percent or as specific quantities, at least monthly. After the update, generate a payment request report using QCS. Submit the payment request, prompt payment certification, and payment invoice with supporting data using the Government's SFTP repository built into QCS export function. If permitted by the Contracting Officer, e-mail or a CD-ROM may be used. A signed paper copy of the approved payment request is also required, which will govern in the event of discrepancy with the electronic version.

#### 1.6.3 Quality Control (QC)

QCS provides a means to track implementation of the 3-phase QC Control System, prepare daily reports, identify and track deficiencies, document progress of work, and support other Contractor QC requirements. Maintain this data on a daily basis. Entered data will automatically output to the QCS generated daily report. Provide the Government a Contractor Quality Control (CQC) Plan within the time required in Section 01 45 04.00 10, CONTRACTOR QUALITY CONTROL. Within seven calendar days of Government acceptance, submit a QCS update reflecting the information contained in the accepted CQC Plan: schedule, pay activities, features of work, submittal register, QC requirements, and equipment list.

##### 1.6.3.1 Daily Contractor Quality Control (CQC) Reports.

QCS includes the means to produce the Daily CQC Report. The Contractor may use other formats to record basic QC data. However, the Daily CQC Report generated by QCS shall be the Contractor's official report. Summarize data from any supplemental reports by the Contractor and consolidate onto the QCS-generated Daily CQC Report. Submit daily CQC Reports as required by Section 01 45 04.00 10, CONTRACTOR QUALITY CONTROL. Electronically submit reports to the Government within 24 hours after the date covered by the report. Also provide the Government a signed, printed copy of the daily CQC report.

#### 1.6.3.2 Deficiency Tracking.

The Contractor shall use QCS to track deficiencies. Deficiencies identified by the Contractor will be numerically tracked using QC punch list items. The Contractor shall maintain a current log of its QC punch list items in the QCS database. The Government will log the deficiencies it has identified using its QA punch list items. The Government's QA punch list items will be included in its export file to the Contractor. The Contractor shall regularly update the correction status of both QC and QA punch list items.

#### 1.6.3.3 QC Requirements

Develop and maintain a complete list of QC testing and required structural and life safety special inspections required by the International Code Council (ICC), transferred and installed property, and user training requirements in QCS. Update all data on these QC requirements as work progresses, and promptly provide this information to the Government via QCS.

#### 1.6.3.4 Three-Phase Control Meetings

The Contractor shall maintain scheduled and actual dates and times of preparatory and initial control meetings in QCS.

#### 1.6.3.5 Labor and Equipment Hours

Log labor and equipment exposure hours on a daily basis. This data will be rolled up into a monthly exposure report.

#### 1.6.3.6 Accident/Safety Reporting

The Government will issue safety comments, directions, or guidance whenever safety deficiencies are observed. The Government's safety comments will be included in its export file to the Contractor. Regularly update the correction status of the safety comments. In addition, utilize QCS to advise the Government of any accidents occurring on the jobsite. This brief supplemental entry is not to be considered as a substitute for completion of mandatory reports, e.g., ENG Form 3394 and OSHA Form 300.

#### 1.6.3.7 Features of Work

The Contractor shall include a complete list of the features of work in the QCS database. A feature of work may be associated with multiple pay activities. However, each pay activity (see subparagraph "Pay Activity Data" of paragraph "Finances") will only be linked to a single feature of work.

#### 1.6.3.8 Hazard Analysis

Use QCS to develop a hazard analysis for each feature of work included in the CQC Plan. The hazard analysis shall address any hazards, or potential hazards, that may be associated with the work

#### 1.6.4 Submittal Management

The Government will provide the initial submittal register in electronic format. Thereafter, the Contractor shall maintain a complete list of all submittals, including completion of all data columns. Dates on which submittals are received and returned by the Government will be included in

its export file to the Contractor. The Contractor shall use QCS to track and transmit all submittals. ENG Form 4025, submittal transmittal form, and the submittal register update shall be produced using QCS. QCS and RMS will be used to update, store and exchange submittal registers and transmittals, but will not be used for storage of actual submittals.

#### 1.6.5 Schedule

Develop a project schedule consisting of pay activities. This schedule shall be input and maintained in the QCS database either manually or by using the Standard Data Exchange Format (SDEF). The updated schedule data shall be included with each pay request submitted by the Contractor.

#### 1.6.6 Import/Export of Data

QCS includes the ability to export Contractor data to the Government and to import submittal register and other Government-provided data from RMS, and schedule data using SDEF.

### 1.7 IMPLEMENTATION

Contractor use of QCS as described in the preceding paragraphs is mandatory. Ensure that sufficient resources are available to maintain its QCS database, and to provide the Government with regular database updates. QCS shall be an integral part of the Contractor's management of quality control.

#### 1.8 DATA SUBMISSION VIA CD-ROM

The Government-preferred method for Contractor's submission of QCS data is by using the Government's SFTP repository built into QCS export function. Other data should be submitted using E-mail with file attachment(s). For locations where this is not feasible, the Contracting Officer may permit use of CD-ROM for data transfer. Export data onto CDs using the QCS built-in export function. If used, submit CD-ROMs in accordance with the following:

##### 1.8.1 File Medium

Submit required data on CD-ROM. They shall conform to industry standards used in the United States. All data shall be provided in English.

##### 1.8.2 CD-ROM Labels

Affix a permanent exterior label to each CD-ROM submitted. The label shall indicate in English, the QCS file name, full contract number, contract name, project location, data date, name and telephone number of person responsible for the data.

##### 1.8.3 File Names

The files will be automatically named by the QCS software. The naming convention established by the QCS software shall not be altered in any way by the Contractor.

#### 1.9 MONTHLY COORDINATION MEETING

Update the QCS database each workday. At least monthly, generate and submit an export file to the Government with schedule update and progress



payment request. As required in Contract Clause "Payments", at least one week prior to submittal, meet with the Government representative to review the planned progress payment data submission for errors and omissions.

Make all required corrections prior to Government acceptance of the export file and progress payment request. Payment requests accompanied by incomplete or incorrect data submittals will be returned. The Government will not process progress payments until an acceptable QCS export file is received.

#### 1.10 NOTIFICATION OF NONCOMPLIANCE

The Contracting Officer will notify the Contractor of any detected noncompliance with the requirements of this specification. Take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the work site, will be deemed sufficient for the purpose of notification.

#### PART 2 PRODUCTS

Not used.

#### PART 3 EXECUTION

Not used.

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## SECTION 01 45 04.00 03

## CONTRACTOR QUALITY CONTROL

## PART 1 GENERAL

## 1.1 REFERENCES

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

## ASTM INTERNATIONAL (ASTM)

ASTM D 3740	(2004) Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction
ASTM E 329	(2005b) Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction

## 1.2 PAYMENT

Separate payment will not be made for providing and maintaining an effective Quality Control program, and all costs associated therewith shall be included in the applicable unit prices or lump-sum prices contained in the Bidding Schedule.

## 1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

## SD-01 Preconstruction Submittals

## QUALITY CONTROL PLAN; G,CS

## PART 2 PRODUCTS (Not Applicable)

## PART 3 EXECUTION

## 3.1 GENERAL REQUIREMENTS

The Contractor is responsible for quality control and shall establish and maintain an effective quality control system. The quality control system shall consist of plans, procedures, and organization necessary to produce an end product which complies with the contract requirements. The system shall cover all operations, both onsite and offsite, and shall be keyed to the proposed sequence. The site project superintendent will be held responsible for the quality of work on the job and is subject to removal by

the Contracting Officer for non-compliance with the quality requirements specified in the contract. The site project superintendent in this context shall be the highest level manager responsible for the overall activities at the site, including quality and production. The site project superintendent shall maintain a physical presence at the site at all times, except as otherwise acceptable to the Contracting Officer, and shall be responsible for all activities at the site.

### 3.2 QUALITY CONTROL PLAN

The Contractor shall furnish for review by the Government, not later than 15 days after receipt of notice to proceed, the Contractor Quality Control (CQC) Plan proposed to implement the requirements. The plan shall identify personnel, procedures, control, instructions, tests, records, and forms to be used. The Government will consider an interim plan for the first 15 days of operation. Service will be permitted to begin only after acceptance of the CQC Plan or acceptance of an interim plan applicable to the particular feature of work to be started. Work outside of the features of work included in an accepted interim plan will not be permitted to begin until acceptance of a CQC Plan or another interim plan containing the additional features of work to be started.

#### 3.2.1 Content of the CQC Plan

The CQC Plan shall include, as a minimum, the following to cover all operations, both onsite and offsite, including work by subContractors, fabricators, suppliers, and purchasing agents:

- a. A description of the quality control organization, including a chart showing lines of authority and acknowledgment that the CQC staff shall implement the three phase control system for all aspects of the work specified. The staff shall include a CQC System Manager who shall report to the project superintendent.
- b. The name, qualifications (in resume format), duties, responsibilities, and authorities of each person assigned a CQC function.
- c. A copy of the letter to the CQC System Manager signed by an authorized official of the firm which describes the responsibilities and delegates sufficient authorities to adequately perform the functions of the CQC System Manager, including authority to stop work which is not in compliance with the contract. The CQC System Manager shall issue letters of direction to all other various quality control representatives outlining duties, authorities, and responsibilities. Copies of these letters shall also be furnished to the Government.
- d. Procedures for scheduling, reviewing, certifying, and managing submittals, including those of subContractors, offsite fabricators, suppliers, and purchasing agents. These procedures shall be in accordance with Section 01 33 00 SUBMITTAL PROCEDURES.
- e. Control, verification, and acceptance testing procedures for each specific test to include the test name, specification paragraph requiring test, feature of work to be tested, test frequency, and person responsible for each test. (Laboratory facilities approved by the Contracting Officer shall be used.)

- f. Procedures for tracking preparatory, initial, and follow-up control phases and control, verification, and acceptance tests including documentation.
- g. Procedures for tracking deficiencies from identification through acceptable corrective action. These procedures shall establish verification that identified deficiencies have been corrected.
- h. Reporting procedures, including proposed reporting formats.
- i. A list of the definable features of work. A definable feature of work is a task which is separate and distinct from other tasks, has separate control requirements, and may be identified by different trades or disciplines, or it may be work by the same trade in a different environment. Although each section of the specifications may generally be considered as a definable feature of work, there are frequently more than one definable features under a particular section. This list will be agreed upon during the coordination meeting.

### 3.2.2 Acceptance of Plan

Acceptance of the Contractor's plan is required prior to the start of work. Acceptance is conditional and will be predicated on satisfactory performance during the contract. The Government reserves the right to require the Contractor to make changes in his CQC Plan and operations including removal of personnel, as necessary, to obtain the quality specified.

### 3.2.3 Notification of Changes

After acceptance of the CQC Plan, the Contractor shall notify the Contracting Officer in writing of any proposed change. Proposed changes are subject to acceptance by the Contracting Officer.

## 3.3 COORDINATION MEETING

After the Pre-Coordination meeting, before start of contract work, and prior to acceptance by the Government of the CQC Plan, the Contractor shall meet with the Contracting Officer or Authorized Representative and discuss the Contractor's quality control system. The CQC Plan shall be submitted for review a minimum of 14 calendar days prior to the Coordination Meeting. During the meeting, a mutual understanding of the system details shall be developed, including the forms for recording the CQC operations, control activities, testing, administration of the system for both onsite and offsite work, and the interrelationship of Contractor's Management and control with the Government's Quality Assurance. Minutes of the meeting shall be prepared by the Government and signed by both the Contractor and the Contracting Officer. The minutes shall become a part of the contract file. There may be occasions when subsequent conferences will be called by either party to reconfirm mutual understandings and/or address deficiencies in the CQC system or procedures which may require corrective action by the Contractor.

## 3.4 QUALITY CONTROL ORGANIZATION

### 3.4.1 Personnel Requirements

The requirements for the CQC organization are a CQC System Manager and

sufficient number of additional qualified personnel to ensure safety and contract compliance. The Safety and Health Manager shall receive direction and authority from the CQC System Manager and shall serve as a member of the CQC staff. Personnel identified in the technical provisions as requiring specialized skills to assure the required work is being performed properly will also be included as part of the CQC organization. The Contractor's CQC staff shall maintain a presence at the site at all times during progress of the work and have complete authority and responsibility to take any action necessary to ensure contract compliance. The CQC staff shall be subject to acceptance by the Contracting Officer. The Contractor shall provide adequate office space, filing systems and other resources as necessary to maintain an effective and fully functional CQC organization. Complete records of all letters, material submittals, shop drawing submittals, schedules and all other project documentation shall be promptly furnished to the CQC organization by the Contractor. The CQC organization shall be responsible to maintain these documents and records at the site at all times, except as otherwise acceptable to the Contracting Officer.

#### 3.4.2 CQC System Manager

The Contractor shall identify as CQC System Manager an individual within the onsite work organization who shall be responsible for overall management of CQC and have the authority to act in all CQC matters for the Contractor. The CQC System Manager shall be a person with a minimum of 7 years in related work. This CQC System Manager shall be on the site at all times during contract work and shall be employed by the prime Contractor. The CQC System Manager shall be assigned no other duties except those of CQC System Manager. An alternate for the CQC System Manager shall be identified in the plan to serve in the event of the System Manager's absence. The requirements for the alternate shall be the same as for the designated CQC System Manager.

#### 3.4.3 Quality Management for Contractors

If the contract award is in excess of one million dollars \$1,000,000.00, the CQC system manager is required to have a current certificate of completion for the Corps of Engineers course, "Construction Quality Management for Contractors". If the CQC manager does not have a current training certificate, then he/she will be required to obtain the training within 60 days of the contract "Notice to Proceed". The training will take about 16 hours to complete. This course will be offered at the U.S. Army Corps of Engineers, Chicago District Office, 111 N. Canal Street, Suite 600, Chicago, Illinois. It is the Contractor's responsibility to arrange a time with the Construction section for the training. Point of contact for arranging this training will be Doug Anderson at 312-846-5473 or Natalie Mills at 219-923-1763.

#### 3.4.4 Organizational Changes

The Contractor shall maintain the CQC staff at full strength at all times. When it is necessary to make changes to the CQC staff, the Contractor shall revise the CQC Plan to reflect the changes and submit the changes to the Contracting Officer for acceptance.

#### 3.5 SUBMITTALS AND DELIVERABLES

Submittals, if needed, shall be made as specified in Section 01 33 00 SUBMITTAL PROCEDURES. The CQC organization shall be responsible for certifying that all submittals and deliverables are in compliance with the

contract requirements.

### 3.6 CONTROL

Contractor Quality Control is the means by which the Contractor ensures that the services, to include that of sub Contractors and suppliers, complies with the requirements of the contract. At least three phases of control shall be conducted by the CQC System Manager for each definable feature of the service work as follows:

#### 3.6.1 Preparatory Phase

This phase shall be performed prior to beginning work on each definable feature of work, after all required plans/documents/materials are approved/accepted, and after copies are at the work site. This phase shall include:

- a. A review of each paragraph of applicable specifications, reference codes, and standards. A copy of those sections of referenced codes and standards applicable to that portion of the work to be accomplished in the field shall be made available by the Contractor at the preparatory inspection. These copies shall be maintained in the field and available for use by Government personnel until final acceptance of the work.
- b. A review of the contract drawings.
- c. A check to assure that all materials and/or equipment have been tested, submitted, and approved.
- d. Review of provisions that have been made to provide required control inspection and testing.
- e. Examination of the work area to assure that all required preliminary work has been completed and is in compliance with the contract.
- f. A physical examination of required materials, equipment, and sample work to assure that they are on hand, conform to approved shop drawings or submitted data, and are properly stored.
- g. A review of the appropriate activity hazard analysis to assure safety requirements are met.
- h. Discussion of procedures for controlling quality of the work including repetitive deficiencies. Document tolerances and workmanship standards for that feature of work.
- i. A check to ensure that the portion of the plan for the work to be performed has been accepted by the Contracting Officer.
- j. Discussion of the initial control phase.
- k. The Government shall be notified at least 48 hours in advance of beginning the preparatory control phase. This phase shall include a meeting conducted by the CQC System Manager and attended by the superintendent, other CQC personnel (as applicable), and the foreman responsible for the definable feature. The results of the preparatory phase actions shall be documented by separate minutes

prepared by the CQC System Manager and attached to the daily CQC report. The Contractor shall instruct applicable workers as to the acceptable level of workmanship required in order to meet contract specifications.

### 3.6.2 Initial Phase

This phase shall be accomplished at the beginning of a definable feature of work. The following shall be accomplished:

- a. A check of work to ensure that it is in full compliance with contract requirements. Review minutes of the preparatory meeting.
- b. Verify adequacy of controls to ensure full contract compliance. Verify required control inspection and testing.
- c. Establish level of workmanship and verify that it meets minimum acceptable workmanship standards. Compare with required sample panels as appropriate.
- d. Resolve all differences.
- e. Check safety to include compliance with and upgrading of the safety plan and activity hazard analysis. Review the activity analysis with each worker.
- f. The Government shall be notified at least twenty-four (24) hours in advance of beginning the initial phase. Separate minutes of this phase shall be prepared by the CQC System Manager and attached to the daily CQC report. Exact location of initial phase shall be indicated for future reference and comparison with follow-up phases.
- g. The initial phase should be repeated for each new crew to work onsite, or any time acceptable specified quality standards are not being met.

### 3.6.3 Follow-up Phase

Daily checks shall be performed to assure control activities, including control testing, are providing continued compliance with contract requirements, until completion of the particular feature of work. The checks shall be made a matter of record in the CQC documentation. Final follow-up checks shall be conducted and all deficiencies corrected prior to the start of additional features of work which may be affected by the deficient work. The Contractor shall not build upon nor conceal non-conforming work.

### 3.6.4 Additional Preparatory and Initial Phases

Additional preparatory and initial phases shall be conducted on the same definable features of work if: the quality of on-going work is unacceptable; if there are changes in the applicable CQC staff, onsite production supervision or work crew; if work on a definable feature is resumed after a substantial period of inactivity; or if other problems develop.



### 3.7 TESTS

#### 3.7.1 Testing Procedure

The Contractor shall perform specified or required tests to verify that control measures are adequate to provide a product which conforms to contract requirements. Upon request, the Contractor shall furnish to the Government duplicate samples of test specimens for possible testing by the Government. Testing includes operation and/or acceptance tests when specified. The Contractor shall procure the services of a Corps of Engineers approved testing laboratory or establish an approved testing laboratory at the project site. The Contractor shall perform the following activities and record and provide the following data:

- a. Verify that testing procedures comply with contract requirements.
- b. Verify that facilities and testing equipment are available and comply with testing standards.
- c. Check test instrument calibration data against certified standards.
- d. Verify that recording forms and test identification control number system, including all of the test documentation requirements, have been prepared.
- e. Results of all tests taken, both passing and failing tests, shall be recorded on the CQC report for the date taken. Specification paragraph reference, location where tests were taken, and the sequential control number identifying the test shall be given. If approved by the Contracting Officer, actual test reports may be submitted later with a reference to the test number and date taken. An information copy of tests performed by an offsite or commercial test facility shall be provided directly to the Contracting Officer. Failure to submit timely test reports as stated may result in nonpayment for related work performed and disapproval of the test facility for this contract.

#### 3.7.2 Testing Laboratories

##### 3.7.2.1 Capability Check

The Government reserves the right to check laboratory equipment in the proposed laboratory for compliance with the standards set forth in the contract specifications and to check the laboratory technician's testing procedures and techniques. Laboratories utilized for testing soils, concrete, asphalt, and steel shall meet criteria detailed in ASTM D 3740 and ASTM E 329.

##### 3.7.2.2 Capability Recheck

If the selected laboratory fails the capability check, the Contractor will be assessed a charge of \$2,500 to reimburse the Government for each succeeding recheck of the laboratory or the checking of a subsequently selected laboratory. Such costs will be deducted from the contract amount due the Contractor.

#### 3.7.3 Onsite Laboratory

The Government reserves the right to utilize the Contractor's control

testing laboratory and equipment to make assurance tests, and to check the Contractor's testing procedures, techniques, and test results at no additional cost to the Government.

#### 3.7.4 Furnishing or Transportation of Samples for Testing

Costs incidental to the transportation of samples or materials shall be borne by the Contractor. Samples of materials for test verification and acceptance testing by the Government shall be delivered to the Contracting Officer, unless otherwise specified or directed.

### 3.8 COMPLETION INSPECTION

#### 3.8.1 Punch-Out Inspection

Near the end of the work, or any increment of the work established by a time stated in the SPECIAL CONTRACT REQUIREMENTS Clause, "Commencement, Prosecution, and Completion of Work", or by the specifications, the CQC Manager shall conduct an inspection of the work. A punch list of items which do not conform to the approved drawings and specifications shall be prepared and included in the CQC documentation, as required by paragraph DOCUMENTATION. The list of deficiencies shall include the estimated date by which the deficiencies will be corrected. The CQC System Manager or staff shall make a second inspection to ascertain that all deficiencies have been corrected. Once this is accomplished, the Contractor shall notify the Government that the facility is ready for the Government Pre-Final inspection.

#### 3.8.2 Pre-Final Inspection

The Government will perform the pre-final inspection to verify that the facility is complete and ready to be occupied. A Government Pre-Final Punch List may be developed as a result of this inspection. The Contractor's CQC System Manager shall ensure that all items on this list have been corrected before notifying the Government, so that a Final inspection with the customer can be scheduled. Any items noted on the Pre-Final inspection shall be corrected in a timely manner. These inspections and any deficiency corrections required by this paragraph shall be accomplished within the time slated for completion of the entire work or any particular increment of the work if the project is divided into increments by separate completion dates.

