SPECIFICATIONS
(FOR CONSTRUCTION CONTRACT)

Solicitation No. DACW45-03-B-0016

IDCC Road Rehab

Garrison Project, Riverdale, ND

May 2003

US Army Corps
of Engineers
Omaha District

IDCC Road Rehab
Garrison Project, ND

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	DACW45-03-B-0011	☒ SEALED BID (IFB) ☐ NEGOTIATED (RFP)	02 May 2003	1 OF 5

IMPORTANT - The "offer" section on the reverse must be fully completed by offeror.

4. CONTRACT NO.	5. REQUISITION/PURCHASE REQUEST NO.	6. PROJECT NO.

7. ISSUED BY CODE CT

U S ARMY ENGINEER DISTRICT, OMAHA
106 South 15th Street
Omaha, Nebraska 68102-1618

8. ADDRESS OFFER TO

U.S.ARMY CORPS OF ENGINEERS, OMAHA
Attn: CONTRACTING DIVISION (CENWO-CT)
106 South 15th Street
Omaha, Nebraska 68102-1618

9. FOR INFORMATION CALL: ▶	A. NAME	B. TELEPHONE NO. (Include area code) (NO COLLECT CALLS)
	See SECTION 00100, Para. 25	See SECTION 00100, Para. 25

SOLICITATION

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

10. THE GOVERNMENT REQUIRES PERFORMANCE OF THE WORK DESCRIBED IN THESE DOCUMENTS (Title, identifying no., date):

The Offeror hereby agrees to do all the work described in these documents entitled:

IDCC for Roads, Garrison Project, Riverdale, ND

RETURN WITH BIDS: SECTION 00010 (SF1442), SECTION 00600 REPRESENTATIONS, CERTIFICATIONS & OTHER STATEMENTS OF BIDDERS, and all Bonding Requirements, See SECTION 00700 CONTRACT CLAUSES and SECTION 00100 for Performance and Payment Bonds.

11. The Contractor shall begin performance within 10 calendar days and complete it within * calendar days after receiving

☐ award, ☒ notice to proceed. This performance period is ☒ mandatory, ☐ negotiable. (See * See 00800-2 Para 1 .)

12A. THE CONTRACTOR MUST FURNISH ANY REQUIRED PERFORMANCE AND PAYMENT BONDS? (If "YES," indicate within how many calendar days after award in Item 12B.)	12B. CALENDAR DAYS
☒ YES ☐ NO	10

13. ADDITIONAL SOLICITATION REQUIREMENTS:

A. Sealed offers in original and 0 copies to perform the work required are due at the place specified in Item 8 by 2:00 pm (hour) local time 03 Jun 2003 (date). If this is a sealed bid solicitation, offers must be publicly opened at that time. Sealed envelopes containing offers shall be marked to show the offeror's name and address, the solicitation number, and the date and time offers are due.

B. An offer guarantee ☒ is, ☐ is not required.

C. All offers are subject to the (1) work requirements, and (2) other provisions and clauses incorporated in the solicitation in full text or by reference.

D. Offers providing less than 60 calendar days for Government acceptance after the date offers are due will not be considered and will be rejected.

14. NAME AND ADDRESS OF OFFEROR (Include ZIP Code)	15. TELEPHONE NO. (Include area code)
DUNS Number:	16. REMITTANCE ADDRESS (Include only if different than Item 14)
CODE FACILITY CODE	

17. The offeror agrees to perform the work required at the prices specified below in strict accordance with the terms of this solicitation, if this offer is accepted by the Government in writing within 60 calendar days after the date offers are due. (Insert any number equal to or greater than the minimum requirement stated in Item 13D. Failure to insert any number means the offeror accepts the minimum in Item 13D.)

AMOUNTS ▶ SEE ATTACHED BIDDING SCHEDULE

Contractor's Fax No._____ CAGE CODE _____

Contractor's E-Mail address_____

18. The offeror agrees to furnish any required performance and payment bonds.

19. ACKNOWLEDGMENT OF AMENDMENTS

(The offeror acknowledges receipt of amendments to the solicitation - give number and date of each)

AMENDMENT NO.										
DATE										

20A. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER (Type or print)	20B. SIGNATURE	20C. OFFER DATE

AWARD (To be completed by Government)

21. ITEMS ACCEPTED:

22. AMOUNT	23. ACCOUNTING AND APPROPRIATION DATA

24. SUBMIT INVOICES TO ADDRESS SHOWN IN (4 copies unless otherwise specified) ▶	ITEM 26	25. OTHER THAN FULL AND OPEN COMPETITION PURSUANT TO ☐ 10 U.S.C. 2304(c) ( ) ☐ 41 U.S.C. 253(c) ( )

26. ADMINISTERED BY CODE	27. PAYMENT WILL BE MADE BY
U.S. Army Engineer District, Omaha 106 South 15th Street Omaha, Nebraska 68102-1618	USAED Omaha c/o USACE Finance Center 5722 Integrity Drive Millington, TN 38054-5005

CONTRACTING OFFICER WILL COMPLETE ITEM 28 OR 29 AS APPLICABLE

☐ 28. NEGOTIATED AGREEMENT (contractor is required to sign this document and return_____ copies to issuing office.) Contractor agrees to furnish and deliver all items or perform all work, requisitions identified on this form and any continuation sheets for the consideration stated in this contract. The rights and obligations of the parties to this contract shall be governed by (a) this contract award, (b) the solicitation, and (c) the clauses, representations, certifications, and specifications incorporated by reference in or attached to this contract.

☐ 29. AWARD (Contractor is not required to sign this document.) Your offer on this solicitation, is hereby accepted as to the items listed. This award consummates the contract, which consists of (a) the Government solicitation and your offer, and (b) this contract award. No further contractual document is necessary.

30A. NAME AND TITLE OF CONTRACTOR OR PERSON AUTHORIZED TO SIGN (Type or print)		31A. NAME OF CONTRACTING OFFICER (Type or print)	
30B. SIGNATURE	30C. DATE	31B. UNITED STATES OF AMERICA BY	31C. AWARD DATE

BID SCHEDULE FOR BASIC YEAR

All work reuqired by the plans and specifications for the Basic Year Fy - 2003 contract period, which is from Date of Award to 30 September 2003.

ITEM NO.	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE ($)	EST. TOTAL
WORK WITHIN 20 MILE RADIUS OF GARRISON PROJECT (Map 2)					
Section 02300 Earthwork					
0001A	100-499 CYS	100	Cubic Yard		
0001B	Over 500 CYS	500	Cubic Yards		
0001C	Mobilization	1	Lump Sum		
Section 02241 Aggregate (Stockpile)					
0002A	Class 5 - First 500 Tons	500	Tons		
0002B	Class 5 - Over 500 Tons	500	Tons		
Section 02245 Riprap (QUARRIED)					
	First 1000 Tons:				
0003A	Riprap - Type I (Dumped)	1000	Tons		
0003B	Riprap - Type I (Placed)	1000	Tons		
0003C	Riprap - Type I (Stockpiled)	1000	Tons		
	Over 1000 Tons:				
0003D	Riprap - Type I (Dumped)	500	Tons		
0003E	Riprap - Type I (Placed)	500	Tons		
0003F	Riprap - Type I (Stockpiled)	500	Tons		
	First 500 Tons:				
0003G	Riprap - Type II (Dumped)	500	Tons		
0003H	Riprap - Type II (Placed)	500	Tons		
0003I	Riprap - Type II (Stockpiled)	500	Tons		
	Over 500 Tons:				
0003J	Riprap - Type II (Dumped)	250	Tons		
0003K	Riprap - Type II (Placed)	250	Tons		
0003L	Riprap - Type II (Stockpiled)	250	Tons		
	First 500 Tons:				
0003M	Riprap - Type III (Dumped)	500	Tons		
0003N	Riprap - Type III (Placed)	500	Tons		
0003O	Riprap - Type III (Stockpiled)	500	Tons		
	Over 500 Tons:				
0003P	Riprap - Type III (Dumped)	250	Tons		
0003Q	Riprap - Type III (Placed)	250	Tons		
0003R	Riprap - Type III (Stockpiled)	250	Tons		
	First 500 Tons:				
0003S	Riprap - Type IV (Dumped)	500	Tons		
0003T	Riprap - Type IV (Placed)	500	Tons		
0003U	Riprap - Type IV (Stockpiled)	500	Tons		
	Over 500 Tons:				
0003V	Riprap - Type IV (Dumped)	250	Tons		
0003W	Riprap - Type IV (Placed)	250	Tons		
0003X	Riprap - Type IV (Stockpiled)	250	Tons		
	First 500 Tons:				
0003Y	Riprap - Type V Spalls (Dumped)	500	Tons		
0003Z	Riprap - Type V Spalls (Stockpi	500	Tons		
	Over 500 Tons:				
0003AA	Riprap - Type V Spalls (Dumped)	500	Tons		
0003BB	Riprap - Type V Spalls (Stockpil	500	Tons		

ITEM NO.	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE ($)	EST. TOTAL
WORK WITHIN 20 MILE RADIUS OF GARRISON PROJECT (Map 2)					
Section 02246 Riprap (FIELD ROCK)					
	First 1000 Tons:				
0004A	Riprap - Type I (Dumped)	1000	Tons		
0004B	Riprap - Type I (Placed)	1000	Tons		
0004C	Riprap - Type I (Stockpiled)	1000	Tons		
	Over 1000 Tons:				
0004D	Riprap - Type I (Dumped)	500	Tons		
0004E	Riprap - Type I (Placed)	500	Tons		
0004F	Riprap - Type I (Stockpiled)	500	Tons		
	First 500 Tons:				
0004G	Riprap - Type II (Dumped)	500	Tons		
0004H	Riprap - Type II (Placed)	500	Tons		
0004I	Riprap - Type II (Stockpiled)	500	Tons		
	Over 500 Tons:				
0004J	Riprap - Type II (Dumped)	250	Tons		
0004K	Riprap - Type II (Placed)	250	Tons		
0004L	Riprap - Type II (Stockpiled)	250	Tons		
	First 500 Tons:				
0004M	Riprap - Type III (Dumped)	500	Tons		
0004N	Riprap - Type III (Placed)	500	Tons		
0004O	Riprap - Type III (Stockpiled)	500	Tons		
	Over 500 Tons:				
0004P	Riprap - Type III (Dumped)	250	Tons		
0004Q	Riprap - Type III (Placed)	250	Tons		
0004R	Riprap - Type III (Stockpiled)	250	Tons		
	First 500 Tons:				
0004S	Riprap - Type IV (Dumped)	500	Tons		
0004T	Riprap - Type IV (Placed)	500	Tons		
0004U	Riprap - Type IV (Stockpiled)	500	Tons		
	Over 500 Tons:				
0004V	Riprap - Type IV (Dumped)	250	Tons		
0004W	Riprap - Type IV (Placed)	250	Tons		
0004X	Riprap - Type IV (Stockpiled)	250	Tons		
	First 500 Tons:				
0004Y	Riprap - Type V Spalls (Dumped)	500	Tons		
0004Z	Riprap - Type V Spalls (Stockpi	500	Tons		
	Over 500 Tons:				
0004AA	Riprap - Type V Spalls (Dumped)	500	Tons		
0004BB	Riprap - Type V Spalls (Stockpil	500	Tons		
Section 02564 - Salvaging & Processing Existing Bituminous & Granular Base Materials					
0005A	Milled, blended & replaced - 8"	2,000	Square Feet		
0005B	Mobilizaton	1	Lump Sum		
Section 02722 - Base Course					
0006A	First 500 Tons (Stockpiled)	500	Tons		
0006B	Over 500 Tons (Stockpiled)	500	Tons		
0006C	Base Course (Supplied-in-place)	500	Tons		

ITEM NO.	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE ($)	EST. TOTAL
WORK WITHIN 20 MILE RADIUS OF GARRISON PROJECT (Map 2)					
Section 02741 Bituminous Pavement					
0007A	Pave Gravel Surface	500	Tons		
0007B	Overlay Paved Surface	500	Tons		
0007C	Skin Patch (1" - 2")	10	Tons		
0007D	Deep Patch (4")	20	Tons		
0007E	Mobilization	1	Lump Sum		
Section 02763 - Pavement Marking					
0008A	Shoudler Striping (White)	10,000	Linear Feet		
0008B	Centerline Striping (Yellow)	5,000	Linear Feet		
0008C	Centerline Striping Solid (Yello	10,000	Linear Feet		
0008D	Parking Area Striping	300	Linear Feet		
0008E	Stop Line Striping (12")	20	Linear Feet		
0008F	Handicap & Misc. Symbols	2	Each		
0008G	Mobilization	1	Lump Sum		
Section 02770 - Concrete Pavement					
0009A	Pavement & Sidewalks	30	Cubic Yards		
0009B	Straight Curb	15	Cubic Yards		
0009C	Curb & Gutter (Slip-form)	15	Cubic Yards		
0009D	Curb & Gutter (Cast-in-place)	15	Cubic Yards		
0009E	Mobilization	1	Lump Sum		
Section 02785 Bituminous Seal Coat (Chip Seal)					
00010A	Chip Seal	40,000	Square Yards		
00010B	Mobilization	1	Lump Sum		
Section 02921 Seeding					
00011A	Seeding - Lawn Area - Hydro Seed	2500	Square Feet		
00011B	Seeding - Lawn Area	5,000	Square Feet		
00011C	Seeding - Field Area	5	Acres		
00011D	Topsoil	1	Ton		
00011E	Mobilization	1	Lump Sum		
Section 02964 Cold Milling of Bituminous Pavements					
00012A	Milling & Stockpiling	10,000	Square Yards		
00012B	Mobilization	1	Lump Sum		
Section 02975 Crack Sealing in Pavement					
00013A	Crack Routing & Sealing	5,000	Linear Feet		
00013B	Mobilization	1	Lump Sum		
	Subtotal for Garrison Dam Area				

ITEM NO.	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE ($)	EST. TOTAL
WORK WITHIN 5 MILE RADIUS OF DEEPWATER RECREATION AREA (Map 3)					
Section 02300 Earthwork					
00014A	100-499 CYS	100	Cubic Yard		
00014B	Over 500 CYS	500	Cubic Yards		
00014C	Mobilization	1	Lump Sum		
Section 02241 Aggregate (Stockpile)					
00015A	Class 5 - First 500 Tons	500	Tons		
00015B	Class 5 - Over 500 Tons	500	Tons		
Section 02246 Riprap (FIELD ROCK)					
	First 500 Tons:				
00016A	Riprap - Type IV (Dumped)	500	Tons		
00016B	Riprap - Type IV (Placed)	500	Tons		
00016C	Riprap - Type IV (Stockpiled)	500	Tons		
	Over 500 Tons:				
00016D	Riprap - Type IV (Dumped)	250	Tons		
00016E	Riprap - Type IV (Placed)	250	Tons		
00016F	Riprap - Type IV (Stockpiled)	250	Tons		
	First 500 Tons:				
00016G	Riprap - Type V Spalls (Dumped)	500	Tons		
00016H	Riprap - Type V Spalls (Stockpi	500	Tons		
	Over 500 Tons:				
00016I	Riprap - Type V Spalls (Dumped)	500	Tons		
00016J	Riprap - Type V Spalls (Stockpil	500	Tons		
Section 02722 - Base Course					
00017A	First 500 Tons (Stockpiled)	500	Tons		
00017B	Over 1,000 Tons (Stockpiled)	500	Tons		
00017C	Base Course (Supplied-in-place)	500	Tons		
Section 02770 - Concrete Pavement					
00018A	Pavement & Sidewalks	30	Cubic Yards		
00018B	Straight Curb	15	Cubic Yards		
00018C	Curb & Gutter (Slip-form)	15	Cubic Yards		
00018D	Curb & Gutter (Cast-in-place)	15	Cubic Yards		
00018E	Mobilization	1	Lump Sum		
Section 02921 Seeding					
00019A	Seeding - Lawn Area - Hydro Seed	2500	Square Feet		
00019B	Seeding - Lawn Area	5,000	Square Feet		
00019C	Seeding - Field Area	5	Acres		
00019D	Topsoil	1	Ton		
00019E	Mobilization	1	Lump Sum		
	Subtotal for Deepwater				

ITEM NO.	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE ($)	EST. TOTAL
WORK WITHIN 5 MILE RADIUS OF DOUGLAS BAY RECREATION AREA (Map 4)					
Section 02300 Earthwork					
00020A	100-499 CYS	100	Cubic Yard		
00020B	Over 500 CYS	500	Cubic Yards		
00020C	Mobilization	1	Lump Sum		
Section 02241 Aggregate (Stockpile)					
00021A	Class 5 - First 500 Tons	500	Tons		
00021B	Class 5 - Over 500 Tons	500	Tons		
Section 02246 Riprap (FIELD ROCK)					
	First 500 Tons:				
00022A	Riprap - Type IV (Dumped)	500	Tons		
00022B	Riprap - Type IV (Placed)	500	Tons		
00022C	Riprap - Type IV (Stockpiled)	500	Tons		
	Over 500 Tons:				
00022D	Riprap - Type IV (Dumped)	250	Tons		
00022E	Riprap - Type IV (Placed)	250	Tons		
00022F	Riprap - Type IV (Stockpiled)	250	Tons		
	First 500 Tons:				
00022G	Riprap - Type V Spalls (Dumped)	500	Tons		
00022H	Riprap - Type V Spalls (Stockpi	500	Tons		
	Over 500 Tons:				
00022I	Riprap - Type V Spalls (Dumped)	500	Tons		
00022J	Riprap - Type V Spalls (Stockpil	500	Tons		
Section 02722 - Base Course					
00023A	First 1,000 Tons (Stockpiled)	500	Tons		
00024B	Over 1,000 Tons (Stockpiled)	500	Tons		
00025C	Base Course (Supplied-in-place)	500	Tons		
Section 02770 - Concrete Pavement					
00026A	Pavement & Sidewalks	30	Cubic Yards		
00026B	Straight Curb	15	Cubic Yards		
00026C	Curb & Gutter (Slip-form)	15	Cubic Yards		
00026D	Curb & Gutter (Cast-in-place)	15	Cubic Yards		
00026E	Mobilization	1	Lump Sum		
Section 02921 Seeding					
00027A	Seeding - Lawn Area - Hydro Seed	2500	Square Feet		
00027B	Seeding - Lawn Area	5,000	Square Feet		
00027C	Seeding - Field Area	5	Acres		
00027D	Topsoil	1	Ton		
00027E	Mobilization	1	Lump Sum		
SUBTOTAL FOR DOUGLAS BAY					

ITEM NO.	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE ($)	EST. TOTAL
WORK WITHIN 5 MILE RADIUS OF NISHUA BAY (Map 5)					
Section 02300 Earthwork					
00028A	100-499 CYS	100	Cubic Yard		
00028B	Over 500 CYS	500	Cubic Yards		
00028C	Mobilization	1	Lump Sum		
Section 02241 Aggregate (Stockpile)					
00029A	Class 5 - First 500 Tons	500	Tons		
00029B	Class 5 - Over 500 Tons	500	Tons		
Section 02246 Riprap (FIELD ROCK)					
	First 1000 Tons:				
00030A	Riprap - Type I (Dumped)	1000	Tons		
00030B	Riprap - Type I (Placed)	1000	Tons		
00030C	Riprap - Type I (Stockpiled)	1000	Tons		
	Over 1000 Tons:				
00030D	Riprap - Type I (Dumped)	500	Tons		
00030E	Riprap - Type I (Placed)	500	Tons		
00030F	Riprap - Type I (Stockpiled)	500	Tons		
	First 500 Tons:				
00030G	Riprap - Type II (Dumped)	500	Tons		
00030H	Riprap - Type II (Placed)	500	Tons		
00030I	Riprap - Type II (Stockpiled)	500	Tons		
	Over 500 Tons:				
00030J	Riprap - Type II (Dumped)	250	Tons		
00030K	Riprap - Type II (Placed)	250	Tons		
00030L	Riprap - Type II (Stockpiled)	250	Tons		
	First 500 Tons:				
00030M	Riprap - Type III (Dumped)	500	Tons		
00030N	Riprap - Type III (Placed)	500	Tons		
00030O	Riprap - Type III (Stockpiled)	500	Tons		
	Over 500 Tons:				
00030P	Riprap - Type III (Dumped)	250	Tons		
00030Q	Riprap - Type III (Placed)	250	Tons		
00030R	Riprap - Type III (Stockpiled)	250	Tons		
	First 500 Tons:				
00030S	Riprap - Type IV (Dumped)	500	Tons		
00030T	Riprap - Type IV (Placed)	500	Tons		
00030U	Riprap - Type IV (Stockpiled)	500	Tons		
	Over 500 Tons:				
00030V	Riprap - Type IV (Dumped)	250	Tons		
00030W	Riprap - Type IV (Placed)	250	Tons		
00030X	Riprap - Type IV (Stockpiled)	250	Tons		
	First 500 Tons:				
00030Y	Riprap - Type V Spalls (Dumped)	500	Tons		
00030Z	Riprap - Type V Spalls (Stockpi	500	Tons		
	Over 500 Tons:				
00030AA	Riprap - Type V Spalls (Dumped)	500	Tons		
00030BB	Riprap - Type V Spalls (Stockpil	500	Tons		

ITEM NO.	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE ($)	EST. TOTAL
WORK WITHIN 5 MILE RADIUS OF NISHUA BAY RECREATION AREA (Map 5)					
Section 02722 - Base Course					
00030A	First 500 Tons (Stockpiled)	500	Tons		
00030B	Over 500 Tons (Stockpiled)	500	Tons		
00030C	Base Course (Supplied-in-place)	500	Tons		
Section 02921 Seeding					
00031A	Seeding - Lawn Area - Hydro Seed	2500	Square Feet		
00031B	Seeding - Lawn Area	5,000	Square Feet		
00031C	Seeding - Field Area	5	Acres		
00031D	Topsoil	1	Ton		
00031E	Mobilization	1	Lump Sum		
SUBTOTAL FOR NISHUA BAY					
WORK AT VARIOUS BOAT RAMPS (Map 6)					
Section 02771 - Boat Ramps					
.	**Downstream Tailrace**				
00032A	Excavation	50	Cubic Yards		
00032B	Fill (Type V - Spalls)	50	Cubic Yards		
00032C	Fill (Borrow)	50	Cubic Yards		
00032D	Base Course (Class 5)	50	Cubic Yards		
00032E	Concrete	50	Cubic Yards		
00032F	Rock Protection (Type IV)	50	Cubic Yards		
00032G	Mob & Demob	1	Lump Sump		
	Government Bay				
00033A	Excavation	50	Cubic Yards		
00033B	Fill (Type V - Spalls)	50	Cubic Yards		
00033C	Fill (Borrow)	50	Cubic Yards		
00033D	Base Course (Class 5)	50	Cubic Yards		
00033E	Concrete	50	Cubic Yards		
00033F	Rock Protection (Type IV)	50	Cubic Yards		
00033G	Mob & Demob	1	Lump Sump		
	Wolf Creek				
00034A	Excavation	50	Cubic Yards		
00034B	Fill (Type V - Spalls)	50	Cubic Yards		
00034C	Fill (Borrow)	50	Cubic Yards		
00034D	Base Course (Class 5)	50	Cubic Yards		
00034E	Concrete	50	Cubic Yards		
00034F	Rock Protection (Type IV)	50	Cubic Yards		
00034G	Mob & Demob	1	Lump Sump		
	Douglas				
00035A	Excavation	50	Cubic Yards		
00035B	Fill (Type V - Spalls)	50	Cubic Yards		
00035C	Fill (Borrow)	50	Cubic Yards		
00035D	Base Course (Class 5)	50	Cubic Yards		
00035E	Concrete	50	Cubic Yards		
00035F	Rock Protection (Type IV)	50	Cubic Yards		
00035G	Mob & Demob	1	Lump Sump		

ITEM NO.	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE ($)	EST. TOTAL
WORK AT VARIOUS BOAT RAMPS (Map 6)					
00036D	Base Course (Class 5)	50	Cubic Yards		
00036E	Concrete	50	Cubic Yards		
00036F	Rock Protection (Type IV)	50	Cubic Yards		
00036G	Mob & Demob	1	Lump Sump		
	East & West Totten Trail				
00037A	Excavation	50	Cubic Yards		
00037B	Fill (Type V - Spalls)	50	Cubic Yards		
00037C	Fill (Borrow)	50	Cubic Yards		
00037D	Base Course (Class 5)	50	Cubic Yards		
00037E	Concrete	50	Cubic Yards		
00037F	Rock Protection (Type IV)	50	Cubic Yards		
00037G	Mob & Demob	1	Lump Sump		
	Subtotal - Various Boat Ramps				
	Subtotal for Garrison Dam Area				
	Subtotal for Deepwater				
	Subtotal Douglas				
	Subtotal Nishu Bay				
	Subtotal - Various Boat Ramps				
	Total Base Year Bid - May 2003 - September 2004				

BID SCHEDULE FOR OPTION YEAR - 2004

All work reuqired by the plans and specifications for the Option Year Year Fy - 2004 contract period, wh is from 1 October 2003 until 30 September 2004.

ITEM NO.	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE ($)	EST. TOTAL
WORK WITHIN 20 MILE RADIUS OF GARRISON PROJECT (Map 2)					
Section 02300 Earthwork					
0001A	100-499 CYS	100	Cubic Yard		
0001B	Over 500 CYS	500	Cubic Yards		
0001C	Mobilization	1	Lump Sum		
Section 02241 Aggregate (Stockpile)					
0002A	Class 5 - First 500 Tons	500	Tons		
0002B	Class 5 - Over 500 Tons	500	Tons		
Section 02245 Riprap (QUARRIED)					
	First 1000 Tons:				
0003A	Riprap - Type I (Dumped)	1000	Tons		
0003B	Riprap - Type I (Placed)	1000	Tons		
0003C	Riprap - Type I (Stockpiled)	1000	Tons		
	Over 1000 Tons:				
0003D	Riprap - Type I (Dumped)	500	Tons		
0003E	Riprap - Type I (Placed)	500	Tons		
0003F	Riprap - Type I (Stockpiled)	500	Tons		
	First 500 Tons:				
0003G	Riprap - Type II (Dumped)	500	Tons		
0003H	Riprap - Type II (Placed)	500	Tons		
0003I	Riprap - Type II (Stockpiled)	500	Tons		
	Over 500 Tons:				
0003J	Riprap - Type II (Dumped)	250	Tons		
0003K	Riprap - Type II (Placed)	250	Tons		
0003L	Riprap - Type II (Stockpiled)	250	Tons		
	First 500 Tons:				
0003M	Riprap - Type III (Dumped)	500	Tons		
0003N	Riprap - Type III (Placed)	500	Tons		
0003O	Riprap - Type III (Stockpiled)	500	Tons		
	Over 500 Tons:				
0003P	Riprap - Type III (Dumped)	250	Tons		
0003Q	Riprap - Type III (Placed)	250	Tons		
0003R	Riprap - Type III (Stockpiled)	250	Tons		
	First 500 Tons:				
0003S	Riprap - Type IV (Dumped)	500	Tons		
0003T	Riprap - Type IV (Placed)	500	Tons		
0003U	Riprap - Type IV (Stockpiled)	500	Tons		
	Over 500 Tons:				
0003V	Riprap - Type IV (Dumped)	250	Tons		
0003W	Riprap - Type IV (Placed)	250	Tons		
0003X	Riprap - Type IV (Stockpiled)	250	Tons		
	First 500 Tons:				
0003Y	Riprap - Type V Spalls (Dumped)	500	Tons		
0003Z	Riprap - Type V Spalls (Stockpi	500	Tons		
	Over 500 Tons:				
0003AA	Riprap - Type V Spalls (Dumped)	500	Tons		
0003BB	Riprap - Type V Spalls (Stockpil	500	Tons		

ITEM NO.	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE ($)	EST. TOTAL
WORK WITHIN 20 MILE RADIUS OF GARRISON PROJECT (Map 2)					
Section 02246 Riprap (FIELD ROCK)					
	First 1000 Tons:				
0004A	Riprap - Type I (Dumped)	1000	Tons		
0004B	Riprap - Type I (Placed)	1000	Tons		
0004C	Riprap - Type I (Stockpiled)	1000	Tons		
	Over 1000 Tons:				
0004D	Riprap - Type I (Dumped)	500	Tons		
0004E	Riprap - Type I (Placed)	500	Tons		
0004F	Riprap - Type I (Stockpiled)	500	Tons		
	First 500 Tons:				
0004G	Riprap - Type II (Dumped)	500	Tons		
0004H	Riprap - Type II (Placed)	500	Tons		
0004I	Riprap - Type II (Stockpiled)	500	Tons		
	Over 500 Tons:				
0004J	Riprap - Type II (Dumped)	250	Tons		
0004K	Riprap - Type II (Placed)	250	Tons		
0004L	Riprap - Type II (Stockpiled)	250	Tons		
	First 500 Tons:				
0004M	Riprap - Type III (Dumped)	500	Tons		
0004N	Riprap - Type III (Placed)	500	Tons		
0004O	Riprap - Type III (Stockpiled)	500	Tons		
	Over 500 Tons:				
0004P	Riprap - Type III (Dumped)	250	Tons		
0004Q	Riprap - Type III (Placed)	250	Tons		
0004R	Riprap - Type III (Stockpiled)	250	Tons		
	First 500 Tons:				
0004S	Riprap - Type IV (Dumped)	500	Tons		
0004T	Riprap - Type IV (Placed)	500	Tons		
0004U	Riprap - Type IV (Stockpiled)	500	Tons		
	Over 500 Tons:				
0004V	Riprap - Type IV (Dumped)	250	Tons		
0004W	Riprap - Type IV (Placed)	250	Tons		
0004X	Riprap - Type IV (Stockpiled)	250	Tons		
	First 500 Tons:				
0004Y	Riprap - Type V Spalls (Dumped)	500	Tons		
0004Z	Riprap - Type V Spalls (Stockpi	500	Tons		
	Over 500 Tons:				
0004AA	Riprap - Type V Spalls (Dumped)	500	Tons		
0004BB	Riprap - Type V Spalls (Stockpil	500	Tons		
Section 02564 - Salvaging & Processing Existing Bituminous & Granular Base Materials					
0005A	Milled, blended & replaced - 8"	2,000	Square Feet		
0005B	Mobilizaton	1	Lump Sum		
Section 02722 - Base Course					
0006A	First 500 Tons (Stockpiled)	500	Tons		
0006B	Over 500 Tons (Stockpiled)	500	Tons		
0006C	Base Course (Supplied-in-place)	500	Tons		

ITEM NO.	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE ($)	EST. TOTAL
WORK WITHIN 20 MILE RADIUS OF GARRISON PROJECT (Map 2)					
Section 02741 Bituminous Pavement					
0007A	Pave Gravel Surface	500	Tons		
0007B	Overlay Paved Surface	500	Tons		
0007C	Skin Patch (1" - 2")	10	Tons		
0007D	Deep Patch (4")	20	Tons		
0007E	Mobilization	1	Lump Sum		
Section 02763 - Pavement Marking					
0008A	Shoudler Striping (White)	10,000	Linear Feet		
0008B	Centerline Striping (Yellow)	5,000	Linear Feet		
0008C	Centerline Striping Solid (Yello	10,000	Linear Feet		
0008D	Parking Area Striping	300	Linear Feet		
0008E	Stop Line Striping (12")	20	Linear Feet		
0008F	Handicap & Misc. Symbols	2	Each		
0008G	Mobilization	1	Lump Sum		
Section 02770 - Concrete Pavement					
0009A	Pavement & Sidewalks	30	Cubic Yards		
0009B	Straight Curb	15	Cubic Yards		
0009C	Curb & Gutter (Slip-form)	15	Cubic Yards		
0009D	Curb & Gutter (Cast-in-place)	15	Cubic Yards		
0009E	Mobilization	1	Lump Sum		
Section 02785 Bituminous Seal Coat (Chip Seal)					
00010A	Chip Seal	40,000	Square Yards		
00010B	Mobilization	1	Lump Sum		
Section 02921 Seeding					
00011A	Seeding - Lawn Area - Hydro Seed	2500	Square Feet		
00011B	Seeding - Lawn Area	5,000	Square Feet		
00011C	Seeding - Field Area	5	Acres		
00011D	Topsoil	1	Ton		
00011E	Mobilization	1	Lump Sum		
Section 02964 Cold Milling of Bituminous Pavements					
00012A	Milling & Stockpiling	10,000	Square Yards		
00012B	Mobilization	1	Lump Sum		
Section 02975 Crack Sealing in Pavement					
00013A	Crack Routing & Sealing	5,000	Linear Feet		
00013B	Mobilization	1	Lump Sum		
	Subtotal for Garrison Dam Area				