#### 3.8.3 Final Acceptance Inspection

The Contractor's Quality Control Inspection personnel, plus the superintendent or other primary management person, and the Contracting Officer's Representative shall be in attendance at the final acceptance inspection. Additional Government personnel including, but not limited to, those from Base/Post Civil Facility Engineer user groups, and major commands may also be in attendance. The final acceptance inspection will be formally scheduled by the Contracting Officer based upon results of the Pre-Final inspection. Notice shall be given to the Contracting Officer at least 14 days prior to the final acceptance inspection and shall include the Contractor's assurance that all specific items previously identified to the Contractor as being unacceptable, along with all remaining work performed under the contract, will be complete and acceptable by the date scheduled for the final acceptance inspection. Failure of the Contractor to have all contract work acceptably complete for this inspection will be cause for the Contracting Officer to bill the Contractor for the

Government's additional inspection cost.

### 3.9 DOCUMENTATION

The Contractor shall maintain current records providing factual evidence that required quality control activities and/or tests have been performed. These records shall include the work of subContractors and suppliers and shall be on an acceptable form that includes, as a minimum, the following information:

- a. Contractor/subContractor and their area of responsibility.
- b. Operating plant/equipment with hours worked, idle, or down for repair.
- c. Work performed each day, giving location, description, and by whom. When Network Analysis (NAS) is used, identify each phase of work performed each day by NAS activity number.
- d. Test and/or control activities performed with results and references to specifications/drawings requirements. The control phase shall be identified (Preparatory, Initial, Follow-up). List of deficiencies noted, along with corrective action.
- e. Quantity of materials received at the site with statement as to acceptability, storage, and reference to specifications/drawings requirements.
- f. Submittals and deliverables reviewed, with contract reference, by whom, and action taken.
- g. Offsite surveillance activities, including actions taken.
- h. Job safety evaluations stating what was checked, results, and instructions or corrective actions.
- i. Instructions given/received and conflicts in plans and/or specifications.
- j. Contractor's verification statement.
- k. As-built contract drawings consisting of two (2) full size sets of contract drawings marked in red to depict all conditions differing from the original plans.
- l. Shop drawings consisting of three (3) complete sets of prints as finally approved.
- m. These records shall indicate a description of trades working on the project; the number of personnel working; weather conditions encountered; and any delays encountered. These records shall cover both conforming and deficient features and shall include a statement that equipment and materials incorporated in the work and workmanship comply with the contract. The original and one copy of these records in report form shall be furnished to the Government daily within twenty-four (24) hours after the date(s) covered by the report, except that reports need not be submitted for days on which no work is performed unless no work was performed as a result of adverse weather. As a minimum, one

report shall be prepared and submitted for every seven days of no work and on the last day of a no work period. All calendar days shall be accounted for throughout the life of the contract. The first report following a day of no work shall be for that day only. Reports shall be signed and dated by the CQC system manager. The report from the CQC system manager shall include copies of test reports and copies of reports prepared by all subordinate quality control personnel.

### 3.10 SAMPLE FORMS

The web-based Quality Control System (QCS) will generate the CQC Daily Report and other forms needed to track and manage the project.

### 3.11 NOTIFICATION OF NONCOMPLIANCE

The Contracting Officer will notify the Contractor of any detected noncompliance with the foregoing requirements. The Contractor shall take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the work site, shall be deemed sufficient for the purpose of notification. If the Contractor fails or refuses to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to such stop orders shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

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## SECTION 01 57 20.02 03

## ENVIRONMENTAL PROTECTION FOR INDIANA

## PART 1 GENERAL

## 1.1 REFERENCES

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

## U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1	(2008) Safety -- Safety and Health Requirements
WETLAND MANUAL	Corps of Engineers Wetlands Delineation Manual Technical Report Y-87-1

## U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

33 CFR 328	Definitions of Waters of the United States
40 CFR 68	Chemical Accident Prevention Provisions
40 CFR 152 - 186	Pesticide Programs
40 CFR 261	Identification and Listing of Hazardous Waste
40 CFR 262	Standards Applicable to Generators of Hazardous Waste
40 CFR 279	Standards for the Management of Used Oil
40 CFR 302	Designation, Reportable Quantities, and Notification
40 CFR 355	Emergency Planning and Notification
49 CFR 171 - 178	Hazardous Materials Regulations

## INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT (IDEM)

326 IAC 6	Indiana Administrative Code, Volume 6, Title 326, Article 6. Particulate Rules
327 IAC 2-6.1	Indiana Administrative Code, Volume 6, Title 327, Article 2, Rule 6.1. Spills; Reporting, Containment, and Response
327 IAC 15-5	Indiana Administrative Code, Volume 6, Title 327, Article 15, Section 5. Storm

## Water Run-off Associated with Construction Activity

- 327 IAC 15-5-6 Indiana Administrative Code, Volume 6, Title 327, Article 15, Section 5-6. Submittal of an NOI letter and construction plans
- 327 IAC 15-5-6.5 Indiana Administrative Code, Volume 6, Title 327, Article 15, Section 5-6.5. Requirements for Construction Plans
- 327 IAC 15-5-7 Indiana Administrative Code, Volume 6, Title 327, Article 15, Section 5-7. General Requirements for Storm Water Quality Control
- IC 15-3-3.6 Pesticide Use and Application

## 1.2 DEFINITIONS

## 1.2.1 Environmental Pollution and Damage

Environmental pollution and damage is the presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances of importance to human life; affect other species of importance to humankind; or degrade the environment aesthetically, culturally and/or historically.

## 1.2.2 Environmental Protection

Environmental protection is the prevention/control of pollution and habitat disruption that may occur to the environment during construction. The control of environmental pollution and damage requires consideration of land, water, and air; biological and cultural resources; and includes management of visual aesthetics; noise; solid, chemical, gaseous, and liquid waste; radiant energy and radioactive material as well as other pollutants.

## 1.2.3 Contractor Generated Hazardous Waste

Contractor generated hazardous waste means materials that, if abandoned or disposed of, may meet the definition of a hazardous waste. These waste streams would typically consist of material brought on site by the Contractor to execute work, but are not fully consumed during the course of construction. Examples include, but are not limited to, excess paint thinners (i.e. methyl ethyl ketone, toluene etc.), waste thinners, excess paints, excess solvents, waste solvents, and excess pesticides, and contaminated pesticide equipment rinse water.

## 1.2.4 Hazardous Waste

Wastes designated by the U.S. Environmental Protection Agency as hazardous, as defined in 40 CFR 261.

## 1.2.5 Land Application for Discharge Water

The term "Land Application" for discharge water implies that the Contractor shall discharge water at a rate which allows the water to percolate into



the soil. No sheeting action, soil erosion, discharge into storm sewers, discharge into defined drainage areas, or discharge into the "waters of the United States" shall occur. Land Application shall be in compliance with all applicable Federal, State, and local laws and regulations.

#### 1.2.6 Pesticide

Pesticide is defined as any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest, or intended for use as a plant regulator, defoliant, or desiccant.

#### 1.2.7 Pests

The term "pests" means arthropods, birds, rodents, nematodes, fungi, bacteria, viruses, algae, snails, marine borers, snakes, weeds and other organisms (except for human or animal disease-causing organisms) that adversely affect readiness, military operations, or the well-being of personnel and animals; attack or damage real property, supplies, equipment, or vegetation; or are otherwise undesirable.

#### 1.2.8 Surface Discharge

The term "Surface Discharge" implies that the water is discharged with possible sheeting action and subsequent soil erosion may occur. Waters that are surface discharged may terminate in drainage ditches, storm sewers, creeks, and/or "waters of the United States". All projects with land disturbances greater than or equal to one acre in total area must have a National Pollution Discharge Elimination System (NPDES) Construction Site Activity Storm Water Permit, issued by the Indiana Department of Environmental Management. All projects with discharge of dredged or fill material to waters of the United States must have a Section 401 Water Quality Permit issued by the Indiana Department of Environmental Management.

#### 1.2.9 Waters of the United States

All waters which are under the jurisdiction of the Clean Water Act, as defined in 33 CFR 328. The Contractor shall comply with all provisions of Section 401 of the Clean Water Act.

#### 1.2.10 Wetlands

Wetlands means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, and bogs. Official determination of whether or not an area is classified as a wetland must be done in accordance with WETLAND MANUAL.

### 1.3 GENERAL REQUIREMENTS

The Contractor shall minimize environmental pollution and damage that may occur as the result of construction operations. The environmental resources within the project boundaries and those affected outside the limits of permanent work shall be protected during the entire duration of this contract. The Contractor shall comply with all applicable environmental Federal, State, and local laws and regulations. The Contractor shall be responsible for any delays resulting from failure to comply with environmental laws and regulations.

#### 1.4 SUBCONTRACTORS

The Contractor shall ensure compliance with this section by subcontractors.

#### 1.5 PAYMENT

No separate payment will be made for work covered under this section. The Contractor shall be responsible for payment of fees associated with environmental permits, application, and/or notices obtained by the Contractor. All costs associated with this section shall be included in the contract price. The Contractor shall be responsible for payment of all fines/fees for violation or non-compliance with Federal, State, Regional and local laws and regulations.

#### 1.6 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

##### SD-01 Preconstruction Submittals

##### Environmental Protection Plan; G, DH

The environmental protection plan. Requirements for this plan are given in paragraph 1.7.

#### 1.7 ENVIRONMENTAL PROTECTION PLAN

Prior to commencing construction site activities or delivery of materials to the site, the Contractor shall submit an Environmental Protection Plan for review and approval by the Contracting Officer. The purpose of the Environmental Protection Plan is to present a comprehensive overview of known or potential environmental issues which the Contractor must address during construction. Issues of concern shall be defined within the Environmental Protection Plan as outlined in this section. The Contractor shall address each topic at a level of detail commensurate with the environmental issue and required construction task(s). Topics or issues which are not identified in this section, but which the Contractor considers necessary, shall be identified and discussed after those items formally identified in this section. Prior to submittal of the Environmental Protection Plan, the Contractor shall meet with the Contracting Officer for the purpose of discussing the implementation of the initial Environmental Protection Plan; possible subsequent additions and revisions to the plan including any reporting requirements; and methods for administration of the Contractor's Environmental Plan. The Environmental Protection Plan shall be current and maintained on site by the Contractor. Approval of the Contractor's plan will not relieve the Contractor of his responsibility for adequate and continuing control of pollutants and other environmental protection measures.

##### 1.7.1 Compliance

No requirement in this Section shall be construed as relieving the Contractor of any applicable Federal, State, and local environmental protection laws and regulations. During construction, the Contractor shall

be responsible for identifying, implementing, and submitting for approval any additional requirements to be included in the Environmental Protection Plan.

#### 1.7.2 Contents

The Environmental Protection Plan shall include, but shall not be limited to, the following:

- a. Name(s) of person(s) within the Contractor's organization who is(are) responsible for ensuring adherence to the Environmental Protection Plan.
- b. Name(s) and qualifications of person(s) responsible for manifesting hazardous waste to be removed from the site, if applicable.
- c. Name(s) and qualifications of person(s) responsible for training the Contractor's personnel and all subcontractor's personnel in environmental protection.
- d. Description of the Contractor's environmental protection personnel training program, including training for all site employees and subcontractors.
- e. A map of the site, showing site boundaries, waterways on or adjacent to the site, 100 year flood plains, soil types, location of vegetative cover, location and dimensions of storm water drainage systems and natural drainage patterns on and adjacent to the site, locations of utilities structures and roads, site topography (existing and planned), and any potential areas where point sources may enter the groundwater.
- f. Construction Plan and Storm Water Pollution Prevention Plan.
  1. All projects must comply with the State of Indiana's NPDES General Permit for storm water run-off associated with construction activity, as described in 327 IAC 15-5. The Construction Plan shall meet all requirements listed in 327 IAC 15-5-6.5, including, but not limited to: project narrative and supporting documents; vicinity map depicting the project site location; existing project site layout map that indicates structures, waterways, soil maps, vegetation, adjacent land-use, and topography; final project site layout map; a grading plan indicating locations of proposed temporary excavations or embankments for haul roads, stream crossings, material storage areas, structures, sanitary facilities, and stockpiles of excess or spoil material; a drainage plan; and a Storm Water Pollution Prevention Plan. The Storm Water Pollution Prevention Plan shall include all items listed in 327 IAC 15-5-7 including, but not limited to, the following: description of temporary and permanent storm water quality measures; temporary stabilization plans; permanent stabilization plans; construction sequencing describing the relationship between implementation of storm water quality measures and stages of construction, including a schedule of these activities; self-monitoring program; description of potential pollutant sources associated with construction activities; and material handling and storage.
  2. If land disturbing activities are greater than or equal to one

acre, it is the responsibility of the Contractor to have the Construction Plan, which includes the Storm Water Pollution Prevention Plan, reviewed and approved by the applicable reviewing agency. The State of Indiana designates different reviewing agencies for different counties in the state. Commonly, the reviewing agency is the local Soil and Water Conservation District (SWCD) or Department of Natural Resources Division of Soil Conservation. Information on approving agencies can be obtained from the Indiana Department of Environmental Management. The reviewing agency has up to 28 days from the date of submittal to review the Construction Plan. The Environmental Protection Plan must include documentation of the reviewing agency's approval of the Construction Plan, or the Contractor shall submit, in the instance that the reviewing agency has exceeded the 28 day review period, documentation that the reviewing agency has exceeded the review period. If notice of a deficient plan is received, the plans must be revised to satisfy the deficiencies in accordance with 327 IAC 15-5-6 and resubmitted to the reviewing agency, at which time the 28-day review period starts over.

3. The Government will review the Environmental Protection Plan, including the Construction and Storm Water Pollution Prevention Plans. If land disturbing activities are greater than or equal to one acre, the Government will then submit the Notice of Intent (NOI), along with the proof of public notice and permit fee, to the Indiana Department of Environmental Management and the appropriate reviewing agency after the plan has been approved. The Contractor will be notified of the submission date for the NOI. No land disturbing activity shall take place until 48 hours after submission of the NOI. Approval of the Contractor's plan will not relieve the Contractor of his responsibility for adequate and continuing control of pollutants and other environmental protection measures.

4. The Government will provide copies of the NOI, and all other Government correspondence with IDEM, to the Contractor. The Contractor shall post the information required in 327 IAC15-5-7 (b)(6) in a publicly accessible location near the main entrance of the project site. The location will be jointly agreed to by the Contractor and the Government during the Pre-Construction Conference. The Contractor shall take all actions necessary to keep the NOI and correspondence protected from the weather so that it remains legible. If, in the judgment of the Contracting Officer's Representative, the documents degrade to the point of being illegible, the Contractor shall replace the documents with fresh copies and remedy the problems that caused the degradation.

g. Drawings showing locations of proposed temporary excavations or embankments for haul roads, stream crossings, material storage areas, structures, sanitary facilities, and stockpiles of excess or spoil materials including methods to control runoff and to contain materials on the site.

h. Traffic control plan that includes measures to reduce erosion of temporary roadbeds by construction traffic, especially during wet weather. The traffic control plan shall also include measures to prevent and minimize the amount of mud transported onto paved public roads by vehicles or runoff. Should mud or dirt be transported onto paved public roads by vehicles or runoff, the Contractor shall as

needed or directed by the Contracting Officer remove the mud or dirt from the pavement using commercial street cleaning equipment, such as a "street sweeper," or other equipment approved by the Contracting Officer's Representative.

i. Work Area Plan showing the proposed activity in each portion of the area and identifying the areas of limited use or nonuse. Plan should include measures for marking the limits of use areas including methods for protection of features to be preserved within authorized work areas.

j. A Spill Control Plan including the procedures, instructions, and reports to be used in the event of an unforeseen spill of a substance regulated by 40 CFR 68, 40 CFR 302, 40 CFR 355, and/or regulated under State or Local laws and regulations. The Spill Control Plan supplements the requirements of EM 385-1-1. The plan shall meet the requirements of 327 IAC 2-6.1. This plan shall include as a minimum:

1. The name of the individual who will report any spills or hazardous substance releases and who will follow up with complete documentation. This individual shall immediately notify the Contracting Officer and the local fire department or emergency response agency in addition to the legally required Federal, State, and local reporting channels (including the National Response Center 1-800-424-8802) if a reportable quantity is released to the environment. The plan shall contain a list of the required reporting channels and telephone numbers.

2. The name and qualifications of the individual who will be responsible for implementing and supervising the containment and cleanup.

3. Training requirements for Contractor's personnel and any subcontractors, and methods of accomplishing the training.

4. A list of materials and equipment to be immediately available at the job site, tailored to cleanup work of the potential hazard(s) identified.

5. The names and locations of suppliers of containment materials and locations of additional fuel oil recovery, cleanup, restoration, and material-placement equipment available in case of an unforeseen spill emergency.

6. The methods and procedures to be used for expeditious contaminant cleanup.

k. A non-hazardous solid waste disposal plan identifying methods and locations for solid waste disposal, including clearing debris. Specific information shall be provided on the proposed off-site disposal of solid waste, if necessary. The plan shall include schedules for disposal. The Contractor shall identify any subcontractors responsible for the transportation and disposal of waste. Licenses or permits shall be submitted for solid waste disposal sites that are not a commercial operating facility. Evidence of the disposal facility's acceptance of the waste shall be attached to this plan during the construction. The Contractor shall attach a copy of each of the Non-hazardous Solid Waste Diversion Reports to the disposal plan. The report shall be submitted on the first working day after the first quarter that non-hazardous solid waste has been disposed and/or

diverted and shall be for the previous quarter (e.g. the first working day of January, April, July, and October). The report shall indicate the total amount of waste generated and total amount of waste diverted in cubic yards or tons along with the percent that was diverted.

l. A recycling and solid waste minimization plan with a list of measures to reduce consumption of energy and natural resources. The plan shall detail the Contractor's actions to comply with and to participate in Federal, State, Regional, and local government sponsored recycling programs to reduce the volume of solid waste at the source.

m. An air pollution control plan detailing provisions to assure that dust, debris, materials, trash, etc. do not become airborne and travel off the project site. The air pollution control plan shall include a dust control plan. Air pollution control shall comply with 326 IAC 6.

n. A contaminant prevention plan that: identifies potentially hazardous substances to be used on the job site; identifies the intended actions to prevent introduction of such materials into the air, water, or ground; and details provisions for compliance with Federal, State, and local laws and regulations for storage and handling of these materials. In accordance with EM 385-1-1, a copy of the Material Safety Data Sheets (MSDS) and the maximum quantity of each hazardous material to be on site at any given time shall be included in the Contaminant Prevention Plan. As new hazardous materials are brought on site or removed from the site, the plan shall be updated.

o. A historical, archaeological, cultural resources, biological resources, and wetlands plan that defines procedures for identifying and protecting historical, archaeological, cultural resources, biological resources and wetlands known to be on the project site: and/or identifies procedures to be followed if historical archaeological, cultural resources, biological resources and wetlands not previously known to be on site or in the area are discovered during construction. The plan shall include methods to assure the protection of known or discovered resources and shall identify lines of communication between Contractor personnel and the Contracting Officer.

p. A plan for any plant (including trees, roots, vegetation) material that will be removed from within a quarantined area. The Contractor must identify the current quarantine areas, the specific pests, and the method(s) for compliance with any quarantines. The Contractor is responsible for obtaining any permits or approvals necessary for plant purchase, movement, or disposal within a quarantine area.

q. A pesticide treatment plan shall be included and updated, as information becomes available. The plan shall include: sequence of treatment, dates, times, locations, pesticide trade name, EPA registration numbers, authorized uses, chemical composition, formulation, original and applied concentration, application rates of active ingredient (i.e. pounds of active ingredient applied), equipment used for application and calibration of equipment. The Contractor is responsible for Federal, State, Regional and Local pest management record keeping and reporting requirements.

### 1.7.3 Appendix

Copies of all environmental permits, permit application packages, approvals to construct, notifications, certifications, reports, and termination

documents shall be attached, as an appendix, to the Environmental Protection Plan.

#### 1.8 PROTECTION FEATURES

Prior to the start of any on-site construction activities, the Contractor and the Contracting Officer shall make a joint condition survey. Immediately following the survey, the Contractor shall prepare a brief report including a plan describing the features requiring protection under the provisions of the Contract Clauses, which are not specifically identified on the drawings as environmental features requiring protection along with the condition of trees, shrubs and grassed areas immediately adjacent to the site of work and adjacent to the Contractor's assigned storage area and access route(s), as applicable. This survey report shall be signed by both the Contractor and the Contracting Officer upon mutual agreement as to its accuracy and completeness. The Contractor shall protect those environmental features included in the survey report and any indicated on the drawings, regardless of interference which their preservation may cause to the Contractor's work under the contract.

#### 1.9 ENVIRONMENTAL ASSESSMENT OF CONTRACT DEVIATIONS

Any deviations, requested by the Contractor, from the drawings, plans and specifications which may have an environmental impact will be subject to approval by the Contracting Officer and may require an extended review, processing, and approval time. The Contracting Officer reserves the right to disapprove alternate methods, even if they are more cost effective, if the Contracting Officer determines that the proposed alternate method will have an adverse environmental impact.

#### 1.10 NOTIFICATION

The Contracting Officer will notify the Contractor in writing of any observed noncompliance with Federal, State or local environmental laws or regulations, permits, and other elements of the Contractor's Environmental Protection plan. The Contractor shall, after receipt of such notice, inform the Contracting Officer of the proposed corrective action and take such action when approved by the Contracting Officer. The Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No time extensions shall be granted or equitable adjustments allowed to the Contractor for any such suspensions. This is in addition to any other actions the Contracting Officer may take under the contract, or in accordance with the Federal Acquisition Regulation or Federal Law.

### PART 2 PRODUCTS (NOT USED)

### PART 3 EXECUTION

#### 3.1 ENVIRONMENTAL PERMITS AND COMMITMENTS

This paragraph supplements the Contractor's responsibility under the contract clause "PERMITS AND RESPONSIBILITIES" to the extent that the Government has obtained the Section 401 Water Quality Certification. The Contractor shall comply with the terms and conditions of the 401 Certification attached at the end of this section.

The Contractor shall comply with the terms and conditions of the State of Indiana's NPDES General Permit for storm water run-off associated with

construction activity. If land disturbing activities are greater than or equal to one acre, the Government will apply for coverage under the General Permit and will submit the Notice of Intent (NOI) to the Indiana Department of Environmental Management.

The Contractor shall be responsible for obtaining and complying with all environmental permits and commitments required by Federal, State, Regional, and local environmental laws and regulations.

#### 3.1.1 NOI Posting Requirement

The Government will provide copies of the NOI (if applicable), and all other applicable Government correspondence with IDEM, to the Contractor. The Contractor shall post the information required in 327 IAC 15-5-7 (b)(6) in a publicly accessible location near the entrance of the project site. The location will be jointly agreed to by the Contractor and the Government during the pre-construction conference. The Contractor shall take all actions necessary to keep the NOI and applicable correspondence protected from the weather so that it remains legible. If, in the judgment of the Contracting Officer's Representative, the documents degrade to the point of being illegible, the Contractor shall replace the documents with fresh copies and remedy the problems that caused the degradation.

#### 3.2 LAND RESOURCES

The Contractor shall confine all activities to areas defined by the drawings and specifications. Prior to the beginning of any construction, the Contractor shall identify any land resources to be preserved within the work area. Except in areas indicated on the drawings or specified to be cleared, the Contractor shall not remove, cut, deface, injure, or destroy land resources including trees, shrubs, vines, grasses, topsoil, and land forms without approval. No ropes, cables, or guys shall be fastened to or attached to any trees for anchorage unless specifically authorized. The Contractor shall provide effective protection for land and vegetation resources at all times as defined in the following subparagraphs. Stone, soil, or other materials displaced into uncleared areas shall be removed by the Contractor.

##### 3.2.1 Work Area Limits

Prior to commencing construction activities, the Contractor shall mark the areas that need not be disturbed under this contract. Isolated areas within the general work area which are not to be disturbed shall be marked or fenced. Monuments and markers shall be protected before construction operations commence. Where construction operations are to be conducted during darkness, any markers shall be visible in the dark. The Contractor's personnel shall be knowledgeable of the purpose for marking and/or protecting particular objects.

##### 3.2.2 Landscape

Trees, shrubs, vines, grasses, land forms and other landscape features indicated and defined on the drawings to be preserved shall be clearly identified by marking, fencing, or wrapping with boards, or any other approved techniques. The Contractor shall restore landscape features damaged or destroyed during construction operations outside the limits of the approved work area.



### 3.2.3 Erosion Control and Sediment Controls

The Contractor shall be responsible for providing erosion and sediment control measures in accordance with Federal, State, and local laws and regulations. The erosion and sediment controls selected and maintained by the Contractor shall be such that water quality standards are not violated as a result of the Contractor's construction activities. The area of bare soil exposed at any one time by construction operations should be kept to a minimum. The Contractor shall construct or install temporary and permanent erosion and sediment control best management practices (BMPs). BMPs may include, but not be limited to, vegetation cover, stream bank stabilization, slope stabilization, silt fences, construction of terraces, interceptor channels, sediment traps, inlet and outfall protection, diversion channels, and sedimentation basins. The Contractor's best management practices shall also be in accordance with the State of Indiana National Pollutant Discharge Elimination System (NPDES) Storm Water Pollution Prevention requirements. Any temporary measures shall be removed after the area has been stabilized.

### 3.2.4 Contractor Facilities and Work Areas

The Contractor's field offices, staging areas, stockpile storage, and temporary buildings shall be placed in areas designated on the drawings or as directed by the Contracting Officer. Temporary movement or relocation of Contractor facilities shall be made only when approved. Erosion and sediment controls shall be provided for on-site borrow and spoil areas to prevent and minimize sediment from entering nearby waters. Temporary excavation and embankments for plant and/or work areas shall be controlled to protect adjacent areas.

## 3.3 WATER RESOURCES

The Contractor shall monitor construction activities to prevent pollution of surface and ground waters. Toxic or hazardous chemicals shall not be applied to soil or vegetation unless otherwise indicated. All water areas affected by construction activities shall be monitored by the Contractor. For construction activities immediately adjacent to impaired surface waters, the Contractor shall be capable of quantifying sediment or pollutant loading to that surface water when required by a Clean Water Act permit.

### 3.3.1 Stream Crossings

Stream crossings shall allow movement of materials or equipment without violating water pollution control standards of the Federal, State, and local governments. The Contractor shall comply with the State of Indiana water quality standards and anti-degradation provisions, Section 404 of the Clean Water Act, and the Section 401 Water Quality Certification for construction of stream crossing for this project. If the Contractor proposes additional temporary or permanent stream crossings not shown on the project drawings, or authorized under an existing permit, the Contractor must obtain all necessary permits for construction of the proposed stream crossing prior to the start of work.

### 3.3.2 Wetlands

The Contractor shall not allow discharge of contaminants into any wetlands. The Contractor shall be responsible for the protection of wetlands. Authorization to enter specific wetlands identified shall not

relieve the Contractor from any obligation to protect other wetlands within, adjacent to, or in the vicinity of the construction site and associated boundaries.

### 3.3.3 Control of Aquatic Nuisance Species

The Contractor shall conduct operating practices to prevent the spread of Aquatic Nuisance Species (ANS). Such practices shall include, but not be limited to, cleaning equipment to prevent the spread of seeds, eggs, larvae, or other dispersal vectors; and discharging or exchanging ballast water, or other water, from a vessel of any type to prevent transfer of water from one water body into another. Contractor remove all plants, sediment, and organisms from the vessel and shall thoroughly clean all equipment before being used on the project site.

## 3.4 AIR RESOURCES

Equipment operation, activities, or processes performed by the Contractor shall be in accordance with all Federal, State, and local air emission and performance laws and standards.

### 3.4.1 Particulates

Dust particles; aerosols and gaseous by-products from construction activities; and processing and preparation of materials, such as from asphaltic batch plants; shall be controlled at all times, including weekends, holidays and hours when work is not in progress. The Contractor shall maintain excavations, stockpiles, haul roads, permanent and temporary access roads, plant sites, spoil areas, borrow areas, and other work areas within or outside the project boundaries free from particulates which would cause the Federal, State, and local air pollution standards to be exceeded or which would cause a hazard or a nuisance. Sprinkling, chemical treatment of an approved type, baghouse, scrubbers, electrostatic precipitators or other methods will be permitted to control particulates in the work area. Sprinkling, to be efficient, must be repeated to keep the disturbed area damp at all times. The Contractor must have sufficient, competent equipment available to accomplish these tasks. Particulate control shall be performed as the work proceeds and whenever a particulate nuisance or hazard occurs. The Contractor shall comply with all State and local visibility regulations including 326 IAC 6.

### 3.4.2 Odors

Odors from construction activities shall be controlled at all times. The odors shall not cause a health hazard and shall be in compliance with State of Indiana regulations and/or local ordinances.

### 3.4.3 Sound Intrusions

The Contractor shall keep construction activities under surveillance and control to minimize environment damage by noise. Noise levels shall be in compliance with applicable local codes and regulations.

### 3.4.4 Burning

Burning will be allowed on the project site as specified in Section 31 31 20 CONTROLLED BURNING of the specifications. The specific time, location, and manner of burning shall be subject to approval.

### 3.5 CHEMICAL MATERIALS MANAGEMENT AND WASTE DISPOSAL

Disposal of wastes shall be as directed below, unless otherwise specified in other sections and/or shown on the drawings.

#### 3.5.1 Solid Wastes

Solid wastes (excluding clearing and demolition debris) shall be placed in containers which are emptied on a regular schedule. Handling, storage, and disposal shall be conducted to prevent contamination. Segregation measures shall be employed so that no hazardous or toxic waste will become co-mingled with solid waste. The Contractor shall transport solid waste off Government property and dispose of it in compliance with Federal, State, and local requirements for solid waste disposal. A Subtitle D RCRA permitted landfill shall be the minimum acceptable off-site solid waste disposal option. The Contractor shall verify that the selected transporters and disposal facilities have the necessary permits and licenses to operate. The Contractor shall comply with Federal, State, and local laws and regulations pertaining to the use of landfill areas.

#### 3.5.2 Chemicals and Chemical Wastes

Chemicals shall be dispensed ensuring no spillage to the ground or water. Periodic inspections of dispensing areas to identify leakage and initiate corrective action shall be performed and documented. This documentation will be periodically reviewed by the Government. Chemical waste shall be collected in corrosion resistant, compatible containers. Collection drums shall be monitored and removed to a staging or storage area when contents are within 6 inches of the top. Wastes shall be classified, managed, stored, and disposed of in accordance with Federal, State, and local laws and regulations.

#### 3.5.3 Contractor Generated Hazardous Wastes/Excess Hazardous Materials

Hazardous wastes are defined in 40 CFR 261, or are as defined by applicable State and local regulations. Hazardous materials are defined in 49 CFR 171 - 178. The Contractor shall, at a minimum, manage and store hazardous waste in compliance with 40 CFR 262. The Contractor shall take sufficient measures to prevent spillage of hazardous and toxic materials during dispensing. The Contractor shall segregate hazardous waste from other materials and wastes, shall protect it from the weather by placing it in a safe covered location, and shall take precautionary measures such as berming or other appropriate measures against accidental spillage. The Contractor shall be responsible for storage, describing, packaging, labeling, marking, and placarding of hazardous waste and hazardous material in accordance with 49 CFR 171 - 178, State, and local laws and regulations. The Contractor shall transport Contractor generated hazardous waste off Government property within 60 days in accordance with the Environmental Protection Agency and the Department of Transportation laws and regulations. The Contractor shall dispose of hazardous waste in compliance with Federal, State and local laws and regulations. Spills of hazardous or toxic materials shall be immediately reported to the Contracting Officer. Cleanup and cleanup costs due to spills shall be the Contractor's responsibility. The disposition of Contractor generated hazardous waste and excess hazardous materials are the Contractor's responsibility.

#### 3.5.4 Fuel and Lubricants

Storage, fueling and lubrication of equipment and motor vehicles shall be conducted in a manner that affords the maximum protection against spill and evaporation. Fuel, lubricants and oil shall be managed and stored in accordance with all Federal, State, Regional, and local laws and regulations. Used lubricants and used oil to be discarded shall be stored in marked corrosion-resistant containers and recycled or disposed in accordance with 40 CFR 279, State, and local laws and regulations. Storage of fuel on the project site shall be in accordance with all Federal, State, and local laws and regulations, and must have the approval of the Contracting Officer.

#### 3.5.5 Waste Water

Disposal of waste water shall be as specified below, and the details concerning the disposal of waste water shall be described in the Waste Water Management Plan.

- a. Waste water from construction activities, such as onsite material processing (including sediment dewatering), shall not be allowed to enter water ways or to be discharged prior to being treated to remove pollutants. The Contractor shall dispose of the construction related waste water off-Government property in accordance with all Federal, State, Regional and Local laws and regulations.
- b. For discharge of ground water, the Contractor shall obtain a State or Federal permit specific for pumping and discharging ground water prior to surface discharging. All surface discharge shall be done in accordance with the requirements of the NPDES Construction Site Activity Storm Water Permit. Land application shall be in accordance with all Federal, State, Regional, and/or Local laws and regulations for pumping and land applying ground water.

#### 3.6 RECYCLING AND WASTE MINIMIZATION

The Contractor shall participate in State and local government sponsored recycling programs. The Contractor is further encouraged to minimize solid waste generation throughout the duration of the project.

#### 3.7 NON-HAZARDOUS SOLID WASTE DIVERSION REPORT

The Contractor shall maintain an inventory of non-hazardous solid waste diversion and disposal of clearing and demolition debris. The Contractor shall submit a report to the Contracting Officer on the first working day after each fiscal year quarter, starting the first quarter that non-hazardous solid waste has been generated. The following shall be included in the report:

- a. Clearing and Demolition (C&D) Debris Disposed = \_\_\_\_\_ in cubic yards or tons, as appropriate.
- b. Clearing and Demolition (C&D) Debris Recycled = \_\_\_\_\_ in cubic yards or tons, as appropriate.
- c. Total C&D Debris Generated = \_\_\_\_\_ in cubic yards or tons, as appropriate.

- d. Waste Sent to Waste-To-Energy Incineration Plant (This amount should not be included in the recycled amount) = \_\_\_\_\_ in cubic yards or tons, as appropriate.

### 3.8 HISTORICAL, ARCHAEOLOGICAL, AND CULTURAL RESOURCES

Historical, archaeological, and cultural resources are not known to exist within the Contractor's work area. If during excavation or other construction activities any previously unidentified or unanticipated historical, archaeological, and cultural resources are discovered or found, all activities that may damage or alter such resources shall be temporarily suspended. Resources covered by this paragraph include but are not limited to: any human skeletal remains or burials; artifacts; shell, midden, bone, charcoal, or other deposits; rock or coral alignments, pavings, wall, or other constructed features; and any indication of agricultural or other human activities. Upon such discovery or find, the Contractor shall immediately notify the Contracting Officer so that the appropriate authorities may be notified and a determination made as to their significance and what, if any, special disposition of the finds should be made. The Contractor shall cease all activities that may result in impact to or the destruction of these resources. The Contractor shall secure the area and prevent employees or other persons from trespassing on, removing, or otherwise disturbing such resources.

### 3.9 BIOLOGICAL RESOURCES

The Contractor shall minimize interference with, disturbance to, and damage to fish, wildlife, and plants including their habitat. The Contractor shall be responsible for the protection of threatened and endangered animal and plant species including their habitat in accordance with Federal, State, Regional, and local laws and regulations.

### 3.10 INTEGRATED PEST MANAGEMENT

In order to minimize impacts to existing fauna and flora, the Contractor shall coordinate with the Contracting Officer Representative at the earliest possible time prior to pesticide application. The Contractor shall discuss integrated pest management strategies with the Contracting Officer Representative and receive concurrence from the Contracting Officer Representative prior to the application of any pesticide associated with these specifications. The use and management of pesticides are regulated under 40 CFR 152 - 186 and IC 15-3-3.6 and IC 15-3-3.6.

#### 3.10.1 Pesticide Delivery and Storage

Pesticides shall be delivered to the site in the original, unopened containers bearing legible labels indicating the EPA registration number and the manufacturer's registered uses. Pesticides shall be stored according to manufacturer's instructions and under lock and key when unattended.

#### 3.10.2 Qualifications

For the application of pesticides, the Contractor shall use the services of a subcontractor whose principal business is pest control. The subcontractor shall be licensed and certified in Indiana.

### 3.10.3 Pesticide Handling Requirements

The Contractor shall formulate, treat with, and dispose of pesticides and associated containers in accordance with label directions and shall use the clothing and personal protective equipment specified on the labeling for use during all phases of the application. Material Safety Data Sheets (MSDS) shall be available for all pesticide products.

### 3.10.4 Application

Pesticides shall be applied by a State Certified Pesticide Applicator in accordance with EPA label restrictions and recommendation. The Certified Applicator shall wear clothing and personal protective equipment as specified on the pesticide label. The Contractor shall not allow the equipment to overflow. Prior to application of pesticide, all equipment shall be inspected for leaks, clogging, wear, or damage and shall be repaired prior to being used.

### 3.11 PREVIOUSLY USED EQUIPMENT

The Contractor shall clean all previously used construction equipment prior to bringing it onto the project site. The Contractor shall ensure that the equipment is free from soil residuals, egg deposits from plant pests, noxious weeds, and plant seeds.

### 3.12 MAINTENANCE OF POLLUTION FACILITIES

The Contractor shall maintain permanent and temporary pollution control facilities and devices for the duration of the contract or for that length of time construction activities create the particular pollutant.

### 3.13 TRAINING OF CONTRACTOR PERSONNEL

The Contractor's personnel and subcontractor personnel shall be trained in all phases of environmental protection and pollution control. The Contractor shall conduct environmental protection/pollution control meetings for all Contractor personnel prior to commencing construction activities. Additional meetings shall be conducted for new personnel and when site conditions change. As a minimum, the training and meeting agenda shall include: methods of detecting and avoiding pollution; familiarization with statutory and contractual pollution standards; installation and care of devices, vegetative covers, and instruments required for monitoring purposes to ensure adequate and continuous environmental protection/pollution control; anticipated hazardous or toxic chemicals or wastes, and other regulated contaminants; recognition and protection of archaeological sites, artifacts, wetlands, and endangered species and their habitat that are known to be in the area.

### 3.14 POST CONSTRUCTION CLEANUP

The Contractor shall clean up all areas used for construction in accordance with Contract Clause: "Cleaning Up". The Contractor shall, unless otherwise instructed in writing by the Contracting Officer, obliterate all signs of temporary construction facilities such as haul roads, work area, structures, foundations of temporary structures, stockpiles of excess or waste materials, and other vestiges of construction prior to final acceptance of the work. The disturbed area shall be graded, filled and the entire area seeded unless otherwise indicated.

-- End of Section --



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We make Indiana a cleaner, healthier place to live.*

Joseph E. Kernan  
Governor

Lori F. Kaplan  
Commissioner

100 North Senate Avenue  
P.O. Box 6015  
Indianapolis, Indiana 46206-6015  
(317) 232-8603  
(800) 451-6027  
[www.IN.gov/idem](http://www.IN.gov/idem)

VIA CERTIFIED MAIL 7002 0510 0004 2630 2312

July 29, 2004

Mr. Imad N. Samara  
Cady Marsh Ditch Project Manager  
U.S. Army Corps of Engineers, Chicago District  
111 North Canal Street  
Chicago, IL 60606-7206

Dear Mr. Samara:

Re: Section 401 Water Quality Certification  
Project: Cady Marsh Ditch  
IDEM No.: 2004-354-45-MTM-A  
County: Lake

In correspondence, dated October 24, 2001, the Indiana Department of Environmental Management denied Section 401 Water Quality Certification for proposed activities on Cady Marsh Ditch in Lake County, Indiana as proposed in the Chicago District, U.S. Army Corps of Engineers' application for Section 401 Water Quality Certification received June 22, 2001. The proposed project would have involved dredging and clearing of debris from Cady Marsh Ditch and the placement of fill material in approximately 3 acres of forested wetland. Mitigation was offered for impacts to Cady Marsh Ditch and associated forested wetlands. We have subsequently reviewed your revised application materials for Section 401 Water Quality Certification dated June 24, 2004. According to the revised application it is now proposed to install 6,400 linear feet of 10-foot diameter underground pipe 30-40 feet under Arbogast Avenue; construct and outlet structure at the north end of Arbogast Avenue; excavate a 60 x 200 foot ditch to carry flood water from the outlet structure to the Little Calumet River and clear 1300 linear feet of an existing ditch that leads into the Little Calumet River of trash and debris. The proposed modification minimizes stream impacts and minimizes impacts to wetlands to 0.33 acres. It is proposed to mitigate for the wetland impacts by establishing 2.0 acres of wetland adjacent between Clark and Chase Streets south of the Little Calumet River in Griffith. We have also reviewed your correspondence dated July 6, 2004, and your correspondence dated July 22, 2004, providing additional information on the wetland mitigation (Attachments A and B).

Based on available information, it is the judgment of this office that the proposed project will comply with the applicable provisions of 327 IAC 2 and Sections 301, 302, 303, 306, and 307 of the Clean Water Act if the recipient of the certification complies with the conditions set forth below. Therefore, subject to the following conditions, the Indiana Department of Environmental Management (IDEM) hereby grants Section 401 Water Quality Certification for the project described in your revised application dated June 24, 2004, and as modified in your correspondences dated July 6, 2004, and July 22, 2004. Any changes in project design or scope not detailed in the application described above or modified by the conditions below are not authorized by this certification.

**GENERAL CONDITIONS:**

The recipient of the certification shall:

1. Deposit any dredged material in a contained upland disposal area to prevent sediment runoff to any waterbody. Dispose of all dredged and excavated material according to the requirements of 329 IAC 10, governing Solid Waste Land Disposal Facilities. Your project information may be forwarded to the IDEM Office of Land Quality, Industrial Waste Section for review. Sampling may be required to determine if the dredged sediment is contaminated. Failure to properly dispose of contaminated sediment may result in enforcement action against you.
2. Install erosion control methods prior to any soil disturbance to prevent soil from leaving the construction site. Appropriate erosion control methods include, but are not limited to, straw bale barriers, silt fencing, erosion control blankets, phased construction sequencing, and earthen berms. Monitor and maintain erosion control structures and devices regularly, especially after rain events, until all soils disturbed by construction activities have been permanently stabilized.
3. Clearly mark the construction limits at the project site during construction.
4. Allow the commissioner or an authorized representative of the commissioner (including an authorized contractor), upon the presentation of credentials:
  - a. to enter the property of the recipient of the certification;
  - b. to have access to and copy at reasonable times any records that must be kept under the conditions of this certification;
  - c. to inspect, at reasonable times, any monitoring or operational equipment or method; collection, treatment, pollution management or discharge facility or device; practices required by this certification; and any mitigation wetland site;
  - d. to sample or monitor any discharge of pollutants or any mitigation wetland site.