ITEM NO.	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE ($)	EST. TOTAL
WORK WITHIN 5 MILE RADIUS OF DEEPWATER RECREATION AREA (Map 3)					
Section 02300 Earthwork					
00014A	100-499 CYS	100	Cubic Yard		
00014B	Over 500 CYS	500	Cubic Yards		
00014C	Mobilization	1	Lump Sum		
Section 02241 Aggregate (Stockpile)					
00015A	Class 5 - First 500 Tons	500	Tons		
00015B	Class 5 - Over 500 Tons	500	Tons		
Section 02246 Riprap (FIELD ROCK)					
	First 500 Tons:				
00016A	Riprap - Type IV (Dumped)	500	Tons		
00016B	Riprap - Type IV (Placed)	500	Tons		
00016C	Riprap - Type IV (Stockpiled)	500	Tons		
	Over 500 Tons:				
00016D	Riprap - Type IV (Dumped)	250	Tons		
00016E	Riprap - Type IV (Placed)	250	Tons		
00016F	Riprap - Type IV (Stockpiled)	250	Tons		
	First 500 Tons:				
00016G	Riprap - Type V Spalls (Dumped)	500	Tons		
00016H	Riprap - Type V Spalls (Stockpi	500	Tons		
	Over 500 Tons:				
00016I	Riprap - Type V Spalls (Dumped)	500	Tons		
00016J	Riprap - Type V Spalls (Stockpil	500	Tons		
Section 02722 - Base Course					
00017A	First 500 Tons (Stockpiled)	500	Tons		
00017B	Over 1,000 Tons (Stockpiled)	500	Tons		
00017C	Base Course (Supplied-in-place)	500	Tons		
Section 02770 - Concrete Pavement					
00018A	Pavement & Sidewalks	30	Cubic Yards		
00018B	Straight Curb	15	Cubic Yards		
00018C	Curb & Gutter (Slip-form)	15	Cubic Yards		
00018D	Curb & Gutter (Cast-in-place)	15	Cubic Yards		
00018E	Mobilization	1	Lump Sum		
Section 02921 Seeding					
00019A	Seeding - Lawn Area - Hydro Seed	2500	Square Feet		
00019B	Seeding - Lawn Area	5,000	Square Feet		
00019C	Seeding - Field Area	5	Acres		
00019D	Topsoil	1	Ton		
00019E	Mobilization	1	Lump Sum		
	Subtotal for Deepwater				

ITEM NO.	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE ($)	EST. TOTAL
WORK WITHIN 5 MILE RADIUS OF DOUGLAS BAY RECREATION AREA (Map 4)					
Section 02300 Earthwork					
00020A	100-499 CYS	100	Cubic Yard		
00020B	Over 500 CYS	500	Cubic Yards		
00020C	Mobilization	1	Lump Sum		
Section 02241 Aggregate (Stockpile)					
00021A	Class 5 - First 500 Tons	500	Tons		
00021B	Class 5 - Over 500 Tons	500	Tons		
Section 02246 Riprap (FIELD ROCK)					
	First 500 Tons:				
00022A	Riprap - Type IV (Dumped)	500	Tons		
00022B	Riprap - Type IV (Placed)	500	Tons		
00022C	Riprap - Type IV (Stockpiled)	500	Tons		
	Over 500 Tons:				
00022D	Riprap - Type IV (Dumped)	250	Tons		
00022E	Riprap - Type IV (Placed)	250	Tons		
00022F	Riprap - Type IV (Stockpiled)	250	Tons		
	First 500 Tons:				
00022G	Riprap - Type V Spalls (Dumped)	500	Tons		
00022H	Riprap - Type V Spalls (Stockpi	500	Tons		
	Over 500 Tons:				
00022I	Riprap - Type V Spalls (Dumped)	500	Tons		
00022J	Riprap - Type V Spalls (Stockpil	500	Tons		
Section 02722 - Base Course					
00023A	First 1,000 Tons (Stockpiled)	500	Tons		
00024B	Over 1,000 Tons (Stockpiled)	500	Tons		
00025C	Base Course (Supplied-in-place)	500	Tons		
Section 02770 - Concrete Pavement					
00026A	Pavement & Sidewalks	30	Cubic Yards		
00026B	Straight Curb	15	Cubic Yards		
00026C	Curb & Gutter (Slip-form)	15	Cubic Yards		
00026D	Curb & Gutter (Cast-in-place)	15	Cubic Yards		
00026E	Mobilization	1	Lump Sum		
Section 02921 Seeding					
00027A	Seeding - Lawn Area - Hydro Seed	2500	Square Feet		
00027B	Seeding - Lawn Area	5,000	Square Feet		
00027C	Seeding - Field Area	5	Acres		
00027D	Topsoil	1	Ton		
00027E	Mobilization	1	Lump Sum		
SUBTOTAL FOR DOUGLAS BAY					

ITEM NO.	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE ($)	EST. TOTAL
WORK WITHIN 5 MILE RADIUS OF NISHUA BAY (Map 5)					
Section 02300 Earthwork					
00028A	100-499 CYS	100	Cubic Yard		
00028B	Over 500 CYS	500	Cubic Yards		
00028C	Mobilization	1	Lump Sum		
Section 02241 Aggregate (Stockpile)					
00029A	Class 5 - First 500 Tons	500	Tons		
00029B	Class 5 - Over 500 Tons	500	Tons		
Section 02246 Riprap (FIELD ROCK)					
	First 1000 Tons:				
00030A	Riprap - Type I (Dumped)	1000	Tons		
00030B	Riprap - Type I (Placed)	1000	Tons		
00030C	Riprap - Type I (Stockpiled)	1000	Tons		
	Over 1000 Tons:				
00030D	Riprap - Type I (Dumped)	500	Tons		
00030E	Riprap - Type I (Placed)	500	Tons		
00030F	Riprap - Type I (Stockpiled)	500	Tons		
	First 500 Tons:				
00030G	Riprap - Type II (Dumped)	500	Tons		
00030H	Riprap - Type II (Placed)	500	Tons		
00030I	Riprap - Type II (Stockpiled)	500	Tons		
	Over 500 Tons:				
00030J	Riprap - Type II (Dumped)	250	Tons		
00030K	Riprap - Type II (Placed)	250	Tons		
00030L	Riprap - Type II (Stockpiled)	250	Tons		
	First 500 Tons:				
00030M	Riprap - Type III (Dumped)	500	Tons		
00030N	Riprap - Type III (Placed)	500	Tons		
00030O	Riprap - Type III (Stockpiled)	500	Tons		
	Over 500 Tons:				
00030P	Riprap - Type III (Dumped)	250	Tons		
00030Q	Riprap - Type III (Placed)	250	Tons		
00030R	Riprap - Type III (Stockpiled)	250	Tons		
	First 500 Tons:				
00030S	Riprap - Type IV (Dumped)	500	Tons		
00030T	Riprap - Type IV (Placed)	500	Tons		
00030U	Riprap - Type IV (Stockpiled)	500	Tons		
	Over 500 Tons:				
00030V	Riprap - Type IV (Dumped)	250	Tons		
00030W	Riprap - Type IV (Placed)	250	Tons		
00030X	Riprap - Type IV (Stockpiled)	250	Tons		
	First 500 Tons:				
00030Y	Riprap - Type V Spalls (Dumped)	500	Tons		
00030Z	Riprap - Type V Spalls (Stockpi	500	Tons		
	Over 500 Tons:				
00030AA	Riprap - Type V Spalls (Dumped)	500	Tons		
00030BB	Riprap - Type V Spalls (Stockpil	500	Tons		

ITEM NO.	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE ($)	EST. TOTAL
WORK WITHIN 5 MILE RADIUS OF NISHUA BAY RECREATION AREA (Map 5)					
Section 02722 - Base Course					
00030A	First 500 Tons (Stockpiled)	500	Tons		
00030B	Over 500 Tons (Stockpiled)	500	Tons		
00030C	Base Course (Supplied-in-place)	500	Tons		
Section 02921 Seeding					
00031A	Seeding - Lawn Area - Hydro Seed	2500	Square Feet		
00031B	Seeding - Lawn Area	5,000	Square Feet		
00031C	Seeding - Field Area	5	Acres		
00031D	Topsoil	1	Ton		
00031E	Mobilization	1	Lump Sum		
SUBTOTAL FOR NISHUA BAY					
WORK AT VARIOUS BOAT RAMPS (Map 6)					
Section 02771 - Boat Ramps					
.	**Downstream Tailrace**				
00032A	Excavation	50	Cubic Yards		
00032B	Fill (Type V - Spalls)	50	Cubic Yards		
00032C	Fill (Borrow)	50	Cubic Yards		
00032D	Base Course (Class 5)	50	Cubic Yards		
00032E	Concrete	50	Cubic Yards		
00032F	Rock Protection (Type IV)	50	Cubic Yards		
00032G	Mob & Demob	1	Lump Sump		
	Government Bay				
00033A	Excavation	50	Cubic Yards		
00033B	Fill (Type V - Spalls)	50	Cubic Yards		
00033C	Fill (Borrow)	50	Cubic Yards		
00033D	Base Course (Class 5)	50	Cubic Yards		
00033E	Concrete	50	Cubic Yards		
00033F	Rock Protection (Type IV)	50	Cubic Yards		
00033G	Mob & Demob	1	Lump Sump		
	Wolf Creek				
00034A	Excavation	50	Cubic Yards		
00034B	Fill (Type V - Spalls)	50	Cubic Yards		
00034C	Fill (Borrow)	50	Cubic Yards		
00034D	Base Course (Class 5)	50	Cubic Yards		
00034E	Concrete	50	Cubic Yards		
00034F	Rock Protection (Type IV)	50	Cubic Yards		
00034G	Mob & Demob	1	Lump Sump		
	Douglas				
00035A	Excavation	50	Cubic Yards		
00035B	Fill (Type V - Spalls)	50	Cubic Yards		
00035C	Fill (Borrow)	50	Cubic Yards		
00035D	Base Course (Class 5)	50	Cubic Yards		
00035E	Concrete	50	Cubic Yards		
00035F	Rock Protection (Type IV)	50	Cubic Yards		
00035G	Mob & Demob	1	Lump Sump		

ITEM NO.	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE ($)	EST. TOTAL
WORK AT VARIOUS BOAT RAMPS (Map 6)					
00036D	Base Course (Class 5)	50	Cubic Yards		
00036E	Concrete	50	Cubic Yards		
00036F	Rock Protection (Type IV)	50	Cubic Yards		
00036G	Mob & Demob	1	Lump Sump		
	East & West Totten Trail				
00037A	Excavation	50	Cubic Yards		
00037B	Fill (Type V - Spalls)	50	Cubic Yards		
00037C	Fill (Borrow)	50	Cubic Yards		
00037D	Base Course (Class 5)	50	Cubic Yards		
00037E	Concrete	50	Cubic Yards		
00037F	Rock Protection (Type IV)	50	Cubic Yards		
00037G	Mob & Demob	1	Lump Sump		
	Subtotal - Various Boat Ramps				

Subtotal for Garrison Dam Area	
Subtotal for Deepwater	
Subtotal Douglas	
Subtotal Nishu Bay	
Subtotal - Various Boat Ramps	
Total Option Year Bid - October 2003 - September 2004	

BID SCHEDULE FOR OPTION YEAR - 2005

All work reuqired by the plans and specifications for the Option Year Year Fy - 2005 contract period, w
is from 1 October 2004 until 30 September 2005

ITEM NO.	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE ($)	EST. TOTAL
WORK WITHIN 20 MILE RADIUS OF GARRISON PROJECT (Map 2)					
Section 02300 Earthwork					
0001A	100-499 CYS	100	Cubic Yard		
0001B	Over 500 CYS	500	Cubic Yards		
0001C	Mobilization	1	Lump Sum		
Section 02241 Aggregate (Stockpile)					
0002A	Class 5 - First 500 Tons	500	Tons		
0002B	Class 5 - Over 500 Tons	500	Tons		
Section 02245 Riprap (QUARRIED)					
	First 1000 Tons:				
0003A	Riprap - Type I (Dumped)	1000	Tons		
0003B	Riprap - Type I (Placed)	1000	Tons		
0003C	Riprap - Type I (Stockpiled)	1000	Tons		
	Over 1000 Tons:				
0003D	Riprap - Type I (Dumped)	500	Tons		
0003E	Riprap - Type I (Placed)	500	Tons		
0003F	Riprap - Type I (Stockpiled)	500	Tons		
	First 500 Tons:				
0003G	Riprap - Type II (Dumped)	500	Tons		
0003H	Riprap - Type II (Placed)	500	Tons		
0003I	Riprap - Type II (Stockpiled)	500	Tons		
	Over 500 Tons:				
0003J	Riprap - Type II (Dumped)	250	Tons		
0003K	Riprap - Type II (Placed)	250	Tons		
0003L	Riprap - Type II (Stockpiled)	250	Tons		
	First 500 Tons:				
0003M	Riprap - Type III (Dumped)	500	Tons		
0003N	Riprap - Type III (Placed)	500	Tons		
0003O	Riprap - Type III (Stockpiled)	500	Tons		
	Over 500 Tons:				
0003P	Riprap - Type III (Dumped)	250	Tons		
0003Q	Riprap - Type III (Placed)	250	Tons		
0003R	Riprap - Type III (Stockpiled)	250	Tons		
	First 500 Tons:				
0003S	Riprap - Type IV (Dumped)	500	Tons		
0003T	Riprap - Type IV (Placed)	500	Tons		
0003U	Riprap - Type IV (Stockpiled)	500	Tons		
	Over 500 Tons:				
0003V	Riprap - Type IV (Dumped)	250	Tons		
0003W	Riprap - Type IV (Placed)	250	Tons		
0003X	Riprap - Type IV (Stockpiled)	250	Tons		
	First 500 Tons:				
0003Y	Riprap - Type V Spalls (Dumped)	500	Tons		
0003Z	Riprap - Type V Spalls (Stockpi	500	Tons		
	Over 500 Tons:				
0003AA	Riprap - Type V Spalls (Dumped)	500	Tons		
0003BB	Riprap - Type V Spalls (Stockpil	500	Tons		

ITEM NO.	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE ($)	EST. TOTAL
WORK WITHIN 20 MILE RADIUS OF GARRISON PROJECT (Map 2)					
Section 02246 Riprap (FIELD ROCK)					
	First 1000 Tons:				
0004A	Riprap - Type I (Dumped)	1000	Tons		
0004B	Riprap - Type I (Placed)	1000	Tons		
0004C	Riprap - Type I (Stockpiled)	1000	Tons		
	Over 1000 Tons:				
0004D	Riprap - Type I (Dumped)	500	Tons		
0004E	Riprap - Type I (Placed)	500	Tons		
0004F	Riprap - Type I (Stockpiled)	500	Tons		
	First 500 Tons:				
0004G	Riprap - Type II (Dumped)	500	Tons		
0004H	Riprap - Type II (Placed)	500	Tons		
0004I	Riprap - Type II (Stockpiled)	500	Tons		
	Over 500 Tons:				
0004J	Riprap - Type II (Dumped)	250	Tons		
0004K	Riprap - Type II (Placed)	250	Tons		
0004L	Riprap - Type II (Stockpiled)	250	Tons		
	First 500 Tons:				
0004M	Riprap - Type III (Dumped)	500	Tons		
0004N	Riprap - Type III (Placed)	500	Tons		
0004O	Riprap - Type III (Stockpiled)	500	Tons		
	Over 500 Tons:				
0004P	Riprap - Type III (Dumped)	250	Tons		
0004Q	Riprap - Type III (Placed)	250	Tons		
0004R	Riprap - Type III (Stockpiled)	250	Tons		
	First 500 Tons:				
0004S	Riprap - Type IV (Dumped)	500	Tons		
0004T	Riprap - Type IV (Placed)	500	Tons		
0004U	Riprap - Type IV (Stockpiled)	500	Tons		
	Over 500 Tons:				
0004V	Riprap - Type IV (Dumped)	250	Tons		
0004W	Riprap - Type IV (Placed)	250	Tons		
0004X	Riprap - Type IV (Stockpiled)	250	Tons		
	First 500 Tons:				
0004Y	Riprap - Type V Spalls (Dumped)	500	Tons		
0004Z	Riprap - Type V Spalls (Stockpi	500	Tons		
	Over 500 Tons:				
0004AA	Riprap - Type V Spalls (Dumped)	500	Tons		
0004BB	Riprap - Type V Spalls (Stockpil	500	Tons		
Section 02564 - Salvaging & Processing Existing Bituminous & Granular Base Materials					
0005A	Milled, blended & replaced - 8"	2,000	Square Feet		
0005B	Mobilizaton	1	Lump Sum		
Section 02722 - Base Course					
0006A	First 500 Tons (Stockpiled)	500	Tons		
0006B	Over 500 Tons (Stockpiled)	500	Tons		
0006C	Base Course (Supplied-in-place)	500	Tons		

ITEM NO.	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE ($)	EST. TOTAL
WORK WITHIN 20 MILE RADIUS OF GARRISON PROJECT (Map 2)					
Section 02741 Bituminous Pavement					
0007A	Pave Gravel Surface	500	Tons		
0007B	Overlay Paved Surface	500	Tons		
0007C	Skin Patch (1" - 2")	10	Tons		
0007D	Deep Patch (4")	20	Tons		
0007E	Mobilization	1	Lump Sum		
Section 02763 - Pavement Marking					
0008A	Shoudler Striping (White)	10,000	Linear Feet		
0008B	Centerline Striping (Yellow)	5,000	Linear Feet		
0008C	Centerline Striping Solid (Yello	10,000	Linear Feet		
0008D	Parking Area Striping	300	Linear Feet		
0008E	Stop Line Striping (12")	20	Linear Feet		
0008F	Handicap & Misc. Symbols	2	Each		
0008G	Mobilization	1	Lump Sum		
Section 02770 - Concrete Pavement					
0009A	Pavement & Sidewalks	30	Cubic Yards		
0009B	Straight Curb	15	Cubic Yards		
0009C	Curb & Gutter (Slip-form)	15	Cubic Yards		
0009D	Curb & Gutter (Cast-in-place)	15	Cubic Yards		
0009E	Mobilization	1	Lump Sum		
Section 02785 Bituminous Seal Coat (Chip Seal)					
00010A	Chip Seal	40,000	Square Yards		
00010B	Mobilization	1	Lump Sum		
Section 02921 Seeding					
00011A	Seeding - Lawn Area - Hydro Seed	2500	Square Feet		
00011B	Seeding - Lawn Area	5,000	Square Feet		
00011C	Seeding - Field Area	5	Acres		
00011D	Topsoil	1	Ton		
00011E	Mobilization	1	Lump Sum		
Section 02964 Cold Milling of Bituminous Pavements					
00012A	Milling & Stockpiling	10,000	Square Yards		
00012B	Mobilization	1	Lump Sum		
Section 02975 Crack Sealing in Pavement					
00013A	Crack Routing & Sealing	5,000	Linear Feet		
00013B	Mobilization	1	Lump Sum		
	Subtotal for Garrison Dam Area				

ITEM NO.	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE ($)	EST. TOTAL
WORK WITHIN 5 MILE RADIUS OF DEEPWATER RECREATION AREA (Map 3)					
Section 02300 Earthwork					
00014A	100-499 CYS	100	Cubic Yard		
00014B	Over 500 CYS	500	Cubic Yards		
00014C	Mobilization	1	Lump Sum		
Section 02241 Aggregate (Stockpile)					
00015A	Class 5 - First 500 Tons	500	Tons		
00015B	Class 5 - Over 500 Tons	500	Tons		
Section 02246 Riprap (FIELD ROCK)					
	First 500 Tons:				
00016A	Riprap - Type IV (Dumped)	500	Tons		
00016B	Riprap - Type IV (Placed)	500	Tons		
00016C	Riprap - Type IV (Stockpiled)	500	Tons		
	Over 500 Tons:				
00016D	Riprap - Type IV (Dumped)	250	Tons		
00016E	Riprap - Type IV (Placed)	250	Tons		
00016F	Riprap - Type IV (Stockpiled)	250	Tons		
	First 500 Tons:				
00016G	Riprap - Type V Spalls (Dumped)	500	Tons		
00016H	Riprap - Type V Spalls (Stockpi	500	Tons		
	Over 500 Tons:				
00016I	Riprap - Type V Spalls (Dumped)	500	Tons		
00016J	Riprap - Type V Spalls (Stockpil	500	Tons		
Section 02722 - Base Course					
00017A	First 500 Tons (Stockpiled)	500	Tons		
00017B	Over 1,000 Tons (Stockpiled)	500	Tons		
00017C	Base Course (Supplied-in-place)	500	Tons		
Section 02770 - Concrete Pavement					
00018A	Pavement & Sidewalks	30	Cubic Yards		
00018B	Straight Curb	15	Cubic Yards		
00018C	Curb & Gutter (Slip-form)	15	Cubic Yards		
00018D	Curb & Gutter (Cast-in-place)	15	Cubic Yards		
00018E	Mobilization	1	Lump Sum		
Section 02921 Seeding					
00019A	Seeding - Lawn Area - Hydro Seed	2500	Square Feet		
00019B	Seeding - Lawn Area	5,000	Square Feet		
00019C	Seeding - Field Area	5	Acres		
00019D	Topsoil	1	Ton		
00019E	Mobilization	1	Lump Sum		
	Subtotal for Deepwater				

ITEM NO.	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE ($)	EST. TOTAL
WORK WITHIN 5 MILE RADIUS OF DOUGLAS BAY RECREATION AREA (Map 4)					
Section 02300 Earthwork					
00020A	100-499 CYS	100	Cubic Yard		
00020B	Over 500 CYS	500	Cubic Yards		
00020C	Mobilization	1	Lump Sum		
Section 02241 Aggregate (Stockpile)					
00021A	Class 5 - First 500 Tons	500	Tons		
00021B	Class 5 - Over 500 Tons	500	Tons		
Section 02246 Riprap (FIELD ROCK)					
	First 500 Tons:				
00022A	Riprap - Type IV (Dumped)	500	Tons		
00022B	Riprap - Type IV (Placed)	500	Tons		
00022C	Riprap - Type IV (Stockpiled)	500	Tons		
	Over 500 Tons:				
00022D	Riprap - Type IV (Dumped)	250	Tons		
00022E	Riprap - Type IV (Placed)	250	Tons		
00022F	Riprap - Type IV (Stockpiled)	250	Tons		
	First 500 Tons:				
00022G	Riprap - Type V Spalls (Dumped)	500	Tons		
00022H	Riprap - Type V Spalls (Stockpi	500	Tons		
	Over 500 Tons:				
00022I	Riprap - Type V Spalls (Dumped)	500	Tons		
00022J	Riprap - Type V Spalls (Stockpil	500	Tons		
Section 02722 - Base Course					
00023A	First 1,000 Tons (Stockpiled)	500	Tons		
00024B	Over 1,000 Tons (Stockpiled)	500	Tons		
00025C	Base Course (Supplied-in-place)	500	Tons		
Section 02770 - Concrete Pavement					
00026A	Pavement & Sidewalks	30	Cubic Yards		
00026B	Straight Curb	15	Cubic Yards		
00026C	Curb & Gutter (Slip-form)	15	Cubic Yards		
00026D	Curb & Gutter (Cast-in-place)	15	Cubic Yards		
00026E	Mobilization	1	Lump Sum		
Section 02921 Seeding					
00027A	Seeding - Lawn Area - Hydro Seed	2500	Square Feet		
00027B	Seeding - Lawn Area	5,000	Square Feet		
00027C	Seeding - Field Area	5	Acres		
00027D	Topsoil	1	Ton		
00027E	Mobilization	1	Lump Sum		
SUBTOTAL FOR DOUGLAS BAY					

ITEM NO.	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE ($)	EST. TOTAL
WORK WITHIN 5 MILE RADIUS OF NISHUA BAY (Map 5)					
Section 02300 Earthwork					
00028A	100-499 CYS	100	Cubic Yard		
00028B	Over 500 CYS	500	Cubic Yards		
00028C	Mobilization	1	Lump Sum		
Section 02241 Aggregate (Stockpile)					
00029A	Class 5 - First 500 Tons	500	Tons		
00029B	Class 5 - Over 500 Tons	500	Tons		
Section 02246 Riprap (FIELD ROCK)					
	First 1000 Tons:				
00030A	Riprap - Type I (Dumped)	1000	Tons		
00030B	Riprap - Type I (Placed)	1000	Tons		
00030C	Riprap - Type I (Stockpiled)	1000	Tons		
	Over 1000 Tons:				
00030D	Riprap - Type I (Dumped)	500	Tons		
00030E	Riprap - Type I (Placed)	500	Tons		
00030F	Riprap - Type I (Stockpiled)	500	Tons		
	First 500 Tons:				
00030G	Riprap - Type II (Dumped)	500	Tons		
00030H	Riprap - Type II (Placed)	500	Tons		
00030I	Riprap - Type II (Stockpiled)	500	Tons		
	Over 500 Tons:				
00030J	Riprap - Type II (Dumped)	250	Tons		
00030K	Riprap - Type II (Placed)	250	Tons		
00030L	Riprap - Type II (Stockpiled)	250	Tons		
	First 500 Tons:				
00030M	Riprap - Type III (Dumped)	500	Tons		
00030N	Riprap - Type III (Placed)	500	Tons		
00030O	Riprap - Type III (Stockpiled)	500	Tons		
	Over 500 Tons:				
00030P	Riprap - Type III (Dumped)	250	Tons		
00030Q	Riprap - Type III (Placed)	250	Tons		
00030R	Riprap - Type III (Stockpiled)	250	Tons		
	First 500 Tons:				
00030S	Riprap - Type IV (Dumped)	500	Tons		
00030T	Riprap - Type IV (Placed)	500	Tons		
00030U	Riprap - Type IV (Stockpiled)	500	Tons		
	Over 500 Tons:				
00030V	Riprap - Type IV (Dumped)	250	Tons		
00030W	Riprap - Type IV (Placed)	250	Tons		
00030X	Riprap - Type IV (Stockpiled)	250	Tons		
	First 500 Tons:				
00030Y	Riprap - Type V Spalls (Dumped)	500	Tons		
00030Z	Riprap - Type V Spalls (Stockpi	500	Tons		
	Over 500 Tons:				
00030AA	Riprap - Type V Spalls (Dumped)	500	Tons		
00030BB	Riprap - Type V Spalls (Stockpil	500	Tons		

ITEM NO.	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE ($)	EST. TOTAL
WORK WITHIN 5 MILE RADIUS OF NISHUA BAY RECREATION AREA (Map 5)					
Section 02722 - Base Course					
00030A	First 500 Tons (Stockpiled)	500	Tons		
00030B	Over 500 Tons (Stockpiled)	500	Tons		
00030C	Base Course (Supplied-in-place)	500	Tons		
Section 02921 Seeding					
00031A	Seeding - Lawn Area - Hydro Seed	2500	Square Feet		
00031B	Seeding - Lawn Area	5,000	Square Feet		
00031C	Seeding - Field Area	5	Acres		
00031D	Topsoil	1	Ton		
00031E	Mobilization	1	Lump Sum		
SUBTOTAL FOR NISHUA BAY					
WORK AT VARIOUS BOAT RAMPS (Map 6)					
Section 02771 - Boat Ramps					
.	**Downstream Tailrace**				
00032A	Excavation	50	Cubic Yards		
00032B	Fill (Type V - Spalls)	50	Cubic Yards		
00032C	Fill (Borrow)	50	Cubic Yards		
00032D	Base Course (Class 5)	50	Cubic Yards		
00032E	Concrete	50	Cubic Yards		
00032F	Rock Protection (Type IV)	50	Cubic Yards		
00032G	Mob & Demob	1	Lump Sump		
	Government Bay				
00033A	Excavation	50	Cubic Yards		
00033B	Fill (Type V - Spalls)	50	Cubic Yards		
00033C	Fill (Borrow)	50	Cubic Yards		
00033D	Base Course (Class 5)	50	Cubic Yards		
00033E	Concrete	50	Cubic Yards		
00033F	Rock Protection (Type IV)	50	Cubic Yards		
00033G	Mob & Demob	1	Lump Sump		
	Wolf Creek				
00034A	Excavation	50	Cubic Yards		
00034B	Fill (Type V - Spalls)	50	Cubic Yards		
00034C	Fill (Borrow)	50	Cubic Yards		
00034D	Base Course (Class 5)	50	Cubic Yards		
00034E	Concrete	50	Cubic Yards		
00034F	Rock Protection (Type IV)	50	Cubic Yards		
00034G	Mob & Demob	1	Lump Sump		
	Douglas				
00035A	Excavation	50	Cubic Yards		
00035B	Fill (Type V - Spalls)	50	Cubic Yards		
00035C	Fill (Borrow)	50	Cubic Yards		
00035D	Base Course (Class 5)	50	Cubic Yards		
00035E	Concrete	50	Cubic Yards		
00035F	Rock Protection (Type IV)	50	Cubic Yards		
00035G	Mob & Demob	1	Lump Sump		

ITEM NO.	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE ($)	EST. TOTAL
WORK AT VARIOUS BOAT RAMPS (Map 6)					
00036D	Base Course (Class 5)	50	Cubic Yards		
00036E	Concrete	50	Cubic Yards		
00036F	Rock Protection (Type IV)	50	Cubic Yards		
00036G	Mob & Demob	1	Lump Sump		
	East & West Totten Trail				
00037A	Excavation	50	Cubic Yards		
00037B	Fill (Type V - Spalls)	50	Cubic Yards		
00037C	Fill (Borrow)	50	Cubic Yards		
00037D	Base Course (Class 5)	50	Cubic Yards		
00037E	Concrete	50	Cubic Yards		
00037F	Rock Protection (Type IV)	50	Cubic Yards		
00037G	Mob & Demob	1	Lump Sump		
	Subtotal - Various Boat Ramps				

Subtotal for Garrison Dam Area	
Subtotal for Deepwater	
Subtotal Douglas	
Subtotal Nishu Bay	
Subtotal - Various Boat Ramps	
Total Option Year Bid - October 2004 - September 2005	

[The Indefinite Delivery Contract has a minimum amount of work of $15,000 per year and not to exceed a maximum of $500,000 per year. This amount of work can be divided among one or any multiple of the individual items in the bid schedule as long as the total work in any one year meets the minimum of $15,000. The maximum amount of the contract for the entire three year period is not to exceed $1,500,000.]

BIDDING SCHEDULE - SUMMARY SHEET

The Contractor shall bid the Base year and two option years. Bid sheets are located directly behind this summarization sheet. Contractor shall place bid totals for the base year and two option years onto this sheet and submit all bid sheets.

TOTAL ESTIMATED BASE BID FY 2003 = $ _____
TOTAL ESTIMATED OPTION BID FY 2004 = $ _____
TOTAL ESTIMATED OPTION BID FY 2005 = $ _____

TOTAL ESTIMATED BID FOR FY 2003, 2004 & 2005 $_____

Note. The estimated quantities and resultant total estimated cost are for planning and evaluation purposes only and have no bearing to any resultant Delivery Orders placed under this requirement. Quantities will be specified in each Delivery Order and the respective unit prices will prevail in the event of an overrun or underrun subject to Contract Clause "Variation in Estimated Quantity" (52.212-11).

SECTION 00100

INSTRUCTIONS, CONDITIONS & NOTICES TO BIDDERS
(July 2000, Revised April 2003)

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Attachments: Required Central Contractor Registration

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SECTION 00100

INSTRUCTIONS, CONDITIONS & NOTICES TO BIDDERS

1 GENERAL BIDDING INFORMATION

Bids shall be either mailed or hand-carried as indicated below. Bid will be PUBLICLY opened at the bid time indicated on Standard Form SF 1442 (Page 00010-1).

1.1 MAILED BIDS AND HAND-CARRIED BIDS

Mailed bids shall be addressed to the location as indicated on Standard Form SF 1442 (Page 00010-1), Item No. 8.

Due to heightened security at Government installations, those bidders who have their bids hand-carried* shall contact Jan Cook, Contract Specialist at (402) 221-4118 or (402) 221-4100 prior to delivering to the U. S. Army Corps of Engineer District, Omaha, 106 South 15th Street, Omaha, NE.

On the date specified and for thirty (30) minutes prior to time specified on Standard Form SF 1442, Page 00010-1, item 13.A, a Contracting representative will be in the lobby to receive bids. At the time specified on Standard SF 1442 Page 00010-1, item 13.A, the designated bid opening official will announce that receipt of bids is closed. Official time will be established by time/stamp clock located in the area where bids are received.

Anyone wishing to attend this public opening will be required to present photo identification to sign in and then will be escorted to the facility where bids will be opened. Once bids have been opened, read and recorded, attendees will then be escorted to exit the building.

*This instruction shall also apply to those bids delivered through a delivery or parcel service.

1.2 SOLICITATION RESTRICTIONS

This solicitation is unrestricted and open to both large and small business participation.

1.3 BASIS FOR AWARD.

IT IS INTENDED THAT AWARD WILL BE MADE TO ONE BIDDER FOR THE ENTIRE WORK.

1.4 APPROPRIATION AND AUTHORITY

APPROPRIATION: 96 X 3123 Operation and Maintenance General

AUTHORITY: The work provided herein is authorized: by Section 4 of the Flood Control Act (FCA) approved 24 July 1946 (60th Stat. 642) and by Section 209 of the FCA approved 3 September 1954 and as further amended by Section 209 of the FCA approved 23 October 1962.

1.5 DESCRIPTION OF WORK

The scope of this project is to furnish all plant, labor, materials, and equipment and performing all work for bituminous overlays of roads and parking lots, various other bituminous surface treatments, crack sealing, asphalt patching, placement of aggregate base courses, concrete pavements, curb and gutter, salvage and milling of asphalt pavements and concrete pavements, and the purchase and placement or stockpiling of riprap materials.