5. Complete all approved discharges no later than two (2) years of the date of issuance of this Section 401 Water Quality Certification. The applicant may request a one (1) year extension to the Section 401 Water Quality Certification by submitting a written request ninety (90) days prior to the deadline stated above. The written request shall contain an account of which discharges and mitigation have been completed and list the reasons an extension is requested.

**PROJECT SPECIFIC CONDITIONS:**

The recipient of the certification shall:

1. Implement the mitigation plan as described in the application for Section 401 Water Quality Certification dated June 24, 2004, and as modified in the correspondences dated July 6, 2004, and July 22, 2004, (referred to collectively hereinafter as the “mitigation plan”), and as modified by the conditions of this certification. The wetland(s) created or restored pursuant to the mitigation plan shall be referred to hereinafter as the “mitigation wetland” or “mitigation wetlands.”
2. Complete all activities necessary to create the mitigation wetland within one (1) year of the effective date of this certification, unless IDEM grants a written extension upon request. These activities include excavation, grading, installation of hydrologic controls, and planting.
3. Clearly identify on-site all mitigation wetlands after construction of the mitigation wetlands. Install survey markers to identify the boundaries of the wetlands. If the mitigation wetlands to be created are adjacent to or near existing wetlands, then the survey markers must distinguish the created wetland from the existing wetland.
4. Monitor the mitigation wetland annually to determine whether it is achieving the success criteria contained in Project Specific Condition 8 of this certification and complete corrective actions as are necessary to ensure the mitigation wetland will achieve the success within the required period. These corrective actions may include additional grading, plantings, or relocation of the mitigation wetland, along with extended monitoring. Describe in the monitoring reports any corrective actions taken to ensure success of the mitigation site.
5. Submit annual monitoring reports of the mitigation wetland to this office by December 31 of each year until released from monitoring by this office. These reports shall contain information concerning what steps the recipient of the certification has taken to create the mitigation wetland and whether the wetland is

achieving each of the success criteria outlined in Project Specific Condition 9. The reports shall include the following:

- a. The IDEM identification number.
  - b. As-built plans (in the first year's report).
  - c. Discussion of hydrology at the mitigation site.
  - d. Discussion of plant community development at the mitigation wetland site.
  - e. Discussion of methods or means used to determine compliance with the success criteria.
  - f. Photographs representative of the mitigation wetland site and sampling points.
  - g. Identification of any problems with meeting the success criteria.
  - h. Recommendations for correcting any problems identified.
  - i. Wetland delineation for the mitigation wetland in the final report.
6. Monitor the mitigation wetland for a minimum period of three (3) years. In order to be released from monitoring, the recipient of the certification must demonstrate to IDEM, through monitoring reports, that the success criteria specified in Project Specific Condition 9 have been met for two (2) consecutive years within a five (5) year period. Once the recipient of the certification believes it has met this requirement, they may submit a proposed final monitoring report to IDEM and suspend monitoring unless notified otherwise by IDEM. If IDEM determines that the success criteria have not been met, then the recipient of the certification shall resume monitoring. If IDEM confirms that the success criteria have been met, then the recipient of the certification may permanently discontinue monitoring after it receives written notification of this determination from IDEM.
7. Include a delineation of all mitigation wetlands in the final monitoring report. The delineation must be conducted on-site using the hydrology and vegetation parameters from the United States Army Corps of Engineers Wetland Delineation Manual, Technical Report Y-87-1 (January 1987). The delineation report must include data sheets and a survey, map or drawing with area measurements (in acres) of all mitigation wetland boundaries.
8. Ensure that the mitigation wetland meets all of the following success criteria for two consecutive years within five (5) years of the creation of the wetland:
- a. Greater than 50% of the dominant vegetation species must be classified as hydrophytic.
  - b. The hydrology at the mitigation wetland site must meet the wetland hydrology criteria contained in the United States Army Corps of Engineers Wetland Delineation Manual, Technical Report Y-87-1 (January, 1987).
  - c. The combined surface area coverage of reed canary grass (*Phalaris arundinacea*) and cattail (*Typha spp.*) shall not cover more than 15% of the mitigation wetland.

- d. The mitigation wetland is free of the following exotic species: *Lythrum salicaria* (purple loosestrife), *Phragmites australis* (common reed) and *Myriophyllum spicatum* (water milfoil).
  - e. Native vegetation excluding cattail (*Typha spp.*) must cover at least 70% of the mitigation wetland site.
  - f. No more than 10% of the surface area coverage of the mitigation wetland may be open water, bare ground or a combination of the two. Open water and bare ground are defined as areas with less than 10% vegetative cover.
  - g. The mitigation wetland consists of 2.0 acres of emergent wetland.
  - h. Any additional success criteria set forth in the mitigation plan.
- 9. Remove any temporary causeway or other structures used to facilitate construction or access upon completion of construction activities.
  - 10. Install silt fence or other erosion control measures around the perimeter of any wetlands and/or other waterbodies to remain undisturbed at the project site.
  - 11. Allow no construction equipment, temporary run-arounds, coffer dams, causeways, or other such structures to enter or be constructed within the stream, unless specifically stated, depicted, or detailed in the aforementioned correspondence and project plans. A modification of this Section 401 Water Quality Certification is required from this office if any of the aforementioned items are needed for project construction.

This permit approval does not relieve the recipient of the permit from the responsibility of obtaining any other permits or authorizations that may be required for this project or related activities from IDEM or any other agency or person. You may wish to contact the Indiana Department of Natural Resources at 317-232-4160 (toll free at 877-928-3755) concerning the possible requirement of natural freshwater lake or floodway permits. In addition, you may wish to contact IDEM's Stormwater Permits Section at 317-233-1864 concerning the possible need for a 327 IAC 15-5 (Rule 5) permit if you plan to disturb greater than one (1) acre of soil during construction.

This certification does not:

- (1) authorize impacts or activities outside the scope of this certification;
- (2) authorize any injury to persons or private property or invasion of other private rights, or any infringement of federal, state or local laws or regulations;
- (3) convey any property rights of any sort, or any exclusive privileges;
- (4) preempt any duty to obtain federal, state or local permits or authorizations required by law for the execution of the project or related activities; or
- (5) authorize changes in the plan design detailed in the application.

Failure to comply with the terms and conditions of this Section 401 Water Quality Certification may result in enforcement action against the recipient of the certification. If an enforcement action is pursued, the recipient of the certification could be assessed up to \$25,000 per day in civil penalties. The recipient of the certification may also be subject to criminal

liability if it is determined that the Section 401 Water Quality Certification was violated willfully or negligently.

This certification is effective eighteen (18) days from the mailing of this notice unless a petition for review and a petition for stay of effectiveness are filed within this 18-day period. If a petition for review and a petition for stay of effectiveness are filed within this period, any part of the certification within the scope of the petition for stay is stayed for fifteen (15) days, unless or until an Environmental Law Judge further stays the certification in whole or in part.

This decision may be appealed in accordance with IC 4-21.5, the Administrative Orders and Procedures Act. The steps that must be followed to qualify for review are:

1. You must petition for review in writing that states facts demonstrating that you are either the person to whom this decision is directed, a person who is aggrieved or adversely affected by the decision, or a person entitled to review under any law.
2. You must file the petition for review with the Office of Environmental Adjudication (OEA) at the following address:

Office of Environmental Adjudication  
100 North Senate Avenue  
IGCN Room N1049  
Indianapolis, IN 46204

3. You must file the petition within eighteen (18) days of the mailing date of this decision. If the eighteenth day falls on a Saturday, Sunday, legal holiday, or other day that the OEA offices are closed during regular business hours, you may file the petition the next day that the OEA offices are open during regular business hours. The petition is deemed filed on the earliest of the following dates: the date it is personally delivered to OEA; the date that the envelope containing the petition is postmarked if it is mailed by United States mail; or, the date it is shown to have been deposited with a private carrier on the private carrier's receipt, if sent by private carrier.


Identifying the certification, decision, or other order for which you seek review by number, name of the applicant, location, or date of this notice will expedite review of the petition.

Note that if a petition for review is granted pursuant to IC 4-21.5-3-7, the petitioner will, and any other person may, obtain notice of any prehearing conferences, preliminary hearings, hearings, stays, and any orders disposing of the proceedings by requesting copies of such notices from OEA.

If you have procedural questions regarding filing a petition for review you may contact the Office of Environmental Adjudication at 317-232-8591.

If you have any questions about this certification, please contact Mr. Marty Maupin, Project Manager, of my staff at 317-233-2471, or you may contact the Office of Water Quality through the IDEM Environmental Helpline (1-800-451-6027).

Sincerely,

A handwritten signature in black ink that reads "Martha Clark Mettler" followed by "for MCM". The signature is written in a cursive, flowing style.

Martha Clark Mettler, Chief  
Watershed Branch  
Office of Water Quality

cc: Elizabeth McCloskey, USFWS  
John Konik, Detroit District, USACE  
Keith Poole, IDNR

# **ATTACHMENT A**



REPLY TO  
ATTENTION OF

**DEPARTMENT OF THE ARMY**  
CHICAGO DISTRICT, CORPS OF ENGINEERS  
111 NORTH CANAL STREET  
CHICAGO, IL 60606-7206

6 July 2004

JUL 7 11 08 AM '04  
OFFICE  
OF  
WATER MANAGEMENT  
IDEM

Planning, Programs  
and Project Management Division

Mr. Marty Maupin  
Indiana Department of Environmental Management  
Section 401, WQC Program  
IDEM, IGCN 1255  
100 North Senate Avenue, P.O. Box 6055  
Indianapolis, Indiana 46204

**RE:** Cady Marsh Ditch 401 Application/Project Mitigation follow-up letter providing the requested information on mitigation site hydrology and mitigation implementation activities.

Dear Mr. Maupin,

This letter is in response to your request for additional information concerning Cady Marsh Ditch (CMD) mitigation site hydrology and mitigation implementation activities. CMD mitigation site hydrology has been re-established in response to several activities that have already been implemented at the adjacent 55-acre Little Calumet River Project Area Mitigation site and in the agricultural field between Clark and Chase Streets north of the CMD mitigation site (Attached Figure).

First, approximately 6,500 feet of plastic field drainage tiles were removed from the Little Calumet site. Then, stormwater runoff entering through a culvert from east of Chase Street was directed off of the site by directing it northward to the Little Calumet River through the existing ditch that runs adjacent to the west side of Chase Street. A collapsed corrugated metal culvert at the north end of this ditch, in the northeast corner of the site, was replaced with two 48-inch reinforced concrete pipes. This north-south ditch was separated from the east-west running ditch running through the southern third of the site to further separate stormwater runoff from the mitigation area. The banks of the north-south ditch were cleared of debris, brush and invasive weeds, and were seeded to native wet/wet-mesic prairie species.

The steep east-west running drainage ditch banks and sidecast spoils were graded back to a more natural 15-20:1 or so slope and the ditch meandered to resemble a native stream. The re-graded banks were seeded to native wet/wet-mesic prairie species and covered with erosion control fabric. This ditch was then connected to an existing artesian well located at the southeast corner of the site so that clear groundwater now courses through the area.

The southwest corner of the Little Calumet River Mitigation area, which will adjoin the 2-acre CMD mitigation area, was hand cleared of exotic and aggressive native woody species and the stumps treated with herbicide in order to create an oak-dominated wet savanna community. The understory was also spot herbicided to eliminate weedy herbaceous exotics. The remainder of the Chase Street Wetland mitigation area located above the 2-year flood elevation was also seeded to native wet/wet-mesic prairie species.

Approximately 57 acres of the of the field located west of the Little Calumet River Project Area Mitigation site and north of the CMD Proposed Mitigation Area (Attached Figure) will be flooded in order to fulfill a portion of the IDEM mitigation requirement for the Little Calumet River flood control project.

This field has already been partially, temporarily flooded due to the removal of a poorly functioning culvert and flap gate that had drained the field under the NIPSCO right-of-way at the northwest corner. IDEM suggested that this pipe be replaced, but this time with the flap gate located on the south side of the NIPSCO right-of-way so that Little Calumet River water could enter the site and keep it flood for longer periods. IDEM also suggested that a berm located at the northwest corner of the field be raised and reinforced with either riprap or vegetation. These two work items, culvert replacement and berm reinforcement, will be completed within a year.

CMD mitigation species composition, planting densities, monitoring, maintenance and performance standards will follow the Little Calumet River in-project mitigation specifications. I have included the plans and specifications for that work here for your reference, but the specific sections that you will probably be most interested in as you review our request are 02050-IMPLEMENTATION AND MANAGEMENT, 02100-RESTORATION MONITORING, MAINTENANCE AND PERFORMANCE STANDARDS, 02230-CLEARING, GRUBBING AND DEBRIS REMOVAL, 02235-HERBICIDING INVASIVES, 02240-CONTROLLED BURNING, 02921-NATIVE SEEDING and 02930-PLANTING.

You will notice when you read the accompanying specification sections that (for budgetary reasons) the Little Calumet River mitigation contract period is for two years. This work will be covered, however, by a follow-on four-year contract that will cover monitoring and maintenance so that the total effective contract period will be six years. The CMD mitigation project will also be covered by a six-year implementation, monitoring and maintenance period.



Thank you again for reviewing our submittal, Marty. Please call Greg at 312/846-5586 or e-mail him at [gregory.moore@lrc02.usace.army.mil](mailto:gregory.moore@lrc02.usace.army.mil) if you have questions.

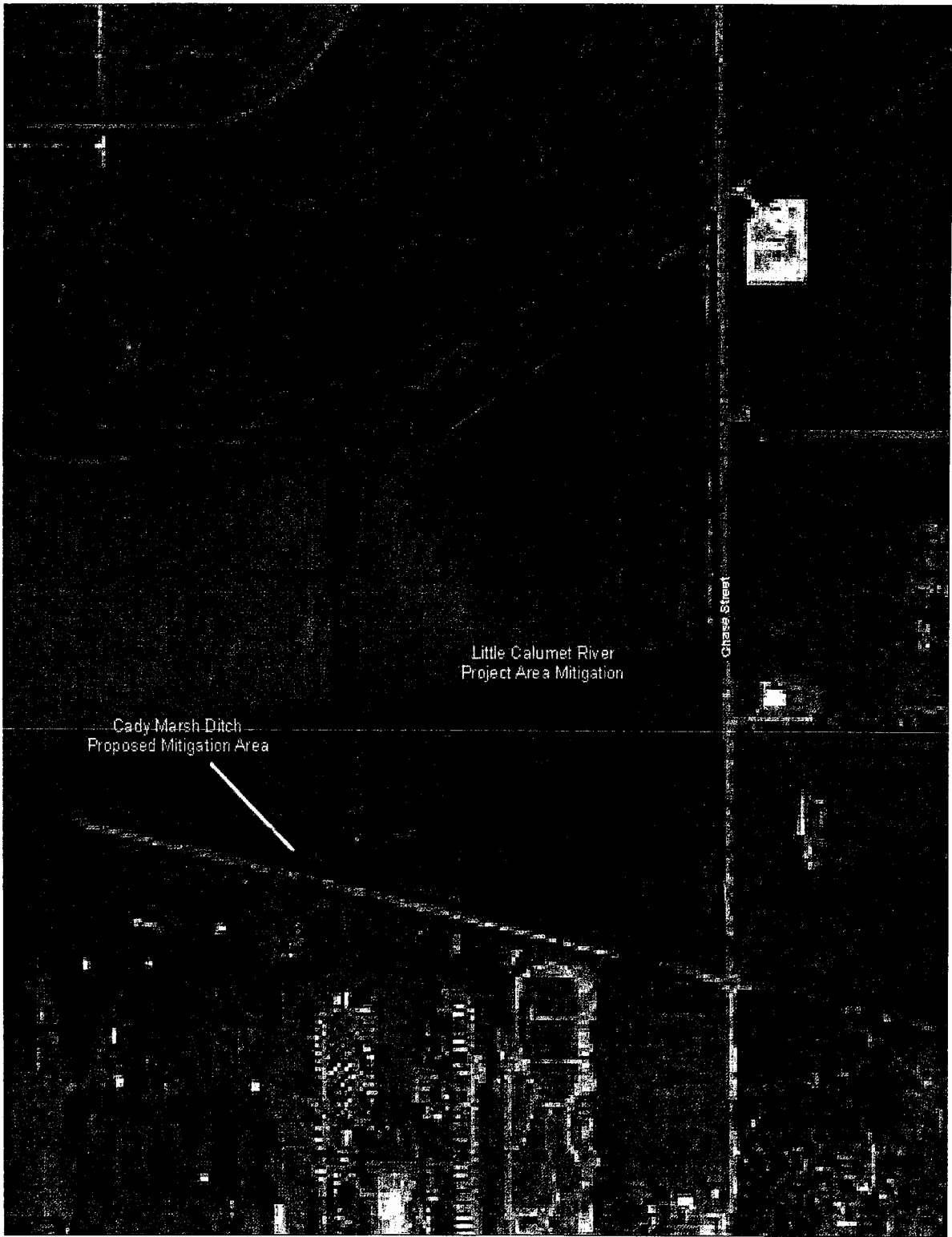
Sincerely,



Imad Samara  
Cady Marsh Ditch Project Manager

Enclosure:

Little Calumet River Project Area Mitigation Specifications



**Figure 4:**  
**Cady Marsh Ditch Proposed Mitigation Area**

# **ATTACHMENT B**

**Summary of Activities: Overlaid on Cady Marsh Ditch Mitigation Aerial.**

Little Calumet River Chase Street Wetland Mitigation Site

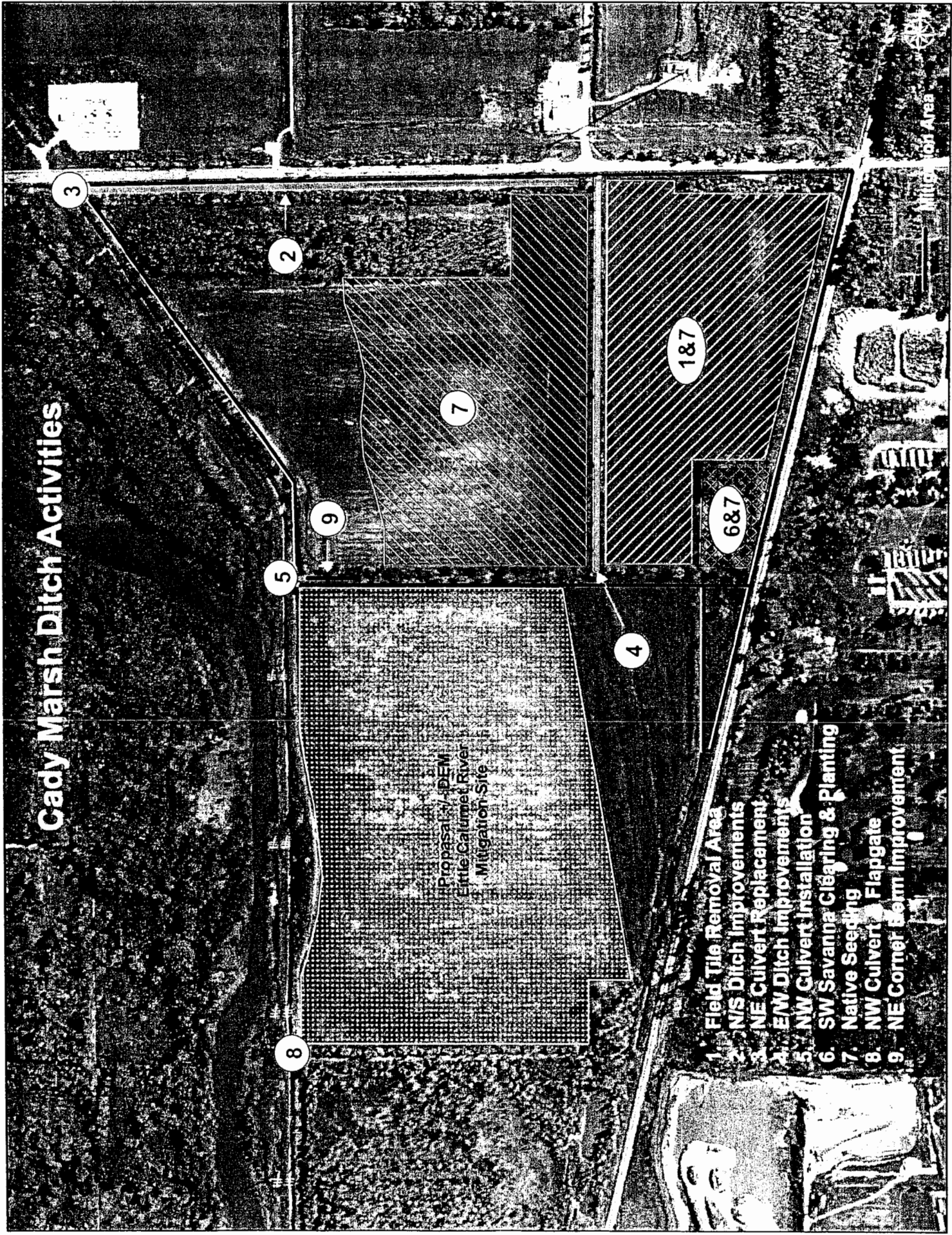
1. Field tile removal area: ~ 6,500 feet of plastic field drainage tiles removed.
2. North/South Ditch Improvements: Stormwater runoff entering through a culvert from east of Chase Street is now directed off of the site by running it northward to the Little Calumet River through the improved ditch that runs adjacent to the west side of Chase Street. The banks of the north-south ditch were cleared of debris, brush and invasive weeds, and were seeded to native wet/wet-mesic prairie species.
3. Northeast Culvert Replacement: A collapsed corrugated metal culvert at the north end of the ditch described under Item 2, in the northeast corner of the site, was replaced with two 48-inch reinforced concrete pipes.
4. East/West Ditch Improvements: The steep east-west running drainage ditch banks and sidecast spoils were graded back to a more natural 15-20:1 or so slope and the ditch meandered to resemble a native stream.
5. Northwest Culvert Installation: A new culvert with a "duckbill" backflow check valve was installed to carry water from the artesian spring, located near Chase Street in the southeast corner of the site, through the site to the Little Calumet River. The check valve prevents low quality river water from entering the site except during significant flood events.
6. Southwest Savanna Clearing and Planting: The southwest corner of the Little Calumet River Mitigation area, which will adjoin the 2-acre CMD mitigation area, was hand cleared of exotic and aggressive native woody species and the stumps treated with herbicide in order to create an oak-dominated wet savanna community. The understory was also spot herbicided to eliminate weedy herbaceous exotics.
7. Native Seeding: The entire site above the 2-year flood event was seeded to native wet/wet-mesic prairie.