1.6 ESTIMATED CONSTRUCTION COST

The total amount of work not to exceed 1,000,000 in a two year period.

2 (FAR 52.214-6) EXPLANATION TO PROSPECTIVE BIDDERS (APRIL 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.

3 RESERVED

(NOTE: FACSIMILE, ELECTRONIC COMMERCE OR TELEGRAPHIC BIDS ARE NOT AUTHORIZED AND WILL NOT BE ACCEPTED. TELEGRAPHIC MODIFICATIONS OR WITHDRAWAL OF BIDS ARE AUTHORIZED. FACSIMILE MODIFICATIONS OR WITHDRAWAL ARE NOT AUTHORIZED.)

4 (FAR 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.

5 (FAR 52.214-18) PREPARATION OF BIDS - CONSTRUCTION (APRIL 1984).

(a) Bids must be--

(1) Submitted on the forms furnished by the Government or on copies of those forms, and
(2) **Manually signed.** The person signing a bid must initial each erasure or change appearing on any bid form.

(b) The bid form may require bidders to submit bid prices for one or more items on various bases, including--

(1) Lump sum bidding;

(2) Alternate prices;

(3) Units of construction; or

(4) Any combination of subparagraphs (1) through (3) above.

(c) If the solicitation requires bidding on all items, failure to do so will disqualify the bid. If bidding on all items is not required, bidders should insert the words "no bid" in the space provided for any item on which no price is submitted.

(d) Alternate bids will not be considered unless this solicitation authorizes their submission.

6 (FAR 52.214-4) FALSE STATEMENTS IN BIDS (APRIL 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.

(NOTE: FACSIMILE, ELECTRONIC COMMERCE OR TELEGRAPHIC BIDS ARE NOT AUTHORIZED AND WILL NOT BE ACCEPTED. TELEGRAPHIC MODIFICATIONS OR WITHDRAWAL OF BIDS ARE AUTHORIZED. FACSIMILE MODIFICATIONS OR WITHDRAWAL ARE NOT AUTHORIZED.)

7 (FAR 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)

8 INFORMATION FOR MODIFYING BIDS.

Bids which have been delivered to the designated bid receiving office may be modified or withdrawn by mail, mailgram, or telegram received at any time before the exact time set for receipt of bids. Modifications or withdrawals sent by mail should be transmitted to the place of bid opening Standard Form SF1442 (Page 00010-1), Item 8. Telephone modifications or withdrawals, other than telecopier, will not be accepted. All bid modifications or withdrawals must be signed by the bidder or its authorized representative. Any questions regarding these procedures should be directed to the Omaha District's Contracting Division at (402) 221-4118. This number should also be used to verify the receipt of messages.

9 BID GUARANTEE.

See Contract Clauses clause FAR 52.228-1, BID GUARANTEE. Bid guarantee MUST be in an original and accompanied by an original power of attorney of the surety. Bidders are reminded that a bid bond is required under the solicitation. Proper bid bonds and documents related to the bid bond are a matter of responsiveness that may not be corrected after bid opening. The Comptroller General of the General Accounting Office has issued a recent decision that may impact acceptability of bid bonds and related documents. The case, All Seasons Construction, Inc, B-291166.2, December 6, 2002, concluded that, in order for the bid to be responsive, signatures (including mechanically-produced signatures) must be added to powers of attorney **after** generation from a computer printer. It may be found at the GAO website at <<http://www.gao.gov/decisions/bidpro/bidpro.htm>>. Bidders are encouraged to refer to this case for guidance prior to submitting their bids.

10 PERFORMANCE AND PAYMENT BONDS.

See Contract Clauses clause FAR 52.228-15, PERFORMANCE AND PAYMENT BONDS. To have the bond considered valid, both the bond and the Power of Attorney must be original. Facsimile copies will not be acceptable, and will render the bid invalid, therefore eliminating it from competition.

(NOTE: FOR THE PURPOSES OF THIS SOLICITATION, THE WORD "ITEM" SHALL BE CONSIDERED TO MEAN "SCHEDULE.")

11 (FAR 52.214-19) CONTRACT AWARD - SEALED BIDDING - CONSTRUCTION (AUG 1996).

(a) The Government will evaluate bids in response to this solicitation without discussions and will award a contract to the responsible bidder whose bid, conforming to the solicitation, will be most advantageous to the Government, considering only price and the price-related factors specified elsewhere in the solicitation.

(b) The Government may reject any or all bids, and waive informalities or minor irregularities in bids received.

(c) The Government may accept any item or combination of items, unless doing so is precluded by a restrictive limitation in the solicitation of the bid.

(d) The Government may reject a bid as nonresponsive if the prices bid are materially unbalanced between line items or subline items. A bid is materially unbalanced when it is based on prices significantly less than cost for some work, and prices which are significantly overstated in relation to cost for other work, and if there is a reasonable doubt that the bid will result in the lowest overall cost to the Government even though it may be the low evaluated bid, of it is so unbalanced as to be tantamount to allowing an advance payment.

12 NORTH AMERICAN CLASSIFICATION SYSTEM (NAICS).

In accordance with NAICS Manual, the work in this solicitation is assigned classification code 234110.

13 SMALL BUSINESS SIZE STANDARD.

This solicitation is not limited to small business concerns, but, for definition purposes, a concern is small if its average annual receipts for its preceding 3 fiscal years did not exceed $28.5 million. (based on FAR 19.102)

14 (FAR 52.214-3) AMENDMENTS TO INVITATIONS FOR BIDS (DECEMBER 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. (FAR 52.214-3.)

15 CHANGES PRIOR TO OPENING BIDS.

The right is reserved, as the interest of the Government may require, to revise the specifications and/or drawings prior to the date set for opening bids. Such revisions will be announced by an amendment or amendments to this Invitation for Bids. **It shall be the responsibility of the prospective bidder to obtain copies of amendments from the website listed in paragraph: PLAN HOLDER'S LIST below**. The Government may (but not required) send an amendment notification to let prospective bidders know that an amendment has been issued. If the revisions and amendments are of a nature which requires material changes in quantities or prices to be bid, the date set for opening bids may be postponed as necessary, in the opinion of the Commander, to enable bidders to revise their bids. In such cases, the amendment will include an announcement of the new date for opening bids.

16 (FAR 52.214-34) SUBMISSION OF OFFERS IN THE ENGLISH LANGUAGE (APR 1991)

Offers submitted in response to this solicitation shall be in the English language. Offers received in other than English shall be rejected.

(End of provision)

17 (FAR 52.214-35) SUBMISSION OF OFFERS IN U.S. CURRENCY (APR 1991)

Offers submitted in response to this solicitation shall be in terms of U.S. dollars. Offers received in other than U.S. dollars shall be rejected.

(End of provision)

18 (EFARS 52.214-5000) ARITHMETIC DISCREPANCIES.

(a) For the purpose of initial evaluation of bids, the following will be utilized in resolving arithmetic discrepancies found on the face of the bidding schedule as submitted by the bidder:

(1) Obviously misplaced decimal points will be corrected;

(2) In case of discrepancy between unit price and extended price, the unit price will govern;

(3) Apparent errors in extension of unit prices will be corrected;

(4) Apparent errors in addition of lump sum and extended prices will be corrected.

(b) For the purposes of bid evaluation, the Government will proceed on the assumption that the bidder intends his bid to be evaluated on the basis of the unit prices, extensions, and totals arrived at by resolution of arithmetic discrepancies as provided above and the bid will be so reflected on the abstract of bids.

(c) These correction procedures shall not be used to resolve any ambiguity concerning which bid is low.

19 (FAR 52.217-5) EVALUATION OF OPTIONS (JUL 1990).

Except when it is determined in accordance with FAR 17.206(b) not to be in the Government's best interests, the Government will evaluate offers for award purposes by adding the total price for all options to the total price for the basic requirement. Evaluation of options will not obligate the Government to exercise the option(s).

20 OPTIONS.

The Government may reject an offer as nonresponsive if it is materially unbalanced as to prices for the basic requirement and the option quantities. An offer is unbalanced when it is based on prices significantly less than cost for some work and prices which are significantly overstated for other work.

21 AVAILABILITY OF SPECIFICATIONS, STANDARDS, AND DESCRIPTIONS.

Specifications, standards, and descriptions cited in this solicitation are available as indicated below:

21.1 (FAR 52.211-2) AVAILABILITY OF SPECIFICATIONS LISTED IN THE DOD INDEX OF SPECIFICATIONS AND STANDARDS (DODISS) AND DESCRIPTIONS LISTED IN THE ACQUISITION MANAGEMENT SYSTEMS AND DATA REQUIREMENTS CONTROL LIST, DOD 5010.12-L (DEC 1999).

Copies of specifications, standards, and data item descriptions cited in this solicitation may be obtained—

(a) From the ASSIST database via the Internet at http://assist.daps.mil; or

(b) By submitting a request to the—

Department of Defense Single Stock Point (DoDSSP)
Building 4, Section D
700 Robbins Avenue
Philadelphia, PA 19111-5094
Telephone (215) 697-2667/2179
Facsimile (215) 697-1462.

(End of provision)

21.2 CORPS OF ENGINEERS SPECIFICATIONS.

Corps of Engineers specifications of the CRD-C series may be obtained from the National Institute of Building Sciences Construction Criteria Base (CCB) on CD-ROM. Contact the CCB directly at (202) 289-7800 for an order form or obtain an order form at the following internet address: http://www.ccb.org/ccbsubscribe/Subsmain.asp. There is a regular annual subscription fee to CCB of $700 per year. (Note: This is considered to be the Contractor's responsibility and cost). This will include CCB on CD-ROM or DVD plus unlimited internet access plus access to the new Whole Building Design

Guide, now under construction and scheduled for launch in October 2001. Selected Corps of Engineers specifications of CRD-C series are available in Acrobat Reader .pdf file format at the following internet address: http://www.wes.army.mil/SL/MTC/handbook/handbook.htm.

21.3 COMMERCIAL (NON-GOVERNMENT) SPECIFICATIONS, STANDARDS, AND DESCRIPTIONS.

These specifications, standards, and descriptions are not available from Government sources. They may be obtained from the publishers.

22 AVAILABLE PLANT.

Each bidder shall, upon request of the Contracting Officer, furnish a list of the plant available to the bidder and proposed for use on the work.

23 EQUIPMENT OWNERSHIP AND OPERATING EXPENSE SCHEDULE.

Whenever a contract or modification of contract price is negotiated, the Contractor's cost proposals for equipment ownership and operating expenses shall be determined in accordance with the requirements of paragraph: EQUIPMENT OWNERSHIP AND OPERATING EXPENSE SCHEDULE, contained in Section: 00800, SPECIAL CONTRACT REQUIREMENTS of the specifications. A copy of EP 1110-1-8 "Construction Equipment Ownership and Operating Expense Schedule" is available for review at the office listed in paragraph: SITE VISIT (CONSTRUCTION) herein or at the following internet address: http://www.usace.army.mil/inet/usace-docs/eng-pamphlets/ep.htm. (copy also included on CD-ROM issued with this solicitation). .

24 NOTICE REGARDING BUY AMERICAN ACT.

The Buy American Act (41 U.S.C. 10a-10d) generally requires that only domestic construction material be used in the performance of this contract. Exception from the Buy American Act shall be permitted only in the case of nonavailability of domestic construction materials. A bid or proposal offering nondomestic construction material will not be accepted unless specifically approved by the Government. When a bidder or offeror proposes to furnish nondomestic construction material, his bid or proposal must set forth an itemization of the quantity, unit price, and intended use of each item of such nondomestic construction material. When offering nondomestic construction material pursuant to this paragraph, bids or proposals may also offer, at stated prices, any available comparable domestic construction material, so as to avoid the possibility that failure of a nondomestic construction material to be acceptable under this paragraph will cause rejection of the entire bid. All bidders are cautioned that, prior Government conduct notwithstanding, the Contractor's selection of a domestic construction material (as defined in FAR 52.225-5 Buy American Act-Construction Materials) which would require the subsequent selection of a foreign construction material for compatibility is not a justification for waiver of the Buy American Act. It is the Contractor's responsibility to verify, prior to submitting the materials for approval, that each system can be built to meet the contract specifications without the use of foreign construction materials.

25 TAXES - NORTH DAKOTA.

25.1 UNEMPLOYMENT TAX SURCHARGE.

The State of North Dakota has enacted legislation applicable to certain some contractors concerning an unemployment tax surcharge. See the North Dakota Century Code, Section 52-04-06.1, Incremental Bond for Impact Projects. The law provides for an unemployment tax surcharge in addition to regular unemployment tax liability. Bidders should investigate the effect, if any, that this law may have upon their bid prices. Inquiries should be directed to Job Service of North Dakota, Post Office Box 1537, Bismarck, North Dakota 58502. Telephone: (701) 224-3470 (Department of Revenue).

25.2 USE TAX.

Bidders are advised of the possible applicability of North Dakota Use Tax. Government furnished Construction material used by the Contractor may be subject to Use Tax. The value of material furnished is set forth in the SECTION 00800, SPECIAL CONTRACT REQUIREMENTS Clause "Government-Furnished Property." Specific inquiries as to the applicability of North Dakota Use Tax should be referred to the North Dakota State Tax Commission.

26 (FAR 52.236-27) SITE VISIT (CONSTRUCTION) (FEB 1995).

(a) The clauses at 52.236-2, Differing Site Conditions, and 52.236-3, Site Investigations and Conditions Affecting the Work, will be included in any contract awarded as a result of this solicitation. Accordingly, offerors or quoters are urged and expected to inspect the site where the work will be performed.

(b) Contractors interested in inspecting the site of the proposed work should contact: Shannon Jeffers or Beth Utecht, Garrison Project, P.O. Box 517, Riverdale, North Dakota 58565 PHONE NUMBER(s): (701) 654-7411 ext. 238 and 242 respectively

27 BIDDER'S QUESTIONS AND COMMENTS.

Questions and/or comments relative to these bidding documents should be submitted via e-mail or mailed to the address identified in paragraph: AVAILABILITY OF BID RESULTS below. Comments should reach this office no later than 20 calendar days prior to the date set for opening of bids, if feasible, in order that changes, if needed, may be added by amendment. E-mail addresses, FAX numbers, items for question and points of contact are listed below. Phone calls with questions should be made between 8:30 a.m. and 3:30 p.m. (Central Standard Time) Monday through Friday.

Note: A courtesy copy of all questions shall be sent to the Contract Specialist (Contractual Matters Point of Contact), the Program Manager and Specifications Section (Technical Content Points of Contact).

Items for Question	Points of Contact/ Phone numbers/ FAX Numbers	E-mail Addresses
Contractual Matters:	Jan Cook	Jan.M.Cook@usace.army.mil

Ordering CD-Rom of the plans and specifications (limit One per firm)/ amendments**/ Bid Results (See Paragraph AVAILABILITY OF BID RESULTS, below)/ Receipt of Bids	402-221-4118 (phone) 402-221-4199 (Fax)	
Planholder's List	See paragraph: PLAN HOLDER'S LIST, below.	
Small Business Matters	Hubert Carter 402-221-4110 (phone)	hubert.j.carter@usace.army.mil
Technical Contents Of Plans and Specification	Gary Rubingh 402-221-3056 (phone)	Gerus.M.Rubingh@usace.army.mil
	Or	
	Specifications Section Marylee Stobbe 402-221-4411 (Phone) 402-221-3842 (Fax)	Marylee.F.Stobbe@usace.army.mil
Site Inspection	See Paragraph: SITE VISIT (CONSTRUCTION), above	

**** - The Government may elect to send a notification that an amendment has been posted to the Government's web address. It shall be the Contractor's, Subcontractor's and Supplier's responsibility to check the Government's web address for amendments.**

27.1 PLAN HOLDER'S LIST.

The CD-Rom will provide a list of plan holders that have registered at the time the CD-Rom was created. It is bidder's responsibility to check for any updates to the plan holder's list, which is available at the following web address:

http://ebs-nwo.wes.army.mil/

27.2 AVAILABILITY OF BID RESULTS (Local Clause/Provision)

Bid results will be available after bid opening on the Governent's web address:
http://ebs-nwo.wes.army.mil/. Official bid abstracts will be available and may be requested by sending a self-addressed stamped envelope to: U.S. Army Corps of Engineers, Omaha District, ATTN: CENWO-CT-C(Cook), 106 South 15th Street, Omaha, NE 68102-1618.

28 (FAR 52.233-2) SERVICE OF PROTEST (AUG 1996).

(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 General Accounting Office (GAO), shall be served on the Contracting Officer (addressed as follows) by obtaining written and dated acknowledgement of receipt from District Counsel, 106 South 15th Street, Omaha, Nebraska 68102-1618.

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

29 PRE-AWARD SURVEY INFORMATION (Local Provision) (Sep 93)

In accordance with Paragraph PERFORMANCE AND PAYMENT BONDS, request that the following information be submitted with your bid. This facilitates the award process.

1. Financial
   - Name, address, and fax number of Financial Institution
   - Name and phone number of finance individual (primary and alternate) to be contacted for information

2. Bonding Information
   - Provide the name, address, regular phone number and fax number of your Surety Company.

3. Performance
   - Provide three (3) references to be contacted on your company's performance

   The following information should be submitted:
   Name and Fax number of Owner/User
   Project Name, Location, Contract Number, and dollar value
   Name and phone number of individuals (primary and alternate) that can verify performance of the project

30 (FAR 52.204-6) DATA UNIVERSAL NUMBERING SYSTEM (DUNS) NUMBER (JUNE 1999)

(a) The offeror shall enter, in the block with its name and address on the cover page of its offer, the annotation "DUNS" followed by the DUNS number 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 Information Services.

(b) If the offeror does not have a DUNS number, it should contact Dun and Bradstreet directly to obtain one. A DUNS number will be provided immediately by telephone at no charge to the offeror. For information on obtaining a DUNS number, the offeror, if located within the United States, should call Dun and Bradstreet at 1-800-333-0505. The offeror should be prepared to provide the following information:

(1) Company name.

(2) Company address.

(3) Company telephone number.

(4) Line of business.

(5) Chief executive officer/key manager.

(6) Date the company was started.

(7) Number of people employed by the company.

(8) Company affiliation.

(c) Offerors located outside the United States may obtain the location and phone number of the local Dun and Bradstreet Information Services office from the Internet home page at http://www.customerservice@dnb.com. If an offeror is unable to locate a local service center, it may send an e-mail to Dun and Bradstreet at globalinfo@mail.dnb.com.

(End of provision)

31 (FAR 52.216-1) TYPE OF CONTRACT (APR 1984).

The Government contemplates award of a Firm Fixed Price contract resulting from this solicitation.

32 SUBCONTRACTING PLAN/SUBCONTRACTING GOALS REGARDING THE UTILIZATION OF SMALL BUSINESS CONCERNS.

a. Application. This clause applies only to large business concerns submitting bids for services exceeding $500,000 or for construction exceeding $1,000,000.

b. Federal Acquisition Regulations (FAR). Attention is directed to the following FAR provisions contained in this solicitation:

52.219-8, Utilization of Small Business Concerns (Alternate I)

52.219-9, Small Business Subcontracting Plan (Alternate I)

52.219-16, Liquidated Damages - Small Business Subcontracting Plan

52.226-1, Utilization of Indian Organizations and Indian-Owned Economic Enterprises

c. Goals. The U.S. Army Corps of Engineers considers the following goals reasonable and achievable for fiscal year 2002 and for the performance of the resultant contract:

(1) 57.2% of planned subcontracting dollars with small business concerns.

(2) 8.9% of planned subcontracting dollars with those small business concerns owned and controlled by socially and economically disadvantaged individuals.

(3) 8.1% of planned subcontracting dollars with those small business concerns owned and controlled by women.

(4) 3.0% of planned subcontracting dollars with those small business concerns owned and controlled by Service-Disabled Veterans.

(5) 3.0% of planned subcontracting dollars with those small business concerns owned and controlled by HubZones.

d. Submission and Review of Subcontracting Plan.

SUBMISSION OF SMALL BUSINESS SUBCONTRACTING PLAN IS NOT APPLICABLE TO SMALL BUSINESSES.

(1) The apparent low bidder must submit a subcontracting plan within five (5) calendar days after bid opening (a longer period maybe granted by the Contracting Officer upon request) within 24 hours after notification by the Government to the Contracting Activity.

(2) Goals included in the subcontracting plan should be at least equal to those indicated above. If lesser goals are proposed, the bidder may be required to substantiate how the proposed plan represents the bidder's best effort to comply with the terms and conditions of the solicitation. Bidders are highly encouraged to become familiar with the intent of the solicitation provisions and the elements of the subcontracting plan.

(3) The subcontracting plan must contain, as a minimum, the elements set forth in FAR provision 52.219-9. An example subcontracting plan will be furnished to the apparent low bidder (upon request). The example subcontracting plan (if requested) should not be construed as an acceptable subcontracting plan. Any format will be acceptable provided that the plan addresses each element as required by the Federal Acquisition Regulations and its supplements.

(4) Proposed plans will be reviewed by the Government to ensure the plan represents the firm's best efforts to maximize subcontracting opportunities for small, small disadvantaged and women-owned businesses.

(5) Subcontracting plans are required to be approved prior to Contract Award. The approved subcontracting plan (to include goals) will become a material part of the contract.

e. Failing to Submit An Acceptable Subcontracting Plan. An apparent low bidder failing to submit a subcontracting plan which demonstrates a reasonable effort to meet the goals listed above or provide an explanation why lesser goals are proposed (upon request), will be considered as non-responsive and not considered eligible for award of the contract.

f. Questions or Assistance Needed in Developing Subcontracting Plan. For any questions or assistance needed in developing the subcontracting plan, contact the Contract Specialist or District's Deputing for Small Business (See paragraph: BIDDER QUESTIONS AND COMMENTS, Contract Specialist [Bid Results] or the District's Deputy for Small Business [Small Business] or fax your inquiries to 402-221-4199).

33 (DFARS 252.204-7004) REQUIRED CENTRAL CONTRACTOR REGISTRATION (NOV 2001)

(a) Definitions.

As used in this clause--

(1) "Central Contractor Registration (CCR database" means the primary DoD repository for contractor information required for the conduct of business with DoD.

(2) "Data Universal Numbering System (DUNS) number" means the 9-digit number assigned by Dun and Bradstreet Information Services to identify unique business entities.

(3) "Data Universal Numbering System +4 (DUNS+4) number" means the DUNS number assigned by Dun and Bradstreet plus a 4-digit suffix that may be assigned by a parent (controlling) business concern. This 4-digit suffix may be assigned at the discretion of the parent business concern for such purposes as identifying subunits or affiliates of the parent business concern.

(4) "Registered in the CCR database" means that all mandatory information, including the DUNS number or the DUNS+4 number, if applicable, and the corresponding Commercial and Government Entity (CAGE) code, is in the CCR database; the DUNS number and the CAGE code have been validated; and all edits have been successfully completed.

(b)(1) By submission of an offer, the offeror acknowledges the requirement that a prospective awardee must be registered in the CCR database prior to award, during performance, and through final payment of any contract resulting from this solicitation, except for awards to foreign vendors for work to be performed outside the United States.

(2) The offeror shall provide its DUNS or, if applicable, its DUNS+4 number with its offer, which will be used by the Contracting Officer to verify that the offeror is registered in the CCR database.

(3) Lack of registration in the CCR database will make an offeror ineligible for award.

(4) DoD has established a goal of registering an applicant in the CCR database within 48 hours after receipt of a complete and accurate application via the Internet. However, registration of an applicant submitting an application through a method other than the Internet may take up to 30 days. Therefore, offerors that are not registered should consider applying for registration immediately upon receipt of this solicitation.

(c) The Contractor is responsible for the accuracy and completeness of the data within the CCR, 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 confirm on an annual basis that its information in the CCR database is accurate and complete.

(d) Offerors and contractors may obtain information on registration and annual confirmation requirements by calling 1-888-227-2423, or via the Internet at http://www.ccr.gov.

(End of clause)

REQUIRED CENTRAL CONTRACTOR REGISTRATION (CCR)

Register Now: Don't wait until you submit an offer on a solicitation. You must be registered to receive the contract award. It can often take 30 days for CCR to process your registration information.

Register One of Three Ways:

Internet: http://www.ccr.gov

Value Added Network (VAN) for EDI users: Contact your VAN for information. If you need to find a VAN look at http://www.acq.osd.mil/ec/ecip/van_list.htm

FAX or Mail: Call (888)227-2423 or (616)961-4725 to receive a registration package. FAX or mail the completed information to the CCR Assistance Center. It can take up to 30 days to process a faxed or mailed package.

CCR Assistance Center
74 Washington Street North, Suite 7
Battle Creek, MI 49017-3084
FAX: (616)961-7243

SECTION 00600
REPRESENTATIONS, CERTIFICATIONS & OTHER STATEMENTS OF BIDDERS

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SECTION 00600
REPRESENTATIONS, CERTIFICATIONS & OTHER STATEMENTS OF BIDDERS

The bidder (offeror) makes the following certification and representations as a part of the bid, shall check the appropriate boxes, fill in the appropriate information, and provide signatures on the attached "Solicitation Form" (00600) pages, and submit with Standard Form 1442 (Section 00010).

1. (FAR 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 or 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 being 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) above; 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) above

_____

_____

_____ [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) above.

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

2. (FAR 52.203-11) CERTIFICATION AND DISCLOSURE REGARDING PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (APR 1991).

(a) The definitions and prohibitions contained in the clause, at FAR 52.203-12, Limitation on Payments to Influence Certain Federal Transactions, included in this solicitation, are hereby incorporated by reference in paragraph (b) of this certification.

(b) The offeror, by signing its offer, hereby certifies to the best of his or her knowledge and belief that on or after December 23, 1989, -

(1) No Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on his or her behalf in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment or modification of any Federal contract, grant, loan, or cooperative agreement;

(2) If any funds other than Federal appropriated funds (including profit or fee received under a covered Federal transaction) have been paid, or will be paid, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on his or her behalf in connection with this solicitation, the offeror shall complete and submit, with its offer, OMB standard form LLL, Disclosure of Lobbying Activities, to the Contracting Officer; and

(3) He or she will include the language of this certification in all subcontract awards at any tier and require that all recipients of subcontract awards in excess of $100,000 shall certify and disclose accordingly.

(c) Submission of this certification and disclosure is a prerequisite for making or entering into this contract imposed by section 1352, title 31, United States Code. Any person who makes an expenditure prohibited under this provision or who fails to file or amend the disclosure form to be filed or amended by this provision, shall be subject to a civil penalty of not less than $10,000, and not more than $100,000, for each such failure.

3. (FAR 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)

4. (FAR 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)

5. (DFARS 252.204-7001) COMMERCIAL AND GOVERNMENT ENTITY (CAGE) CODE REPORTING (AUG 1999).

(a) The offeror is requested to enter its CAGE code on its offer in the block with its name and address. The CAGE code entered must be for that name and address. Enter "CAGE" before the number.

(b) If the offeror does not have a CAGE code, it may ask the Contracting Officer to request one from the Defense Logistics Information Service (DLIS). The Contracting Officer will-

(1) Ask the Contractor to complete section B of a DD Form 2051, Request for Assignment of a Commercial and Government Entity (CAGE) Code;

(2) Complete section A and forward the form to DLIS; and

(3) Notify the Contractor of its assigned CAGE code.

(c) Do not delay submission of the offer pending receipt of a CAGE code.

6. (FAR 52.209-5) CERTIFICATION REGARDING DEBARMENT, SUSPENSION, PROPOSED DEBARMENT, AND OTHER RESPONSIBILITY MATTERS (DEC 2001).

(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, 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.
(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) "Principals," for the purposes of this certification, means officers; directors; owners; partners; and, persons 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).

This Certification Concerns a Matter Within the Jurisdiction of an Agency of the United States and the Making of a False, Fictitious, or Fraudulent Certification May Render the Maker Subject

to Prosecution Under Section 1001, Title 18, United States Code.

(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)

7. (DFARS 252.209-7001) DISCLOSURE OF OWNERSHIP OR CONTROL BY A FOREIGN GOVERNMENT THAT SUPPORTS TERRORISM (MAR 1998). [For Contracts exceeding $100,000]

(a) Definitions.

As used in this provision-

(1) "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 acts of international terrorism. As of the date of this provision, terrorist countries include: Cuba, Iran, Iraq, Libya, 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.

The Offeror shall disclose any significant interest the government of each of the following countries has in the Offeror or a subsidiary of the Offeror. 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)

8. (FAR 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, and other 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, and other characteristics specified in the solicitation;

(2) Clearly identify the item by--

(i) Brand name, if any; and

(ii) Make or model number;

(3) Include descriptive literature such as cuts, 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 by the offeror or identified in the offer and reasonably available to the Contracting Officer. The Contracting Officer is not responsible for locating or securing 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.

9. RESERVED

10. RESERVED

11. (FAR 52.219-1) SMALL BUSINESS PROGRAM REPRESENTATIONS (APR 2002) ALTERNATE I (APR 2002)

(a)(1) The North American Industry Classification System (NAICS) code for this acquisition is _____ [*insert NAICS code*].

(2) The small business size standard is _____ [*insert size standard*].

(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 aveteran-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.

(7) [*Complete if offeror represented itself as disadvantaged in paragraph (b)(2) of this provision.*] The offeror shall check the category in which its ownership falls:

_____ Black American.
_____ Hispanic American.
_____ Native American (American Indians, Eskimos, Aleuts, or Native Hawaiians).
_____ Asian-Pacific American (persons with origins from Burma, Thailand, Malaysia, Indonesia, Singapore, Brunei, Japan, China, Taiwan, Laos, Cambodia (Kampuchea),Vietnam, Korea, The Philippines, U.S. Trust Territory of the Pacific Islands (Republic of Palau), Republic of the Marshall Islands, Federated States of Micronesia, the Commonwealth of the Northern Mariana Islands, Guam, Samoa, Macao, Hong Kong, Fiji, Tonga, Kiribati, Tuvalu, or Nauru).
_____ Subcontinent Asian (Asian-Indian) American (persons with origins from India, Pakistan, Bangladesh, Sri Lanka, Bhutan, the Maldives Islands, or Nepal).
_____ Individual/concern, other than one of the preceding.

(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 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; or, 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)

12. (FAR 52.219-2) <u>EQUAL LOW BIDS (OCT 1995)</u>

(a) This provision applies to small business concerns only.

(b) The bidder's status as a labor surplus area (LSA) concern may affect entitlement to award in case of tie bids. If the bidder wishes to be considered for this priority, the bidder must identify, in the following space, the LSA in which the costs to be incurred on account of manufacturing or production (by the bidder or the first-tier subcontractors) amount to more than 50 percent of the contract price.

_____ _____

_____ _____

(c) Failure to identify the labor surplus areas as specified in paragraph (b) of this provision will preclude the bidder from receiving priority consideration. If the bidder is awarded a contract as a result of receiving priority consideration under this provision and would not have otherwise received award, the bidder shall perform the contract or cause the contract to be performed in accordance with the obligations of an LSA concern.

13. RESERVED

14. (FARS 52.219-19) SMALL BUSINESS CONCERN REPRESENTATION FOR THE SMALL BUSINESS COMPETITIVENESS DEMONSTRATION PROGRAM (OCT 2000).

(a) *Definition*. "Emerging small business" as used in this solicitation, means a small business concern whose size is no greater than 50 percent of the numerical size standard applicable to the North American Industry Classification System (NAICS) code assigned to a contracting opportunity.

(b) (Complete only if Offeror has represented itself under the provision at FAR 52.219-1 as a small business concern under the size standards of this solicitation.) The Offeror [ ] is, [ ] is not an emerging small business.

(c) (Complete only if the Offeror is a small business or an emerging small business, indicating its size range.)

Offeror's number of employees for the past 12 months (check this column if size standard stated in solicitation is expressed in terms of number of employees) or Offeror's average annual gross revenue for the last 3 fiscal years (check this column if size standard stated in solicitation is expressed in terms of annual receipts). (Check one of the following.)

No. of Employees	Average Annual Gross Revenues
_____50 or fewer	_____$1 million or less
_____51 - 100	_____$1,000,001 - $2 million
_____101 - 250	_____$2,000,001 - $3.5 million
_____251 - 500	_____$3,500,001 - $5 million
_____501 - 750	_____$5,000,001 - $10 million
_____751 - 1,000	_____$10,000,001 - $17 million
_____Over 1,000	_____Over $17 million

15. (FARS 52.219-21) SMALL BUSINESS SIZE REPRESENTATION FOR TARGETED INDUSTRY CATEGORIES UNDER THE SMALL BUSINESS COMPETITIVENESS DEMONSTRATION PROGRAM (MAY 1999).

[Complete only if the Offeror has represented itself under the provision at 52.219-1 as a small business concern under the size standards of this solicitation.]

Offeror's number of employees for the past 12 months *[check this column if size standard stated in solicitation is expressed in terms of number of employees]* or Offeror's average annual gross revenue for the last 3 fiscal years [check this column if size standard in solicitation is expressed in terms of annual receipts]. *[Check one of the following.]*

No. of Employees	Average Annual Gross Revenues
_____50 or fewer	_____$1 million or less
_____51 - 100	_____$1,000,001 - $2 million
_____101 - 250	_____$2,000,001 - $3.5 million
_____251 - 500	_____$3,500,001 - $5 million
_____501 - 750	_____$5,000,001 - $10 million
_____751 - 1,000	_____$10,000,001 - $17 million
_____Over 1,000	_____Over $17 million

16. (FAR 52.222-21) CERTIFICATION OF NONSEGREGATED FACILITIES (FEB 1999)

(a) "Segregated facilities," as used in this clause, means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees, that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, sex, or national origin because of written or oral policies or employee custom. The term does not include separate or single-user rest rooms or necessary dressing or sleeping areas provided to assure privacy between the sexes.