Proposed Little Calumet River – IDEM Mitigation Site (Adjacent to the north side of the Cady Marsh Ditch Mitigation Area and the west side of the Little Calumet River Chase Street Wetland mitigation site)

Within a year, the IDEM Little Calumet River mitigation site will receive:

8. Northwest Culvert and Flapgate: The flapgate will be located on the south side of the NIPSCO right-of-way in order to allow Little Calumet River water to enter the site and keep it flooded for longer periods.
9. Northeast Corner Berm Improvement: The berm located at the northeast corner of this field serves to separate it from the adjacent Little Calumet River mitigation site to the east. It will be raised, widened and planted with native prairie species.

# Cady Marsh Ditch Activities



- 1. Field Tile Removal Area
- 2. N/S Ditch Improvements
- 3. NE Culvert Replacements
- 4. E/W Ditch Improvements
- 5. NW Culvert Installation
- 6. SW Savanna Clearing & Planting
- 7. Native Seeding
- 8. NW Culvert Flapgate
- 9. NE Corner Berm Improvement

Mitigation Area

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DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01 58 00.00 03

PROJECT SIGN AND SAFETY SIGN

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PART 2 PRODUCTS

- 2.1 PROJECT SIGNS
  - 2.1.1 Project Identification Sign
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PART 3 EXECUTION

- 3.1 INSTALLATION
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  - 3.3.1 Records

-- End of Section Table of Contents --

## SECTION 01 58 00.00 03

## PROJECT SIGN AND SAFETY SIGN

## PART 1 GENERAL

## 1.1 SCOPE

The work covered by this Section consists of providing the fabrication, erection and maintenance of one (1) Project Identification Sign and one (1) Safety Performance Sign. The items furnished in accordance with this Section shall be furnished within 10 calendar days after Notice to Proceed and shall be maintained in good condition throughout the contract work period. All items will remain the property of the Contractor and shall be removed at the end of the contract.

## 1.2 APPLICABLE PUBLICATIONS

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

## U.S. ARMY CORPS OF ENGINEERS (USACE)

EP 310-1-6	Graphic Standards Manual
EP 310-6a	Sign Standards Manual
EP 310-6b	Sign Standards Manual

## PART 2 PRODUCTS

## 2.1 PROJECT SIGNS

- a. Project signs shall be coordinated with the Contracting Officer. The signs include one (1) Project Identification Sign and one (1) Safety Performance Sign.
- b. The project sign panels will each be electronically printed as a single decal and mounted on single sided vinyl faced White Board as described in Paragraph "MATERIALS" below.
- c. The layout of all signs shall be in accordance with the standards specified in the USACE graphics and sign standards manuals referenced above. Relevant portions of the manuals will be provided to the Contractor upon request. Examples of generic signs are shown on Plates 01 58 00.00 03-1 and 01 58 00.00 03-2 included at the end of this specification section.

## 2.1.1 Project Identification Sign

One (1) project identification sign constructed in accordance with Plate 01 58 00.00 03-1 and EP 310-6a shall be provided by the Contractor.

## 2.1.2 Safety Performance Sign

- a. One (1) safety performance sign constructed in accordance with Plate 01 58 00.00 03-2 and EP 310-6a shall be provided by the Contractor.

- b. The safety performance record shall be updated daily.

### 2.1.3 Project Identification Label

The two plates at the end of the section are generic because the project identification is not included. For this particular project, the project identification label shall be identified as the following on both signs:

FOR LINE 1, CADY MARSH DITCH  
FOR LINE 2, WETLAND MITIGATION

### 2.1.4 Materials

The following are requirements for all of the project signs.

- a. The sign faces shall be electronically printed on white non-reflective vinyl decals four (4) mil thick.
- b. The sign face decals shall be mounted on panels of 1/2" thick White Board with single-sided vinyl facing. The entire circumference of the sign panels will be sealed and protected with white vinyl trim cap.
- c. A protective overlamine film shall be applied over the sign face decals capable of minimizing the deteriorating effects of ultraviolet radiation and providing additional protection against weathering and application of graffiti.
- d. 2"x4" struts will be installed between the 4"x4" support posts to reinforce the top and bottom edges of the sign panels.
- e. Wood material for the posts shall be preservative treated, structural grade Douglas Fir or No. 1 Southern Pine, or better. All other wood members shall be of well seasoned, kiln dried, clear redwood, bald cypress, red cedar, Douglas fir, spruce, tulip poplar, or white pine. The lumber materials shall be free of splits, wane, and loose knots or pitch pockets. All members of the sign shall be fastened with screws or bolts of type, size, number, and spacing to provide rigid construction and neat appearance. If the vertical supports system does not rigidly support the sign due to local soil conditions and/or wind loading additional bracing of the sign supports shall be provided. This additional bracing shall be composed of 2"X4" bracing bolted to the inside face of each 4"x4" support post and firmly anchored to the ground behind the sign. This additional bracing is not required to be treated lumber.
- f. All bolts shall be 0.375" diameter and 4" long Allen head bolts, threaded to match T-nuts.

## PART 3 EXECUTION

### 3.1 INSTALLATION

The Contractor shall affix the panels to the posts with the Allen head bolts prior to erection of the signs, including drilling counter-sunk 0.375 inch diameter holes in the posts to match the T-nut locations. The Contractor shall take all precautions necessary to protect the faces of the



signs from damage during assembly and construction. The signs shall be installed upon commencement of the work under this contract. The location in which each sign is to be installed shall be cleared and leveled to facilitate the installation of, and provide easy visual contact with, the signs. Installation and positioning of the sign plate and posts shall be as indicated on Plates 01 58 00.00 03-1 and 01 58 00.00 03-2, found at the end of this section. Excavation and backfilling of the holes for posts and installation of the posts, braces, and stakes shall be such that signs are installed plumb and level.

### 3.2 MAINTENANCE

The Contractor shall maintain the signs in good condition and the sign site in a neat condition throughout the contract work period.

### 3.3 QUALITY CONTROL

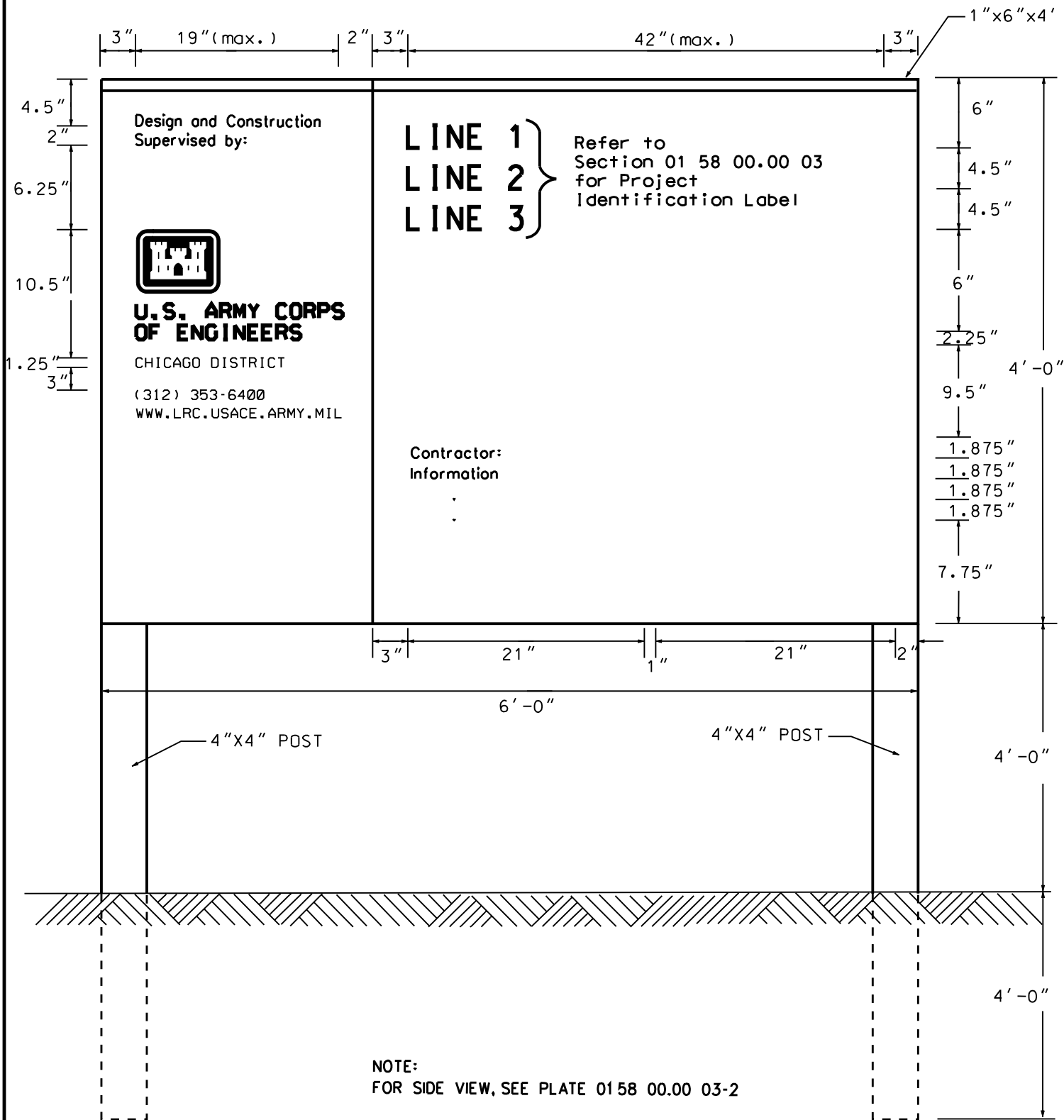
The Contractor shall establish and maintain a quality control system for all operations performed under this section to assure compliance with contract requirements. The Contractor shall maintain records of his quality control for all operations performed, including, but not limited to, the following:

- a. Quality of materials and workmanship
- b. Overall appearance of signs and site
- c. Observance of safety regulations

#### 3.3.1 Records

A copy of the record of inspections, as well as records of any corrective action taken, shall be furnished to Contracting Officer in accordance with SECTION 01 45 04.00 03 CONTRACTOR QUALITY CONTROL.

-- End of Section --



**GENERIC PROJECT IDENTIFICATION SIGN**

NOT TO SCALE



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## SECTION 31 31 13

## CLEARING AND DEBRIS REMOVAL

## PART 1 GENERAL

## 1.1 SCOPE

The scope of this section shall include the selective removal of woody invasives, the disposal of brush by burning and follow-up herbiciding of cut stumps and resprouts. Contractor shall furnish all labor and equipment, and perform all work required, for clearing invasive trees and shrubs, burning of brush and the disposal of debris and materials resulting from these selective clearing operations. The work shall also include the collection and off-site disposal of all other trash and debris within the project site boundaries. The Contractor shall coordinate the work of this section with all other work.

## 1.1.1 Goal

The goal is to eliminate invasive woody plant cover at the site and to decrease stem densities of aggressive woody natives.

## 1.1.2 Objectives

The objectives are: 1) to eliminate stems greater than 1 cm at ground level of all non-native woody species including, but not limited to, buckthorns (*Rhamnus* spp.) and honeysuckles (*Lonicera* spp.); 2) to reduce live stem densities of aggressive native shrubs and small individuals of such tree species as, but not limited to, boxelder (*Acer negundo*) silver maple (*Acer saccharinum*), dogwoods (*Cornus* spp.), green ash (*Fraxinus pennsylvanica subintegerrima*), black cherry (*Prunus serotina*), willows (*Salix* spp.) and elms (*Ulmus* spp.); 3) to provide growing season follow-up control of resprouts of woody species removed during selective removal process and 4) to dispose of cut brush by stockpiling and burning.

## 1.2 REFERENCES

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

## AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI/ASSE A10.6 (1990; R 1998) Safety Requirements for Demolition

## U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1 (2008) Safety -- Safety and Health Requirements

## 1.3 REGULATORY REQUIREMENTS

The Contractor shall comply with Federal, State, and local hauling and

disposal regulations. In addition to the requirements of the "Contract Clauses," safety requirements shall conform to ANSI/ASSE A10.6 and EM 385-1-1.

#### 1.4 DEFINITIONS

##### 1.4.1 Clearing

Clearing shall consist of the removal of invasive trees, brush, and downed timber, snags, and other woody debris occurring in the areas to be cleared and in all other areas within the project boundaries depicted on the plans.

##### 1.4.2 Debris Removal

Debris removal shall consist of the collection and satisfactory disposal of all debris and rubbish designated for removal, including but not limited to, concrete pieces, tires, appliances, furniture, and all other debris and rubbish occurring in the areas to be cleared and in all other areas within the project boundaries depicted on the plans.

##### 1.4.3 Girdling

Girdling involves cutting a groove or notch into the trunk of a tree to interrupt the flow of sap between the roots and crown of the tree. The groove must completely encircle the trunk and should penetrate into the wood to a depth of at least 1/2 inch, preferably 1 to 1-1/2 inches on larger trees. Girdling ultimately results in the death of the tree.

##### 1.4.4 Hand Cutting

Hand cutting is the physical cutting, by hand, of trees or shrubs using chain saws, brush clearing saws, handsaws and loppers.

#### 1.5 ENVIRONMENTAL PROTECTION

All work and Contractor operations shall comply with the requirements of Section 01 57 20.02 03, ENVIRONMENTAL PROTECTION FOR INDIANA.

#### 1.6 DISPOSAL OF MATERIAL AND DEBRIS

##### 1.6.1 Open Burning of Brush Cuttings

All cuttings of woody vegetation shall be placed in compact piles and burned in such a way as to protect nearby native woody and herbaceous species from heat damage. Refer to Section 31 31 20 CONTROLLED BURNING for further requirements.

##### 1.6.2 All other Material and Debris

Refer to Section 01 10 00.00 03 GENERAL PROVISIONS for specific requirements.

#### 1.7 EQUIPMENT STORAGE

All vehicles, equipment, and supplies may be stored at staging areas, at the sole discretion and risk of the Contractor. Any damage or losses to Contractor vehicles, equipment or supplies during use, storage or transport shall be the sole responsibility of the Contractor.

1.8 QUALITY CONTROL

The Contractor shall establish and maintain a quality control system for the work under this section to ensure compliance with the contract requirements and Section 01 45 04.00 03 CONTRACTOR QUALITY CONTROL.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION

3.1 CLEARING (TREE AND SHRUB REMOVAL)

3.1.1 Removal Methods

All areas slated for tree and shrub removal are designated on the Clearing and Debris Removal plans and shall be verified in the field by the Contracting Officer prior to the start of any work. Trees, shrubs or other vegetation to be preserved will be tagged in the field by the Contractor for approval by the Contracting Officer prior to the start of any clearing work. Shredded material may remain on the sites to decompose, but may not accumulate to a depth of greater than one (1) inch. **All cutting of woody vegetation shall be performed by hand using chain saws, brush clearing saws, hand saws and loppers.**

3.1.2 Cutting Techniques

All stems of trees and shrubs in areas not subject to flooding or inundation will be cut no higher than two(2) inches above the soil surface. Stems cut by chain saw, brush clearing saw, hand saw or loppers shall be cut horizontally flat. All stems in flooded or inundated areas shall be cut horizontally flat no higher than four (4) inches above the water surface or ice surface. Trees to be removed that are greater than 10 inches in diameter at breast height (dbh) may be girdled and left standing.

3.1.3 Disposal Options for Cuttings

All cuttings of woody invasive species shall be disposed of by one, or a combination of, the following methods: 1) burning on site in brush piles and/or 2) shredding or chipping. As stated in paragraph 3.1.1, shredded material may remain on the sites to decompose, but may not accumulate to a depth of greater than one (1) inch. Collection and stockpiling of cuttings, brush and logs shall not result in pitting, rutting, compaction or any other soil disturbances.

3.1.4 Target Species

The removal goals contained herein shall apply to the trees and shrubs to be removed from the project sites in locations depicted on the plan documents. The minimum diameter of woody (target) species to be controlled is 3/8-inch caliper at base. The Contractor shall be responsible for positively identifying all woody species before they are cut, removed and herbicided. Removal goals for different tree and shrub species are as follows:

**Non-Native and Aggressive Native Species - 100% Removals (All Size Classes)**

Common Name \_\_\_\_\_ Species \_\_\_\_\_

Box Elder	Acer negundo
Silver Maple	Acer sacharinum
Japanese barberry	Berberis thunbergii
Grey Dogwood	Cornus racemosa
Burning Bush	Euonymus alatus
European Spindle Tree	Euonymus europaeus
Exotic Honeysuckles	Lonicera maackii, L. X muendenien, L. tatarica
Mulberries	Morus alba
Eastern Cottonwood	Populus deltoides
Exotic Buckthorns	Rhamnus cathartica, R. frangula
Multiflora Rose	Rosa multiflora
Willows	Salix alba, S. discolor, S. x glatfelteri, S. interior, S. nigra, S. x. rubens
Siberian Elm	Ulmus pumila
Highbush Cranberry	Viburnum opulus

Plus any other non-native species encountered

**Aggressive Natives to be Selectively Removed, Including, but Not Limited to:**

<u>Common Name</u>	<u>Species</u>	
Red-Osier Dogwood	Cornus stolonifera	75% removal 1/
Hawthorns	Cratageus spp.	50% removal 2/
White Ash	Fraxinus americana	50% removal 3/
Green Ash	Fraxinus pennsylvanica	100% removal 3/
Black Cherry	Prunus serotina	100% removal 3/
Native Elms	Ulmus americana, U. rubra	100% removal 3/

- 1/ Except small clumps marked by the Contracting Officer
- 2/ Preference for saving shall be given to open grown individuals
- 3/ Any trees greater than 14 inch diameter at breast height shall remain

Any other non-listed native woody species encountered shall be brought to the attention of the Contracting Officer and shall not be cut unless instructed to do so at that time.

**3.2 HERBICIDE APPLICATION**

Refer to Section 31 31 19 HERBICIDING INVASIVES for specific application instructions.

**3.3 DEBRIS REMOVAL**

Refer to Section 01 10 00.00 03 GENERAL PROVISIONS for specific disposal requirements for all debris other than cuttings of woody vegetation, which is discussed in paragraph 1.6 of this Section.

**3.4 FINAL ACCEPTANCE**

The Contractor must achieve a 90 percent success rate in the reduction of target species from the pre-existing condition in any given ten (10) square meters (107.6 square feet) within the cleared area. In instances, for example, where removal goals are specified at 50 percent removal of the specified target species, then a 90 percent success rate of the 50% goal (i.e. 45%) shall be achieved. Should the average live stem densities of all target species identified in paragraph 3.1 of this Section not achieve



a 90 percent success rate in the reduction of target species within one growing season after the completion of the tree and shrub removal, the Contractor shall continue to treat all regrowth as indicated in Section 31 31 19, HERBICIDING INVASIVES. The Contractor shall bear the sole responsibility for this work. These applications shall be repeated as necessary, with repeat inspections by the Contracting Officer, until the goal of 90% success rate in the reduction of undesirable target species has been achieved, as determined and designated in writing by the Contracting Officer.

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## SECTION 31 31 19

## HERBICIDING INVASIVES

## PART 1 GENERAL

## 1.1 SCOPE

This specification covers the requirements for furnishing all labor and equipment and performing all work required for treating the stems of all invasive tree and shrub species designated for removal. The Contractor is also responsible for herbiciding herbaceous vegetation according to the specifications.

## 1.2 REFERENCES

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

U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA)

7 USC Section 136

Federal Insecticide, Fungicide, and  
Rodenticide Act

## 1.3 REGULATORY REQUIREMENTS

The Contractor shall comply with Federal, State and local herbiciding regulations. Safety requirements shall conform to 7 USC Section 136.

## 1.4 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only or as otherwise designated. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-03 Product Data

Materials Safety Data Sheets (MSDS)

The Contractor shall have on site at all times the appropriate materials safety data sheets (MSDS) for all substances utilized in this work. The Contractor must provide copies of all such data to the Contracting Officer prior to the start of any work on the project sites.

SD-07 Certificates

Herbicide License

Herbicides shall be applied by State licensed applicators or licensed operators working under the supervision of a licensed applicator. The Contractor shall demonstrate that all persons

applying herbicide as part of this work have current herbicide applicator or operator licenses. The Contractor must provide copies of all such licenses to the Contracting Officer prior to the start of any work on the project sites.

## 1.5 DELIVERY AND STORAGE

### 1.5.1 Delivery

Pesticide material shall be delivered to the site in the original, unopened containers bearing legible labels indicating the Environmental Protection Agency (EPA) registration number and the manufacturer's registered uses.

### 1.5.2 Storage

Storage of pesticide material shall not take place on site, but shall be delivered to and from the project sites daily, or as necessary, by the Contractor.

## PART 2 PRODUCTS

### 2.1 HERBICIDE SAFETY MATERIALS

#### 2.1.1 Portable Eye Wash Station

The Contractor shall have portable emergency and eye wash facilities at the project site. No herbicides shall be mixed or loaded on the project site. A supply of chemical absorbent shall be maintained at the project site. Any chemical spills shall be cleaned up and reported to the Contracting Officer immediately.

#### 2.1.2 Protective Gear/Equipment

The Certified applicator and/or operator shall wear clothing and personal protective equipment as specified on the pesticide label. Water used for formulating shall come only from locations designated by the Contracting Officer. The Contractor shall not allow the equipment to overflow. Prior to application of herbicides, all equipment shall be inspected for leaks, clogging, wear or damage and shall be repaired prior to being used.

### 2.2 PRODUCTS

Only chemical products specified in Part 3 below are to be used unless an acceptable alternate is approved by the Contracting Officer. The Contracting Officer must approve of any chemical to be used by the Contractor prior to commencement of herbicide activities.

## PART 3 EXECUTION

### 3.1 SIGNS AND PUBLIC NOTIFICATION

The Contractor is responsible for posting herbicide application signs during the herbicide application process as required by the State of Indiana Pesticide Use and Application Law, 1975.

### 3.2 TIMING OF HERBICIDE APPLICATIONS

Site-specific weather conditions must be considered when performing chemical applications. Chemical applications shall not be performed less than 6 hours

prior to a rain event, or immediately following a rain event that has saturated the vegetation to a degree that the chemical cannot be effectively absorbed by the plant. Wind speed and direction must also be considered, and applications suspended if winds may cause herbicide drift and off-target damage. Chemical applications shall be suspended when temperatures exceed 90 degrees Fahrenheit because herbicides are typically less effective when performed at air temperatures exceeding that level. Chemical applications shall always be performed in accordance with the pesticide label.

### 3.3 SPOT HERBICIDE APPLICATIONS

#### 3.3 Non-Wetland Area Woody Stems

In areas not subject to flooding or inundation, the stems shall be cut at a height of no more than 2 inches above the soil surface, followed by the application of a 20-30% solution of triclopyr in oil or oil-water mixtures (except honeysuckles) to the freshly cut surface and down to the root collar according to label specifications. The herbicide application shall take place the same day that the trees and shrubs are cut, weather conditions permitting. A sponge or wick applicator shall be used to apply herbicide to the stumps. No herbicide applications may be made with broadcast spray equipment. No open containers of herbicide shall be permitted in the work area due to the hazard of spilling. Honeysuckle species shall be treated with 50-100% solution of glyphosate mixed with water.

#### 3.4 Submerged/Flooded Area Woody Stems

All stems in submerged or aquatic zones shall be cut at a height of 4 inches above the water or ice surface. The cutting of stems shall be followed by the application of a 50-100% solution of Rodeo with approved aquatic, non-ionic surfactant in water to the freshly cut surface and two (2) inches down the sides of the stumps. Rodeo herbicide cannot be applied during freezing weather.

#### 3.5 Growing Season Applications

All other applications of herbicides are considered to be growing season applications and require that procedures for treating resprouts be followed according to Part 3.5 FOLLOW-UP HERBICIDE APPLICATIONS below.

#### 3.6 Herbaceous Weedy Species

If small scattered populations or individual plants of herbaceous weed species are present, they shall be controlled with spot herbicide applications in order to avert large-scale colonization. Special care must be taken to avoid damage to non-target vegetation. It is imperative, therefore, that the applicator be competent in the identification of both native and non-native species.

### 3.7 BROADCAST HERBICIDE APPLICATIONS

If either the site or the target plant colonies are large enough so that selective spot applications are neither practical nor economically feasible, then broadcast applications may be used to treat undesirable species.

### 3.7.1 Broadcast Applications of Broad-Spectrum Herbicides

Broadcast applications of a broad-spectrum chemical such as glyphosate may be used to treat large monocultures or dense stands of non-native species where no desirable species exist in the understory. "Large" is defined as a target plant population whose areal coverage is such that a broad-spectrum chemical can be broadcast without inflicting any damage to adjacent non-target vegetation.

#### 3.7.1.1 Broadcast Applications of Selective Herbicides

Broadcast applications of a selective chemical such as Plateau (or Cadre), Garlon 3A or Fusilade may be used to treat large monocultures or dense stands of non-native species where desirable species co-exist. The specific chemical used shall be determined by the target weed species and the existing associated native species.

### 3.8 FOLLOW-UP HERBICIDE APPLICATIONS

There shall be a follow-up foliar application of herbicide to any regrowth or remaining live trees and shrubs identified in Section 31 31 13 CLEARING AND DEBRIS REMOVAL, during the spring of the year following the initial cutting and herbicide application. The Contractor shall initiate the follow-up foliar application when the average height of any resprouts/regrowth has reached a height of three (3) to six (6) inches, which typically occurs between 15 May and 1 June. The foliar application must be completed during this time period; otherwise the cutting of woody resprouts will be required. Do not apply herbicide if precipitation is expected within twelve (12) hours, when there is dew on the vegetation, or if heavy rains have resulted in standing water on the soil surface.

#### 3.8.1 Non-Wetland Areas

The herbicide application used on resprouts shall be a wick or sponge application of 20-30% solution of triclopyr in oil or oil-water mixtures (except honeysuckles). Honeysuckle species shall be treated with 50-100% solution of glyphosate mixed with water.

#### 3.8.2 Submerged/Flooded Areas

In areas in or near standing water, the herbicide used shall be a 50-100% solution of Rodeo with approved aquatic, non-ionic surfactant in water.

### 3.9 FINAL ACCEPTANCE

Refer to Section 31 31 13 CLEARING AND DEBRIS REMOVAL for specific information regarding final acceptance.

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## SECTION 31 31 20

## CONTROLLED BURNING

## PART 1 GENERAL

## 1.1 SCOPE

The Contractor will provide all labor, materials and equipment required or inferred from the plan documents and this specification to complete the indicated work. Work detailed in this section relates to the burning of brush piles during clearing operations as well as to the use of prescribed fire for landscape management, maintenance and stewardship purposes. The goal of this specification is to provide essential care for the initial and successful establishment of an annual controlled burn regimen for the restored landscapes, while providing those controlled burning services in a safe, responsible manner that involves both the proper authorities as well as people with either direct or indirect interest in the restoration.

## 1.2 REFERENCES

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

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1

(2008) Safety -- Safety and Health Requirements

## 1.3 DEFINITIONS

Burn Coordinator: The Burn Coordinator is a person who is highly trained and experienced in the prescribed burning and fire management of open areas. The Burn Coordinator is responsible for coordinating prescribed burns for the project and has the authority to delay, modify or terminate burning activities depending upon weather conditions and concerns for public safety.

## 1.4 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-03 Product Data

Equipment and Manpower; G,CS

A listing of equipment and manpower to be used for the burning operations.



## SD-07 Certificates

Burn Plan; G,CS

Open Burn Permit; G,CS

Post Burn Permit; G,CS

Prior to burn activities, certificates of compliance attesting that the burn plan and permit application meet the specified requirements.

## 1.5 BURN PLANS AND PERMIT APPLICATIONS

## 1.5.1 Permit Applications and Regulations

The Contractor is responsible for obtaining and paying for all required permits. Burning activities must comply with all other Federal, State and local laws, rules and ordinances. State permit applications can be obtained from Indiana Department of Environmental Management, Office of Air Management at the URL site or mailing address listed below. Burn activities must comply with 326 IAC, Article 4 - Burning Regulations (Exhibit A).

Indiana Department of Environmental Management  
Office of Air Management - Compliance  
100 North Senate Avenue  
P.O. Box 6015  
Indianapolis, Indiana 46206-6015  
Phone: (317) 233-0178 or 1-800-451-6027 (Indiana Residents Only)  
URL: <http://www.state.in.us/idem/oam/comply/burn.html>

## 1.5.2 Permit Types

Two types of burn permits are necessary under this contract:

## 1.5.2.1 Brush Piles

Prior to beginning clearing operations, the Contractor must obtain an open burn permit for the burning of brush piles on the project sites. The Contractor will need to obtain and complete State Form 43692 (R/2-00) - Request for Variance from 326 IAC 4-1 (Tree Waste or Clean Wood Waste), and any other documentation required to complete the application submittal.

## 1.5.2.2 Prescribed Burning

In subsequent years, when the fuel load allows, the Contractor shall prepare burn plans for the project sites and obtain open burn permits for the burning of natural areas for restoration and management purposes. A prescribed burn can be scheduled to occur from October to April, as weather permits.

## 1.6 BURN PLANS

Burn plans shall include the following information at a minimum and must fully comply with EM 385-1-1, U.S. Army Corps of Engineers Safety and Health Requirements Manual.

### 1.6.1 Description of Burn Unit

The plans shall include a brief description of the individual burn units consisting of a brief description of vegetation types, their locations, sizes in acres, percent slope and exposures.

### 1.6.2 Site Maps

The plans shall include topographic surveys of the project sites with unit boundaries. Aerial photographs of the project sites with unit boundaries and fire breaks/lanes identified shall also be included.

### 1.6.3 Defined Goals and Objectives

The plans should clearly define the goals and objectives to be achieved from burning activities.

#### 1.6.3.1 Goals

For this particular project, the purpose of the prescribed burns is to reintroduce natural processes, which is essential to the survival of native prairie and savanna communities. Specific goals include reducing the presence of exotic and invasive plant species which threaten to out-compete native plant species and removing the existing litter layer to recycle nutrients into the soil.

#### 1.6.3.2 Objectives

Specific objectives in the landscape management zones involve the removal of 75% of above ground non-native woody vegetation less than 2 inches in diameter and the removal of 50% or more of the previous year's litter accumulation over 80% of the site area per year.

### 1.6.4 Site Constraints

Identify all roads, utilities, trees, and structures, list all smoke sensitive areas within 500 feet of the proposed burn activities and identify measures to protect these features during burn activities.

## 1.7 POST BURN REPORT

The Contractor shall document the burn and submit notes and recommendations in the form of a report to the Government for review. The report will include:

1. Date, time and duration of the burn
2. Weather conditions at the time of the burn
3. How notification of fire department, village or town officials, and neighbors was conducted and any comments on their responses
4. Any unusual circumstances or occurrences
5. Size of the crew and the name of the Burn Coordinator
6. Photos of the burn, including staff and equipment
7. Burn permits

## PART 2 PRODUCTS (Not Applicable)

## PART 3 EXECUTION

## 3.1 BURN SEQUENCE

## 3.1.1 Brush Piles

All cuttings of woody vegetation shall be stockpiled and burned in such a way as to protect native woody and herbaceous species from heat damage. The collection and stockpiling of cuttings, brush or logs must not result in pitting, rutting or any other disturbance of the soil, aside from changes caused by heating. Brush piles shall be kept as small in diameter and as compact as possible in order to minimize soil sterilization and damage to non-target species. All burning shall occur under constant supervision. At least 30 days prior to burning activities, the Contractor must apply for and obtain an Open Burning Permit. The Contractor must notify all appropriate local authorities, including fire departments, police departments and the local municipality of the planned dates to burn brush piles.

## 3.1.2 Prescribed Burns

Following is a basic outline of the burn activity schedule:

1. Immediately prior to scheduling a burn day, confirm site conditions, including homes or other properties in close proximity to the site, and address any unexpected hazards such as new debris accumulation, etc.
2. Organize the burn crew and equipment
3. Verify weather forecast and review smoke management
4. Mow fire breaks and wet entire perimeter and areas around trees, shrubs or other elements requiring protection
5. Establish fire lanes and safe areas
6. Start backfires
7. Complete burn unit
8. Monitor and control any hot spots remaining after the burn
9. Submit post burn report
10. Have a contingency plan in place to ensure that the fire can be extinguished should smoke become a nuisance to surrounding homes, businesses or roadways.

## 3.2 CREW ORGANIZATION AND EQUIPMENT

The burn crew must be under direct control of a qualified Burn Coordinator who will also have authority to delay, modify or terminate burning activities depending upon weather conditions and concerns for public safety. Several additional support members must also be present to assist in burn activities. All participants should be outfitted with nomex coveralls, hard hats, goggles and leather gloves. Necessary burn equipment includes, but is not limited to, water pumper, drip torches, fire rakes, flappers, water packs, all-terrain vehicle with water capabilities and a mop-up tool set. Additional items of importance include a first aid kit, portable radios, cellular phones and drinking water. Each member of the burn crew shall have a walkie talkie in order to communicate and receive direction from the Burn Coordinator.

## 3.3 WEATHER RESTRICTIONS

It is essential that National Weather Service weather forecasts be obtained

12 hours and 2 hours prior to the burn in order to coordinate activities. On-site weather must be obtained 1 hour prior to the burn and as necessary during the burn if weather conditions change. At no time should a burn be conducted if the weather conditions vary from the established burn parameters.

Air Temperature:	35 - 75 degrees F
Relative Humidity:	25% - 50%
Wind Direction:	see paragraph entitled SMOKE MANAGEMENT
Wind Speed:	3 - 15 mph
Effective Windspeed:	1.2 - 6 mph

#### 3.4 SMOKE MANAGEMENT

The resulting smoke from the burn will be minimized by burning during the daytime when transport winds and mixing heights are such that smoke can be lifted and dispersed safely away from smoke sensitive areas. Warning signs shall be placed along main roads to alert vehicles of the burn activities. Once the prairie plantings are burned there will be little, if any, additional smoke production because the Burn Coordinator should have prevented burning of any other organic or inorganic materials.

#### 3.5 MOWING AND FIRE LANES

Some standing vegetation before or after the burn will have to be mowed. Situations that may warrant mowing are: green stands of vegetation that would not burn, lignous stalks that remain upright after the burn, areas near trees, fences, signs, power boxes, under power lines (that should have low, controlled flames) or wet swales that must dry out before a fire will carry through them. Such areas shall be mowed to a height of 4 inches. Fire lanes must be kept free of debris and available for use at all times. Hand crews with flappers and water packs should be staged along established firebreaks to suppress any fire that escapes the designated burn area.

#### 3.6 IGNITION PATTERNS

Ignition should be conducted using a ring-headfire pattern. Two person crews should proceed in opposite directions from a common starting point. The initial ignition should include backfiring and flanking until safe burn-in zones have been achieved, at which time headfire ignition may be conducted.

#### 3.7 MONITORING AND CLEAN-UP

Before the burn crew is disbanded after the initial headfire carries through the landscape, check all areas for embers and smoking to ensure these hot zones are extinguished. Remove all inorganic trash. Ash or fuel spills must be cleared from the landscape using appropriate removal and dissipation techniques that conform to environmental regulations.

Any damage to the existing landscape, including any trees or fences, and existing roads and structures by fire, fuel spills, dead wildlife etc., due to negligence of the contractor shall be replaced in kind at no additional cost to the Government.

#### 3.8 ACCEPTANCE

The burn will be reviewed by the Contracting Officer during or immediately after the burn is completed. The success of the burn will be determined by:

1) the amount of vegetation that ignited and how the fire carried, 2) whether all the land mass was covered by the fire, and 3) how much residual ash (or blackness) remained after the burn.

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## SECTION 32 01 90

## IMPLEMENTATION AND MANAGEMENT

## PART 1 GENERAL

## 1.1 SCOPE

The Contractor is responsible for, and shall establish and maintain, an effective Site Stewardship program to ensure that the native landscapes become established according to the requirements contained herein and in Section 32 01 92 - RESTORATION MONITORING, MAINTENANCE AND PERFORMANCE STANDARDS. The Contractor shall designate a Site Steward to oversee and direct the landscape implementation process. The Contractor shall be responsible for all materials and labor necessary to complete essential maintenance, monitoring, supplemental seeding and management activities for the four-year implementation, maintenance and monitoring period. Established performance standards must be achieved in order for the Contractor to receive final acceptance.

## 1.2 DEFINITIONS

General site maintenance/stewardship includes all activities associated with the management of the developing landscape, including weed control (e.g. mowing, spot herbicide applications and hand weeding), litter removal, overseeding, species enrichment, seed collection, controlled burning, monitoring of the landscape plantings and other maintenance as directed by the Site Steward.

Site Steward is a person highly educated and trained in botany and restoration ecology who will supervise the native landscape implementation project, particularly the maintenance and monitoring activities. These services include directing and overseeing the site maintenance/stewardship activities referred to in the above definition. The Site Steward is equivalent to a Project Manager.

## 1.3 SUBMITTALS

SD-01 Preconstruction Submittals

Project Schedule; G,CS

## 1.4 PROJECT SCHEDULE

The Contractor shall submit a project schedule of all work to be performed under this contract, in a format acceptable to the Contracting Officer, within 15 days after notice to proceed. That schedule shall include each task to be performed along with the detailed activities associated with completing each task.

## 1.5 RESTORATION POLICY, GOALS AND OBJECTIVES

## 1.5.1 Restoration Policy

The restoration policy is to restore the project site to a native landscape that resembles wetland, prairie and savanna communities.

#### 1.5.1.1 Restoration Goals

The purpose of the project is to offset wetland impacts associated with the Cady Marsh Ditch flood control project by restoring a native wet savanna plant community. As an added benefit, the project will also expand the existing Little Calumet River in-project mitigation area, help to recharge the shallow aquifer and reduce runoff into the Little Calumet River. The project will involve the eradication of exotic and aggressive native herbaceous and woody weed species and the seeding, planting and monitoring and maintenance of 2 acres of wet savanna.

#### 1.5.1.2 Restoration Objectives

The objectives of the restoration include the installation and management of native landscapes that, within 10 years, will resemble native wet savanna as determined through annual restoration monitoring.

### PART 2 PRODUCTS

All products referenced in this section have been discussed in subsequent sections and will not be repeated herein.

### PART 3 EXECUTION

#### 3.1 MANAGEMENT UNITS

The implementation of the native wet savanna landscape includes three management phases, including:

- Phase 1: Site Preparation
- Phase 2: Installation and Post-planting Care
- Phase 3: Establishment-period Stewardship

##### 3.1.1 Phase 1: Site Preparation

Site preparation includes activities related to site and soil preparation prior to seeding designated areas.

###### 3.1.1.1 Clearing and Debris Removal

Refer to Section 31 31 13 CLEARING AND DEBRIS REMOVAL for specific removal goals for the project site.

###### 3.1.1.2 Controlled Burning

Refer to Section 31 31 20 CONTROLLED BURNING for specific burning requirements for the project site.

###### 3.1.1.3 Herbiciding Invasives

Refer to Section 31 31 19 HERBICIDING INVASIVES for specific herbicide requirements.

##### 3.1.2 Phase 2: Seed Installation and Post-planting Care

###### 3.1.2.1 Seed Installation

Seed installation includes temporary seeding of cover crop and permanent



seeding of the prairie matrix. Due to limitations of access, seed may not be drilled into the ground using a drill seeder or other mechanical equipment. Instead, the seed will be hand broadcast and raked into the ground. See Section 32 92 19 NATIVE SEEDING for the permanent prairie seed and specifications.

### 3.1.2.2 Post-planting Care

Post planting care includes site evaluations, restoration monitoring, weed control, erosion remediation, watering and general site maintenance.

#### A. Site Evaluations

Regular site evaluations by the designated Site Steward are necessary in order to schedule general site maintenance activities in a timely and efficient manner and to document the conditions of the newly installed landscape.

#### B. Restoration Monitoring

In the later part of the first full growing season (late August through early October) the restoration should be monitored by means of vegetation sampling. Sampling shall include meander surveys as well as permanent, repeatable transect lines. The results shall be presented in a report with photographs, floristic quality assessment data, a list of plant species and quantities seeded, general observations and any other information that serves to document the initial installation of the native landscape.

#### C. Weed Control

Weed control in the first year will include 2 mowings/cuttings at a height of 8 to 12 inches, one in mid July and another in September. Any areas of problem weeds, including but not limited to Field Thistle (*Cirsium arvense*), Giant Reed (*Phragmites australis*), Purple Loosestrife (*Lythrum salicaria*), Garlic Mustard (*Alliaria petiolata*) and Reed Canary Grass (*Phalaris arundinacea*) must be spot herbicided as well. Lastly, watering and/or erosion gully repair may be necessary depending upon weather conditions and as directed by the designated Site Steward.

### 3.1.3 Phase 3: Establishment-period Stewardship (Years 2-4)

This phase includes necessary restoration activities in years two through four, a crucial time for the establishment of the savanna landscape. Since the seeded species are intended to reproduce and compete with each other in a habitat designed to suit them, there are several early considerations to bear in mind during the establishment period. Competition with existing vegetation for light, moisture and nutrients is an important one; the introduction of a suitable diversity of native species is another. It is important during this early establishment period for the landscape to look planned and well maintained. Responding properly to these concerns requires close monitoring and attention to early developments so that suitable management is prescribed and administered.

Phase 3 restoration activities shall include site evaluations, restoration monitoring, controlled burning and general site maintenance/stewardship of all areas within the project limits.

#### 3.1.3.1 Supplemental Seeding

If the evaluations determine that seeding has failed in certain areas, species enrichment shall be proposed for the following spring after completion of mowing or a controlled burn. Species enrichment, the seeding

of additional site-appropriate species as the landscape matures, can be accomplished through overseeding as the landscape matures.