(b) The Contractor agrees that it does not and will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not and will not permit its employees to perform their services at any location under its control where segregated facilities are maintained. The Contractor agrees that a breach of this clause is a violation of the Equal Opportunity clause in this contract.

(c) The Contractor shall include this clause in every subcontract and purchase order that is subject to the Equal Opportunity clause of this contract.

(End of clause)

17. (FAR 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 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)

18. (FAR 52.223-4) RECOVERED MATERIAL CERTIFICATION (OCT 1997)

As required by the Resource Conservation and Recovery Act of 1976 (42 U.S.C. 6962(c)(3)(A)(i)), the offeror certifies, by signing this offer, that the percentage of recovered materials to be used in the performance of the contract will be at least the amount required by the applicable contract specifications.

(End of provision)

19. (FAR 52.223-13) CERTIFICATION OF TOXIC CHEMICAL RELEASE REPORTING (OCT 2000) [For Contracts over $100,000]

(a) Submission of this certification is a prerequisite for making or entering into this contract imposed by Executive Order 12969, August 8, 1995.

(b) By signing this offer, the offeror certifies that-

(1) As the owner or operator of a facilities that will be used in the performance of this contract that are subject to the filing and reporting requirements described in section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) (42 U.S.C. 11023) and section 6607 of the Pollution Prevention Act of 1990 (PPA) (42 U.S.C. 13106), the offeror will file and continue to file, for such facilities for the life of the contract the Toxic Chemical Release Inventory Form (Form R) as described in sections 313(a) and (g) of the EPCRA and section 6607 of PPA; or

(2) None of its owned or operated facilities to be used in the performance of this contract is subject the Form R filing and reporting requirements because each facility is exempt for at least one of the following reasons: (Check each block that is applicable.)

[ ] (i) The facility does not manufacture, process or otherwise use any toxic chemicals listed under section 313(c) of EPCRA, 42 U.S.C. 11023(c);

[ ] (ii) The facility does not have 10 or more full-time employees as specified in section 313(b)(1)(A) of EPCRA, 42 U.S.C. 11023(b)(1)(A);

[ ] (iii) The facility does not meet the reporting thresholds of toxic chemicals established under section 313(f) of EPCRA, 42 U.S.C. 11023(f) (including the alternate thresholds at 40 CFR 372.27, provided an appropriate certification form has been filed with EPA);

[ ] (iv) The facility does not fall within Standard Industrial Classification Code (SIC) major groups 20 through 39 or their corresponding North American Industry Classification System (NAICS) sectors 31 through 33; or

[ ] (v) The facility is not located within any State of the United States, the District of Columbia, the Commonwealth of Puerto Rica, Guam, American Samoa, the United States Virgin Islands, the Norther Mariana Islands, or any other territory or possession over which the United States has jurisdiction.

20. (DFARS 252.225-7031) SECONDARY ARAB BOYCOTT OF ISRAEL (JUN 1992)

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

(1) "Foreign person" means any person other than a United States person as defined in Section 16(2) of the Export Administration Act of 1979 (50 U.S.C. App. Sec 2415).

(2) "United States person" is defined in Section 16(2) of the Export Administration Act of 1979 and means any United States resident or national (other than an individual resident outside the United States and employed by other than a United States person), any domestic concern (including any permanent domestic establishment of any foreign concern), and any foreign subsidiary or affiliate (including any foreign establishment) of any domestic concern which is controlled in fact by such domestic concern, as determined under regulations of the President.

(b) Certification.

By submitting this offer, the Offeror, if a foreign person, company, company or entity, certifies 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. Sec 2407(a) prohibits a United States person from taking.

(End of clause)

21. (DFARS 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-

_____ Does anticipate that supplies will be transported by sea in the performance of any contract or subcontract resulting from this solicitation.

_____ 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.

SECTION 00700

CONTRACT CLAUSES

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51. *FAR 52.223-6 DRUG-FREE WORKPLACE (MAY 2001)
52. FAR 52.223-9 ESTIMATE OF PERCENTAGE OF RECOVERED MATERIAL CONTENT FOR EPA-DESIGNATED PRODUCTS (AUG 2000) [For Contracts exceeding $100,000. EPA Designated product (available at http://www.epa.gov/cpg/)]
53. *FAR 52.223-14 TOXIC CHEMICAL RELEASE REPORTING (OCT 2000) [For Contracts Over $100,000]
54. RESERVED
55. DFARS 252.223-7006 PROHIBITION ON STORAGE AND DISPOSAL OF TOXIC AND HAZARDOUS MATERIALS (APR 1993)
56. *FAR 52.225-9 BUY AMERICAN ACT—CONSTRUCTION MATERIALS (MAY 2002) (For Contracts less than $6.481 million)
57. *FAR 52.225-10 NOTICE OF BUY AMERICAN ACT REQUIREMENT—CONSTRUCTION MATERIALS (MAY 2002) (Applicable with FAR 52.225-9)
58. *FAR 52.225-11 BUY AMERICAN ACT—CONSTRUCTION MATERIALS UNDER TRADE AGREEMENTS (JULY 2002) [For Contracts more than $6,481,000] ALTERNATE I (MAY 2002) [For Contracts between $6.481 and 7.304733 Million]
59. *FAR 52.225-12 NOTICE OF BUY AMERICAN ACT REQUIREMENT—CONSTRUCTION MATERIALS UNDER TRADE AGREEMENTS (MAY 2002) [Applicable with FAR 52.225-11] ALTERNATE II (MAY 2002) [For Contracts Between 6.481 and 7.344733 Million]
60. *FAR 52.225-13 RESTRICTIONS ON CERTAIN FOREIGN PURCHASES (JULY 2000)

61. *FAR 52.226-1 UTILIZATION OF INDIAN ORGANIZATIONS AND INDIAN-OWNED ECONOMIC ENTERPRISES (JUNE 2000)
62. *FAR 52.227-1 AUTHORIZATION AND CONSENT (JUL 1995)
63. *FAR 52.227-2 NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT (AUG 1996)
64. *FAR 52.227-4 PATENT INDEMNITY--CONSTRUCTION CONTRACTS (APR 1984)
65. DFARS 252.227-7033 RIGHTS IN SHOP DRAWINGS (APR 1966)
66. FAR 52.228-1 BID GUARANTEE (SEP 1996) [NOTE: Not required for projects less than $100,000]
67. *FAR 52.228-2 ADDITIONAL BOND SECURITY (OCT 1997)
68. *FAR 52.228-5 INSURANCE--WORK ON A GOVERNMENT INSTALLATION (JAN 1997) [For Contracts Exceeding $100,000]
69. *FAR 52.228-11 PLEDGES OF ASSETS (FEB 1992)
70. *FAR 52.228-12 PROSPECTIVE SUBCONTRACTOR REQUESTS FOR BONDS (OCT 1995)
71. FAR 52.228-13 ALTERNATIVE PAYMENT PROTECTIONS (JULY 2000) [Applicable only for projects or delivery orders less than $100,000]
72. FAR 52.228-14 IRREVOCABLE LETTER OF CREDIT (DEC 1999)
73. FAR 52.228-15 PERFORMANCE AND PAYMENT BONDS (JULY 2000).
74. FAR 52.229-3 FEDERAL, STATE, AND LOCAL TAXES (APR 2003) [For Contracts Exceeding $100,000]
75. RESERVED
76. DFARS 252.231-7000 SUPPLEMENTAL COST PRINCIPLES (DEC 1991)
77. *FAR 52.232-5 PAYMENTS UNDER FIXED-PRICE CONSTRUCTION CONTRACTS (SEPT 2002)
78. RESERVED.
79. *FAR 52.232-17 INTEREST (JUN 1996)
80. *FAR 52.232-23 ASSIGNMENT OF CLAIMS (JAN 1986)
81. *FAR 52.232-27 PROMPT PAY FOR CONSTRUCTION CONTRACTS (FEB 2002)
82. *FAR 52.232-33 PAYMENT BY ELECTRONIC FUNDS TRANSFER –CENTRAL CONTRACTOR REGISTRATION (MAY 1999)
83. DFARS 252.232-7004 DOD PROGRESS PAYMENT RATES (OCT 2001)
84. DFARS 252.232-7005 REIMBURSEMENT OF SUBCONTRACTOR ADVANCE PAYMENTS--DOD PILOT MENTOR-PROTEGE PROGRAM (SEP 2001)
85. *FAR 52.233-1 DISPUTES (JULY 2002)
86. *FAR 52.233-3 PROTEST AFTER AWARD (AUG 1996)
87. RESERVED
88. FAR 52.236-2 DIFFERING SITE CONDITIONS (APR 1984)
89. *FAR 52.236-3 SITE INVESTIGATION AND CONDITIONS AFFECTING THE WORK (APR 1984)
90. *FAR 52.236-5 MATERIAL AND WORKMANSHIP (APR 1984)
91. RESERVED
92. *FAR 52.236-6 SUPERINTENDENCE BY THE CONTRACTOR (APR 1984)
93. FAR 52.236-7 PERMITS AND RESPONSIBILITIES (NOV 1991)
94. *FAR 52.236-8 OTHER CONTRACTS (APR 1984)
95. *FAR 52.236-9 PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS (APR 1984)
96. *FAR 52.236-10 OPERATIONS AND STORAGE AREAS (APR 1984)
97. *FAR 52.236-11 USE AND POSSESSION PRIOR TO COMPLETION (APR 1984)
98. *FAR 52.236-12 CLEANING UP (APR 1984)
99. *FAR 52.236-13 ACCIDENT PREVENTION-ALTERNATE I (NOV 1991)
100. *FAR 52.236-14 AVAILABILITY AND USE OF UTILITY SERVICES (APR 1984)
101. FAR 52.236-15 SCHEDULES FOR CONSTRUCTION CONTRACTS (APR 1984)
102. *FAR 52.236-17 LAYOUT OF WORK (APR 1984)
103. FAR 52.236-21 SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION (FEB 1997)
104. *FAR 52.236-26 PRECONSTRUCTION CONFERENCE (FEB 1995)
105. DFARS 252.236-7000 MODIFICATION OF PROPOSALS - PRICE BREAKDOWN (DEC 1991)
106. DFARS 252.236-7008 CONTRACT PRICES - BIDDING SCHEDULES (DEC 1991)

107. *FAR 52.242-13 BANKRUPTCY (JUL 1995)
108. *FAR 52.242-14 SUSPENSION OF WORK (APR 1984)
109. FAR 52.243-4 CHANGES (AUG 1987)
110. DFARS 252.243-7001 PRICING OF CONTRACT MODIFICATIONS (DEC 1991)
111. DFARS 252.243-7002 REQUESTS FOR EQUITABLE ADJUSTMENT (MAR 1998)
112. *FAR 52.244-2 SUBCONTRACTS (AUG 1998)
113. FAR 52.244-6 SUBCONTRACTS FOR COMMERCIAL ITEMS (MAY 2002)
114. *FAR 52.245-2 GOVERNMENT PROPERTY (FIXED-PRICE CONTRACTS) (DEC 1989) [For Government Property over $100,000]
115. *FAR 52.245-4 GOVERNMENT-FURNISHED PROPERTY (SHORT FORM) (APR 1984) [For Government Property $100,000 or Less]
116. *FAR 52.246-12 INSPECTION OF CONSTRUCTION (AUG 1996)
117. *FAR 52.246-21 WARRANTY OF CONSTRUCTION (MAR 1994)
118. DFARS 252.247-7023 TRANSPORTATION OF SUPPLIES BY SEA (MAR 2000)
119. DFARS 252.247-7024 NOTIFICATION OF TRANSPORTATION OF SUPPLIES BY SEA (MAR 2000)
120. FAR 52.248-3 VALUE ENGINEERING--CONSTRUCTION (FEB 2000) (ALERNATE I (APR 1984)
121. *FAR 52.249-1 TERMINATION FOR CONVENIENCE OF THE GOVERNMENT (FIXED-PRICE) (SHORT FORM) (APR 1984) [For Contracts $100,000 or Less]
122. *FAR 52.249-2 TERMINATION FOR CONVENIENCE OF THE GOVERNMENT (FIXED-PRICE) ALTERNATE I (SEP 1996) [For Contracts Over $100,000]
123. *FAR 52.249-10 DEFAULT (FIXED-PRICE CONSTRUCTION) (APR 1984)
124. ENVIRONMENTAL LITIGATION (1974 NOV OCE)
125. EFARS 52.249-5000 BASIS FOR SETTLEMENT OF PROPOSALS
126. INAPPLICABLE PROVISIONS AND CLAUSES (Local Provision). [Applicable only for projects or delivery orders less than $100,000]

SECTION 00700

CONTRACT CLAUSES

1. FAR 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):

http://www.arnet.gov/far

(End of clause)

* - CONTRACT CLAUSES THAT MAY BE INCORPORATED BY REFERENCE

2. DFARS 252.201-7000 CONTRACTING OFFICER'S REPRESENTATIVE (DEC 1991)

(a) Definition.

"Contracting officer's representative" means an individual designated in accordance with subsection 201.602-2 of the Defense Federal Acquisition Regulation Supplement and authorized in writing by the contracting officer to perform specific technical or administrative functions.

(b) If the Contracting Officer designates a contracting officer's representative (COR), the Contractor will receive a copy of the written designation. It will specify the extent of the COR's authority to act on behalf of the contracting officer. The COR is not authorized to make any commitments or changes that will affect price, quality, quantity, delivery, or any other term or condition of the contract.

(End of clause)

3. *FAR 52.202-1 DEFINITIONS (DEC 2001) ALTERNATE I (MAY 2001)

a) “Agency head” or “head of the agency” means the Secretary (Attorney General, Administrator, Governor, Chairperson, or other chief official, as appropriate) of the agency, unless otherwise indicated, including any deputy or assistant chief official of the executive agency.

(b) “Commercial component” means any component that is a commercial item.

(c) “Commercial item” means—

(1) Any item, other than real property, that is of a type customarily used by the general public or by non-governmental entities for purposes other than governmental purposes, and that—

(i) Has been sold, leased, or licensed to the general public; or

(ii) Has been offered for sale, lease, or license to the general public;

(2) Any item that evolved from an item described in paragraph (c)(1) of this clause through advances in technology or performance and that is not yet available in the commercial marketplace, but will be available in the commercial marketplace in time to satisfy the delivery requirements under a Government solicitation;

(3) Any item that would satisfy a criterion expressed in paragraphs (c)(1) or (c)(2) of this clause, but for—

(i) Modifications of a type customarily available in the commercial marketplace; or

(ii) Minor modifications of a type not customarily available in the commercial marketplace made to meet Federal Government requirements. “Minor” modifications means modifications that do not significantly alter the nongovernmental function or essential physical characteristics of an item or component, or

change the purpose of a process. Factors to be considered in determining whether a modification is minor include the value and size of the modification and the comparative value and size of the final product. Dollar values and percentages may be used as guideposts, but are not conclusive evidence that a modification is minor;

(4) Any combination of items meeting the requirements of paragraphs (c)(1), (2), (3), or (5) of this clause that are of a type customarily combined and sold in combination to the general public;

(5) Installation services, maintenance services, repair services, training services, and other services if—

(i) Such services are procured for support of an item referred to in paragraph (c)(1), (2), (3), or (4) of this definition, regardless of whether such services are provided by the same source or at the same time as the item; and

(ii) The source of such services provides similar services contemporaneously to the general public under terms and conditions similar to those offered to the Federal Government

(6) Services of a type offered and sold competitively in substantial quantities in the commercial marketplace based on established catalog or market prices for specific tasks performed under standard commercial terms and conditions. This does not include services that are sold based on hourly rates without an established catalog or market price for a specific service performed. For purposes of these services—

(i) "Catalog price" means a price included in a catalog, price list, schedule, or other form that is regularly maintained by the manufacturer or vendor, is either published or otherwise available for inspection by customers, and states prices at which sales are currently, or were last, made to a significant number of buyers constituting the general public; and

(ii) "Market prices" means current prices that are established in the course of ordinary trade between buyers and sellers free to bargain and that can be substantiated through competition or from sources independent of the offerors.

(7) Any item, combination of items, or service referred to in paragraphs (c)(1) through (c)(6), notwithstanding the fact that the item, combination of items, or service is transferred between or among separate divisions, subsidiaries, or affiliates of a Contractor; or

(8) A nondevelopmental item, if the procuring agency determines the item was developed exclusively at private expense and sold in substantial quantities, on a competitive basis, to multiple State and local Governments.

(d) "Component" means any item supplied to the Government as part of an end item or of another component, except that for use in 52.225-9, and 52.225-11 see the definitions in 52.225-9(a) and 52.225-11(a).

(e) "Contracting Officer" means a person with the authority to enter into, administer, and/or terminate contracts and make related determinations and findings. The term includes certain authorized representatives of the Contracting Officer acting within the limits of their authority as delegated by the Contracting Officer.

(f) "Nondevelopmental item" means—

(1) Any previously developed item of supply used exclusively for governmental purposes by a Federal agency, a State or local government, or a foreign government with which the United States has a mutual defense cooperation agreement;

(2) Any item described in paragraph (f)(1) of this definition that requires only minor modification or modifications of a type customarily available in the commercial marketplace in order to meet the requirements of the procuring department or agency; or

(3) Any item of supply being produced that does not meet the requirements of paragraph (f)(1) or (f)(2) solely because the item is not yet in use.

(End of clause)

4. *FAR 52.203-3 GRATUITIES (APR 1984)

(a) The right of the Contractor to proceed may be terminated by written notice if, after notice and hearing, the agency head or a designee determines that the Contractor, its agent, or another representative--

(1) Offered or gave a gratuity (e.g., an entertainment or gift) to an officer, official, or employee of the Government; and

(2) Intended, by the gratuity, to obtain a contract or favorable treatment under a contract.

(b) The facts supporting this determination may be reviewed by any court having lawful jurisdiction.

(c) If this contract is terminated under paragraph (a) above, the Government is entitled--

(1) To pursue the same remedies as in a breach of the contract; and

(2) In addition to any other damages provided by law, to exemplary damages of not less than 3 nor more than 10 times the cost incurred by the Contractor in giving gratuities to the person concerned, as determined by the agency head or a designee. (This subparagraph (c)(2) is applicable only if this contract uses money appropriated to the Department of Defense.)

(d) The rights and remedies of the Government provided in this clause shall not be exclusive and are in addition to any other rights and remedies provided by law or under this contract.

5. *FAR 52.203-5 COVENANT AGAINST CONTINGENT FEES (APR 1984)

(a) The Contractor warrants that no person or agency has been employed or retained to solicit or obtain this contract upon an agreement or understanding for a contingent fee, except a bona fide employee or agency. For breach or violation of this warranty, the Government shall have the right to annul this contract without liability or, in its discretion, to deduct from the contract price or consideration, or otherwise recover, the full amount of the contingent fee.

(b) "Bona fide agency," as used in this clause, means an established commercial or selling agency, maintained by a contractor for the purpose of securing business, that neither exerts nor proposes to exert improper influence to solicit or obtain Government contracts nor holds itself out as being able to obtain any Government contract or contracts through improper influence.

"Bona fide employee," as used in this clause, means a person, employed by a contractor and subject to the contractor's supervision and control as to time, place, and manner of performance, who neither exerts nor proposes to exert improper influence to solicit or obtain Government contracts nor holds out as being able to obtain any Government contract or contracts through improper influence.

"Contingent fee," as used in this clause, means any commission, percentage, brokerage, or other fee that is contingent upon the success that a person or concern has in securing a Government contract.

"Improper influence," as used in this clause, means any influence that induces or tends to induce a Government employee or officer to give consideration or to act regarding a Government contract on any basis other than the merits of the matter.

6. *FAR 52.203-7 ANTI-KICKBACK PROCEDURES (JUL 1995)

(a) Definitions.

"Kickback," as used in this clause, means any money, fee, commission, credit, gift, gratuity, thing of value, or compensation of any kind which is provided, directly or indirectly, to any prime Contractor, prime Contractor employee, subcontractor, or subcontractor employee for the purpose of improperly obtaining or rewarding favorable treatment in connection with a prime contract or in connection with a subcontract relating to a prime contract. "Person," as used in this clause, means a corporation, partnership, business association of any kind, trust, joint-stock company, or individual.

"Prime contract," as used in this clause, means a contract or contractual action entered into by the United States for the purpose of obtaining supplies, materials, equipment, or services of any kind.

"Prime Contractor," as used in this clause, means a person who has entered into a prime contract with the United States.

"Prime Contractor employee," as used in this clause, means any officer, partner, employee, or agent of a prime Contractor.

"Subcontract," as used in this clause, means a contract or contractual action entered into by a prime Contractor or subcontractor for the purpose of obtaining supplies, materials, equipment, or services of any kind under a prime contract.

"Subcontractor," as used in this clause, (1) means any person, other than the prime Contractor, who offers to furnish or furnishes any supplies, materials, equipment, or services of any kind under a prime contract or a

subcontract entered into in connection with such prime contract, and (2) includes any person who offers to furnish or furnishes general supplies to the prime Contractor or a higher tier subcontractor.

"Subcontractor employee," as used in this clause, means any officer, partner, employee, or agent of a subcontractor.

(b) The Anti-Kickback Act of 1986 (41 U.S.C. 51-58) (the Act), prohibits any person from--

(1) Providing or attempting to provide or offering to provide any kickback;

(2) Soliciting, accepting, or attempting to accept any kickback; or

(3) Including, directly or indirectly, the amount of any kickback in the contract price charged by a prime Contractor to the United States or in the contract price charged by a subcontractor to a prime Contractor or higher tier subcontractor.

(c) (1) The Contractor shall have in place and follow reasonable procedures designed to prevent and detect possible violations described in paragraph (b) of this clause in its own operations and direct business relationships.

(2) When the Contractor has reasonable grounds to believe that a violation described in paragraph (b) of this clause may have occurred, the Contractor shall promptly report in writing the possible violation. Such reports shall be made to the inspector general of the contracting agency, the head of the contracting agency if the agency does not have an inspector general, or the Department of Justice.

(3) The Contractor shall cooperate fully with any Federal agency investigating a possible violation described in paragraph (b) of this clause.

(4) The Contracting Officer may

(i) offset the amount of the kickback against any monies owed by the United States under the prime contract and/or

(ii) direct that the Prime Contractor withhold from sums owed a subcontractor under the prime contract the amount of the kickback. The Contracting Officer may order that monies withheld under subdivision (c)(4)(ii) of this clause be paid over to the Government unless the Government has already offset those monies under subdivision (c)(4)(i) of this clause. In either case, the Prime Contractor shall notify the Contracting Officer when the monies are withheld.

(5) The Contractor agrees to incorporate the substance of this clause, including subparagraph (c)(5) but excepting subparagraph (c)(1), in all subcontracts under this contract which exceed $100,000.

7. *FAR 52.203-8 CANCELLATION, RESCISSION, AND RECOVERY OF FUNDS FOR ILLEGAL OR IMPROPER ACTIVITY (JAN 1997)

(a) If the Government receives information that a contractor or a person has engaged in conduct constituting a violation of subsection (a), (b), (c), or (d) of Section 27 of the Office of Federal Procurement Policy Act (41 U.S.C. 423) (the Act), as amended by section 4304 of the National Defense Authorization Act for Fiscal Year 1996 (Pub. L. 104-106), the Government may--

(1) Cancel the solicitation, if the contract has not yet been awarded or issued; or

(2) Rescind the contract with respect to which--

(i) The Contractor or someone acting for the Contractor has been convicted for an offense where the conduct constitutes a violation of subsection 27 (a) or (b) of the Act for the purpose of either--

(A) Exchanging the information covered by such subsections for anything of value; or

(B) Obtaining or giving anyone a competitive advantage in the award of a Federal agency procurement contract; or

(ii) The head of the contracting activity has determined, based upon a preponderance of the evidence, that the Contractor or someone acting for the Contractor has engaged in conduct constituting an offense punishable under subsection 27(e)(1) of the Act.

(b) If the Government rescinds the contract under paragraph (a) of this clause, the Government is entitled to recover, in addition to any penalty prescribed by law, the amount expended under the contract.

(c) The rights and remedies of the Government specified herein are not exclusive, and are in addition to any other rights and remedies provided by law, regulation, or under this contract.

8. DFARS 252.203-7001 PROHIBITION ON PERSONS CONVICTED OF FRAUD OR OTHER DEFENSE—CONTRACT-RELATED FELONIES (MARCH 1999)

(a) Definitions.

As used in this clause--

(1) "Arising out of a contract with the "DoD" means any any act in connection with--

(i) Attempting to obtain;

(ii) Obtaining; or

(iii) Performing a contract or first-tier subcontract of any department, or component of the Department of Defense (DoD).

(2) "Conviction of fraud or any other felony," means any conviction for fraud or a felony in violation of state or Federal criminal statutes, whether entered on a verdict or plea, including a plea of nolo contendere, for which sentence has been imposed.

(3) "Date of conviction," means the date judgement was entered against the individual.

(b) Any individual who is convicted after September 29, 1988 of fraud or any other felony arising out of a contract with the DoD is prohibited from serving--

(1) In a management or supervisory capacity on any DoD contract or first-tier subcontract;

(2) On board of directors of any DoD Contractor or first-tier subcontractor;

(3) As a consultant to any DoD Contractor or first-tier subcontractor; or

(4) In any other capacity with the authority to influence, advise, or control the decisions of any DoD contractor or subcontractor with regard to any DoD contract or first-tier subcontract.

(c) Unless waived, the prohibition in paragraph (b) of this clause applies for not less than five years from the date of conviction.

(d) 10 U.S.C. 2408 provides that a defense Contractor or first-tier subcontractor shall be subject to a criminal penalty of not more than $500,000 if convicted of knowingly--

(1) Employing a person under a prohibition in paragraph (b) of this clause;

(2) Allowing such a person to serve on the board of directors of Contractor or first-tier subcontractor.

(e) In addition to the criminal penalties contained in 10 U.S.C. 2408, the Government may consider other available remedies, such as--

(1) Suspension or debarment;

(2) Cancellation of the contract at no cost to the Government; or

(3) Termination of the contract for default.

(f) The Contractor may submit written requests for waiver of the prohibition in paragraph (b) of this clause to the Contracting Officer. Requests shall clearly identify--

(1) The person involved;

(2) The nature of the conviction and resultant sentence or punishment imposed;

(3) The reasons for the requested waiver; and

(4) An explanation of why a waiver is in the interest of national security.

(g) The Contractor agrees to include the substance of this clause appropriately modified to reflect the identity and relationship of the parties, in all first-tier subcontracts exceeding the simplified acquisition threshold in Part 2 of the Federal Acquisition Regulation, except those for commercial items or components.

(h) Pursuant to 10 U.S.C.2408(c), defense contractors and subcontractors may obtain information as to whether a particular has been convicted of fraud or any other felony arising out of a contract with the DoD by contracting The Office of Justice Programs, The Denial of Federal Benefits Office, U.S. Department of Justice, telephone (202) 616-3507.

9. DFARS 252.203-7002 DISPLAY OF DOD HOTLINE POSTER (DEC 1991) (<u>For Military Contracts Exceeding $5,000,000</u>)

(a) The Contractor shall display prominently in common work areas within business segments performing work under Department of Defense (DoD) contracts, DoD Hotline Posters prepared by DoD Office of the Inspector General.

(b) DoD Hotline Posters may be obtained from the DoD Inspector General, ATTN: Defense Hotline, 400 Army Navy Drive, Washington DC 22202-2884.

(c) The Contract need not comply with paragraph (a) of this clause if it has established a mechanism, such as a hotline, by which employees may report suspected instances of improper conduct, and instructions that encourage employees to make such reports.

10. *FAR 52.203-10 PRICE OR FEE ADJUSTMENT FOR ILLEGAL OR IMPROPER ACTIVITY (JAN 1997)

(a) The Government, at its election, may reduce the price of a fixed-price type contract and the total cost and fee under a cost-type contract of profit or fee determined as set forth in paragraph (b) of this clause if the head of the contracting activity or designee determines that there was a violation of subsection 27(a), (b), or (c) of the Office of Federal Procurement Policy Act, as amended (41 U.S.C. 423), as implemented in section 3.104 of the Federal Acquisition Regulation.

(b) The price or fee reduction referred to in paragraph (a) of this clause shall be--

(1) For cost-plus-fixed-fee contracts, the amount of the fee specified in the contract at the time of award;

(2) For cost-plus-incentive-fee contracts, the target fee specified in the contract at the time of award, notwithstanding any minimum fee or "fee floor" specified in the contract;

(3) For cost-plus-award-fee contracts--

(i) The base fee established in the contract at the time of contract award;

(ii) If no base fee is specified in the contract, 30 percent of the amount of each award fee otherwise payable to the Contractor for each award fee evaluation period or at each award fee determination point.

(4) For fixed-price-incentive contracts, the Government may--

(i) Reduce the contract target price and contract target profit both by an amount equal to the initial target profit specified in the contract at the time of contract award; or

(ii) If an immediate adjustment to the contract target price and contract target profit would have a significant adverse impact on the incentive price revision relationship under the contract, or adversely affect the contract financing provisions, the Contracting Officer may defer such adjustment until establishment of the total final price of the contract. The total final price established in accordance with the incentive price revision provisions of the contract shall be reduced by an amount equal to the initial target profit specified in the contract at the time of contract award and such reduced price shall be the total final contract price.

(5) For firm-fixed-price contracts, by 10 percent of the initial contract price or a profit amount determined by the Contracting Officer from records or documents in existence prior to the date of the contract award.

(c) The Government may, at its election, reduce a prime contractor's price or fee in accordance with the procedures of paragraph (b) of this clause for violations of the Act by its subcontractors by an amount not to exceed the amount of profit or fee reflected in the subcontract at the time the subcontract was first definitively priced.

(d) In addition to the remedies in paragraphs (a) and (c) of this clause, the Government may terminate this contract for default. The rights and remedies of the Government specified herein are not exclusive, and are in addition to any other rights and remedies provided by law or under this contract.

11. *FAR 52.203-12 LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (JUN 1997)

(a) Definitions.

"Agency," as used in this clause, means executive agency as defined in 2.101.

"Covered Federal Action," as used in this clause, means any of the following Federal actions:

(1) The awarding of any Federal contract.

(2) The making of any Federal grant.

(3) The making of any Federal loan.

(4) The entering into of any cooperative agreement.

(5) The extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

"Indian tribe" and "tribal organization," as used in this clause, have the meaning provided in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450B) and include Alaskan Natives.

"Influencing or attempting to influence," as used in this clause, means making, with the intent to influence, any communication to or appearance before an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any covered Federal action.

"Local government," as used in this clause, means a unit of government in a State and, if chartered, established, or otherwise recognized by a State for the performance of a governmental duty, including a local public authority, a special district, an intrastate district, a council of governments, a sponsor group representative organization, and any other instrumentality of a local government.

"Officer or employee of an agency," as used in this clause, includes the following individuals who are employed by an agency:

(1) An individual who is appointed to a position in the Government under title 5, United States Code, including a position under a temporary appointment.

(2) A member of the uniformed services, as defined in subsection 101(3), title 37, United States Code.

(3) A special Government employee, as defined in section 202, title 18, United States Code.

(4) An individual who is a member of a Federal advisory committee, as defined by the Federal Advisory Committee Act, title 5, United States Code, appendix 2.

"Person," as used in this clause, means an individual, corporation, company, association, authority, firm, partnership, society, State and local government, regardless of whether such entity is operated for profit, or not for profit. This term excludes an Indian tribe, tribal organization, or any other Indian organization with respect to expenditures specifically permitted by other Federal law.

"Reasonable compensation," as used in this clause, means, with respect to a regularly employed officer or employee of any person, compensation that is consistent with the normal compensation for such officer or employee for work that is not furnished to, not funded by, or not furnished in cooperation with the Federal Government.

"Reasonable payment," as used in this clause, means, with respect to professional and other technical services, a payment in an amount that is consistent with the amount normally paid for such services in the private sector.

"Recipient," as used in this clause, includes the Contractor and all subcontractors. This term excludes an Indian tribe, tribal organization, or any other Indian organization with respect to expenditures specifically permitted by other Federal law.

"Regularly employed," as used in this clause, means, with respect to an officer or employee of a person requesting or receiving a Federal contract, an officer or employee who is employed by such person for at least 130 working days within 1 year immediately preceding the date of the submission that initiates agency consideration of such person for receipt of such contract. An officer or employee who is employed by such person for less than 130 working days within 1 year immediately preceding the date of the submission that initiates agency consideration of such person shall be considered to be regularly employed as soon as he or she is employed by such person for 130 working days.

"State," as used in this clause, means a State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, a territory or possession of the United States, an agency or instrumentality of a State, and multi-State, regional, or interstate entity having governmental duties and powers.

(b) Prohibitions.

(1) Section 1352 of title 31, United States Code, among other things, prohibits a recipient of a Federal Contract, grant, loan, or cooperative agreement from using appropriated funds to pay any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any of the following covered Federal actions: The awarding of any Federal contract; the making of any Federal grant; the making of any Federal loan; the entering into of any cooperative agreement; or the modification of any Federal contract, grant, loan, or cooperative agreement.

(2) The Act also requires Contractors to furnish a disclosure if any funds other than Federal appropriated funds (including profit or fee received under a covered Federal transaction) have been paid, or will be paid, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a Federal contract, grant, loan, or cooperative agreement.

(3) The prohibitions of the Act do not apply under the following conditions:

(i) Agency and legislative liaison by own employees.

(A) The prohibition on the use of appropriated funds, in subparagraph (b)(1) of this clause, does not apply in the case of a payment of reasonable compensation made to an officer or employee of a person requesting or receiving a covered Federal action if the payment is for agency and legislative liaison activities not directly related to a covered Federal action.

(B) For purposes of subdivision (b)(3)(i)(A) of this clause, providing any information specifically requested by an agency or Congress is permitted at any time.

(C) The following agency and legislative liaison activities are permitted at any time where they are not related to a specific solicitation for any covered Federal action:

(1) Discussing with an agency the qualities and characteristics (including individual demonstrations) of the person's products or services, conditions or terms of sale, and service capabilities.

(2) Technical discussions and other activities regarding the application or adaptation of the person's products or services for an agency's use.

(D) The following agency and legislative liaison activities are permitted where they are prior to formal solicitation of any covered Federal action--

(1) Providing any information not specifically requested but necessary for an agency to make an informed decision about initiation of a covered Federal action;

(2) Technical discussions regarding the preparation of an unsolicited proposal prior to its official submission; and

(3) Capability presentations by persons seeking awards from an agency pursuant to the provisions of the Small Business Act, as amended by Pub. L. 95-507, and subsequent amendments.

(E) Only those services expressly authorized by subdivision (b)(3)(i)(A) of this clause are permitted under this clause.

(ii) Professional and technical services.

(A) The prohibition on the use of appropriated funds, in subparagraph (b)(1) of this clause, does not apply in the case of--

(1) A payment of reasonable compensation made to an officer or employee f a person requesting or receiving a covered Federal action or an extension, continuation, renewal, amendment, or modification of a covered Federal action, if payment is for professional or technical services rendered directly in the preparation, submission, or negotiation of any bid, proposal, or application for that Federal action or for meeting requirements imposed by or pursuant to law as a condition for receiving that Federal action.

(2) Any reasonable payment to a person, other than an officer or employee of a person requesting or receiving a covered Federal action or an extension, continuation, renewal, amendment, or modification of a covered Federal action if the payment is for professional or technical services rendered directly in the preparation, submission, or negotiation of any bid, proposal, or application for that Federal action or for meeting requirements imposed by or pursuant to law as a condition for receiving that Federal action. Persons other than officers or employees of a person requesting or receiving a covered Federal action include consultants and trade associations.

(B) For purposes of subdivision (b)(3)(ii)(A) of this clause, "professional and technical services" shall be limited to advice and analysis directly applying any professional or technical discipline. For example, drafting of a legal document accompanying a bid or proposal by a lawyer is allowable. Similarly, technical advice provided by an engineer on the performance or operational capability of a piece of equipment rendered directly in the negotiation of a contract is allowable. However, communications with the intent to influence made by a professional (such as a licensed lawyer) or a technical person (such as a licensed accountant) are not allowable under this section unless they provide advice and analysis directly applying their professional or technical expertise and unless the advice or analysis is rendered directly and solely in the preparation, submission or

negotiation of a covered Federal action. Thus, for example, communications with the intent to influence made by a lawyer that do not provide legal advice or analysis directly and solely related to the legal aspects of his or her client's proposal, but generally advocate one proposal over another are not allowable under this section because the lawyer is not providing professional legal services. Similarly, communications with the intent to influence made by an engineer providing an engineering analysis prior to the preparation or submission of a bid or proposal are not allowable under this section since the engineer is providing technical services but not directly in the preparation, submission or negotiation of a covered Federal action.

(C) Requirements imposed by or pursuant to law as a condition for receiving a covered Federal award include those required by law or regulation and any other requirements in the actual award documents.

(D) Only those services expressly authorized by subdivisions (b)(3)(ii)(A)(1) and (2) of this clause are permitted under this clause.

(E) The reporting requirements of FAR 3.803(a) shall not apply with respect to payments of reasonable compensation made to regularly employed officers or employees of a person.

(iii) Disclosure.

(A) The Contractor who requests or receives from an agency a Federal contract shall file with that agency a disclosure form, OMB standard form LLL, Disclosure of Lobbying Activities, if such person has made or has agreed to make any payment using nonappropriated funds (to include profits from any covered Federal action), which would be prohibited under subparagraph (b)(1) of this clause, if paid for with appropriated funds.

(B) The Contractor shall file a disclosure form at the end of each calendar quarter in which there occurs any event that materially affects the accuracy of the information contained in any disclosure form previously filed by such person under subparagraph (c)(1) of this clause. An event that materially affects the accuracy of the information reported includes--

(1) A cumulative increase of $25,000 or more in the amount paid or expected to be paid for influencing or attempting to influence a covered Federal action; or

(2) A change in the person(s) or individual(s) influencing or attempting to influence a covered Federal action; or

(3) A change in the officer(s), employee(s), or Member(s) contacted to influence or attempt to influence a covered Federal action.

(C) The Contractor shall require the submittal of a certification, and if required, a disclosure form by any person who requests or receives any subcontract exceeding $100,000 under the Federal contract.

(D) All subcontractor disclosure forms (but not certifications) shall be forwarded from tier to tier until received by the prime Contractor. The prime Contractor shall submit all disclosures to the Contracting Officer at the end of the calendar quarter in which the disclosure form is submitted by the subcontractor. Each subcontractor certification shall be retained in the subcontract file of the awarding Contractor.

(iv) Agreement. The Contractor agrees not to make any payment prohibited by this clause.

(v) Penalties.

(A) Any person who makes an expenditure prohibited under paragraph (a) of this clause or who fails to file or amend the disclosure form to be filed or amended by paragraph (b) of this clause shall be subject to civil penalties as provided for by 31 U.S.C. 1352. An imposition of a civil penalty does not prevent the Government from seeking any other remedy that may be applicable.

(B) Contractors may rely without liability on the representation made by their subcontractors in the certification and disclosure form.

(vi) Cost allowability. Nothing in this clause makes allowable or reasonable any costs which would otherwise be unallowable or unreasonable. Conversely, costs made specifically unallowable by the requirements in this clause will not be made allowable under any other provision.

12. *FAR 52.204-4 PRINTED OR COPIED DOUBLE-SIDED ON RECYCLED PAPER (AUG 2000)

(a) Definitions. As used in this clause—

"Postconsumer material" means a material or finished product that has served its intended use and has been discarded for disposal or recovery, having completed its life as a consumer item. Postconsumer material is a part of the broader category of "recovered material." For paper and paper products, postconsumer material means "postconsumer fiber" defined by the U.S. Environmental Protection Agency (EPA) as—

(1) Paper, paperboard, and fibrous materials from retail stores, office buildings, homes, and so forth, after they have passed through their end-usage as a consumer item, including: used corrugated boxes; old newspapers; old magazines; mixed waste paper; tabulating cards; and used cordage; or

(2) All paper, paperboard, and fibrous materials that enter and are collected from municipal solid waste; but not

(3) Fiber derived from printers' over-runs, converters' scrap, and over-issue publications.

"Printed or copied double-sided" means printing or reproducing a document so that information is on both sides of a sheet of paper.

"Recovered material," for paper and paper products, is defined by EPA in its Comprehensive Procurement Guideline as "recovered fiber" and means the following materials:

(1) Postconsumer fiber; and

(2) Manufacturing wastes such as—

(i) Dry paper and paperboard waste generated after completion of the papermaking process (that is, those manufacturing operations up to and including the cutting and trimming of the paper machine reel into smaller rolls or rough sheets) including: envelope cuttings, bindery trimmings, and other paper and paperboard waste resulting from printing, cutting, forming, and other converting operations; bag, box, and carton manufacturing wastes; and butt rolls, mill wrappers, and rejected unused stock; and

(ii) Repulped finished paper and paperboard from obsolete inventories of paper and paperboard manufacturers, merchants, wholesalers, dealers, printers, converters, or others.

(b) In accordance with Section 101 of Executive Order 13101 of September 14, 1998, Greening the Government through Waste Prevention, Recycling, and Federal Acquisition, the Contractor is encouraged to submit paper documents, such as offers, letters, or reports, that are printed or copied double-sided on recycled paper that meet minimum content standards specified in Section 505 of Executive Order 13101, when not using electronic commerce methods to submit information or data to the Government.

(c) If the Contractor cannot purchase high-speed copier paper, offset paper, forms bond, computer printout paper, carbonless paper, file folders, white wove envelopes, writing and office paper, book paper, cotton fiber paper, and cover stock meeting the 30 percent postconsumer material standard for use in submitting paper documents to the Government, it should use paper containing no less than 20 percent postconsumer material. This lesser standard should be used only when paper meeting the 30 percent postconsumer material standard is not obtainable at a reasonable price or does not meet reasonable performance standards.

(End of clause)

13. DFARS 252.204-7003 CONTROL OF GOVERNMENT PERSONNEL WORK PRODUCT (APR 1992)

The Contractor's procedures for protecting against unauthorized disclosure of information shall not require Department of Defense employees or members of the Armed Forces to relinquish control of their work products, whether classified or not, to the Contractor.

14. *FAR 52.209-6 PROTECTING THE GOVERNMENTS INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT (JUL 1995)

(a) The Government suspends or debars Contractors to protect the Government's interests. The Contractor shall not enter into any subcontract in excess of $25,000 with a Contractor that is debarred, suspended, or proposed for debarment unless there is a compelling reason to do so.

(b) The Contractor shall require each proposed first-tier subcontractor, whose subcontract will exceed $25,000, to disclose to the Contractor, in writing, whether as of the time of award of the subcontract, the subcontractor, or its principals, is or is not debarred, suspended, or proposed for debarment by the Federal Government.

(c) A corporate office or a designee of the Contractor shall notify the Contracting Officer, in writing, before entering into a subcontract with a party that is debarred, suspended, or proposed for debarment (see FAR 9.404 for information on the List of Parties Excluded from Procurement Programs). The notice must include the following:

(1) The name of the subcontractor.

(2) The Contractor's knowledge of the reasons for the subcontractor being on the List of Parties Excluded from Procurement Programs.

(3) The compelling reason(s) for doing business with the subcontractor notwithstanding its inclusion on the List of Parties Excluded From Procurement Programs.

(4) The systems and procedures the Contractor has established to ensure that it is fully protecting the Government's interests when dealing with such subcontractor in view of the specific basis for the party's debarment, suspension, or proposed debarment.

15. DFARS 252.209-7004 SUBCONTRACTING WITH FIRMS THAT ARE OWNED OR CONTROLLED BY THE GOVERNMENT OF A TERRORIST COUNTRY (MAR 1998)

(a) Unless the Government determines that there is a compelling reason to do so, the Contractor shall not enter into any subcontract in excess of $25,000 with a firm, or a subsidiary of a firm, that is identified, on the List of Parties Excluded from Federal Procurement and Nonprocurement Programs, as being ineligible for the award of Defense contracts or subcontracts because it is owned or controlled by the government of a terrorist country.

(b) A corporate officer or a designee of the Contractor shall notify the Contracting Officer, in writing, before entering into a subcontract with a party that is identified, on the List of Parties Excluded from Federal Procurement and Nonprocurement Programs, as being ineligible for the award of Defense contracts or subcontracts because it is owned or controlled by the government of a terrorist country. The notice must include the name of the proposed subcontractor and the compelling reason(s) for doing business with the subcontractor notwithstanding its inclusion on the List of Parties Excluded From Federal Procurement and Nonprocurement Programs.

(End of clause)

16. *FAR 52.211-15 DEFENSE PRIORITY AND ALLOCATION REQUIREMENTS (SEP 1990) [<u>For Military Contract's Only</u>]

This is a rated order certified for national defense use, and the Contractor shall follow all the requirements of the Defense Priorities and Allocations System regulation (15 CFR 700).

17. FAR 52.211-18 VARIATION IN ESTIMATED QUANTITY (APR 1984)

If the quantity of a unit-priced item in this contract is an estimated quantity and the actual quantity of the unit-priced item varies more than 15 percent above or below the estimated quantity, an equitable adjustment in the contract price shall be made upon demand of either party. The equitable adjustment shall be based upon any increase or decrease in costs due solely to the variation above 115 percent or below 85 percent of the estimated quantity. If the quantity variation is such as to cause an increase in the time necessary for completion, the Contractor may request, in writing, an extension of time, to be received by the Contracting Officer within 10 days from the beginning of the delay, or within such further period as may be granted by the Contracting Officer before the date of final settlement of the contract. Upon the receipt of a written request for an extension, the Contracting

Officer shall ascertain the facts and make an adjustment for extending the completion date as, in the judgement of the Contracting Officer, is justified.

18. *FAR 52.214-26 AUDIT AND RECORDS--SEALED BIDDING (OCT 1997)

(a) As used in this clause, "records" includes books, documents, accounting procedures and practices, and other data, regardless of whether such items are in written form, in the form of computer data, or in any other form.

(b) Cost or pricing data. If the Contractor has submitted cost or pricing data in connection with the pricing of any modification to this contract, the Contracting Officer or authorized representative of the Contracting Officer, in order to evaluate the accuracy, completeness, and currency of the cost or pricing data, shall have the right to examine and audit all of the Contractor's records, including computations and projections related to--

(1) The proposal for the modification;

(2) The discussions conducted on the proposal(s), including those related to negotiating;

(3) Pricing of the modification; or

(4 Performance of the modification.

(c) Comptroller General. In the case of pricing any modification, the Comptroller General of the United States, or an authorized representative, shall have the same rights as specified in paragraph (b) of this clause.

(d) Availability. The Contractor shall make available at its office at all reasonable times the materials described in paragraph (b) of this clause, for examination, audit, or reproduction, until 3 years after final payment under this contract, or for any other period specified in Subpart 4.7 of the Federal Acquisition Regulation (FAR). FAR Subpart 4.7, Contractor Records Retention, in effect on the date of this contract, is incorporated by reference in its entirety and made a part of this contract.

(1) If this contract is completely or partially terminated, the records relating to the work terminated shall be made available for 3 years after any resulting final termination settlement.

(2) Records pertaining to appeals under the Disputes clause or to litigation or the settlement of claims arising under or relating to the performance of this contract shall be made available until disposition of such appeals, litigation, or claims.

(e) The Contractor shall insert a clause containing all the provisions of this clause, including this paragraph (e), in all subcontracts expected to exceed the threshold in FAR 15.403-4(a)(1) for submission of cost or pricing data.

19. *FAR 52.214-27 PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA—MODIFICATIONS--SEALED BIDDING (OCT 1997)

(a) This clause shall become operative only for any modification to this contract involving aggregate increases and/or decreases in costs, plus applicable profits, expected to exceed the threshold for submission of cost or pricing data at FAR 15.403-4(a)(1), except that this clause does not apply to any modification if an exception under FAR 15.403-1(b) applies.

(b) If any price, including profit, negotiated in connection with any modification under this clause, was increased by any significant amount because

(1) The Contractor or a subcontractor furnished cost or pricing data that were not complete, accurate, and current as certified in its Certificate of Current Cost or Pricing Data,

(2) a subcontractor or prospective subcontractor furnished the Contractor cost or pricing data that were not complete, accurate, and current as certified in the Contractor's Certificate of Current Cost or Pricing Data, or

(3) Any of these parties furnished data of any description that were not accurate, the price shall be reduced accordingly and the contract shall be modified to reflect the reduction. This right to a price reduction is limited to that resulting from defects in data relating to modifications for which this clause becomes operative under paragraph (a) of this clause.

(c) Any reduction in the contract price under paragraph (b) above due to defective data from a prospective subcontractor that was not subsequently awarded the subcontract shall be limited to the amount, plus applicable overhead and profit markup, by which

(1) the actual subcontract or

(2) the actual cost to the Contractor, if there was no subcontract, was less than the prospective subcontract cost estimate submitted by the Contractor; provided, that the actual subcontract price was not itself affected by defective cost or pricing data.

(d) (1) If the Contracting Officer determines under paragraph (b) of this clause that a price or cost reduction should be made, the Contractor agrees not to raise the following matters as a defense:

(i) The Contractor or subcontractor was a sole source supplier or otherwise was in a superior bargaining position and thus the price of the contract would not have been modified even if accurate, complete, and current cost or pricing data had been submitted.

(ii) The Contracting Officer should have known that the cost or pricing data in issue were defective even though the Contractor or subcontractor took no affirmative action to bring the character of the data to the attention of the Contracting Officer.

(iii) The contract was based on an agreement about the total cost of the contract and there was no agreement about the cost of each item procured under the contract.

(iv) The Contractor or subcontractor did not submit a Certificate of Current Cost or Pricing Data.

(2) (i) Except as prohibited by subdivision (d)(2)(ii) of this clause, an offset in an amount determined appropriate by the Contracting Officer based upon the facts shall be allowed against the amount of a contract price reduction if--

(A) The Contractor certifies to the Contracting Officer that, to the best of the Contractor's knowledge and belief, the Contractor is entitled to the offset in the amount requested; and

(B) The Contractor proves that the cost or pricing data were available before the date of agreement on the price of the contract (or price of the modification) and that the data were not submitted before such date.

(ii) An offset shall not be allowed if--

(A) The understated data was known by the Contractor to be understated when the Certificate of Current Cost or Pricing Data was signed; or

(B) The Government proves that the facts demonstrate that the contract price would not have increased in the amount to be offset even if the available data had been submitted before the date of agreement on price.

(e) If any reduction in the contract price under this clause reduces the price of items for which payment was made prior to the date of the modification reflecting the price reduction, the Contractor shall be liable to and shall pay the United States at the time such overpayment is repaid--

(1) Simple interest on the amount of such overpayment to be computed from the date(s) of overpayment to the Contractor to the date the Government is repaid by the Contractor at the applicable underpayment rate effective for each quarter prescribed by the Secretary of the Treasury under 26 U.S.C. 6621(a)(2); and

(2) A penalty equal to the amount of the overpayment, if the Contractor of subcontractor knowingly submitted cost or pricing data which were incomplete, inaccurate, or noncurrent.

20. *FAR 52.214-28 SUBCONTRACTOR COST OR PRICING DATA--MODIFICATIONS—SEALED BIDDING (OCT 1997)

(a) The requirements of paragraphs (b) and (c) of this clause shall--

(1) Become operative only for any modification to this contract involving aggregate increases and/or decreases in costs, plus applicable profits, expected to exceed the threshold for submission of cost or pricing data at FAR 15.403-4(a)(1); and

(2) Be limited to such modifications.

(b) Before awarding any subcontract expected to exceed the threshold for submission of cost or pricing data at FAR 15.403-4(a)(1), on the date of agreement on price or the date of award, whichever is later; or before pricing any subcontract modification involving aggregate increases and/or decreases in costs, plus applicable profits, expected to exceed the threshold for submission of cost or pricing data at FAR 15.403-4(a)(1), the Contractor shall require the subcontractor to submit cost or pricing data (actually or by specific identification in writing), unless an exception under FAR 15.403-1(b) applies.

(c) The Contractor shall require the subcontractor to certify in substantially the form prescribed in FAR subsection 15.406-2 that, to the best of its knowledge and belief, the data submitted under paragraph (b) above were accurate, complete, and current as of the date of agreement on the negotiated price of the subcontract or subcontract modification.

(d) The Contractor shall insert the substance of this clause, including this paragraph (d), in each subcontract that when entered into, exceeds the threshold for submission of cost or pricing data at FAR 15.403-4(a)(1).

(End of clause)

21. *FAR 52.219-4 NOTICE OF PRICE EVALUATION PREFERENCE FOR HUBZONE SMALL BUSINESS CONCERNS (JAN 1999)

(a) *Definition*. "HUBZone small business concern," as used in this clause, means a small business concern that appears on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration.

(b) *Evaluation preference*. (1) Offers will be evaluated by adding a factor of 10 percent to the price of all offers, except—

(i) Offers from HUBZone small business concerns that have not waived the evaluation preference;

(ii) Otherwise successful offers from small business concerns;

(iii) Otherwise successful offers of eligible products under the Trade Agreements Act when the dollar threshold for application of the Act is exceeded (see 25.402 of the Federal Acquisition Regulation (FAR)); and

(iv) Otherwise successful offers where application of the factor would be inconsistent with a Memorandum of Understanding or other international agreement with a foreign government.

(2) The factor of 10 percent shall be applied on a line item basis or to any group of items on which award may be made. Other evaluation factors described in the solicitation shall be applied before application of the factor.

(3) A concern that is both a HUBZone small business concern and a small disadvantaged business concern will receive the benefit of both the HUBZone small business price evaluation preference and the small disadvantaged business price evaluation adjustment (see FAR clause 52.219-23). Each applicable price evaluation preference or adjustment shall be calculated independently against an offeror's base offer. These individual preference amounts shall be added together to arrive at the total evaluated price for that offer.

(c) *Waiver of evaluation preference*. A HUBZone small business concern may elect to waive the evaluation preference, in which case the factor will be added to its offer for evaluation purposes. The agreements in paragraph (d) of this clause do not apply if the offeror has waived the evaluation preference.

[ ] Offeror elects to waive the evaluation preference.

(d) *Agreement*. A HUBZone small business concern agrees that in the performance of the contract, in the case of a contract for—

(1) Services (except construction), at least 50 percent of the cost of personnel for contract performance will be spent for employees of the concern or employees of other HUBZone small business concerns;

(2) Supplies (other than procurement from a nonmanufacturer of such supplies), at least 50 percent of the cost of manufacturing, excluding the cost of materials, will be performed by the concern or other HUBZone

small business concerns;

(3) General construction, at least 15 percent of the cost of the contract performance incurred for personnel will be will be spent on the concern's employees or the employees of other HUBZone small business concerns; or

(4) Construction by special trade contractors, at least 25 percent of the cost of the contract performance incurred for personnel will be spent on the concern's employees or the employees of other HUBZone small business concerns.

(e) A HUBZone joint venture agrees that in the performance of the contract, the applicable percentage specified in paragraph (d) of this clause will be performed by the HUBZone small business participant or participants.

(f) A HUBZone small business concern nonmanufacturer agrees to furnish in performing this contract only end items manufactured or produced by HUBZone small business manufacturer concerns. This paragraph does not apply in connection with construction or service contracts.

(End of clause)

22. *FAR 52.219-8 UTILIZATION OF SMALL BUSINESS CONCERNS (OCT 2000)

(a) It is the policy of the United States that small business concerns, veteran-owned small business concerns, service-disabled veteran-owned small business concerns, HUBZone small business concerns, small disadvantaged business concerns, and women-owned small business concerns shall have the maximum practicable opportunity to participate in performing contracts let by any Federal agency, including contracts and subcontracts for subsystems, assemblies, components, and related services for major systems. It is further the policy of the United States that its prime contractors establish procedures to ensure the timely payment of amounts due pursuant to the terms of their subcontracts with small business concerns, veteran-owned small business concerns, service-disabled veteran-owned small business concerns, HUBZone small business concerns, small disadvantaged business concerns, and women-owned small business concerns.

(b) The Contractor hereby agrees to carry out this policy in the awarding of subcontracts to the fullest extent consistent with efficient contract performance. The Contractor further agrees to cooperate in any studies or surveys as may be conducted by the United States Small Business Administration or the awarding agency of the United States as may be necessary to determine the extent of the Contractor ’s compliance with this clause.

(c) *Definitions*. As used in this contract—

“HUBZone small business concern” means a small business concern that appears on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration .

“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 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 small business as defined pursuant to Section 3 of the Small Business Act and relevant regulations promulgated pursuant thereto.

“Small disadvantaged business concern” means a small business concern that represents, as part of its offer that—

(1) It has received certification as a small disadvantaged business concern consistent with 13 CFR part 124, Subpart B;

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

(3) Where the concern is owned by one or more 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

(4) It is identified, on the date of its representation, as a certified small disadvantaged business in the database maintained by the Small Business Administration (PRO-Net).

"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, or, 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) Contractors acting in good faith may rely on written representations by their subcontractors regarding their status as a small business concern, a veteran-owned small business concern, a service-disabled veteran-owned small business concern, a HUBZone small business concern, a small disadvantaged business concern, or a women-owned small business concern.

(End of clause)

23. *FAR 52.219-9 SMALL BUSINESS SUBCONTRACTING PLAN (JAN 2002) [<u>When Contracting By Negotiations</u>]

(a) This clause does not apply to small business concerns.

(b) *Definitions*. As used in this clause—

"Commercial item" means a product or service that satisfies the definition of commercial item in section 2.101 of the Federal Acquisition Regulation.

"Commercial plan" means a subcontracting plan (including goals) that covers the offeror's fiscal year and that applies to the entire production of commercial items sold by either the entire company or a portion thereof (*e.g.*, division, plant, or product line).

"Individual contract plan" means a subcontracting plan that covers the entire contract period (including option periods), applies to a specific contract, and has goals that are based on the offeror's planned subcontracting in support of the specific contract, except that indirect costs incurred for common or joint purposes may be allocated on a prorated basis to the contract.

"Master plan" means a subcontracting plan that contains all the required elements of an individual contract plan, except goals, and may be incorporated into individual contract plans, provided the master plan has been approved.

"Subcontract" means any agreement (other than one involving an employer-employee relationship) entered into by a Federal Government prime Contractor or subcontractor calling for supplies or services required for performance of the contract or subcontract.

(c) The offeror, upon request by the Contracting Officer, shall submit and negotiate a subcontracting plan, where applicable, that separately addresses subcontracting with small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business concerns, small disadvantaged business, and women-owned small business concerns. If the offeror is submitting an individual contract plan, the plan must separately address subcontracting with small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns, with a separate part for the basic contract and separate parts for each option (if any). The plan shall be included in and made a part of the resultant contract. The subcontracting plan shall be negotiated within the time specified by the Contracting Officer. Failure to submit and negotiate the subcontracting plan shall make the offeror ineligible for award of a contract.

(d) The offeror's subcontracting plan shall include the following:

(1) Goals, expressed in terms of percentages of total planned subcontracting dollars, for the use of small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns as subcontractors. The offeror shall include all subcontracts that contribute to contract performance, and may

include a proportionate share of products and services that are normally allocated as indirect costs.

(2) A statement of—

(i) Total dollars planned to be subcontracted for an individual contract plan; or the offeror's total projected sales, expressed in dollars, and the total value of projected subcontracts to support the sales for a commercial plan;

(ii) Total dollars planned to be subcontracted to small business concerns;

(iii) Total dollars planned to be subcontracted to veteran-owned small business concerns;

(iv) Total dollars planned to be subcontracted to service-disabled veteran-owned small business;

(v) Total dollars planned to be subcontracted to HUBZone small business concerns;

(vi) Total dollars planned to be subcontracted to small disadvantaged business concerns; and

(vii) Total dollars planned to be subcontracted to women-owned small business concerns.

(3) A description of the principal types of supplies and services to be subcontracted, and an identification of the types planned for subcontracting to—

(i) Small business concerns;

(ii) Veteran-owned small business concerns;

(iii) Service-disabled veteran-owned small business concerns;

(iv) HUBZone small business concerns;

(v) Small disadvantaged business concerns; and

(vi) Women-owned small business concerns.

(4) A description of the method used to develop the subcontracting goals in paragraph (d)(1) of this clause.

(5) A description of the method used to identify potential sources for solicitation purposes (*e.g.*, existing company source lists, the Procurement Marketing and Access Network (PRO-Net) of the Small Business Administration (SBA), veterans service organizations, the National Minority Purchasing Council Vendor Information Service, the Research and Information Division of the Minority Business Development Agency in the Department of Commerce, or small, HUBZone, small disadvantaged, and women-owned small business trade associations). A firm may rely on the information contained in PRO-Net as an accurate representation of a concern's size and ownership characteristics for the purposes of maintaining a small, veteran-owned small, service-disabled veteran-owned small, HUBZone small, small disadvantaged, and women-owned small business source list. Use of PRONet as its source list does not relieve a firm of its responsibilities (*e.g.*, outreach, assistance, counseling, or publicizing subcontracting opportunities) in this clause.

(6) A statement as to whether or not the offeror included indirect costs in establishing subcontracting goals, and a description of the method used to determine the proportionate share of indirect costs to be incurred with—

(i) Small business concerns;

(ii) Veteran-owned small business concerns;

(iii) Service-disabled veteran-owned small business concerns;

(iv) HUBZone small business concerns;

(v) Small disadvantaged business concerns; and

(vi) Women-owned small business concerns.

(7) The name of the individual employed by the offeror who will administer the offeror's subcontracting program, and a description of the duties of the individual.

(8) A description of the efforts the offeror will make to assure that small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns have an equitable opportunity to compete for subcontracts.

(9) Assurances that the offeror will include the clause of this contract entitled "Utilization of Small Business Concerns" in all subcontracts that offer further subcontracting opportunities, and that the offeror will require all subcontractors (except small business concerns) that receive subcontracts in excess of $500,000 ($1,000,000 for construction of any public facility) to adopt a subcontracting plan that complies with the requirements of this clause.

(10) Assurances that the offeror will—

(i) Cooperate in any studies or surveys as may be required;

(ii) Submit periodic reports so that the Government can determine the extent of compliance by the offeror with the subcontracting plan;

(iii) Submit Standard Form (SF) 294, Subcontracting Report for Individual Contracts, and/or SF 295, Summary Subcontract Report, in accordance with paragraph (j) of this clause. The reports shall provide information on subcontract awards to small business concerns, veteran-owned small business concerns, service-disabled veteran-owned small business concerns, HUBZone small business concerns, small disadvantaged business concerns, women-owned small business concerns, and Historically Black Colleges and Universities and Minority Institutions. Reporting shall be in accordance with the instructions on the forms or as provided in agency regulations.

(iv) Ensure that its subcontractors agree to submit SF 294 and SF 295.

(11) A description of the types of records that will be maintained concerning procedures that have been adopted to comply with the requirements and goals in the plan, including establishing source lists; and a description of the offeror's efforts to locate small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns and award subcontracts to them. The records shall include at least the following (on a plant-wide or company-wide basis, unless otherwise indicated):

(i) Source lists (*e.g.*, PRO-Net), guides, and other data that identify small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns.

(ii) Organizations contacted in an attempt to locate sources that are small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, or women-owned small business concerns.

(iii) Records on each subcontract solicitation resulting in an award of more than $100,000, indicating—

(A) Whether small business concerns were solicited and, if not, why not;

(B) Whether veteran-owned small business concerns were solicited and, if not, why not;

(C) Whether service-disabled veteran-owned small business concerns were solicited and, if not, why not;

(D) Whether HUBZone small business concerns were solicited and, if not, why not;

(E) Whether small disadvantaged business concerns were solicited and, if not, why not;

(F) Whether women-owned small business concerns were solicited and, if not, why not; and

(G) If applicable, the reason award was not made to a small business concern.

(iv) Records of any outreach efforts to contact—

(A) Trade associations;

(B) Business development organizations;

(C) Conferences and trade fairs to locate small, HUBZone small, small disadvantaged, and women-owned small business sources; and

(D) Veterans service organizations.

(v) Records of internal guidance and encouragement provided to buyers through—

(A) Workshops, seminars, training, etc.; and

(B) Monitoring performance to evaluate compliance with the program's requirements.

(vi) On a contract-by-contract basis, records to support award data submitted by the offeror to the Government, including the name, address, and business size of each subcontractor. Contractors having commercial plans need not comply with this requirement.

(e) In order to effectively implement this plan to the extent consistent with efficient contract performance, the Contractor shall perform the following functions:

(1) Assist small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns by arranging solicitations, time for the preparation of bids, quantities, specifications, and delivery schedules so as to

facilitate the participation by such concerns. Where the Contractor's lists of potential small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business subcontractors are excessively long, reasonable effort shall be made to give all such small business concerns an opportunity to compete over a period of time.

(2) Provide adequate and timely consideration of the potentialities of small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns in all "make-or-buy" decisions.

(3) Counsel and discuss subcontracting opportunities with representatives of small business, veteran-owned small business, service-disabled veteran-owned small business , HUBZone small business, small disadvantaged business, and women-owned small business firms.

(4) Provide notice to subcontractors concerning penalties and remedies for misrepresentations of business status as small, veteran-owned small business, HUBZone small, small disadvantaged, or women-owned small business for the purpose of obtaining a subcontract that is to be included as part or all of a goal contained in the Contractor's subcontracting plan.

(f) A master plan on a plant or division-wide basis that contains all the elements required by paragraph (d) of this clause, except goals, may be incorporated by reference as a part of the subcontracting plan required of the offeror by this clause; provided —

(1) The master plan has been approved;

(2) The offeror ensures that the master plan is updated as necessary and provides copies of the approved master plan, including evidence of its approval, to the Contracting Officer; and

(3) Goals and any deviations from the master plan deemed necessary by the Contracting Officer to satisfy the requirements of this contract are set forth in the individual subcontracting plan.