A. Site Evaluations

Site evaluations by the designated Site Steward will be accomplished as necessary through the end of the fourth growing season in order to assess the growing conditions and schedule specific maintenance activities, such as weed control, erosion remediation and overseeding. At the invitation of the Contractor, at least one of these site evaluation visits will be attended annually by the Contracting Officer during the growing season.

B. Restoration Monitoring

Restoration monitoring shall be repeated every year, with the sampling procedure following that established in year 1. The results shall be summarized in a report that includes floristic quality assessment data, photographs and recommendations for land management. The annual monitoring report shall be due by 1 February for monitoring performed the previous year.

C. Controlled Burning

Controlled burning is a fundamental management tool that should be conducted every year. Typically, the first burn will not occur until after the second full growing season when there is sufficient fuel to carry a fire. More detail on burn management is provided in Section 31 31 20 CONTROLLED BURNING.

D. General Site Maintenance/Stewardship

General site maintenance/stewardship includes all activities associated with the management of the developing landscape, including weed control (through mowing, herbicide applications and hand weeding), litter removal, overseeding, repair of any project signs or other remedial actions as directed by the Site Steward. These activities will be necessary in order for the Contractor to meet performance standards described in Section 32 01 92 RESTORATION MONITORING, MAINTENANCE AND PERFORMANCE STANDARDS. The performance standards must be achieved in order for the Contractor to receive final acceptance by the Contracting Officer.

3.2 SUMMARY OF LANDSCAPING ACTIVITIES AND PROJECT SCHEDULE

The table below summarizes the landscape implementation activities that the Contractor shall perform within the wetland, prairie and savanna landscape types. An (X) indicates that the activity shall occur, and a dash (-) indicates that the activity will not be required, in the implementation year indicated.

Restoration Activity	Year of Restoration			
	1	2	3	4
Phase 1: Site Preparation				
Site Preparation	X	-	-	-
Phase 2: Installation & Post-planting Care				
Seed Installation	X	X	-	-
Post-planting Care	X	-	-	-
Phase 3: Establishment-period Stewardship				
Site Evaluations	-	X	X	X
Restoration Monitoring	-	X	X	X
Controlled Burning	-	-	X	X
General Site Maintenance/Stewardship	-	X	X	X

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## SECTION 32 01 92

## RESTORATION MONITORING, MAINTENANCE AND PERFORMANCE STANDARDS

## PART 1 GENERAL

## 1.1 SCOPE

Monitoring the development of the native landscapes during all phases of the restoration process will be one of the primary responsibilities of the Contractor's Site Steward. Formal monitoring events shall occur every year during the period from May through June and from late August through early October, when the vegetation will be sampled using Floristic Quality Assessment methodology (FQA). This will include both meander surveys of the restoration site and transect sampling. Permanent photo stations will be established and staked in the field at appropriate locations as well. The data shall be presented in year-end reports that include an assessment of the field data and recommendations for land management in the following year. The maintenance and monitoring portion of the contract will be for a four-year period following installation and preliminary acceptance by the Contracting Officer.

## 1.2 CITATIONS

Swink, Floyd and Gerould Wilhelm. 1994. Plants of the Chicago Region. 4th ed. Indianapolis: Indiana Academy of Science.

## PART 2 PRODUCTS (Not Used)

## PART 3 EXECUTION

## 3.1 PERFORMANCE STANDARDS

Performance standards or criteria are tied to each of the three phases of the restoration process and are presented below.

Phase 1: Site Preparation

Phase 2: Installation and Post-planting Care of Seeded Areas

Phase 3: Establishment-period Stewardship

## 3.1.1 Phases 1 &amp; 2: Site Preparation and Installation and Post-planting (year 1)

3.1.1.1 In the year of installation, restoration monitoring shall document the entire installation process, from site preparation to final seeding via photographs, field memos, and invoices that verify actual seed installed, quantity and seeding rate. This information shall document, for historical purposes, what activities were performed, what was installed and what the variances from the plan were, if any.

By the end of the first full growing season, the seeded landscape must have complete vegetation cover and no area greater than 3 feet square shall be devoid of vegetation.

Delays in completion of seeding operations that extend the seeding into more than one planting season shall extend the three-year warranty period

correspondingly.

### 3.1.2 Phase 3: Establishment-period Stewardship (years 2 - 4)

In addition to the items below, all maintenance activities mentioned in Section 32 01 90 IMPLEMENTATION AND MANAGEMENT shall be performed under the guidance of the Site Steward.

#### 3.1.2.1 Controlled Burns

Controlled burning is fundamental and a commonly used management tool that shall be conducted regularly, (with the exception of years 1 and 2). The controlled burn is a natural process that is essential to the long-term survival of prairie and savanna landscapes. The burns will control the non-native and invasive plant species that would otherwise threaten to out-compete native plants, and will remove the existing litter layer in order to help recycle nutrients back into the soil. Two specific objectives of a controlled burn are the removal of at least 75% of the aboveground woody vegetation that is less than two inches in diameter, and the removal of at least 50% of the previous year's litter accumulation over 80% of the site area per year. Contractor shall include pre- and post-burn photographs in the post-burn report.

A. The Contracting Officer shall critically evaluate the initial restoration efforts after the third full growing season, when the native vegetation shall be recognizable. At the end of the third full growing season the vegetation transect data shall yield mean C and FQI values of 3.0 and 15, respectively, at the transect level. The Contractor will be responsible for reseeding and managing areas that do not meet these performance standards, until such standards are met, at no additional cost to the Government. Mean values at the quadrat level shall rise gradually from year to year; a drop in values for two straight years suggests system problems that must be remediated by the Contractor and shall be addressed and discussed in writing in the annual monitoring reports. There is an emphasis on vegetation development and FQA sampling methodology because:

- 1) techniques to measure vegetation are accomplished economically and require minimal training and equipment;
- 2) the vegetation recorded during monitoring events can be directly correlated to the proposed planting design and installation;
- 3) using FQA methodology, habitat quality can be assessed from one year to the next. It can be assumed that an increase in native species richness equates to an increase in the overall biodiversity of the landscape, which ties back to one of the main goals of the restoration project.

B. At the end of the fourth full growing season the vegetation inventory data in seeded areas shall yield mean C and FQI values of 3.5 and 35, respectively, at the transect level; mean quadrat levels generally shall be rising steadily. It shall also be documented that no less than 35% of the species seeded are present in the landscape, and that noxious weeds including, but not limited to, Purple Loosestrife, Field Thistle, Phragmites and Phalaris do not dominate any portion of the project site. The majority of species shall be native to Lake County, Indiana as defined by Plants of the Chicago Region (Swink and Wilhelm 1994).

### 3.2 REMEDIAL ACTION AND ACCEPTANCE

Refer to Section 32 92 19 NATIVE SEEDING for specific requirements.

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## SECTION 32 92 19

## NATIVE SEEDING

## PART 1 GENERAL

## 1.1 SCOPE

The Contractor shall furnish all labor, materials and equipment required or inferred from the plan documents and this section to complete the indicated work. Seeding shall take place within designated areas utilizing appropriate methods as indicated in the project drawings. The ultimate goal of seeding the selected species is to create a native prairie landscape that is biologically diverse and self-replicating.

## 1.2 REFERENCES

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

## U.S. DEPARTMENT OF AGRICULTURE (USDA)

AMS Seed Act (1940; R 1988; R 1998) Federal Seed Act

## 1.2.1 Other Citations

Swink, Floyd and Gerould Wilhelm. 1994. Plants of the Chicago Region. 4th ed. Indianapolis: Indiana Academy of Science.

## 1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

## SD-03 Product Data

Manufacturer's literature including physical characteristics, application and installation instructions for equipment and chemical treatment material.

## Quantity Check

Bag count or bulk weight measurements of material used compared with area covered to determine the application rate and quantity installed.

## Maintenance Records;

Maintenance work performed, area repaired or reinstalled, diagnosis for unsatisfactory establishment of seed.

## Seed handling records



Delivery dates, storage and handling information.

#### Seed List

List of species available from nurseries, to be purchased upon approval by the Contracting Officer.

#### Schedule

Immediately following Notice to Proceed, the Contractor shall begin seed procurement. (See Paragraph 3.1.1.) Within two weeks following seeding/planting, submit a description of schedule for maintenance (refer to paragraph 3.5 for maintenance requirements).

#### SD-07 Certificates

##### Seed

Prior to the delivery of materials, certificates of compliance attesting that materials meet the specified requirements. Certified copies of the material certificates shall include the following:

a. Seed. Classification, botanical name, common name, geographic origin and harvest date of each species, date tested and packaging slips or invoices showing quantities and composition of each seed mix.

#### 1.4 QUALITY ASSURANCE

##### 1.4.1 Contractor Experience

A Contractor specializing in seeding and maintenance procedures for native species shall perform the work of this section. Firm and personnel experience in seeding and maintaining projects with similar native species and maintenance requirements. A qualified foreman shall be on site during all planting and maintenance. The Contracting Officer will review and approve all Contractor qualifications prior to contract award.

##### 1.4.2 Seed

The Contractor must provide a final seed list to the Contracting Officer for review and approval prior to ordering of seed. The Contractor must be able to provide data of the nurseries contacted as well as species availability information.

All seed shall be tested by an approved testing agency in conformance with the Federal Seed Act for purity and germination. Acceptance shall be based on receipt and approval of certification covering tests for each seed lot supplied. The Contractor will be responsible for testing for seed viability using a test acceptable to the Contracting Officer upon receipt of seed from a supplier. Seed must meet specification in order to be accepted from the supplier and later from the Contractor.

## 1.5 DELIVERY, STORAGE, AND HANDLING

### 1.5.1 Delivery

All seed must be viable and warranted to be genetically from a source within 200 miles of the project location. No rebagged or relabeled seed from beyond this limit will be acceptable on this project. If some required seeds cannot be obtained within the specified locations, the Contractor may obtain them from alternate locations upon documentation of non-availability.

Seed shall be packaged in accordance with standard commercial practice.

All seed shall be kept dry and protected from temperature extremes to maintain dormancy and viability while in transit, storage or during planting operations.

Seed delivery, storage and handling must be documented with all records submitted to the Contracting Officer. This information should be recorded by the installing Contractor and shall include: 1) date of receipt of seed, 2) date of receipt of seed test results, 3) storage conditions, temperatures and humidity for each day held and 4) transport and on-site storage conditions, temperatures and humidity for each day held. A delivery schedule shall be provided at least 10 calendar days prior to the first day of delivery.

### 1.5.2 Inspection

Seed shall be inspected upon arrival at the job site for conformity to species and quality. Seed that is wet, moldy, or bears a test date five months or older, shall be rejected. Other materials shall be inspected for compliance with specified requirements. Any material deemed by the Contracting Officer to be unacceptable shall be removed from the job site.

### 1.5.3 Storage

Seed shall be stored in cool, dry locations away from contaminants. Chemical treatment material shall be stored according to manufacturer's instructions and not with seeding operation materials.

### 1.5.4 Handling

Except for bulk deliveries, materials shall not be dropped or dumped from vehicles.

## PART 2 PRODUCTS

### 2.1 SEED

#### 2.1.1 Seed Classification

State-certified seed of the latest season's crop shall be provided in original sealed packages. Label shall be in conformance with AMS Seed Act, current edition and applicable state seed laws.

#### 2.1.2 Mesic Prairie Mix

The plants listed below represent the prairie species to be seeded across the mesic prairie zone as depicted on the plan graphic. Collectively,

grasses (Table A) shall be sown at 8 pounds per acre total. The percentage shown for each of the grasses indicates the relative amount that each species should comprise. Forbs (Table B) shall be sown at 2 pounds per acre total. Individual seeding rates are not given, since rates and seed availability vary considerably. Instead, the Contractor shall procure as much seed diversity as possible when obtaining seed material.

Species enrichment can be accomplished by means of overseeding as the prairie landscape matures (typically no sooner than after the third full growing season). Upon review of annual restoration monitoring reports, the Contractor will determine what species to include and where they should be placed in the landscape. Species should be native to Lake County, Indiana according to *Plants of the Chicago Region*, 4th Edition (Swink and Wilhelm 1994).

Table A: Grasses and Sedges (@ 8 lbs/acre total)

Species	Common Name	Quantity/Proportion
<i>Andropogon gerardii</i>	big bluestem grass	15%
<i>Andropogon scoparius</i>	little bluestem grass	45%
<i>Carex bicknellii</i>	copper-shouldered oval sedge	5%
<i>Carex brevior</i>	plains oval sedge	5%
<i>Elymus canadensis</i>	Canada wild rye	5%
<i>Panicum virgatum</i>	switch grass	10%
<i>Sorghastrum nutans</i>	Indian grass	10%

Table B: Forbs (@ 2 lbs/acre total)

Species	Common Name
<i>Allium canadense</i>	wild onion
<i>Allium cernuum</i>	nodding wild onion
<i>Aquilegia canadensis</i>	wild columbine
<i>Asclepias tuberosa</i>	butterfly weed
<i>Asclepias sullivantii</i>	prairie milkweed
<i>Asclepias verticillata</i>	whorled milkweed
<i>Aster azureus</i>	sky-blue aster
<i>Aster ericoides</i>	heath aster
<i>Aster laevis</i>	smooth blue aster
<i>Aster novae-angliae</i>	New England aster
<i>Astragalus canadensis</i>	Canada milk vetch
<i>Baptisia leucantha</i>	white wild indigo
<i>Cassia fasciculata</i>	partridge pea
<i>Ceanothus americanus</i>	New Jersey tea
<i>Coreopsis palmata</i>	prairie coreopsis
<i>Coreopsis tripteris</i>	tall coreopsis
<i>Desmodium canadense</i>	showy tick trefoil
<i>Echinacea pallida</i>	purple coneflower
<i>Echinacea purpurea</i>	broad-leaved purple coneflower
<i>Eryngium yuccifolium</i>	rattlesnake master
<i>Euphorbia corollata</i>	flowering spurge
<i>Gentiana flavida</i>	yellowish gentian
<i>Helenium autumnale</i>	sneezeweed
<i>Helianthus mollis</i>	downy sunflower
<i>Heliopsis helianthoides</i>	false sunflower
<i>Heuchera richardsonii</i>	prairie alum root
<i>Lespedeza capitata</i>	round-headed bush clover
<i>Liatris spicata</i>	marsh blazing star
<i>Lobelia siphilitica</i>	great blue lobelia
<i>Monarda fistulosa</i>	wild bergamot

Species	Common Name
<i>Parthenium integrifolium</i>	wild quinine
<i>Penstemon digitalis</i>	foxglove beard tongue
<i>Petalostemum purpureum</i>	purple prairie clover
<i>Physostegia virginiana</i> var.	virginiana obedient plant
<i>Potentilla arguta</i>	prairie cinquefoil
<i>Pycnanthemum virginianum</i>	common mountain mint
<i>Ratibida pinnata</i>	yellow coneflower
<i>Rudbeckia hirta</i>	black-eyed Susan
<i>Rudbeckia subtomentosa</i>	sweet black-eyed Susan
<i>Silphium integrifolium</i>	rosin weed
<i>Silphium laciniatum</i>	compass plant
<i>Silphium perfoliatum</i>	cup plant
<i>Silphium terebinthinaceum</i>	prairie dock
<i>Smilacina stellata</i>	starry false Solomon's seal
<i>Solidago graminifolia</i>	grass-leaved goldenrod
<i>Solidago riddellii</i>	Riddell's goldenrod
<i>Solidago rigida</i>	stiff goldenrod
<i>Solidago speciosa</i>	showy goldenrod
<i>Thalictrum dasycarpum</i>	purple meadow rue
<i>Tradescantia ohiensis</i>	common spiderwort
<i>Vernonia fasciculata</i>	common ironweed
<i>Veronicastrum virginicum</i>	Culver's root
<i>Zizia aurea</i>	golden Alexanders

### 2.1.3 Quality

Non-native seed shall be a maximum one-percent by weight of the total mixture.

### 2.1.4 Seed Mixing

All seeds shall have the proper stratification and/or scarification to break seed dormancy for spring planting. No treatment will be used for seed included in summer or fall plantings. All legumes shall be inoculated with the proper rhizobia at the appropriate time prior to planting. Seed shall be true to their name as specified. Their origin shall be from within a 200-mile radius of the project site. No rebagged or relabeled plants or seeds from beyond this distance shall be accepted. If some required seeds cannot be obtained within the specified locations, the Contractor may obtain them from alternate locations upon documentation of non-availability. Provide an affidavit verifying authenticity and proof of seed and plant sources.

Native seed shall be applied with a cover crop of Annual Rye (*Lolium multiflorum*) at 10 pounds/acre and 30 pounds/acre of either Seed Oats (*Avena sativa*) for spring seeding or Winter Wheat (*Triticum aestivum*) fall or dormant seeding.

### 2.1.5 Substitutions

Substitutions will not be allowed without written request and approval from the Contracting Officer prior to seeding. The Contractor must supply written proof that the seed specified is not obtainable. The notification must be submitted no later than 30 days after award of Contract and shall include proposed species of the nearest equivalent variety.

The above provisions shall not relieve the Contractor of the responsibility for obtaining specified seed in advance if special growing conditions or

other arrangements must be made in order to supply specific materials.

### PART 3 EXECUTION

#### 3.1 INSTALLING SEED TIME AND CONDITIONS

##### 3.1.1 Seeding Time

All seeding shall be done between April 1 and June 15 or after October 1. Deviation from these planting dates shall be permitted only when approved in writing by the Contracting Officer. Actual seeding shall be performed during the above period only when soil conditions and weather are suitable and in accordance with locally accepted practices, as approved by the Contracting Officer. Seeding operations shall be suspended during periods when air temperature is below freezing or above 85°F.

##### 3.1.2 Seeding Conditions

Seeding operations shall be performed only during periods when beneficial results can be obtained. When drought, excessive moisture, or other unsatisfactory conditions prevail, the work shall be stopped when directed by the Contracting Officer.

It is the Contractor's responsibility to examine site and verify that conditions are suitable for seeding as specified and that no defects or errors are present which would cause defective installation of products or cause latent defects in workmanship and function. The Contractor must notify the Contracting Officer in writing of such unsuitable conditions prior to commencement of work.

##### 3.1.3 Equipment Calibration

Immediately prior to the commencement of seeding operations, calibration tests shall be conducted on the equipment to be used. These tests shall confirm that the equipment is operating within the manufacturer's specifications and will meet the specified criteria. The equipment shall be calibrated a minimum of once every day during the operation. The calibration test results shall be documented and provided within 1 week of testing.

#### 3.2 SITE PREPARATION

##### 3.2.1 Unsatisfactory Environmental Conditions

Site preparation work shall be performed only during periods when beneficial results can be obtained. When drought, excessive moisture or other unsatisfactory condition prevails, the work shall be stopped when directed by the Contracting Officer.

##### 3.2.2 Removal of Debris and Rubbish and Repair of Ruts

Debris and rubbish shall include both items found within the work limits and items resulting from site preparation, and shall be disposed of in accordance with Section 31 31 13 CLEARING AND GRUBBING.

##### 3.2.3 Existing Ground Cover

Existing ground cover shall be treated as specified in Section 31 31 13 CLEARING AND GRUBBING unless otherwise indicated in the plans. Herbicide

shall be applied as specified in Section 31 31 19 HERBICIDING INVASIVES. All cut material shall be disposed of in accordance with Section 31 31 20 CONTROLLED BURNING.

#### 3.2.4 Protection

Areas with the prepared surface shall be protected from compaction or damage by vehicular or pedestrian traffic and surface erosion.

### 3.3 INSTALLATION

Due to access limitations, the seeding method shall be Broadcast Seeding. Seeding procedure shall ensure even coverage. Seeding operations shall not take place when the wind velocity will prevent uniform seed distribution.

#### 3.3.1 Broadcast Seeding

Although drill seedling is generally the preferred method, broadcast seeding is required here due to access limitations. Broadcast seeding is feasible due to the small size of the project site. Seed shall be uniformly broadcast at the rate of 8 pounds per acre for grasses and 2 pounds per acre for forbs using broadcast seeders or hand broadcasting. Half the total rate of seed application shall be broadcast in 1 direction, with the remainder of the seed rate broadcast at 90 degrees from the first direction. Seed shall be covered a maximum 1/4 inch depth by hand raking or other approved method.

### 3.4 FIELD QUALITY CONTROL

#### 3.4.1 Demonstration of Seed Calibration

Seeding equipment shall be calibrated to correspond to the specified seeding rates. Proper calibration shall be demonstrated to the Contracting Officer.

#### 3.4.2 Confirmation of Seed Use

For materials provided in bags, the empty bags shall be retained for recording the amount used. For materials provided in bulk, the weight certificates shall be retained as a record of the amount used. The amount of material used shall be compared with the total area covered to determine the rate of application used. Differences between the quantity applied and the quantity specified shall be adjusted as directed.

#### 3.4.3 Interim Field Observation Reviews by Contracting Officer

The Contracting Officer reserves the right to inspect seeds, either at place of growth or at site before planting, for compliance with requirements for name, variety, quantity, quality and mix proportion.

#### 3.4.4 Supplemental Seeding

The Contractor shall notify the Contracting Officer and map locations within 5 days after completing initial and/or supplemental plantings in each planting area.

#### 3.4.5 Contracting Officer Inspection

The Contractor must contact the Contracting Officer to schedule an

inspection of planting results by July 15 following the first full growing season. Results of this inspection will be used in the development of any remedial planting plan or warranty work.