(g) A commercial plan is the preferred type of subcontracting plan for contractors furnishing commercial items. The commercial plan shall relate to the offeror's planned subcontracting generally, for both commercial and Government business, rather than solely to the Government contract. Commercial plans are also preferred for subcontractors that provide commercial items under a prime contract, whether or not the prime contractor is supplying a commercial item.

(h) Prior compliance of the offeror with other such subcontracting plans under previous contracts will be considered by the Contracting Officer in determining the responsibility of the offeror for award of the contract.

(i) The failure of the Contractor or subcontractor to comply in good faith with—

(1) The clause of this contract entitled "Utilization Of Small Business Concerns;" or

(2) An approved plan required by this clause, shall be a material breach of the contract.

(j) The Contractor shall submit the following reports:

(1) *Standard Form 294, Subcontracting Report for Individual Contracts.* This report shall be submitted to the Contracting Officer semiannually and at contract completion. The report covers subcontract award data related to this contract. This report is not required for commercial plans.

(2) *Standard Form 295, Summary Subcontract Report.* This report encompasses all of the contracts with the awarding agency. It must be submitted semi-annually for contracts with the Department of Defense and annually for contracts with civilian agencies. If the reporting activity is covered by a commercial plan, the reporting activity must report annually all subcontract awards under that plan. All reports submitted at the close of each fiscal year (both individual and commercial plans) shall include a breakout, in the Contractor's format, of subcontract awards, in whole dollars, to small disadvantaged business concerns by North American Industry Classification System (NAICS) Industry Subsector. For a commercial plan, the Contractor may obtain from each of its subcontractors a predominant NAICS Industry Subsector and report all awards to that subcontractor under its predominant NAICS Industry Subsector.

(End of clause)

24. *FAR 52.219-9 SMALL BUSINESS SUBCONTRACTING PLAN (JAN 2002) --ALTERNATE I (OCT 2001) [<u>When Contracting By Sealed Bidding</u>]

(a) This clause does not apply to small business concerns.

(b) *Definitions*. As used in this clause—

"Commercial item" means a product or service that satisfies the definition of commercial item in section 2.101 of the Federal Acquisition Regulation.

"Commercial plan" means a subcontracting plan (including goals) that covers the offeror's fiscal year and that applies to the entire production of commercial items sold by either the entire company or a portion thereof (*e.g.*, division, plant, or product line).

"Individual contract plan" means a subcontracting plan that covers the entire contract period (including option periods), applies to a specific contract, and has goals that are based on the offeror's planned subcontracting in support of the specific contract, except that indirect costs incurred for common or joint purposes may be allocated on a prorated basis to the contract.

"Master plan" means a subcontracting plan that contains all the required elements of an individual contract plan, except goals, and may be incorporated into individual contract plans, provided the master plan has been approved.

"Subcontract" means any agreement (other than one involving an employer-employee relationship) entered into by a Federal Government prime Contractor or subcontractor calling for supplies or services required for performance of the contract or subcontract.

(c) The apparent low bidder, upon request by the Contracting Officer, shall submit a subcontracting plan, where applicable, that separately addresses subcontracting with small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns. If the bidder is submitting an individual contract plan, the plan must separately address subcontracting with small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns, with a separate part for the basic contract and separate parts for each option (if any). The plan shall be included in and made a part of the resultant contract. The subcontracting plan shall be submitted within the time specified by the Contracting Officer. Failure to submit the subcontracting plan shall make the bidder ineligible for the award of a contract.

(d) The offeror's subcontracting plan shall include the following:

(1) Goals, expressed in terms of percentages of total planned subcontracting dollars, for the use of small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns as subcontractors. The offeror shall include all subcontracts that contribute to contract performance, and may include a proportionate share of products and services that are normally allocated as indirect costs.

(2) A statement of—

(i) Total dollars planned to be subcontracted for an individual contract plan; or the offeror's total projected sales, expressed in dollars, and the total value of projected subcontracts to support the sales for a commercial plan;

(ii) Total dollars planned to be subcontracted to small business concerns;

(iii) Total dollars planned to be subcontracted to veteran-owned small business concerns;

(iv) Total dollars planned to be subcontracted to service-disabled veteran-owned small business;

(v) Total dollars planned to be subcontracted to HUBZone small business concerns;

(vi) Total dollars planned to be subcontracted to small disadvantaged business concerns; and

(vii) Total dollars planned to be subcontracted to women-owned small business concerns.

(3) A description of the principal types of supplies and services to be subcontracted, and an identification of the types planned for subcontracting to—

(i) Small business concerns;

(ii) Veteran-owned small business concerns;

(iii) Service-disabled veteran-owned small business concerns;

(iv) HUBZone small business concerns;

(v) Small disadvantaged business concerns; and

(vi) Women-owned small business concerns.

(4) A description of the method used to develop the subcontracting goals in paragraph (d)(1) of this clause.

(5) A description of the method used to identify potential sources for solicitation purposes (*e.g.*, existing company source lists, the Procurement Marketing and Access Network (PRO-Net) of the Small Business Administration (SBA), veterans service organizations, the National Minority Purchasing Council Vendor

Information Service, the Research and Information Division of the Minority Business Development Agency in the Department of Commerce, or small, HUBZone, small disadvantaged, and women-owned small business trade associations). A firm may rely on the information contained in PRO-Net as an accurate representation of a concern's size and ownership characteristics for the purposes of maintaining a small, veteran-owned small, service-disabled veteran-owned small, HUBZone small, small disadvantaged, and women-owned small business source list. Use of PRONet as its source list does not relieve a firm of its responsibilities (*e.g.*, outreach, assistance, counseling, or publicizing subcontracting opportunities) in this clause.

(6) A statement as to whether or not the offeror included indirect costs in establishing subcontracting goals, and a description of the method used to determine the proportionate share of indirect costs to be incurred with—

(i) Small business concerns;

(ii) Veteran-owned small business concerns;

(iii) Service-disabled veteran-owned small business concerns;

(iv) HUBZone small business concerns;

(v) Small disadvantaged business concerns; and

(vi) Women-owned small business concerns.

(7) The name of the individual employed by the offeror who will administer the offeror's subcontracting program, and a description of the duties of the individual.

(8) A description of the efforts the offeror will make to assure that small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns have an equitable opportunity to compete for subcontracts.

(9) Assurances that the offeror will include the clause of this contract entitled "Utilization of Small Business Concerns" in all subcontracts that offer further subcontracting opportunities, and that the offeror will require all subcontractors (except small business concerns) that receive subcontracts in excess of $500,000 ($1,000,000 for construction of any public facility) to adopt a subcontracting plan that complies with the requirements of this clause.

(10) Assurances that the offeror will—

(i) Cooperate in any studies or surveys as may be required;

(ii) Submit periodic reports so that the Government can determine the extent of compliance by the offeror with the subcontracting plan;

(iii) Submit Standard Form (SF) 294, Subcontracting Report for Individual Contracts, and/or SF 295, Summary Subcontract Report, in accordance with paragraph (j) of this clause. The reports shall provide information on subcontract awards to small business concerns, veteran-owned small business concerns, service-disabled veteran-owned small business concerns, HUBZone small business concerns, small disadvantaged business concerns, women-owned small business concerns, and Historically Black Colleges and Universities and Minority Institutions. Reporting shall be in accordance with the instructions on the forms or as provided in agency regulations.

(iv) Ensure that its subcontractors agree to submit SF 294 and SF 295.

(11) A description of the types of records that will be maintained concerning procedures that have been adopted to comply with the requirements and goals in the plan, including establishing source lists; and a description of the offeror's efforts to locate small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns and award subcontracts to them. The records shall include at least the following (on a plant-wide or company-wide basis, unless otherwise indicated):

(i) Source lists (*e.g.*, PRO-Net), guides, and other data that identify small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns.

(ii) Organizations contacted in an attempt to locate sources that are small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, or women-owned small business concerns.

(iii) Records on each subcontract solicitation resulting in an award of more than $100,000, indicating—

(A) Whether small business concerns were solicited and, if not, why not;

(B) Whether veteran-owned small business concerns were solicited and, if not,

why not;

(C) Whether service-disabled veteran-owned small business concerns were solicited and, if not, why not;

(D) Whether HUBZone small business concerns were solicited and, if not, why not;

(E) Whether small disadvantaged business concerns were solicited and, if not, why not;

(F) Whether women-owned small business concerns were solicited and, if not, why not; and

(G) If applicable, the reason award was not made to a small business concern.

(iv) Records of any outreach efforts to contact—

(A) Trade associations;

(B) Business development organizations;

(C) Conferences and trade fairs to locate small, HUBZone small, small disadvantaged, and women-owned small business sources; and

(D) Veterans service organizations.

(v) Records of internal guidance and encouragement provided to buyers through—

(A) Workshops, seminars, training, etc.; and

(B) Monitoring performance to evaluate compliance with the program's requirements.

(vi) On a contract-by-contract basis, records to support award data submitted by the offeror to the Government, including the name, address, and business size of each subcontractor. Contractors having commercial plans need not comply with this requirement.

(e) In order to effectively implement this plan to the extent consistent with efficient contract performance, the Contractor shall perform the following functions:

(1) Assist small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns by arranging solicitations, time for the preparation of bids, quantities, specifications, and delivery schedules so as to facilitate the participation by such concerns. Where the Contractor's lists of potential small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business subcontractors are excessively long, reasonable effort shall be made to give all such small business concerns an opportunity to compete over a period of time.

(2) Provide adequate and timely consideration of the potentialities of small business, veteran-owned small business, service-disabled veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns in all "make-or-buy" decisions.

(3) Counsel and discuss subcontracting opportunities with representatives of small business, veteran-owned small business, service-disabled veteran-owned small business , HUBZone small business, small disadvantaged business, and women-owned small business firms.

(4) Provide notice to subcontractors concerning penalties and remedies for misrepresentations of business status as small, veteran-owned small business, HUBZone small, small disadvantaged, or women-owned small business for the purpose of obtaining a subcontract that is to be included as part or all of a goal contained in the Contractor's subcontracting plan.

(f) A master plan on a plant or division-wide basis that contains all the elements required by paragraph (d) of this clause, except goals, may be incorporated by reference as a part of the subcontracting plan required of the offeror by this clause; provided —

(1) The master plan has been approved;

(2) The offeror ensures that the master plan is updated as necessary and provides copies of the approved master plan, including evidence of its approval, to the Contracting Officer; and

(3) Goals and any deviations from the master plan deemed necessary by the Contracting Officer to satisfy the requirements of this contract are set forth in the individual subcontracting plan.

(g) A commercial plan is the preferred type of subcontracting plan for contractors furnishing commercial items. The commercial plan shall relate to the offeror's planned subcontracting generally, for both commercial and Government business, rather than solely to the Government contract. Commercial plans are also preferred for subcontractors that provide commercial items under a prime contract, whether or not the prime contractor is

supplying a commercial item.

(h) Prior compliance of the offeror with other such subcontracting plans under previous contracts will be considered by the Contracting Officer in determining the responsibility of the offeror for award of the contract.

(i) The failure of the Contractor or subcontractor to comply in good faith with—

(1) The clause of this contract entitled "Utilization Of Small Business Concerns;" or

(2) An approved plan required by this clause, shall be a material breach of the contract.

(j) The Contractor shall submit the following reports:

(1) *Standard Form 294, Subcontracting Report for Individual Contracts.* This report shall be submitted to the Contracting Officer semiannually and at contract completion. The report covers subcontract award data related to this contract. This report is not required for commercial plans.

(2) *Standard Form 295, Summary Subcontract Report.* This report encompasses all of the contracts with the awarding agency. It must be submitted semi-annually for contracts with the Department of Defense and annually for contracts with civilian agencies. If the reporting activity is covered by a commercial plan, the reporting activity must report annually all subcontract awards under that plan. All reports submitted at the close of each fiscal year (both individual and commercial plans) shall include a breakout, in the Contractor's format, of subcontract awards, in whole dollars, to small disadvantaged business concerns by North American Industry Classification System (NAICS) Industry Subsector. For a commercial plan, the Contractor may obtain from each of its subcontractors a predominant NAICS Industry Subsector and report all awards to that subcontractor under its predominant NAICS Industry Subsector.

(End of clause)

25. DFARS 252.219-7009 SECTION 8(a) DIRECT AWARD (MAR 2002) [<u>When Competitive 8(a) Contracting Procedures are used</u>]

(a) This contract is issued as a direct award between the contracting office and the 8(a) Contractor pursuant to the Partnership Agreement dated February 1, 2002, between the Small Business Administration (SBA) and the Department of Defense. Accordingly, the SBA, even if not identified in Section A of this contract, is the prime contractor and retains responsibility for 8(a) certification, for 8(a) eligibility determinations and related issues, and for providing counseling and assistance to the 8(a) Contractor under the 8(a) Program. The cognizant SBA district office is:

[To be completed by the Contracting Officer at the time of award]

(b) The contracting office is responsible for administering the contract and for taking any action on behalf of the Government under the terms and conditions of the contract; provided that the contracting office shall give advance notice to the SBA before it issues a final notice terminating performance, either in whole or in part, under the contract. The contracting office also shall coordinate with the SBA prior to processing any novation agreement. The contracting office may assign contract administration functions to a contract administration office.

(c) The 8(a) Contractor agrees that--

(1) It will notify the Contracting Officer, simultaneous with its notification to the SBA (as required by SBA's 8(a) regulations at 13 CFR 124.308), when the owner or owners upon whom 8(a) eligibility is based plan to relinquish ownership or control of the concern. Consistent with Section 407 of Pub. L. 100-656, transfer of

ownership or control shall result in termination of the contract for convenience, unless the SBA waives the requirement for termination prior to the actual relinquishing of ownership and control; and

(2) It will not subcontract the performance of any of the requirements of this contract without the prior written approval of the SBA and the Contracting Officer.

(End of clause)

26. *FAR 52.219-14 LIMITATIONS ON SUBCONTRACTING (DEC 1996) [<u>For Small Business Set Aside Only</u>]

(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 lest 25 percent of the cost of the contract, not including the cost of materials, with its own employees.

27. *FAR 52.219-16 LIQUIDATED DAMAGES-SUBCONTRACTING PLAN (JAN 1999)

(a) Failure to make a good faith effort to comply with the subcontracting plan, as used in this clause, means a willful or intentional failure to perform in accordance with the requirements of the subcontracting plan approved under the clause in this contract entitled ``Small Business Subcontracting Plan," or willful or intentional action to frustrate the plan.

(b) Performance shall be measured by applying the percentage goals to the total actual subcontracting dollars or, if a commercial plan is involved, to the pro rata share of actual subcontracting dollars attributable to Government contracts covered by the commercial plan., If, at contract completion, or in the case of a commercial plan, at the close of the fiscal year for which the plan is applicable, the Contractor has failed to meet its subcontracting goals and the Contracting Officer decides in accordance with paragraph (c) of this clause that the Contractor failed to make a good faith effort to comply with its subcontracting plan, established in accordance with the clause in this contract entitled ``Small Business Subcontracting Plan," the Contractor shall pay the Government liquidated damages in an amount stated. The amount of probable damages attributable to the Contractor's failure to comply shall be an amount equal to the actual dollar amount by which the Contractor failed to achieve each subcontract goal.

(c) Before the Contracting Officer makes a final decision that the Contractor has failed to make such good faith effort, the Contracting Officer shall give the Contractor written notice specifying the failure and permitting the Contractor to demonstrate what good faith efforts have been made and to discuss the matter. Failure to respond to the notice may be taken as an admission that no valid explanation exists. If, after consideration of all the pertinent data, the Contracting Officer finds that the Contractor failed to make a good faith effort to comply with the subcontracting plan, the Contracting Officer shall issue a final decision to that effect and require that the Contractor pay the Government liquidated damages as provided in paragraph (b) of this clause.

(d) With respect to commercial plans, the Contracting Officer who approved the plan will perform the functions of the Contracting Officer under this clause on behalf of all agencies with contracts covered by a commercial plan.

(e) The Contractor shall have the right of appeal, under the clause in this contract entitled, Disputes, from many final decision of the Contracting Officer.

(f) Liquidated damages shall be in addition to any other remedies that the Government may have.

28. DFARS 252.219-7010 ALTERNATE A (JUN 1998) [When Competitive 8(a) Contracting Procedures are used]

As prescribed in 219.811-3(2), substitute the following paragraph (c) for paragraph (c) of the clause at FAR 52.219-18:

(c) Any award resulting from this solicitation will be made directly by the Contracting Officer to the successful 8(a) offeror selected through the evaluation criteria set forth in this solicitation.

29. FAR 52.219-18 NOTIFICATION OF COMPETITION LIMITED TO ELIGIBLE 8(A) CONCERNS (JUNE 1999) [When Competitive 8(a) Contracting Procedures are used]

(a) Offers are solicited only from small business concerns expressly certified by the Small Business Administration (SBA) for participation in the SBA's 8(a) Program and which meet the following criteria at the time of submission of offer--

(1) The Offeror is in conformance with the 8(a) support limitation set forth in its approved business plan; and

(2) The Offeror is in conformance with the Business Activity Targets set forth in its approved business plan or any remedial action directed by the SBA.

(b) By submission of its offer, the Offeror represents that it meets all of the criteria set forth in paragraph (a) of this clause.

(c) Any award resulting from this solicitation will be made to the Small Business Administration, which will subcontract performance to the successful 8(a) offeror selected through the evaluation criteria set forth in this solicitation.

(d) (1) Agreement. A small business concern submitting an offer in its own name agrees to furnish, in performing the contract, only end items manufactured or produced by small business concerns in the United States. The term ``United States'' includes its territories and possessions, the Commonwealth of Puerto Rico, the Trust Territory of the Pacific Islands, and the District of Columbia. 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 subparagraph does not apply in connection with construction or service contracts.

(2) The . . . . . [insert name of SBA's contractor] will notify the U.S. Army Corps of Engineers Contracting Officer in writing immediately upon entering an agreement (either oral or written) to transfer all or part of its stock or other ownership interest to any other party.

(End of clause)

30. DFARS 252.219-7003 SMALL, SMALL DISADVANTAGED AND WOMEN-OWNED SMALL BUSINESS SUBCONTRACTING PLAN (DOD CONTRACTS) (APR 1996)

This clause supplements the Federal Acquisition Regulation 52.219-9, Small, Small Disadvantaged and Women-Owned Small Business Subcontracting Plan, clause of this contract.

(a) Definitions.

"Historically black colleges and universities," as used in this clause, means institutions determined by the Secretary of Education to meet the requirements of 34 CFR Section 608.2. The term also means any nonprofit research institution that was an integral part of such a college or university before November 14, 1986.

"Minority institutions," as used in this clause, means institutions meeting the requirements of Section 1046(3) of the Higher Education Act of 1965 (20 U.S.C. 1135d-5(3)). The term also includes Hispanic-serving institutions as defined in Section 316(b)(1) of such Act (20 U.S.C. 1059c(b)(1).

(b) Except for company or division-wide commercial products subcontracting plans, the term "small disadvantaged business," when used in the FAR 52.219-9 clause, includes historically black colleges and universities and minority institutions in addition to small disadvantaged business concerns.

(c) Work under the contract or its subcontracts shall be credited toward meeting the small disadvantaged business concern goal required by paragraph (d) of the FAR 52.219-9 clause when:

(1) It is performed on Indian lands or in joint venture with an Indian tribe or a tribally-owned corporation, and

(2) It meets the requirements of 10 U.S.C. 2323a.

(d) Subcontracts awarded to workshops approved by the Committee for Purchase from People Who are Blind or Severely Disabled (41 U.S.C. 46-48), may be counted toward the Contractor's small business subcontracting goal.

(e) A mentor firm, under the Pilot Mentor-Protege Program established under Section 831 of Pub. L. 101-510, as amended, may count toward its small disadvantaged business goal, subcontracts awarded--

(1) Protege firms which are qualified organizations employing the severely handicapped; and

(2) Former protege firms that meet the criteria in Section 831(g)(4) of Pub. L. 101-510.

(f) The master plan approval referred to in paragraph (f) of the FAR 52.219-9 clause is approval by the Contractor's cognizant contract administration activity.

(g) In those subcontracting plans which specifically identify small, small disadvantaged, and women-owned businesses, the Contractor shall notify the Administrative Contracting Officer of any substitutions of firms that are not small, small disadvantaged, or women-owned small businesses for the firms listed in the subcontracting plan. Notifications shall be in writing and shall occur within a reasonable period of time after award of the subcontract. Contractor-specified formats shall be acceptable.

31. DFARS 252.219-7004 SMALL, SMALL DISADVANTAGED AND WOMEN-OWNED SMALL BUSINESS SUBCONTRACTING PLAN (TEST PROGRAM) (JUN 1997)

(a) Definition. "Subcontract," as used in this clause, means any agreement (other than one involving an employer-employee relationship) entered into by a Federal Government prime Contractor or subcontractor calling for supplies or services required for performance of the contract or subcontract.

(b) The Offeror's comprehensive small business subcontracting plan and its successors, which are authorized by and approved under the test program of Section 834 of Pub. L. 101-189, shall be included in and made a part of the resultant contract. Upon expulsion from the test program or expiration of the test program, the Contractor shall negotiate an individual subcontracting plan for all future contracts that meet the requirements of Section 211 of Publ. L. 95-507.

(c) The Contractor shall submit Standard Form 295, Summary Subcontract Report, in accordance with the instructions on the form, except--

(1) One copy of SF 295 and attachments shall be submitted to Director, Small and Disadvantaged Business Utilization, Office of the Deputy Under Secretary of Defense (International and Commercial Programs), 3061 Defense Pentagon, Room 2A338, Washington, DC 20301-3061; and

(2) Item 14, Remarks, shall be completed to include semi-annual cumulative--

(1) Small business, small disadvantaged business and women-owned small business goals; and

(2) Small business and small disadvantaged business goals, actual accomplishments, and percentages for each of the two designated industry categories.

(d) The failure of the Contractor or subcontractor to comply in good faith with (1) the clause of this contract entitled "Utilization of Small, Small Disadvantaged and Women-Owned Small Business Concerns," or (2) an approved plan required by this clause, shall be a material breach of the contract.

32. *FAR 52.222-3 CONVICT LABOR (AUG 1996)

The Contractor agrees not to employ in the performance of this contract any person undergoing a sentence of imprisonment which has been imposed by any court of a State, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, or the Trust Territory of the Pacific Islands. This limitation, however, shall not prohibit the employment by the Contractor in the performance of this contract of persons on parole or probation to work at paid employment during the term of their sentence or persons who have been pardoned or who have served their terms. Nor shall it prohibit the employment by the Contractor in the performance of this contract of persons confined for violation of the laws of any of the States, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, or the Trust Territory of the Pacific Islands who are authorized to work at paid employment in the community under the laws of such jurisdiction, if--

(a) (1) The worker is paid or is in an approved work training program on a voluntary basis;

(2) Representatives of local union central bodies or similar labor union organizations have been consulted;

(3) Such paid employment will not result in the displacement of employed workers, or be applied in skills, crafts, or trades in which there is a surplus of available gainful labor in the locality, or impair existing contracts for services; and

(4) The rates of pay and other conditions of employment will not be less than those paid or provided for work of a similar nature in the locality in which the work is being performed; and

(b) The Attorney General of the United States has certified that the work-release laws or regulations of the jurisdiction involved are in conformity with the requirements of Executive Order 11755, as amended by Executive Orders 12608 and 12943.

33. *FAR 52.222-4 CONTRACT WORK HOURS AND SAFETY STANDARDS ACT—OVERTIME COMPENSATION (SEPT 2000)

(a) *Overtime requirements*. No Contractor or subcontractor employing laborers or mechanics (see Federal Acquisition Regulation 22.300) shall require or permit them to work over 40 hours in any workweek unless they are paid at least 1 and 1/2 times the basic rate of pay for each hour worked over 40 hours.

(b) *Violation; liability for unpaid wages; liquidated damages*. The responsible Contractor and subcontractor are liable for unpaid wages if they violate the terms in paragraph (a) of this clause. In addition, the Contractor and subcontractor are liable for liquidated damages payable to the Government. The Contracting Officer will assess liquidated damages at the rate of $10 per affected employee for each calendar day on which the employer required or permitted the employee to work in excess of the standard workweek of 40 hours without paying overtime wages required by the Contract Work Hours and Safety Standards Act.

(c) *Withholding for unpaid wages and liquidated damages*. The Contracting Officer will withhold from payments due under the contract sufficient funds required to satisfy any Contractor or subcontractor liabilities for unpaid wages and liquidated damages. If amounts withheld under the contract are insufficient to satisfy Contractor or subcontractor liabilities, the Contracting Officer will withhold payments from other Federal or Federally assisted contracts held by the same Contractor that are subject to the Contract Work Hours and Safety Standards Act.

(d) *Payrolls and basic records*. (1) The Contractor and its subcontractors shall maintain payrolls and basic payroll records for all laborers and mechanics working on the contract during the contract and shall make them available to the Government until 3 years after contract completion. The records shall contain the name and address of each employee, social security number, labor classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. The records need not duplicate those required for construction work by Department of Labor regulations at 29 CFR 5.5(a)(3) implementing the Davis-Bacon Act .

(2) The Contractor and its subcontractors shall allow authorized representatives of the Contracting Officer or the Department of Labor to inspect, copy, or transcribe records maintained under paragraph (d)(1) of this clause. The Contractor or subcontractor also shall allow authorized representatives of the Contracting Officer or Department of Labor to interview employees in the workplace during working hours.

(e) *Subcontracts*. The Contractor shall insert the provisions set forth in paragraphs (a) through (d) of this

clause in subcontracts exceeding $100,000 and require subcontractors to include these provisions in any lower-tier subcontracts. The Contractor shall be responsible for compliance by any subcontractor or lower-tier subcontractor with the provisions set forth in paragraphs (a) through (d) of this clause.
(End of clause)

34. *FAR 52.222-6 DAVIS-BACON ACT (FEB 1995)

(a) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR Part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the Contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (d) of this clause; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such period. Such laborers and mechanics shall be paid not less than the appropriate wage rate and fringe benefits in the wage determination for the classification of work actually performed, without regard to skill, except as provided in the clause entitled Apprentices and Trainees. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein; provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph (b) of this clause) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the Contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

(b) (1) The Contracting Officer shall require that any class of laborers or mechanics, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The Contracting Officer shall approve an additional classification and wage rate and fringe benefits therefor only when all the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination.

(ii) The classification is utilized in the area by the construction industry.

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

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

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

(4) The wage rate (including fringe benefits, where appropriate) determined pursuant to subparagraphs (b)(2) and (b)(3) of this clause shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

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

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

35. *FAR 52.222-7 WITHHOLDING OF FUNDS (FEB 1988)

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

36. *FAR 52.222-8 PAYROLLS AND BASIC RECORDS (FEB 1988)

(a) Payrolls and basic records relating thereto shall be maintained by the Contractor during the course of the work and preserved for a period of 3 years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made, and actual wages paid. Whenever the Secretary of Labor has found, under paragraph (d) of the clause entitled Davis-Bacon Act, that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the Contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(b) (1) The Contractor shall submit weekly for each week in which any contract work is performed a coy of all payrolls to the Contracting Officer. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under paragraph (a) of this clause. This information may be submitted in any form desired. Optional Form WH-347 (Federal Stock Number 029-005-00014-1) is available for this purpose and may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. The Prime Contractor is responsible for the submission of copies of payrolls by all subcontractors.

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

(i) That the payroll for the payroll period contains the information required to be maintained under paragraph (a) of this clause and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate,

either directly or indirectly, and that no deductions have been made either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in the Regulations, 29 CFR Part 3; and

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

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by subparagraph (b)(2) of this clause.

(4) The falsification of any of the certifications in this clause may subject the Contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 3729 of Title 31 of the United States Code.

(c) The Contractor or subcontractor shall make the records required under paragraph (a) of this clause available for inspection, copying, or transcription by the Contracting Officer or authorized representatives of the Contracting Officer or the Department of Labor. The Contractor of subcontractor shall permit the Contracting Officer or representatives of the Contracting Officer or the Department of Labor to interview employees during working hours on the job. If the Contractor or subcontractor fails to submit required records or to make them available, the Contracting Officer may, after written notice to the Contractor, take such action as may be necessary to cause the suspension of any further payment. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

37. *FAR 52.222-9 APPRENTICES AND TRAINEES (FEB 1988)

(a) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State Apprenticeship Agency recognized by the Bureau, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the Contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in this paragraph, shall be paid not less than the applicable wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a Contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the Contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Bureau of Apprenticeship and Training, or a State Apprenticeship Agency recognized by the Bureau, withdraws approval of an apprenticeship program, the Contractor will not longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(b) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater

than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed in the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate in the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate in the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate in the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the Contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

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

38. *FAR 52.222-10 COMPLIANCE WITH COPELAND ACT REQUIREMENTS (FEB 1988)

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

39. *FAR 52.222-11 SUBCONTRACTS (LABOR STANDARDS) (FEB 1988)

(a) The Contractor or subcontractor shall insert in any subcontracts the clauses entitled Davis-Bacon Act, Contract Work Hours and Safety Standards Act--Overtime Compensation, Apprentices and Trainees, Payrolls and Basic Records, Compliance with Copeland Act Requirements, Withholding of Funds, Subcontracts (Labor Standards), Contract Termination--Debarment, Disputes Concerning Labor Standards, Compliance with Davis-Bacon and Related Act Regulations ,and Certification of Eligibility, and such other clauses as the Contracting Officer may, by appropriate instructions, require, and also a clause requiring subcontractors to include these clauses in any lower tier subcontracts. The Prime Contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with all the contract clauses cited in this paragraph.

(b) (1) Within 14 days after award of the contract, the Contractor shall deliver to the Contracting Officer a completed Statement and Acknowledgment Form (SF 1413) for each subcontract, including the subcontractor's signed and dated acknowledgment that the clauses set forth in paragraph (a) of this clause have been included in the subcontract.

(2) Within 14 days after the award of any subsequently awarded subcontract the Contractor shall deliver to the Contracting Officer an updated completed SF 1413 for such additional subcontract.

40. *FAR 52.222-12 CONTRACT TERMINATION--DEBARMENT (FEB 1988)

A breach of the contract clauses entitled Davis-Bacon Act, Contract Work Hours and Safety Standards Act--Overtime Compensation, Apprentices and Trainees, Payrolls and Basic Records, Compliance with Copeland Act Requirements, Subcontracts (Labor Standards), Compliance with Davis-Bacon and Related Act Regulations, or Certification of Eligibility may be grounds for termination of the contract, and for debarment as a Contractor and subcontractor as provided in 29 CFR 5.12.

41. *FAR 52.222-13 COMPLIANCE WITH DAVIS-BACON AND RELATED ACT REGULATIONS (FEB 1988)

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

42. *FAR 52.222-14 DISPUTES CONCERNING LABOR STANDARDS (FEB 1988)

The United States Department of Labor has set forth in 29 CFR Parts 5, 6, and 7 procedures for resolving disputes concerning labor standards requirements. Such disputes shall be resolved in accordance with those procedures and not the Disputes clause of this contract. Disputes within the meaning of this clause include disputes between the Contractor (or any of its subcontractors) and the contracting agency the U.S. Department of Labor, or the employees of their representatives.

43. *FAR 52.222-15 CERTIFICATION OF ELIGIBILITY (FEB 1988)

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

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

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

44. *FAR 52.222-26 EQUAL OPPORTUNITY (APR 2002)

(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) 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 paragraphs (b)(1) through (b)(11) of 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.

(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 paragraphs (b)(1) through (11) 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)

45. *FAR 52.222-27 AFFIRMATIVE ACTION COMPLIANCE REQUIREMENTS FOR CONSTRUCTION (FEB 1999)

(a) Definitions.

"Covered area," as used in this clause, means the geographical area described in the solicitation for this contract.

"Deputy Assistant Secretary," as used in this clause, means the Deputy Assistant Secretary for Federal Contract Compliance, U.S. Department of Labor, or a designee

"Employer's identification number," as used in this clause, means the Federal Social Security number used on the employer's quarterly Federal tax return, U.S. Treasury Department Form 941.

"Minority," as used in this clause, means--

(1) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

(2) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands);

(3) Black (all persons having origins in any of the black African racial groups not of Hispanic origin); and

(4) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race).

(b) If the Contractor, or a subcontractor at any tier, subcontracts a portion of the work involving any construction trade each such subcontract in excess of $10,000 shall include this clause and the Notice containing the goals for minority and female participation stated in the solicitation for this contract.

(c) If the Contractor is participating in a Hometown Plan (41 CFR 60-4) approved by the U.S. Department of Labor in a covered area, either individually or through an association, its affirmative actin obligations on all work in the plan area (including goals) shall comply with the plan for those trades that have unions participating in the plan. Contractors must be able to demonstrate participation in, and compliance with, the provisions of the plan. Each Contractor or subcontractor participating in an approved plan is also required to comply with its obligations under the Equal Opportunity clause, and to make a good faith effort to achieve each goal under the plan in each trade in which it has employees. The overall good-faith performance by other Contractors or subcontractors toward a goal in an approved plan does not excuse any Contractor's or subcontractor's failure to make good-faith efforts to achieve the plan's goals.