#### 3.4.6 Management and Monitoring

The Contractor shall begin management and monitoring activities following the first full growing season following seeding activities and continue for three years, or until the Contracting Officer grants final approval of the project, whichever is the later. Reference Section 32 01 90 IMPLEMENTATION AND MANAGEMENT and Section 32 01 92 RESTORATION MONITORING AND PERFORMANCE STANDARDS for additional details.

##### 3.4.6.1 Maintenance Record

A record of each site visit shall be furnished, which describes the maintenance work performed, areas repaired or reinstalled, and which furnishes a diagnosis for unsatisfactory establishment of native plants.

#### 3.5 RESTORATION AND CLEAN UP

Excess and waste material shall be removed daily. Existing areas that have been damaged or scarred during planting operations shall be restored to their original condition at the Contractor's expense.

#### 3.6 PRELIMINARY REVIEW AND ACCEPTANCE

Upon the complete installation of the native seeding work, the Contractor must request a review by the Contracting Officer to determine whether work conforms to the requirements of the contract documents.

##### 3.6.1 Corrective Work

The Contracting Officer shall notify the Contractor should the seeding work not conform to the requirements of the Contract Documents. In this event, the Contractor shall receive written notification from the Contracting Officer outlining any deficiency or deficiencies preventing preliminary acceptance of the work and specifying the corrective work necessary in order to grant preliminary acceptance of the work. Corrective work must be completed within fourteen calendar days after the date of the preliminary review notification. Upon completion of the corrective work, the Contractor must request another preliminary review to determine whether seeding work conforms to the requirements of the contract documents. Corrective work, followed by the Contracting Officer's review, shall be required until the corrective work is approved by the Contracting Officer.

##### 3.6.2 Preliminary Acceptance

Upon successful completion of all implementation work, the Contractor shall request an inspection by the Contracting Officer. When the Contracting Officer determines that all site work, including the native seeding work, conforms to the requirements of the contract documents, the Contractor shall receive a written notification of Preliminary Acceptance. The three-year management and monitoring period shall begin on the date that the notification of Preliminary Acceptance is issued. Refer to Section 32 01 90 IMPLEMENTATION AND MANAGEMENT and Section 32 01 92 RESTORATION MONITORING AND PERFORMANCE STANDARDS for additional details pertaining to the three-year management and monitoring requirements.

### 3.7 SEED WARRANTY

#### 3.7.1 Warranty Period

The Contractor shall warrant that forbs, grasses and sedges shall meet the Performance Standards within 3 years from date of Preliminary Acceptance, i.e. the end of implementation and maintenance year 1. Performance Standards are included in Section 32 01 92 RESTORATION MONITORING AND PERFORMANCE STANDARDS. The Contractor shall be charged liquidated damages in accordance with Contract Clause 52.211-8 TIME OF DELIVERY (JUN 1997) until such time that the performance standards are met and the Government accepts the work.

#### 3.7.2 Delays

Delays in completion of seeding operations that extend the seeding into more than one planting season shall extend the three-year warranty period correspondingly.

### 3.8 FINAL ACCEPTANCE

Final acceptance will be determined at the end of the four-year contract period through a field inspection conducted by the Contracting Officer. The vegetation transect data shall meet performance standards set forth in Section 32 01 92 RESTORATION MONITORING, MAINTENANCE AND PERFORMANCE STANDARDS. If the values do not meet the established performance standards or exhibit a chronic decline, the Contractor must take remedial action to reseed and manage the deficient areas until the performance standards are achieved and approved by the Contracting Officer. The Contractor shall be charged liquidated damages in accordance with Contract Clause 52.211-8 TIME OF DELIVERY (JUN 1997) until such time that the performance standards are met and the Government accepts the work.

-- End of Section --



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SECTION 32 93 20

PLANTING

PART 1 GENERAL

1.1 SCOPE

The Contractor shall furnish all labor, materials and equipment required or inferred from the plan documents and this section to complete the indicated work. Planting shall take place within designated areas utilizing appropriate methods as indicated in the specifications and drawings.

1.2 REFERENCES

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

AMERICAN NURSERY AND LANDSCAPE ASSOCIATION (ANLA)

ANLA Z60.1 (1996) Nursery Stock

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI A300 (1995) Tree Care Operations - Trees, Shrubs and Other Woody Plant Maintenance

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-03 Product Data

Equipment; G,CS

A listing of equipment to be used for the planting operation

Delivery

Delivery schedule

Warranty; G,CS

Maintenance Record

Maintenance work performed, quantity of plant losses and replacements; and diagnosis of unhealthy plant material.

Application of Pesticide

Pesticide treatment plan with sequence of treatment work with

dates and times. The pesticide trade name, EPA registration number, chemical composition, formulation, concentration of original and diluted material, application rate of active ingredients, method of application, area treated, amount applied; and the name and state license number of the state certified applicator shall be included.

SD-04 Samples

Basal mulch; G,PL

A 4.5 kg (10 pound) sample

SD-07 Certificates

Plant Material

Pesticide

Prior to delivery of materials, certificates of compliance attesting that materials meet the specified requirements. Certified copies of the material certificates shall include the following.

a. Plant Material: Classification, botanical name, common name, size, quantity by species and location where grown.

b. Pesticide. EPA registration number and registered uses.

SD-10 Operation and Maintenance Data

Maintenance Instructions

Instruction for year-round care of installed plant material.

1.4 SOURCE INSPECTIONS

The nursery or source of plant material and the source of delivered topsoil shall be subject to inspection.

1.5 DELIVERY, INSPECTION, STORAGE, AND HANDLING

1.5.1 Delivery

A delivery schedule shall be provided at least 10 calendar days prior to the first day of delivery.

1.5.1.1 Plant Material Identification

Plant material shall be identified with attached, durable, waterproof labels and weather-resistant ink, stating the correct botanical plant name and size.

1.5.1.2 Protection During Delivery

Plant material shall be protected during delivery to prevent desiccation and damage to the branches, trunk, root system, or earth ball. Branches shall be protected by tying-in. Exposed branches shall be covered during transport.

### 1.5.2 Inspection

Plant material shall be well-shaped, vigorous and healthy with a healthy, well-branched root system, free from disease, harmful insects and insect eggs, sun-scald injury, disfigurement or abrasion. Plant material shall be checked for unauthorized substitution and to establish nursery grown status. Plant material showing desiccation, abrasion, sun-scald injury, disfigurement, or unauthorized substitution shall be rejected. The plant material shall exhibit typical form of branch to height ratio; and meet the caliper and height measurements specified. Plant material that measures less than specified, or has been poled, topped off or headed back, shall be rejected. Container-grown plant material shall show new fibrous roots and the root mass shall contain its shape when removed from the container. Plant material with broken or cracked balls; or broken containers shall be rejected. Bare-root plant material that is not dormant or is showing roots were pulled from the ground shall be rejected. Other materials shall be inspected for compliance with paragraph 2.1.

### 1.5.3 Storage

#### 1.5.3.1 Plant Material Storage

Plant material not installed on the day of arrival at the site shall be stored and protected in designated areas. Plant material shall not be stored longer than 30 days. Plant material shall be protected from direct exposure to wind and sun. Bare-root plant material shall be heeled-in. All plant material shall be kept in a moist condition by watering with a fine mist spray until installed.

#### 1.5.3.2 Other Material Storage

Storage of other material shall be in designated staging areas or as approved by the Contracting Officer.

### 1.5.4 Handling

Plant material shall not be injured in handling. Cracking or breaking the earth ball of balled and burlapped plant material shall be avoided. Plant material shall not be handled by the trunk or stems. Materials shall not be dropped from vehicles.

## 1.6 TIME LIMITATION

Except for container-grown plant material, the time limitation from digging to installing plant material shall be a maximum of 90 days. The time limitation between installing the plant material and placing the mulch shall be a maximum of 24 hours.

## 1.7 WARRANTY

Furnished plant material shall have a warranty for plant growth to be in a vigorous growing condition for a minimum 12-month period. A minimum 12-month calendar time period for the warranty of plant growth shall be provided regardless of the contract time period. When plant material is determined to be unhealthy in accordance with paragraph PLANT ESTABLISHMENT PERIOD, it shall be replaced once under this warranty.

## PART 2 PRODUCTS

## 2.1 PLANT MATERIAL

## 2.1.1 Plant Material Classification

The plant material shall be nursery grown stock conforming to ANLA Z60.1 and shall be the species specified in Table A.

<b>Species</b>	<b>Common Name</b>	<b>Quantity and Size</b>
<i>Quercus bicolor</i>	Swamp White Oak	10 trees; 1.5 inch caliper
<i>Quercus macrocarpa</i>	Burr Oak	10 trees; 1.5 inch caliper

## 2.1.2 Plant Schedule

The Contractor's plant schedule shall provide botanical names as included in one or more of the publications listed under "Nomenclature" in ANLA Z60.1.

## 2.1.3 Substitutions

Substitutions will not be permitted without written request and approval from the Contracting Officer.

## 2.1.4 Quality

Well shaped, well grown, vigorous plant material having healthy and well branched root systems in accordance with ANLA Z60.1 shall be provided. Plant material shall be provided free from disease, harmful insects and insect eggs, sun scald injury, disfigurement and abrasion. Plant material shall be free of shock or damage that may occur to branches, trunk or root systems from the digging and preparation for shipment, method of shipment or from shipment itself. Plant quality is determined by the growing conditions; method of shipment to maintain health of the root system; and growth of the trunk and crown as follows:

## 2.1.5 Growing Conditions

Plant material shall be native to or well-suited to the growing conditions of the project site. Plant material shall be grown under climatic conditions similar to those at the project site.

## 2.1.6 Method of Shipment to Maintain Health of Root System

Balled and burlapped (BB) plant material ball size and ratio shall be in accordance with ANLA Z60.1. The ball shall be of a diameter and depth to encompass enough fibrous and feeding root system necessary for the full recovery of the plant. The plant stem or trunk shall be centered in the ball. All roots shall be clean cut at the ball surface. Roots shall not be pulled from the ground. Before shipment the root ball shall be dipped in gels containing mycorrhizal fungi inoculum. The root ball shall be completely wrapped with burlap or other suitable material and securely laced with biodegradable twine. Burlap for wrapping earth ball is to be biodegradable jute mesh not less than 7.2 oz. per square yard. Wrapping materials made from man-made materials are unacceptable.

## 2.1.7 Growth of Trunk and Crown

A height to caliper relationship shall be provided in accordance with ANLA Z60.1. Height of branching shall bear a relationship to the size and

species of tree specified and with the crown in good balance with the trunk. The trees shall not be "poled" or the leader removed. The trunk shall be reasonably straight and symmetrical with crown and have a persistent main leader.

#### 2.1.8 Plant Material Size

Plant material shall be furnished in sizes indicated. Plant material larger in size than specified may be provided at no additional cost to the Government.

#### 2.1.9 Plant Material Measurement

Plant material measurements shall be in accordance with ANLA Z60.1.

### 2.2 BASAL MULCH

#### 2.2.1 Basal Mulch

Basal mulch shall be shredded hardwood bark material and shall be free from weeds, mold and other deleterious materials. Basal mulch materials shall be native to the region.

### 2.3 STAKING MATERIAL

#### 2.3.1 Wood Ground Stakes

Wood ground stakes shall be rough sawn hardwood or fir free from knots, rot, cross grain or other defects that would impair their strength. Wood ground stakes shall be a minimum of 2 x 2 inches square and a minimum 3 feet long with a point at one end. All stakes are to be driven below finished grade. Only wood staking may be used; no steel staking shall be permitted unless determined appropriate by the Contracting Officer.

#### 2.3.2 Bracing Stake

Wood bracing stakes shall be a minimum 2 x 2 inches square and a minimum 8 feet long with a point at one end. Stakes shall be set without damaging rootball.

#### 2.3.3 Deadmen

Wood deadmen shall be a minimum 4 x 4 x 36 inches long.

#### 2.3.4 Hose

Half inch diameter black reinforced rubber or plastic garden hose, cut to required lengths, shall be used to protect tree trunks from damage by wires. Used hose is acceptable.

### 2.4 FLAGGING

Plastic flag material, a minimum 6 inches long, shall be used on guying material. Tape color shall be consistent and visually complimentary to the entire project area and shall meet pedestrian visual safety requirements for day and night.

### PART 3 EXECUTION

#### 3.1 INSTALLING PLANT MATERIAL TIME AND CONDITIONS

##### 3.1.1 Deciduous Plant Material Time

Deciduous plant material (i.e. oaks) shall be installed from April 15 - May 15 or September 1 - November 15, depending on the nursery/supplier's recommendation.

##### 3.1.2 Plant Material Conditions

Planting operations shall be performed only during periods when beneficial results can be obtained. When drought, excessive moisture, frozen ground or other unsatisfactory conditions prevail, the work shall be stopped when directed by the Contracting Officer. When special conditions warrant a variance to the planting operations, proposed planting times shall be submitted for approval by the Contracting Officer.

#### 3.2 SITE PREPARATION

##### 3.2.1 Layout

No specific planting locations are identified on the plan documents because the sites must be cleared before appropriate placement can be determined. The Contractor shall stake the locations of plant material on the project site, in a manner that resembles a savanna community, based upon the field direction of the Contracting Officer and before any plant pit excavations are made.

##### 3.2.2 Protecting Seeded Vegetation

Any seeded areas disturbed as a result of planting activities shall be repaired by the Contractor at no additional cost the Government.

#### 3.3 EXCAVATION

##### 3.3.1 Plant Pits

Plant pits for both balled and burlapped and container-grown plant material shall be dug to a depth equal to the height of the root ball as measured from the base of the ball to the base of the plant trunk. Plant pits for bare-root plant material shall be dug to a depth equal to the height of the root system. Plant pits shall be dug a minimum 100 percent wider than the ball or root system to allow for root expansion. The pit shall be constructed with sides sloping towards the base as a cone to encourage well aerated soil to be available to the root system for favorable root growth. Cylindrical pits with vertical sides shall not be used.

#### 3.4 INSTALLATION

##### 3.4.1 Setting Plant Material

Plant material shall be set plumb and held in position until sufficient soil has been firmly placed around root system or ball. In relation to the surrounding grade, the plant material shall be set even with the grade at which it was grown.



### 3.4.2 Backfill Procedure

Prior to backfilling, all metal, wood, synthetic products or treated burlap devices shall be removed from the ball or root system avoiding damage to the root system. The backfill procedure shall remove air pockets from around the root system. Additional requirements are as follows.

#### 3.4.2.1 Balled and Burlapped

Biodegradable burlap and tying material shall be carefully opened and folded back from the top a minimum 1/3 depth from the top of the root ball. Backfill mixture shall be added to the plant pit in 6 inch layers with each layer tamped.

#### 3.4.3 Earth Berm

An earth berm, consisting of backfill soil mixture, shall be formed with a minimum 4 inch height around the edge of the plant pit to aid in water retention and to provide soil for settling adjustments.

#### 3.4.4 Watering

Plant pits and plant beds shall be watered immediately after backfilling, until completely saturated.

#### 3.4.5 Staking and Guying

Staking will be required only when trees are unstable or will not remain set due to their size, shape or exposure to high wind velocity. The Contractor will be responsible for conducting periodic inspections of the plant material to determine if staking and guying is necessary and shall consider such work as part of the base contract.

##### 3.4.5.1 One Bracing Stake

Trees 4 to 6 feet tall shall be firmly anchored in place with one bracing stake. The bracing stake shall be placed on the side of the tree facing the prevailing wind. The bracing stake shall be driven vertically into firm ground and shall not injure the ball or root system. The tree shall be held firmly to the stake with a double strand of guying material. The guying material shall be firmly anchored at a minimum 1/2 tree height and shall prevent girdling. A chafing guard shall be used when metal is the guying material.

##### 3.4.5.2 Two Bracing Stakes

Trees from 6 to 8 feet tall shall be firmly anchored in place with 2 bracing stakes placed on opposite sides. Bracing stakes shall be driven vertically into firm ground and shall not injure the ball or root system. The tree shall be held firmly between the stakes with a double strand of guying material. The guying material shall be firmly anchored at a minimum 1/2 tree height and shall prevent girdling. Chafing guards shall be used when metal is the guying material.

##### 3.4.5.3 Flags

A flag highly visible to pedestrians shall be securely fastened to each guy line equidistant between the tree and the stake, deadman or earth anchor.

### 3.5 FINISHING

#### 3.5.1 Placing Basal mulch

The placement of basal mulch shall occur around the dripline of the tree a maximum of 24 hours after planting. Basal mulch, used to reduce soil water loss, regulate soil temperature and prevent weed growth, shall be spread to cover the dripline area with a 2 to 4 inch uniform thickness. Basal mulch shall be kept 2 to 4 inches away from the trunk.

#### 3.5.2 Pruning

Pruning shall be accomplished by trained and experienced personnel. The pruning of trees shall be in accordance with ANSI A300. Only dead or broken material shall be pruned from installed plants. The typical growth habit of individual plant material shall be retained. Clean cuts shall be made adjacent to the parent trunk, just outside the branch collar. Improper cuts, stubs, dead and broken branches shall be removed. Trees shall not be poled or the leader removed, nor shall the leader be pruned or "topped off".

### 3.6 MAINTENANCE DURING PLANTING OPERATION

Installed plant material shall be maintained in a healthy growing condition. Maintenance operations shall begin immediately after each plant is installed to prevent desiccation and shall continue until the plant establishment period commences. Installed areas shall be kept free of weeds, grass and other undesired vegetation. The maintenance includes maintaining the basal mulch, watering and adjusting or amending settling as necessary. These maintenance visits shall occur at least once a week for the first month after installation. Frequent, early maintenance visits are critically important to prevent desiccation of the newly installed plantings.

### 3.7 APPLICATION OF PESTICIDE

When application of a pesticide becomes necessary to eliminate a pest or disease, a pesticide treatment plan shall be submitted by the Contractor.

#### 3.7.1 Technical Representative

The certified installation pest management coordinator shall be the technical representative and shall be present at all meetings concerning treatment measures for pest or disease control. The pest management coordinator may be present during treatment application.

#### 3.7.2 Application

A state certified applicator shall apply required pesticides in accordance with EPA label restrictions and recommendations. Clothing and personal protective equipment shall be used as specified on the pesticide label. A closed system is recommended because it prevents the pesticide from coming into contact with the applicator or other persons. Water for formulating shall come only from designated locations. Filling hoses shall be fitted with a backflow preventer meeting local plumbing codes or standards. Overflow shall be prevented during the filling operation. Prior to each day of use, the equipment used for applying pesticide shall be inspected for leaks, clogging, wear or damage. Any repairs are to be performed immediately.

### 3.8 RESTORATION AND CLEAN UP

#### 3.8.1 Restoration

Seeded areas, haul roads and parking drives and lots that have been damaged from the planting operation shall be restored to original condition at the Contractor's expense.

#### 3.8.2 Clean Up

Excess and waste material shall be removed from the installed area and shall be disposed offsite. Adjacent paved areas shall be cleared.

### 3.9 PLANT ESTABLISHMENT PERIOD

#### 3.9.1 Commencement

Upon completion of the last day of the planting operation, the plant establishment period for maintaining installed plant material in a healthy growing condition shall commence and shall be in effect for a minimum of 90 days or the remaining contract time period, whichever is longer, not to exceed 12 months. Written calendar time period shall be furnished for the plant establishment period. When there is more than one plant establishment period, the boundaries of the planted area covered for each period shall be described. The plant establishment period shall be coordinated with Section 32 92 19 NATIVE SEEDING. The plant establishment period shall be modified for inclement weather shut down periods, or for separate completion dates for areas.

#### 3.9.2 Maintenance During Establishment Period

Maintenance of plant material shall include straightening plant material, straightening stakes, tightening guying material, correcting girdling, supplementing basal mulch, pruning dead or broken branch tips, maintaining plant material labels, watering, eradicating weeds, insects and disease as well as removing and replacing unhealthy plants.

##### 3.9.2.1 Watering Plant Material

The plant material shall be watered as necessary to prevent desiccation and to maintain an adequate supply of moisture within the root zone. An adequate supply of moisture is estimated to be the equivalent of 1 inch of absorbed water per week, delivered in the form of rain or augmented by watering. Run-off, puddling and wilting shall be prevented.

##### 3.9.2.2 Plant Pit Settling

When settling occurs to the backfill soil mixture, additional backfill soil shall be added to the plant pit or plant bed until the backfill level is equal to the surrounding grade. Serious settling that affects the setting of the plant in relation to the maximum depth at which it was grown requires replanting in accordance with paragraph INSTALLATION.

#### 3.9.3 Maintenance Record

A record shall be furnished describing the maintenance work performed, the number of plants lost, diagnosis of the plant loss and the number of replacements made on each site visit.

#### 3.9.4 Unhealthy Plant Material

A tree shall be considered unhealthy or dead when the main leader has died back, or 25 percent or more of the crown has died. This condition shall be determined by scraping on a branch an area 1/16-inch square, maximum, to determine if there is a green cambium layer below the bark. The Contractor shall determine the cause for unhealthy plant material and shall provide recommendations for replacement. Unhealthy or dead plant material shall be removed immediately and shall be replaced as soon as seasonal conditions permit.

#### 3.9.5 Replacement Plant Material

Unless otherwise directed, plant material shall be provided for replacement in accordance with paragraph 2.1 PLANT MATERIAL. Replacement plant material shall be installed in accordance with paragraph 3.4 INSTALLATION and recommendations in paragraph 3.9 PLANT ESTABLISHMENT PERIOD. Plant material shall be replaced in accordance with paragraph 1.6 WARRANTY. An extended plant establishment period shall not be required for replacement plant material.

-- End of Section --