(d) The Contractor shall implement the affirmative action procedures in subparagraphs (g)(1) through (16) of this clause. The goals stated in the solicitation for this contract are expressed as percentages of the total hours of employment and training of minority and female utilization that the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for the geographical area where that work is actually performed. The Contractor is expected to make substantially uniform progress toward its goals in each craft.

(e) Neither the terms and conditions of any collective bargaining agreement, nor the failure by a union with which the Contractor has a collective bargaining agreement, to refer minorities or women shall excuse the Contractor's obligations under this clause, Executive Order 11246, as amended, or the regulations thereunder.

(f) In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

(g) The Contractor shall take affirmative action to ensure equal employment opportunity. The evaluation of the Contractor's compliance with this clause shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully and implement affirmative action steps at least as extensive as the following:

(1) Ensure a working environment free of harassment, intimidation, and coercion at all sites and in all facilities where the Contractor's employees are assigned to work. The Contractor, if possible, will assign two or more women to each construction project. The Contractor shall ensure that foremen, superintendents, and other onsite supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at these sites or facilities.

(2) Establish and maintain a current list of sources for minority and female recruitment. Provide written notification to minority and female recruitment sources and community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.

(3) Establish and maintain a current file of the names, addresses, and telephone numbers of each minority and female off-the-street applicant, referrals of minorities or females from unions, recruitment sources, or community organizations, and the action taken with respect to each individual. If an individual was sent to the union hiring hall for referral and not referred back to the Contractor by the union or, if referred back, not employed by the Contractor, this shall be documented in the file, along with whatever additional actions the Contractor may have taken.

(4) Immediately notify the Deputy Assistant Secretary when the union or unions with which the Contractor has a collective bargaining agreement has not referred back to the Contractor a minority or woman

sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.

(5) Develop on-the-job training opportunities and/or participate in training programs for the area that expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under subparagraph (g)(2) of this clause.

(6) Disseminate the Contractor's equal employment policy by--

(i) Providing notice of the policy to unions and to training, recruitment, and outreach programs, and requesting their cooperation in assisting the Contractor in meeting its contract obligations;

(ii) Including the policy in any policy manual and in collective bargaining agreements;

(iii) Publicizing the policy in the company newspaper, annual report, etc.;

(iv) Reviewing the policy with all management personnel and with all minority and female employees at least once a year; and

(v) Posting the policy on bulletin boards accessible to employees at each location where construction work is performed.

(7) Review, at least annually, the Contractor's equal employment policy and affirmative action obligations with all employees having responsibility for hiring, assignment, layoff, termination, or other employment decisions. Conduct review of this policy with all on-site supervisory personnel before initiating construction work at a job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

(8) Disseminate the Contractor's equal employment policy externally by including it in any advertising in the news media, specifically including minority and female news media. Provide written notification to, and discuss this policy with, other Contractors and subcontractors with which the Contractor does or anticipates doing business.

(9) Direct recruitment efforts, both oral and written, to minority, female, and community organizations, to schools with minority and female students, and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than 1 month before the date for acceptance of applications for apprenticeship or training by any recruitment source, send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

(10) Encourage present minority and female employees to recruit minority persons and women. Where reasonable, provide after-school, summer, and vacation employment to minority and female youth both on the site and in other areas of the Contractor's workforce.

(11) Validate all tests and other selection requirements where required under 41 CFR 60-3.

(12) Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities. Encourage these employees to seek or to prepare for, through appropriate training, etc., opportunities for promotion.

(13) Ensure that seniority practices job classifications, work assignments, and other personnel practices do not have a discriminatory effect by continually monitoring all personnel and employment-related activities to ensure that the Contractor's obligations under this contract are being carried out.

(14) Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

(15) Maintain a record of solicitations for subcontracts for minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

(16) Conduct a review, at lest annually, of all supervisors' adherence to and performance under the Contractor's equal employment policy and affirmative action obligations.

(h) The Contractor is encouraged to participate in voluntary associations that may assist in fulfilling one or more of the affirmative action obligations contained in subparagraphs (g)(1) through (16) of this clause. The efforts of a contractor association, joint contractor-union, contractor-community, or similar group of which the contractor is a member and participant may be asserted as fulfilling one or more of its obligations under subparagraphs (g)(1) through (16) of this clause, provided the Contractor--

(1) Actively participates in the group;

(2) Makes every effort to ensure that the group has a positive impact on the employment of minorities and women in the industry;

(3) Ensures that concrete benefits of the program are reflected in the Contractor's minority and female workforce participation;

(4) Makes a good-faith effort to meet its individual goals and timetables; and

(5) Can provide access to documentation that demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply is the Contractor's, and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

(i) A single goal for minorities and a separate single goal for women shall be established. The Contractor is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and nonminority. Consequently, the Contractor may be in violation of Executive Order 11246, as amended, if a particular group is employed in a substantially disparate manner.

(j) The Contractor shall not use goals or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.

(k) The Contractor shall not enter into any subcontract with any person or firm debarred from Government contracts under Executive Order 11246, as amended.

(l) The Contractor shall carry out such sanctions and penalties for violation of this clause and of the Equal Opportunity clause, including suspension, termination, and cancellation of existing subcontracts, as may be imposed or ordered under Executive Order 11246, as amended, and its implementing regulations, by the OFCCP. Any failure to carry out these sanctions and penalties as ordered shall be a violation of this clause and Executive Order 11246, as amended.

(m) The Contractor in fulfilling its obligations under this clause shall implement affirmative action procedures at least as extensive as those prescribed in paragraph (g) of this clause, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of Executive Order 11246, as amended, the implementing regulations, or this clause, the Deputy Assistant Secretary shall take action as prescribed in 41 CFR 60-4.8.

(n) The Contractor shall designate a responsible official to--

(1) Monitor all employment-related activity to ensure that the Contractor's equal employment policy is being carried out;

(2) Submit reports as may be required by the Government; and

(3) Keep records that shall at least include for each employee the name, address, telephone number, construction trade, union affiliation (if any), employee identification number, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, separate records are not required to be maintained.

(o) Nothing contained herein shall be construed as a limitation upon the application of other laws that establish different standards of compliance or upon the requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

46. *FAR 52.222-35 EQUAL OPPORTUNITY FOR SPECIAL DISABLED VETERANS, VETERANS OF THE VIETNAM ERA, AND OTHER ELIGIBLE VETERANS (DEC 2001)

(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 $25,000 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)

47. *FAR 52.222-36 AFFIRMATIVE ACTION FOR WORKERS WITH DISABILITIES (JUN 1998)

(a) General.

(1) Regarding any position for which the employee or applicant for employment is qualified, the Contractor shall not discriminate against any employee or applicant because of physical or mental disability. The Contractor agrees to take affirmative action to employ, advance in employment, and otherwise treat qualified individuals with disabilities without discrimination based upon their physical or mental disability 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) Rates of pay or other forms of compensation and changes in compensation;

(iv) Job assignments, job classifications, orgizational structures, position descriptions, lines of progression, and senority 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 apprenticeships, 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 priviledge of employment.

(2) The Contractor agrees to comply with the rules, regulations, and relevant orders of the Secretary of Labor (Secretary) issued under the Rehabilitation Act of 1973 (29 U.S.C. 793) (the Act), as amended.

(b) Postings.

(1) The Contractor agrees to post employment notices stating--

(i) The Contractor's obligation under the law to take affirmative action to employ and advance in employment qualified individuals with disabilities; and

(ii) The rights of applicants and employees.

(2) These notices shall be posted in conspicuous places that are available to employees and applicants for employment. The Contractor shall ensure that applicants and employees with disabilities are informed of the contents of the notice (e.g., the Contractor may have the notice read to visually disabled individual, or may lower the posted notice so that it might be read by a person in a wheelchair). The notices shall be in a form prescribed by the Deputy Assistant Secretary for Federal Contract Compliance of the U.S. Department of Labor (Deputy Assistant Secretary) and shall be provided by or through the Contracting Officer.

(3) 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 Section 503 of the Act and is committed to take affirmative action to employ, and advance in employment, qualified individuals with physical or mental disabilities.

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

(d) Subcontracts. The Contractor shall include the terms of this clause in every subcontract or purchase order in excess of $10,000 unless exempted by rules, regulations, or orders of the Secretary. The Contractor shall act as specified by the Deputy Assistant Secretary to enforce the terms, including action for noncompliance.

48. *FAR 52.222-37 EMPLOYMENT REPORTS ON SPECIAL DISABLED VETERANS, VETERANS OF THE VIETNAM ERA, AND OTHER ELIGIBLE VETERANS (DEC 2001)

(a) Unless the Contractor is a State or local government agency, the Contractor shall report at least annually, as required by the Secretary of Labor, on—

(1) The number of special disabled veterans, the number of veterans of the Vietnam era, and other eligible veterans in the workforce of the Contractor by job category and hiring location; and

(2) The total number of new employees hired during the period covered by the report, and of the total, the number of special disabled veterans, the number of veterans of the Vietnam era, and the number of other eligible veterans; and

(3) The maximum number and the minimum number of employees of the Contractor during the period covered by the report.

(b) The Contractor shall report the above items by completing the Form VETS-100, entitled "Federal Contractor Veterans' Employment Report (VETS-100 Report)".

(c) The Contractor shall submit VETS-100 Reports no later than September 30 of each year beginning September 30, 1988.

(d) The employment activity report required by paragraph (a)(2) of this clause shall reflect total hires during the most recent 12-month period as of the ending date selected for the employment profile report required by paragraph (a)(1) of this clause. Contractors may select an ending date—

(1) As of the end of any pay period between July 1 andAugust 31 of the year the report is due; or

(2) As of December 31, if the Contractor has prior writtenapproval from the Equal Employment Opportunity Commission to do so for purposes of submitting the Employer Information Report EEO-1 (Standard Form 100).

(e) The Contractor shall base the count of veterans reported according to paragraph (a) of this clause on voluntary disclosure. Each Contractor subject to the reporting requirements at 38 U.S.C. 4212 shall invite all special disabled veterans, veterans of the Vietnam era, and other eligible veterans who wish to benefit under the affirmative action program at 38 U.S.C. 4212 to identify themselves to the Contractor. The invitation shall state that—

(1) The information is voluntarily provided;

(2) The information will be kept confidential;

(3) Disclosure or refusal to provide the information will not subject the applicant or employee to any adverse treatment; and

(4) The information will be used only in accordance with the regulations promulgated under 38 U.S.C. 4212.

(f) The Contractor shall insert the terms of this clause in all subcontracts or purchase orders of $25,000 or more unless exempted by rules, regulations, or orders of the Secretary of Labor.

(End of clause)

49. *FAR 52.222-38 COMPLIANCE WITH VETERANS' EMPLOYMENT REPORTING REQUIREMENTS (DEC 2001)

By submission of its offer, the offeror represents that, if it is subject to the reporting requirements of 38 U.S.C. 4212(d) (*i.e.*, if it has any contract containing Federal Acquisition Regulation clause 52.222-37, Employment Reports on Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans), it has submitted the most recent VETS-100 Report required by that clause.

(End of provision)

50. *FAR 52.223-5 POLLUTION PREVENTION AND RIGHT-TO-KNOW INFORMATION (APR 1998) [<u>For Work on Federal Facilities</u>]

(a) Executive Order 12856 of August 3, 1993, requires Federal facilities to comply with the provisions of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) (42 U.S.C. 11001-11050) and the Pollution Prevention Act of 1990 (PPA) (42 U.S.C. 13101-13109).

(b) The Contractor shall provide all information needed by the Federal facility to comply with the emergency planning reporting requirements of Section 302 of EPCRA; the emergency notice requirements of Section 304 of EPCRA; the list of Material Safety Data Sheets required by Section 311 of EPCRA; the emergency and hazardous chemical inventory forms of Section 312 of EPCRA; the toxic chemical release inventory of Section 313 of EPCRA, which includes the reduction and recycling information required by Section 6607 of PPA; and the toxic chemical reduction goals requirements of Section 3-302 of Executive Order 12856.

51. *FAR 52.223-6 DRUG-FREE WORKPLACE (MAY 2001)

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

"Controlled substance" means a controlled substance in schedules I through V of section 202 of the Controlled Substances Act (21 U.S.C. 812) and as further defined in regulation at 21 CFR 1308.11 - 1308.15.

"Conviction" means a finding of guilt (including a plea of nolo contendere) or imposition of sentence, or both, by any judicial body charged with the responsibility to determine violations of the Federal or State criminal drug statutes.

"Criminal drug statute" means a Federal or non-Federal criminal statute involving the manufacture, distribution, dispensing, possession or use of any controlled substance.

"Drug-free workplace" means the site(s) for the performance of work done by the Contractor in connection with a specific contract where employees of the Contractor are prohibited from engaging in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance.

"Employee" means an employee of a Contractor directly engaged in the performance of work under a Government contract. "Directly engaged" is defined to include all direct cost employees and any other Contractor employee who has other than a minimal impact or involvement in contract performance.

"Individual" means an offeror/contractor that has no more than one employee including the offeror/contractor.

(b) The Contractor, if other than an individual, shall--within 30 days after award (unless a longer period is agreed to in writing for contracts of 30 days or more performance duration), or as soon as possible for contracts of less than 30 days performance duration--

(1) Publish a statement notifying its employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the Contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition;

(2) Establish an ongoing drug-free awareness program to inform such employees about--

(i) The dangers of drug abuse in the workplace;

(ii) The Contractor's policy of maintaining a drug-free workplace;

(iii) Any available drug counseling, rehabilitation, and employee assistance programs; and

(iv) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace.

(3) Provide all employees engaged in performance of the contract with a copy of the statement required by subparagraph (b)(1) of this clause;

(4) Notify such employees in writing in the statement required by subparagraph (b)(1) of this clause that, as a condition of continued employment on this contract, the employee will--

(i) Abide by the terms of the statement; and

(ii) Notify the employer in writing of the employee's conviction under a criminal drug statute for a violation occurring in the workplace no later than 5 days after such conviction.

(5) Notify the Contracting Officer in writing within 10 days after receiving notice under subdivision (b)(4)(ii) of this clause, from an employee or otherwise receiving actual notice of such conviction. The notice shall include the position title of the employee;

(6) Within 30 days after receiving notice under subdivision (b)(4)(ii) of this clause of a conviction, take one of the following actions with respect to any employee who is convicted of a drug abuse violation occurring in the workplace:

(i) Taking appropriate personnel action against such employee, up to and including termination; or

(ii) Require such employee to satisfactorily participate in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency; and

(7) Make a good faith effort to maintain a drug-free workplace through implementation of subparagraphs (b)(1) through (b)(6) of this clause.

(c) The Contractor, if an individual, agrees by award of the contract or acceptance of a purchase order, not to engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance while performing this contract.

(d) In addition to other remedies available to the Government, the Contractor's failure to comply with the requirements of paragraph (b) or (c) of this clause may, pursuant to FAR 23.560, render the Contractor subject to suspension of contract payments, termination of the contract for default, and suspension or debarment.

52. FAR 52.223-9 ESTIMATE OF PERCENTAGE OF RECOVERED MATERIAL CONTENT FOR EPA-DESIGNATED PRODUCTS (AUG 2000) [For Contracts exceeding $100,000. EPA Designated product (available at http://www.epa.gov/cpg/)]

(a) Definitions. As used in this clause—

"Postconsumer material" means a material or finished product that has served its intended use and has been discarded for disposal or recovery, having completed its life as a consumer item. Postconsumer material is a part of the broader category of "recovered material."

"Recovered material" means waste materials and by-products recovered or diverted from solid waste, but the term does not include those materials and by-products generated from, and commonly reused within, an original manufacturing process.

(b) The Contractor, on completion of this contract, shall—

(1) Estimate the percentage of the total recovered material used in contract performance, including, if applicable, the percentage of postconsumer material content; and

(2) Submit this estimate to the Contracting Officer.

(End of clause)

53. *FAR 52.223-14 TOXIC CHEMICAL RELEASE REPORTING (OCT 2000) [For Contracts Over $100,000]

(a) Unless otherwise exempt, the Contractor, as owner or operator of a facility used in the performance of this contract, shall file by July 1 for the prior calendar year an annual Toxic Chemical Release Inventory Form (Form R) as described in sections 313(a) and (g) of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) (42 U.S.C. 11023(a) and (g)), and section 6607 of the Pollution Prevention Act of 1990 (PPA) (42 U.S.C. 13106). The Contractor shall file, for each facility subject to the Form R filing and reporting requirements, the annual Form R throughout the life of the contract.

(b) A Contractor owned or operated facility use in the performance of this contract is exempt from the requirement to file an annual Form R if--

(1) The facility does not manufacture, process or otherwise use any toxic chemicals listed under section 313(c) of EPCRA, 42 U.S.C. 11023(c);

(2) The facility does not have 10 or more full-time employees as specified in section 313(b)(1)(A) of EPCRA, 42 U.S.C. 11023(b)(1)(A);

(3) The facility does not meet the reporting thresholds of toxic chemicals established under section 313(f) of EPCRA, 42 U.S.C. 11023(f) (including the alternate thresholds at 40 CFR 372.27, provided an appropriate certification form has been filed with EPA);

(4) The facility does not fall within Standard Industrial Classification Code (SIC) major groups 20 through 39 or their corresponding North American Industry Classification System (NAICS) sectors 31 through 33; or

(5) The facility is not located within any State of the United States, the District of Columbia, the Commonwealth of Puerto Rica, Guam, American Samoa, the United States Virgin Islands, the Norther Mariana Islands, or any other territory or possession over which the United States has jurisdiction.

(c) If the Contractor has certified to an exemption in accordance with one or more of the criteria in paragraph (b) of this clause, and after award of the contract circumstances change so that any one of its owned or operated facilities used in the performance of this contract is no longer exempt-

(1) The Contractor shall notify the Contracting Officer;

and

(2) The Contractor, as owner or operator of a facility used in the performance of this contract is no longer exempt, shall (i) submit a Toxic Chemical Release Inventory Form (Form R) on or before July 1 for the prior calendar year during which the facility becomes eligible; and (ii) continue to file the annual Form R for the life of the contract for such facility.

(d) The Contracting Officer may terminate this contract or take other action as appropriate, if the Contractor fails to comply accurately and fully with the EPCRA and PPA toxic chemical release filing and reporting requirements.

(e) Except for acquisitions of commercial items, as defined in FAR Part 2, the Contractor shall-

(1) For competitive subcontracts expected to exceed $100,000 (including all options), include a solicitation provision substantially the same as the provision at FAR 52.223-13, Certification of Toxic Chemical Release Reporting; and

(2) Include in any resultant subcontract exceeding $100,000 (including all options), the substance of this clause, except this paragraph (e).

54. RESERVED

55. DFARS 252.223-7006 PROHIBITION ON STORAGE AND DISPOSAL OF TOXIC AND HAZARDOUS MATERIALS (APR 1993)

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

(1) "Storage" means a non-transitory, semi-permanent or permanent holding, placement, or leaving of material. It does not include a temporary accumulation of a limited quantity of a material used in or a waste generated or resulting from authorized activities, such as servicing, maintenance, or repair of Department of Defense (DoD) items, equipment, or facilities.

(2) "Toxic or hazardous materials" means:

(i) Materials referred to in section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 (42 U.S.C. 9601(14)) and materials designated under section 102 of CERCLA (42 U.S.C. 9602) (40 CFR Part 302);

(ii) Materials that are of an explosive, flammable, or pyrotechnic nature; or

(iii) Materials otherwise identified by the Secretary of Defense as specified in DoD regulations.

(b) In accordance with 10 U.S.C. 2692, the Contractor is prohibited from storing or disposing of non-DoD-owned toxic or hazardous materials on a DoD installation, except to the extent authorized by a statutory exception to 10 U.S.C. 2692 or as authorized by the Secretary of Defense or his designee.

56. *FAR 52.225-9 BUY AMERICAN ACT—CONSTRUCTION MATERIALS (MAY 2002) (<u>For Contracts less than $6.481 million</u>)

(a) *Definitions*. As used in this clause—

"Component" means an article, material, or supply incorporated directly into a construction material.

"Construction material" means an article, material, or supply brought to the construction site by the Contractor or a subcontractor for incorporation into the building or work. The term also includes an item brought to the site preassembled from articles, materials, or supplies. However, emergency life safety systems, such as emergency lighting, fire alarm, and audio evacuation systems, that are discrete systems incorporated into a public building or work and that are produced as complete systems, are evaluated as a single and distinct construction material regardless of when or how the individual parts or components of those systems are delivered to the construction site. Materials purchased directly by the Government are supplies, not construction material.

"Cost of components" means—

(1) For components purchased by the Contractor, the acquisition cost, including transportation costs to the place of incorporation into the construction material (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or

(2) For components manufactured by the Contractor, all costs associated with the manufacture of the component, including transportation costs as described in paragraph (1) of this definition, plus allocable overhead costs, but excluding profit. Cost of components does not include any costs associated with the manufacture of the end product.

"Domestic construction material" means—

(1) An unmanufactured construction material mined or produced in the United States; or

(2) A construction material manufactured in the United States, if the cost of its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. Components of foreign origin of the same class or kind for which nonavailability determinations have been made are treated as domestic.

"Foreign construction material" means a construction material other than a domestic construction material.

"United States" means the 50 States and the District of Columbia, U.S. territories and possessions, Puerto Rico, the Northern Mariana Islands, and any other place subject to U.S. jurisdiction, but does not include leased bases.

(b) *Domestic preference*. (1) This clause implements the Buy American Act (41 U.S.C. 10a - 10d) by providing a preference for domestic construction material. The Contractor shall use only domestic construction material in performing this contract, except as provided in paragraphs (b)(2) and (b)(3) of this clause.

(2) This requirement does not apply to the construction material or components listed by the Government as follows:

_____

[*Contracting Officer to list applicable excepted materials or indicate "none"*]

(3) The Contracting Officer may add other foreign construction material to the list in paragraph (b)(2) of this clause if the Government determines that—

(i) The cost of domestic construction material would be unreasonable. The cost of a particular domestic construction material subject to the requirements of the Buy American Act is unreasonable when the cost of such material exceeds the cost of foreign material by more than 6 percent;

(ii) The application of the restriction of the Buy American Act to a particular construction material would be impracticable or inconsistent with the public interest; or

(iii) The construction material is not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality.

(c) *Request for determination of inapplicability of the BuyAmerican Act*. (1)(i) Any Contractor request to

use foreign construction material in accordance with paragraph (b)(3) of this clause shall include adequate information for Government evaluation of the request, including—

(A) A description of the foreign and domestic construction materials;
(B) Unit of measure;
(C) Quantity;
(D) Price;
(E) Time of delivery or availability;
(F) Location of the construction project;
(G) Name and address of the proposed supplier; and
(H) A detailed justification of the reason for use of foreign construction materials cited in accordance with paragraph (b)(3) of this clause.

(ii) A request based on unreasonable cost shall include a reasonable survey of the market and a completed price comparison table in the format in paragraph (d) of this clause.

(iii) The price of construction material shall include all delivery costs to the construction site and any applicable duty (whether or not a duty-free certificate may be issued).

(iv) Any Contractor request for a determination submitted after contract award shall explain why the Contractor could not reasonably foresee the need for such determination and could not have requested the determination before contract award. If the Contractor does not submit a satisfactory explanation, the Contracting Officer need not make a determination.

(2) If the Government determines after contract award that an exception to the Buy American Act applies and the Contracting Officer and the Contractor negotiate adequate consideration, the Contracting Officer will modify the contract to allow use of the foreign construction material. However, when the basis for the exception is the unreasonable price of a domestic construction material, adequate consideration is not less than the differential established in paragraph (b)(3)(i) of this clause.

(3) Unless the Government determines that an exception to the Buy American Act applies, use of foreign construction material is noncompliant with the Buy American Act.

(d) *Data*. To permit evaluation of requests under paragraph (c) of this clause based on unreasonable cost, the Contractor shall include the following information and any applicable supporting data based on the survey of suppliers:

FOREIGN AND DOMESTIC CONSTRUCTION MATERIALS PRICE COMPARISON			
Construction Material Description	Unit of Measure	Quantity	Price (Dollars)*
Item 1:			
Foreign construction material	_____	_____	_____
Domestic construction material	_____	_____	_____
Item 2:			
Foreign construction material	_____	_____	_____
Domestic construction material	_____	_____	_____

[List *name, address, telephone number, and contact for suppliers surveyed. Attach copy of response; if oral, attach summary.]*
[Include other applicable supporting information.]
[Include all delivery costs to the construction site and any applicable duty (whether or not a duty-free entry certificate is issued).]*

57. *FAR 52.225-10 NOTICE OF BUY AMERICAN ACT REQUIREMENT—CONSTRUCTION MATERIALS (MAY 2002) (Applicable with FAR 52.225-9)

(a) *Definitions*. "Construction material," "domestic construction material," and "foreign construction material," as used in this provision, are defined in the clause of this solicitation entitled "Buy American Act—Construction Materials" (Federal Acquisition Regulation (FAR) clause 52.225-9).

(b) *Requests for determinations of inapplicability*. An offeror requesting a determination regarding the

inapplicability of the Buy American Act should submit the request to the Contracting Officer in time to allow a determination before submission of offers. The offeror shall include the information and applicable supporting data required by paragraphs (c) and (d) of the clause at FAR 52.225-9 in the request. If an offeror has not requested a determination regarding the inapplicability of the Buy American Act before submitting its offer, or has not received a response to a previous request, the offeror shall include the information and supporting data in the offer.

(c) *Evaluation of offers*. (1) The Government will evaluate an offer requesting exception to the requirements of the Buy American Act, based on claimed unreasonable cost of domestic construction material, by adding to the offered price the appropriate percentage of the cost of such foreign construction material, as specified in paragraph (b)(3)(i) of the clause at FAR 52.225-9.

(2) If evaluation results in a tie between an offeror that requested the substitution of foreign construction material based on unreasonable cost and an offeror that did not request an exception, the Contracting Officer will award to the offeror that did not request an exception based on unreasonable cost.

(d) *Alternate offers*. (1) When an offer includes foreign construction material not listed by the Government in this solicitation in paragraph (b)(2) of the clause at FAR 52.225-9, the offeror also may submit an alternate offer based on use of equivalent domestic construction material.

(2) If an alternate offer is submitted, the offeror shall submit a separate Standard Form 1442 for the alternate offer, and a separate price comparison table prepared in accordance with paragraphs (c) and (d) of the clause at FAR 52.225-9 for the offer that is based on the use of any foreign construction material for which the Government has not yet determined an exception applies.

(3) If the Government determines that a particular exception requested in accordance with paragraph (c) of the clause at FAR 52.225-9 does not apply, the Government will evaluate only those offers based on use of the equivalent domestic construction material, and the offeror shall be required to furnish such domestic construction material. An offer based on use of the foreign construction material for which an exception was requested—

(i) Will be rejected as nonresponsive if this acquisition is conducted by sealed bidding; or

(ii) May be accepted if revised during negotiations.

(End of provision)

58. *FAR 52.225-11 BUY AMERICAN ACT—CONSTRUCTION MATERIALS UNDER TRADE AGREEMENTS (JULY 2002) [For Contracts more than $6,481,000] ALTERNATE I (MAY 2002) [For Contracts between $6.481 and 7.304733 Million]

(a) *Definitions*. As used in this clause—

"Component" means an article, material, or supply incorporated directly into a construction material.

"Construction material" means an article, material, or supply brought to the construction site by the Contractor or subcontractor for incorporation into the building or work. The term also includes an item brought to the site preassembled from articles, materials, or supplies. However, emergency life safety systems, such as emergency lighting, fire alarm, and audio evacuation systems, that are discrete systems incorporated into a public building or work and that are produced as complete systems, are evaluated as a single and distinct construction material regardless of when or how the individual parts or components of those systems are delivered to the construction site. Materials purchased directly by the Government are supplies, not construction material.

"Cost of components" means—

(1) For components purchased by the Contractor, the acquisition cost, including transportation costs to the place of incorporation into the construction material (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or

(2) For componentsmanufactured by the Contractor, all costs associated with the manufacture of the component, including transportation costs as described in paragraph (1) of this definition, plus allocable overhead costs, but excluding profit. Cost of components does not include any costs associated with the manufacture of the end product.

"Designated country" means any of the following countries:

Aruba	Kiribati
Austria	Korea, Republic of

Bangladesh	Lesotho
Belgium	Liechtenstein
Benin	Luxembourg
Bhutan	Malawi
Botswana	Maldives
Burkina Faso	Mali
Burundi	Mozambique
Canada	Nepal
Cape Verde	Netherlands
Central African Republic	Niger
Chad	Norway
Comoros	Portugal
Denmark	Rwanda
Djibouti	Sao Tome and Principe
Equatorial Guinea	Sierra Leone
Finland	Singapore
France	Somalia
Gambia	Spain
Germany	Sweden
Greece	Switzerland
Guinea	Tanzania U.R.
Guinea-Bissau	Togo
Haiti	Tuvalu
Hong Kong	Uganda
Iceland	United Kingdom
Ireland	Vanuatu
Israel	Western Samoa
Italy	Yemen
Japan	

"Designated country construction material" means a construction material that—

(1) Is wholly the growth, product, or manufacture of a designated country; or

(2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in a designated country into a new and different construction material distinct from the materials from which it was transformed.

"Domestic construction material" means—

(1) An unmanufactured construction material mined or produced in the United States; or

(2) A construction material manufactured in the United States, if the cost of its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. Components of foreign origin of the same class or kind for which nonavailability determinations have been made are treated as domestic.

"Foreign construction material" means a construction material other than a domestic construction material.

"North American Free Trade Agreement country" means Canada or Mexico.

"North American Free Trade Agreement country construction material" means a construction material that—

(1) Is wholly the growth, product, or manufacture of a North American Free Trade Agreement (NAFTA) country; or

(2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in a NAFTA country into a new and different construction material distinct from the materials from which it was transformed.

"United States" means the 50 States and the District of Columbia, U.S. territories and possessions, Puerto Rico, the Northern Mariana Islands, and any other place subject to U.S. jurisdiction, but does not include leased bases.

(b) *Construction materials*. (1) This clause implements the Buy American Act (41 U.S.C. 10a - 10d) by

providing a preference for domestic construction material. In addition, the Contracting Officer has determined that the Trade Agreements Act and the North American Free Trade Agreement (NAFTA) apply to this acquisition. Therefore, the Buy American Act restrictions are waived for designated country and NAFTA country construction materials.

(2) The Contractor shall use only domestic, designated country, or NAFTA country construction material in performing this contract, except as provided in paragraphs (b)(3) and (b)(4) of this clause.

(3) The requirement in paragraph (b)(2) of this clause does not apply to the construction materials or components listed by the Government as follows:

_____

[*Contracting Officer to list applicable excepted materials or indicate "none"*]

(4) The Contracting Officer may add other foreign construction material to the list in paragraph (b)(3) of this clause if the Government determines that—

(i) The cost of domestic construction material would be unreasonable. The cost of a particular domestic construction material subject to the restrictions of the Buy American Act is unreasonable when the cost of such material exceeds the cost of foreign material by more than 6 percent;

(ii) The application of the restriction of the Buy American Act to a particular construction material would be impracticable or inconsistent with the public interest; or

(iii) The construction material is not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality.

(c) *Request for determination of inapplicability of the Buy American Act*. (1)(i) Any Contractor request to use foreign construction material in accordance with paragraph (b)(4) of this clause shall include adequate information for Government evaluation of the request, including—

(A) A description of the foreign and domestic construction materials;

(B) Unit of measure;

(C) Quantity;

(D) Price;

(E) Time of delivery or availability;

(F) Location of the construction project;

(G) Name and address of the proposed supplier; and

(H) A detailed justification of the reason for use of foreign construction materials cited in accordance with paragraph (b)(3) of this clause.

(ii) A request based on unreasonable cost shall include a reasonable survey of the market and a completed price comparison table in the format in paragraph (d) of this clause.

(iii) The price of construction material shall include all delivery costs to the construction site and any applicable duty (whether or not a duty-free certificate may be issued).

(iv) Any Contractor request for a determination submitted after contract award shall explain why the Contractor could not reasonably foresee the need for such determination and could not have requested the determination before contract award. If the Contractor does not submit a satisfactory explanation, the Contracting Officer need not make a determination.

(2) If the Government determines after contract award that an exception to the Buy American Act applies and the Contracting Officer and the Contractor negotiate adequate consideration, the Contracting Officer will modify the contract to allow use of the foreign construction material. However, when the basis for the exception is the unreasonable price of a domestic construction material, adequate consideration is not less than the differential established in paragraph (b)(4)(i) of this clause.

(3) Unless the Government determines that an exception to the Buy American Act applies, use of foreign construction material is noncompliant with the Buy American Act.

(d) *Data*. To permit evaluation of requests under paragraph (c) of this clause based on unreasonable cost, the Contractor shall include the following information and any applicable supporting data based on the survey of suppliers:

FOREIGN AND DOMESTIC CONSTRUCTION MATERIALS PRICE COMPARISON			
Construction Material Description	Unit of Measure	Quantity	Price (Dollars)*
Item 1:			
Foreign construction material	_____	_____	_____
Domestic construction material	_____	_____	_____
Item 2:			
Foreign construction material	_____	_____	_____
Domestic construction material	_____	_____	_____

[List *name, address, telephone number, and contact for suppliers surveyed. Attach copy of response; if oral, attach summary.] [Include other applicable supporting information.]*
[Include all delivery costs to the construction site and any applicable duty (whether or not a duty-free entry certificate is issued).]*

(End of clause)

Alternate I (May 2002). As prescribed in 25.1102(c)(3), delete the definitions of "North American Free Trade Agreement country" and "North American Free Trade Agreement country construction material" from the definitions in paragraph (a) of the basic clause and substitute the following paragraphs (b)(1) and (b)(2) for paragraphs (b)(1) and (b)(2) of the basic clause:

(b) *Construction materials*. (1) This clause implements the Buy American Act (41 U.S.C. 10a - 10d) by providing a preference for domestic construction material. In addition, the Contracting Officer has determined that the Trade Agreements Act applies to this acquisition. Therefore, the Buy American Act restrictions are waived for designated country construction materials.

(2) The Contractor shall use only domestic or designated country construction material in performing this contract, except as provided in paragraphs (b)(3) and (b)(4) of this clause.

59. *FAR 52.225-12 NOTICE OF BUY AMERICAN ACT REQUIREMENT—CONSTRUCTION MATERIALS UNDER TRADE AGREEMENTS (MAY 2002) [Applicable with FAR 52.225-11] ALTERNATE II (MAY 2002) [For Contracts Between 6.481 and 7.344733 Million]

(a) *Definitions.* "Construction material," "designated country construction material," "domestic construction material," "foreign construction material," and "NAFTA country construction material," as used in this provision, are defined in the clause of this solicitation entitled "Buy American Act—Construction Materials under Trade Agreements" (Federal Acquisition Regulation (FAR) clause 52.225-11).

(b) *Requests for determination of inapplicability*. An offeror requesting a determination regarding the inapplicability of the Buy American Act should submit the request to the Contracting Officer in time to allow a determination before submission of offers. The offeror shall include the information and applicable supporting data required by paragraphs (c) and (d) of FAR clause 52.225-11 in the request. If an offeror has not requested a determination regarding the inapplicability of the Buy American Act before submitting its offer, or has not received a response to a previous request, the offeror shall include the information and supporting data in the offer.

(c) *Evaluation of offers*. (1) The Government will evaluate an offer requesting exception to the requirements of the Buy American Act, based on claimed unreasonable cost of domestic construction materials, by adding to the offered price the appropriate percentage of the cost of such foreign construction material, as specified in paragraph (b)(4)(i) of FAR clause 52.225-11.

(2) If evaluation results in a tie between an offeror that requested the substitution of foreign construction material based on unreasonable cost and an offeror that did not request an exception, the Contracting Officer will award to the offeror that did not request an exception based on unreasonable cost.

(d) *Alternate offers*. (1) When an offer includes foreign construction material, other than designated country or NAFTA country construction material, that is not listed by the Government in this solicitation in paragraph (b)(3) of FAR clause 52.225-11, the offeror also may submit an alternate offer based on use of equivalent domestic,

designated country, or NAFTA country construction material.

(2) If an alternate offer is submitted, the offeror shall submit a separate Standard Form 1442 for the alternate offer, and a separate price comparison table prepared in accordance with paragraphs (c) and (d) of FAR clause 52.225-11 for the offer that is based on the use of any foreign construction material for which the Government has not yet determined an exception applies.

(3) If the Government determines that a particular exception requested in accordance with paragraph (c) of FAR clause 52.225-11 does not apply, the Government will evaluate only those offers based on use of the equivalent domestic, designated country, or NAFTA country construction material, and the offeror shall be required to furnish such domestic, designated country, or NAFTA country construction material. An offer based on use of the foreign construction material for which an exception was requested—

(i) Will be rejected as nonresponsive if this acquisition is conducted by sealed bidding; or

(ii) May be accepted if revised during negotiations.

(End of provision)

ALTERNATE II (MAY 2002) **[For Contracts between 6.481 and 7.304733 Million]**
As prescribed in 25.1102(d)(3), substitute the following paragraphs (a) and (d) for paragraphs (a) and (d) of the basic provision:

(a) *Definitions*. "Construction material," "designated country construction material," "domestic construction material," and "foreign construction material," as used in this provision, are defined in the clause of this solicitation entitled "Buy American Act—Construction Materials under Trade Agreements" (Federal Acquisition Regulation (FAR) clause 52.225-11).

(d) *Alternate offers*. (1) When an offer includes foreign construction material, other than designated country construction material, that is not listed by the Government in this solicitation in paragraph (b)(3) of FAR clause 52.225-11, the offeror also may submit an alternate offer based on use of equivalent domestic or designated country construction material.

(2) If an alternate offer is submitted, the offeror shall submit a separate Standard Form 1442 for the alternate offer, and a separate price comparison table prepared in accordance with paragraphs (c) and (d) of FAR clause 52.225-11 for the offer that is based on the use of any foreign construction material for which the Government has not yet determined an exception applies.

(3) If the Government determines that a particular exception requested in accordance with paragraph (c) of FAR clause 52.225-11 does not apply, the Government will evaluate only those offers based on use of the equivalent domestic or designated country construction material, and the offeror shall be required to furnish such domestic or designated country construction material. An offer based on use of the foreign construction material for which an exception was requested—

(i) Will be rejected as nonresponsive if this acquisition is conducted by sealed bidding; or

(ii) May be accepted if revised during negotiations.

60. *FAR 52.225-13 RESTRICTIONS ON CERTAIN FOREIGN PURCHASES (JULY 2000)

(a) The Contractor shall not acquire, for use in the performance of this contract, any supplies or services originating from sources within, or that were located in or transported from or through, countries whose products are banned from importation into the United States under regulations of the Office of Foreign Assets Control, Department of the Treasury. Those countries are Cuba, Iran, Iraq, Libya, North Korea, Sudan, the territory of Afghanistan controlled by the Taliban , and Serbia (excluding the territory of Kosovo).

(b) The Contractor shall not acquire for use in the performance of this contract any supplies or services from entities controlled by the government of Iraq.

(c) The Contractor shall insert this clause, including this paragraph (c), in all subcontracts.

(End of clause)

61. *FAR 52.226-1 UTILIZATION OF INDIAN ORGANIZATIONS AND INDIAN-OWNED ECONOMIC ENTERPRISES (JUNE 2000)

(a) Definitions. As used in this clause:

"Indian" means any person who is a member of any Indian tribe, band, group, pueblo, or community that is recognized by the Federal Government as eligible for services from the Bureau of Indian Affairs (BIA) in accordance with 25 U.S.C. 1452(c) and any "Native" as defined in the Alaska Native Claims Settlement Act (43 U.S.C. 1601).

"Indian organization" means the governing body of any Indian tribe or entity established or recognized by the governing body of an Indian tribe for the purposes of 25 U.S.C., chapter 17.

"Indian-owned economic enterprise" means any Indian-owned (as determined by the Secretary of the Interior) commercial, industrial, or business activity established or organized for the purpose of profit, provided that Indian ownership constitutes not less than 51 percent of the enterprise.

"Indian tribe" means any Indian tribe, band, group, pueblo, or community, including native villages and native groups (including corporations organized by Kenai, Juneau, Sitka, and Kodiak) as defined in the Alaska Native Claims Settlement Act, that is recognized by the Federal Government as eligible for services from BIA in accordance with 25 U.S.C. 1452(c).

"Interested party" means a prime contractor or an actual or prospective offeror whose direct economic interest would be affected by the award of a subcontract or by the failure to award a subcontract.

(b) The Contractor shall use its best efforts to give Indian organizations and Indian-owned economic enterprises (25 U.S.C. 1544) the maximum practicable opportunity to participate in the subcontracts it awards to the fullest extent consistent with efficient performance of its contract.

(1) The Contracting Officer and the Contractor, acting in good faith, may rely on the representation of an Indian organization or Indian-owned economic enterprise as to its eligibility, unless an interested party challenges its status or the Contracting Officer has independent reason to question that status. In the event of a challenge to the representation of a subcontractor, the Contracting Officer will refer the matter to the—

U.S. Department of the Interior
Bureau of Indian Affairs (BIA)
Attn: Chief, Division of Contracting and
Grants Administration
1849 C Street, NW,
MS-2626-MIB
Washington, DC 20240-4000.

The BIA will determine the eligibility and notify the Contracting Officer. No incentive payment will be made within 50 working days of subcontract award or while a challenge is pending. If a subcontractor is determined to be an ineligible participant, no incentive payment will be made under the Indian Incentive Program.

(2) The Contractor may request an adjustment under the Indian Incentive Program to the following:

(i) The estimated cost of a cost-type contract.
(ii) The target cost of a cost-plus-incentive-fee prime contract.
(iii) The target cost and ceiling price of a fixed-price incentive prime contract.
(iv) The price of a firm-fixed-price prime contract.

(3) The amount of the adjustment to the prime contract is 5 percent of the estimated cost, target cost, or firm-fixed-price included in the subcontract initially awarded to the Indian organization or Indian-owned economic enterprise.

(4) The Contractor has the burden of proving the amount claimed and must assert its request for an adjustment prior to completion of contract performance.

(c) The Contracting Officer, subject to the terms and conditions of the contract and the availability of funds, will authorize an incentive payment of 5 percent of the amount paid to the subcontractor. The Contracting Officer will seek funding in accordance with agency procedures.

(End of Clause)

62. *FAR 52.227-1 AUTHORIZATION AND CONSENT (JUL 1995)

(a) The Government authorizes and consents to all use and manufacture, in performing this contract or any subcontract at any tier, of any invention described in and covered by a United States patent

(1) embodied in the structure or composition of any article the delivery of which is accepted by the Government under this contract or

(2) used in machinery, tools, or methods whose use necessarily results from compliance by the Contractor or a subcontractor with

(i) specifications or written provisions forming a part of this contract or

(ii) specific written instructions given by the Contracting Officer directing the manner of performance. The entire liability to the Government for infringement of a patent of the United States shall be determined solely by the provisions of the indemnity clause, if any, included in this contract or any subcontract hereunder (including any lower-tier subcontract), and the Government assumes liability for all other infringement to the extent of the authorization and consent hereinabove granted.

(b) The Contractor agrees to include, and require inclusion of, this clause, suitably modified to identify the parties, in all subcontracts at any tier for supplies or services (including construction, architect-engineer services, and materials, supplies, models, samples, and design or testing services expected to exceed the simplified acquisition threshold) however, omission of this clause from any subcontract, including those at or below the simplified acquisition threshold, does not affect this authorization and consent.

63. *FAR 52.227-2 NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT (AUG 1996)

(a) The Contractor shall report to the Contracting Officer, promptly and in reasonable written detail, each notice or claim of patent or copy-right infringement based on the performance of this contract of which the Contractor has knowledge.

(b) In the event of any claim or suit against the Government on account of any alleged patent or copyright infringement arising out of the performance of this contract or out of the use of any supplies furnished or work or services performed under this contract, the Contractor shall furnish to the Government, when requested by the Contracting Officer, all evidence and information in possession of the Contractor pertaining to such suit or claim. Such evidence and information shall be furnished at the expense of the Government except where the Contractor has agreed to indemnify the Government.

(c) The Contractor agrees to include, and require inclusion of, this clause in all subcontracts at any tier for supplies or services (including construction and architect-engineer subcontracts and those for material, supplies, models, samples, or design or testing services) expected to exceed the simplified acquisition threshold at FAR 2.101.

64. *FAR 52.227-4 PATENT INDEMNITY--CONSTRUCTION CONTRACTS (APR 1984)

Except as otherwise provided, the Contractor agrees to indemnify the Government and its officers, agents, and employees against liability, including costs and expenses, for infringement upon any United States patent (except a patent issued upon an application that is now or may hereafter be withheld from issue pursuant to a Secrecy Order under 35 U.S.C. 181) arising out of performing this contract or out of the use or disposal by or for the account of the Government of supplies furnished or work performed under this contract.

65. DFARS 252.227-7033 RIGHTS IN SHOP DRAWINGS (APR 1966)

(a) Shop drawings for construction means drawings, submitted to the Government by the Construction Contractor, subcontractor or any lower-tier subcontractor pursuant to a construction contract, showing in detail

(i) the proposed fabrication and assembly of structural elements and (ii) the installation (i.e., form, fit, and attachment details) of materials or equipment. The Government may duplicate, use, and disclose in any manner and for any purpose shop drawings delivered under this contract.

(b) This clause, including this paragraph (b), shall be included in all subcontracts hereunder at any tier.

66. FAR 52.228-1 BID GUARANTEE (SEP 1996) [NOTE: Not required for projects less than $100,000]

(a) Failure to furnish a bid guarantee in the proper form and amount, by the time set for opening of bids, may be cause for rejection of bids.

(b) The bidder shall furnish a bid guarantee in the form of a firm commitment, e.g., bid bond supported by good and sufficient surety or sureties acceptable to the Government, postal money order, certified check, cashier's check, irrevocable letter of credit, or, under Treasury Department regulations, certain bonds or notes of the United States. The Contracting Officer will return bid guarantees, other than bid bonds, (1) to unsuccessful bidders as soon as practicable after the opening of bids; and (2) to the successful bidder upon execution of contractual documents and bonds (including any necessary coinsurance or reinsurance agreements), as required by the bid as accepted.

(c) The amount of the bid guarantee shall be twenty (20%) of the bid price or Three Million Dollars ($3,000,000), whichever is less.

(d) If the successful bidder, upon acceptance of its bid by the Government within the period specified for acceptance, fails to execute all contractual documents or furnish executed bond(s) within 10 days after receipt of the forms by the bidder, the Contracting Officer may terminate the contract for default.

(e) In the event the contract is terminated for default, the bidder is liable for any cost of acquiring the work that exceeds the amount of its bid and the bid guarantee is available to offset the difference.

67. *FAR 52.228-2 ADDITIONAL BOND SECURITY (OCT 1997)

The Contractor shall promptly furnish additional security required to protect the Government and persons supplying labor or materials under this contract if--

(a) Any surety upon any bond, or issuing financial institution for other security, furnished with this contract becomes unacceptable to the Government;

(b) Any surety fails to furnish reports on its financial condition as required by the Government;

(c) The contract price is increased so that the penal sum of any bond becomes inadequate in the opinion of the Contracting Officer; or

(d) An irrevocable letter of credit (ILC) used as security will expire before the end of the period of required security. If the Contractor does not furnish an acceptable extension or replacement ILC, or other acceptable substitute, at least 30 days before an ILC's scheduled expiration, the Contracting Officer has the right to immediately draw on the ILC.

68. *FAR 52.228-5 INSURANCE--WORK ON A GOVERNMENT INSTALLATION (JAN 1997) [<u>For</u>

Contracts Exceeding $100,000]

(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.

69. *FAR 52.228-11 PLEDGES OF ASSETS (FEB 1992)

(a) Offerors shall obtain from each person acting as an individual surety on a bid guarantee, a performance bond, or a payment bond--

(1) Pledge of assets; and

(2) Standard Form 28, Affidavit of Individual Surety.

(b) Pledges of assets from each person acting as an individual surety shall be in the form of--

(1) Evidence of an escrow account containing cash, certificates of deposit, commercial or Government securities, or other assets described in FAR 28.203-2 (except see 28.203-2(b)(2) with respect to Government securities held in book entry form) and/or;

(2) A recorded lien on real estate. The offeror will be required to provide--

(i) Evidence of title in the form of a certificate of title prepared by a title insurance company approved by the United States Department of Justice. This title evidence must show fee simple title vested in the surety along with any concurrent owners; whether any real estate taxes are due and payable; and any recorded encumbrances against the property, including the lien filed in favor of the Government as required by FAR 28.203-3(d);

(ii) Evidence of the amount due under any encumbrance shown in the evidence of title;

(iii) A copy of the current real estate tax assessment of the property or a current appraisal dated no earlier than 6 months prior to the date of the bond, prepared by a professional appraiser who certifies that the appraisal has been conducted in accordance with the generally accepted appraisal standards as reflected in the Uniform Standards of Professional Appraisal Practice, as promulgated by the Appraisal Foundation.

70. *FAR 52.228-12 PROSPECTIVE SUBCONTRACTOR REQUESTS FOR BONDS (OCT 1995)

In accordance with Section 806(a)(3) of Public Law 102-190, as amended by Sections 2091 and 8105 of Pub. L. 103-355, upon the request of a prospective subcontractor or supplier offering to furnish labor or material for the performance of this contract for which a payment bond has been furnished to the Government pursuant to the Miller Act, the Contractor shall promptly provide a copy of such payment bond to the requestor.

71. FAR 52.228-13 ALTERNATIVE PAYMENT PROTECTIONS (JULY 2000) [Applicable only for projects or delivery orders less than $100,000]

(a) The Contractor shall submit one of the following payment protections:

(1) A payment bond.

(2) An irrevocable letter of credit from a federally insured financial institution.

(b) The amount of the payment protection shall be 100 percent of the contract price.

(c) The submission of the payment protection is required within 10 days of contract award.

(d) The payment protection shall provide protection for the full contract performance period plus a one-year period.

(e) Except for escrow agreements and payment bonds, which provide their own protection procedures, the Contracting Officer is authorized to access funds under the payment protection when it has been alleged in writing by a supplier of labor or material that a nonpayment has occurred, and to withhold funds pending resolution by administrative or judicial proceedings or mutual agreement of the parties.

(f) When a tripartite escrow agreement is used, the Contractor shall utilize only suppliers of labor and material that signed the escrow agreement.

72. FAR 52.228-14 IRREVOCABLE LETTER OF CREDIT (DEC 1999)

(a) "Irrevocable letter of credit" (ILC), as used in this clause, means a written commitment by a federally insured financial institution to pay all or part of a stated amount of money, until the expiration date of the letter, upon presentation by the Government (the beneficiary) of a written demand therefor. Neither the financial institution nor the offeror/Contractor can revoke or condition the letter of credit.

(b) If the offeror intends to use an ILC in lieu of a bid bond, or to secure other types of bonds such as performance and payment bonds, the letter of credit and letter of confirmation formats in paragraphs (e) and (f) of this clause shall be used.

(c) The letter of credit shall be irrevocable, shall require presentation of no document other than a written demand and the ILC (including confirming letter, if any), shall be issued/confirmed by an acceptable federally insured financial institution as provided in paragraph (d) of this clause, and--

(1) If used as a bid guarantee, the ILC shall expire no earlier than 60 days after the close of the bid acceptance period;

(2) If used as an alternative to corporate or individual sureties as security for a performance or payment bond, the offeror/Contractor may submit an ILC to cover the entire period of performance or may submit an ILC with an initial expiration date estimated to cover the entire period for which financial security is required or may submit an ILC with an initial expiration that is a minimum period of one year from the date of issuance. The ILC shall provide that, unless the issuer provides the beneficiary written notice of non-renewal of least 60 days in advance of the current expiration date, the ILC is automatically extended without amendment for one year from the expiration date, or any future expiration date, until the period of required coverage is completed and the Contracting Officer provides the financial institution with a written statement waiving the right to payment. The period of required coverage shall be:

(i) For contracts subject to the Miller Act, the later of--

(A) One year following the expected date of final payment;

(B) For performance bonds only, until completion of any warranty period; or

(C) For payment bonds only, until resolution of all claims filed against the payment bond during the one-year period following final payment.

(ii) For contracts not subject to the Miller Act, the later of--

(A) 90 days following final payment; or

(B) For performance bonds only, until completion of any warranty period.

(d) Only federally insured financial institution rated investment grade or higher shall issue or confirm the ILC. The offeror/Contractor shall provide the Contracting Officer a credit rating that indicates the financial institution has the required rating(s) as of the date of issuance of the ILC. Unless the financial institution issuing the

ILC had letter of credit business of at least $25 million in the past year, ILCs over $5 million must be confirmed by another acceptable financial institution that had letter of credit business of at least $25 million in the past year.

(e) The following format shall be used by the issuing financial institution to create an ILC:

[Issuing Financial Institution's Letterhead or Name and Address]

Issue Date----------

Irrevocable Letter of Credit No.----------
Account party's name----------
Account party's address----------
For Solicitation No.----------
(For reference only)

TO: [U.S. Government agency]
[U.S. Government agency's address]

1. We hereby establish this irrevocable and transferable Letter of Credit in your favor for one or more drawings up to United States $_____. This Letter of Credit is payable at [issuing financial institution's and, if any, confirming financial institution's] office at [issuing financial institution's address and, if any, confirming financial institution's address] and expires with our close of business on _____, or any automatically extended expiration date.

2. We hereby undertake to honor your or transferee's sight draft(s) drawn on issuing or, if any, the confirming financial institution, for all or any part of this credit if presented with this Letter of Credit and confirmation, if any, at the office specified in paragraph 1 of this Letter of Credit on or before the expiration date or any automatically extended expiration date.

3. [This paragraph is omitted if used as a bid guarantee, and subsequent paragraphs are renumbered.] It is a condition of this Letter of Credit that it is deemed to be automatically extended without amendment for one year from the expiration date hereof, or any future expiration date, unless at least 60 days prior to any expiration date, we notify you or the transferee by registered mail, or other receipted means of delivery, that we elect not to consider this Letter of Credit renewed for any such additional period. At the time we notify you, we also agree to notify the account party (and confirming financial institution, if any) by the same means of delivery.

4. This Letter of Credit is transferable. Transfers and assignments of proceeds are to be effected without charge to either the beneficiary or the transferee/assignee of proceeds. Such transfer or assignment shall be only at the written direction of the Government (the beneficiary) in a form satisfactory to the issuing financial institution and the confirming financial institution, if any.

5. This Letter of Credit is subject to the Uniform Customs and Practice (UCP) for Documentary Credits, 1993 Revision, International Chamber of Commerce Publication No. 500, and to the extent not inconsistent therewith, to the laws of _____ [state of confirming financial institution, if any, otherwise state of issuing financial institution].

6. If this credit expires during an interruption of business of this financial institution as described in Article 17 of the UCP, the financial institution specifically agrees to effect payment if this credit is drawn against within 30 days after the resumption of our business.

Sincerely,

[Issuing financial institution]

(f) The following format shall be used by the financial institution to confirm an ILC:

[Confirming Financial Institution's Letterhead or Name and Address]---

(Date) _____

Our Letter of Credit
Advice Number----------

Beneficiary:----------
[U.S. Government agency]
Issuing Financial Institution:----------
Issuing Financial Institution's LC No.:----------

Gentlemen:

1. We hereby confirm the above indicated Letter of Credit, the original of which is attached, issued by _____ [name of issuing financial institution] for drawings of up to United States dollars _____/U.S. $_____ and expiring with our close of business on _____ [the expiration date], or any automatically extended expiration date.

2. Draft(s) drawn under the Letter of Credit and this Confirmation are payable at our office located at _____.

3. We hereby undertake to honor sight draft(s) drawn under and presented with the Letter of Credit and this Confirmation at our offices as specified herein.

4. [This paragraph is omitted if used as a bid guarantee, and subsequent paragraphs are renumbered.] It is a condition of this confirmation that it be deemed automatically extended without amendment for one year from the expiration date hereof, or any automatically extended expiration date, unless:

(a) At least 60 days prior to any such expiration date, we shall notify the Contracting Officer, or the transferee and the issuing financial institution, by registered mail or other receipted means of delivery, that we elect not to consider this confirmation extended for any such additional period; or

(b) The issuing financial institution shall have exercised its right to notify you or the transferee, the account party, and ourselves, of its election not to extend the expiration date of the Letter of Credit.

5. This confirmation is subject to the Uniform Customs and Practice (UCP) for Documentary Credits, 1993 Revision, International Chamber of Commerce Publication No. 500, and to the extent not inconsistent therewith, to the laws of _____ [state of confirming financial institution].

6. If this confirmation expires during an interruption of business of this financial institution as described in Article 17 of the UCP, we specifically agree to effect payment if this credit is drawn against within 30 days after the resumption of our business.

Sincerely,

[Confirming financial institution]

(g) The following format shall be used by the Contracting Officer for a sight draft to draw on the Letter of Credit:

SIGHT DRAFT

[City, State]

(Date) _____

[Name and address of financial institution]
Pay to the order of----------
[Beneficiary Agency] _____

the sum of United States $ _____
This draft is drawn under----------
Irrevocable Letter of Credit No.----------

[Beneficiary Agency]
By: _____

73. FAR 52.228-15 PERFORMANCE AND PAYMENT BONDS (JULY 2000).

[This provision is Not Required for projects less than $100,000. See Clauses "Alternate Payment Protections" and "Inapplicable Provisions and Clauses".]

(a) *Definitions*. As used in this clause—

"Original contract price" means the award price of the contract; or, for requirements contracts, the price payable for the estimated total quantity; or, for indefinite-quantity contracts, the price payable for the specified minimum quantity. Original contract price does not include the price of any options, except those options exercised at the time of contract award.

(b) *Amount of required bonds*. Unless the resulting contract price is $100,000 or less, the successful offeror shall furnish performance and payment bonds to the Contracting Officer as follows:

(1) *Performance bonds (Standard Form 25).* The penal amount of performance bonds at the time of contract award shall be 100 percent of the original contract price.

(2) *Payment Bonds (Standard Form 25-A).* The penal amount of payment bonds at the time of contract award shall be 100 percent of the original contract price.

(3) *Additional bond protection*. (i) The Government may require additional performance and payment bond protection if the contract price is increased. The increase in protection generally will equal 100 percent of the increase in contract price.

(ii) The Government may secure the additional protection by directing the Contractor to increase the penal amount of the existing bond or to obtain an additional bond.

(c) *Furnishing executed bonds*. The Contractor shall furnish all executed bonds, including any necessary reinsurance agreements, to the Contracting Officer, within the time period specified in the Bid Guarantee provision of the solicitation, or otherwise specified by the Contracting Officer, but in any event, before starting work.

(d) *Surety or other security for bonds*. The bonds shall be in the form of firm commitment, supported by corporate sureties whose names appear on the list contained in Treasury Department Circular 570, individual sureties, or by other acceptable security such as postal money order, certified check, cashier's check, irrevocable letter of credit, or, in accordance with Treasury Department regulations, certain bonds or notes of the United States. Treasury Circular 570 is published in the Federal Register or may be obtained from the:

U.S. Department of Treasury
Financial Management Service
Surety Bond Branch
401 14th Street, NW, 2nd Floor, West Wing
Washington, DC 20227.

(e) *Notice of subcontractor waiver of protection (40 U.S.C. 270b(c).* Any waiver of the right to sue on the payment bond is void unless it is in writing, signed by the person whose right is waived, and executed after such person has first furnished labor or material for use in the performance of the contract.
(End of clause)

74. FAR 52.229-3 FEDERAL, STATE, AND LOCAL TAXES (APR 2003) [For Contracts Exceeding $100,000]

(a) As used in this clause--

"All applicable Federal, State, and local taxes and duties," means all taxes and duties, in effect on the contract date, that the taxing authority is imposing and collecting on the transactions or property covered by this contract.

"After-imposed Federal tax," as used in this clause, means any new or increased Federal excise tax or duty, or tax that was exempted or excluded on the contract date but whose exemption was later revoked or reduced during the contract period, on the transactions or property covered by this contract that the Contractor is

required to pay or bear as the result of legislative, judicial, or administrative action taking effect after the contract date. It does not include social security tax or other employment taxes.

"After-relieved Federal tax," means any amount of Federal excise tax or duty, except social security or other employment taxes, that would otherwise have been payable on the transactions or property covered by this contract, but which the Contractor is not required to pay or bear, or for which the Contractor obtains a refund or drawback, as the result of legislative, judicial, or administrative action taking effect after the contract date.

"Contract date," means the date set for bid opening or, if this is a negotiated contract or a modification, the effective date of this contract or modification.

"Local taxes" includes taxes imposed by a possession or territory of the United States, Puerto Rico, or the Northern Mariana Islands, if the contract is performed wholly or partly in any of those areas.

(b) The contract price includes all applicable Federal, State, and local taxes and duties.

(c) The contract price shall be increased by the amount of any after-imposed Federal tax, provided the Contractor warrants in writing that no amount for such newly imposed Federal excise tax or duty or rate increase was included in the contract price, as a contingency reserve or otherwise.

(d) The contract price shall be decreased by the amount of any after-relieved Federal tax.

(e) The contract price shall be decreased by the amount of any Federal excise tax or duty, except social security or other employment taxes, that the Contractor is required to pay or bear, or does not obtain a refund of, through the Contractor's fault, negligence, or failure to follow instructions of the Contracting Officer.

(f) No adjustment shall be made in the contract price under this clause unless the amount of the adjustment exceeds $250.

(g) The Contractor shall promptly notify the Contracting Officer of all matters relating to any Federal excise tax or duty that reasonably may be expected to result in either an increase or decrease in the contract price and shall take appropriate action as the Contracting Officer directs.

(h) The Government shall, without liability, furnish evidence appropriate to establish exemption from any Federal, State, or local tax when the Contractor requests such evidence and a reasonable basis exists to sustain the exemption.

75. RESERVED

76. DFARS 252.231-7000 SUPPLEMENTAL COST PRINCIPLES (DEC 1991)

When the allowability of costs under this contract is determined in accordance with part 31 of the Federal Acquisition Regulation (FAR) allowability shall also be determined in accordance with part 231 of the DoD FAR Supplement, in effect on the date of this contract.

77. *FAR 52.232-5 PAYMENTS UNDER FIXED-PRICE CONSTRUCTION CONTRACTS (SEPT 2002)

(a) Payment of Price. The Government shall pay the Contractor the contract price as provided in this contract.

(b) Progress Payments. The Government shall make progress payments monthly as the work proceeds, or at more frequent intervals as determined by the Contracting Officer, on estimates of work accomplished which meets the standards of quality established under the contract, as approved by the Contracting Officer.

(1) The Contractor's request for progress payments shall include the following substantiation:

(i) An itemization of the amounts requested, related to the various elements of work required by the contract covered by the payment requested.

(ii) A listing of the amount included for work performed by each subcontractor under the contract.

(iii) A listing of the total amount of each subcontract under the contract.

(iv) A listing of the amounts previously paid to each such subcontractor under the contract.

(v) Additional supporting data in a form and detail required by the Contracting Officer.

(2) In the preparation of estimates, the Contracting Officer may authorize material delivered on the site and preparatory work done to be taken into consideration. Material delivered to the Contractor at locations other than the site also may be taken into consideration if--

(i) Consideration is specifically authorized by this contract; and

(ii) The Contractor furnishes satisfactory evidence that it has acquired title to such material and that the material will be used to perform this contract.

(c) Contractor Certification. Along with each request for progress payments, the Contractor shall furnish the following certification, or payment shall not be made: (However, if the Contractor elects to delete paragraph (c)(4) from the certification, the certification is still acceptable.) I hereby certify, to the best of my knowledge and belief, that--

(1) The amounts requested are only for performance in accordance with the specifications, terms, and conditions of the contract;

(2) All payments due to subcontractors and suppliers from previous payments received under the contract have been made, and timely payments will be made from the proceeds of the payment covered by this certification, in accordance with subcontract agreements and the requirements of chapter 39 of Title 31, United States Code;

(3) This request for progress payments does not include any amounts which the prime contractor intends to withhold or retain from a subcontractor or supplier in accordance with the terms and conditions of the subcontract; and

(4) This certification is not to be construed as final acceptance of a subcontractor's performance.

(Name)

(Title)

(Date)

(d) Refund of Unearned Amounts. If the Contractor, after making a certified request for progress payments, discovers that a portion or all of such request constitutes a payment for performance by the Contractor that fails to conform to the specifications, terms, and conditions of this contract (hereinafter referred to as the "unearned amount"), the Contractor shall--

(1) Notify the Contracting Officer of such performance deficiency; and

(2) Be obligated to pay the Government an amount (computed by the Contracting Officer in the manner provided in paragraph (j) of this clause) equal to interest on the unearned amount from the 8th day after the date of receipt of the unearned amount until--

(i) The date the Contractor notifies the Contracting Officer that the performance deficiency has been corrected; or

(ii) The date the Contractor reduces the amount of any subsequent certified request for progress payments by an amount equal to the unearned amount.

(e) Retainage. If the Contracting Officer finds that satisfactory progress was achieved during any period for which a progress payment is to be made, the Contracting Officer shall authorize payment to be made in full. However, if satisfactory progress has not been made, the Contracting Officer may retain a maximum of 10 percent of the amount of the payment until satisfactory progress is achieved. When the work is substantially complete, the Contracting Officer may retain from previously withheld funds and future progress payments that amount the Contracting Officer considers adequate for protection of the Government and shall release to the Contractor all the remaining withheld funds. Also, on completion and acceptance of each separate building, public work, or other division of the contract, for which the price is stated separately in the contract, payment shall be made for the completed work without retention of a percentage.

(f) Title, Liability, and Reservation of Rights. All material and work covered by progress payments made shall, at the time of payment, become the sole property of the Government, but this shall not be construed as--

(1) Relieving the Contractor from the sole responsibility for al material and work upon which payments have been made or the restoration of any damaged work; or

(2) Waiving the right of the Government to require the fulfillment of all of the terms of the contract.

(g) Reimbursement for Bond Premiums. In making these progress payments, the Government shall, upon request, reimburse the Contractor for the amount of premiums paid for performance and payment bonds (including coinsurance and reinsurance agreements, when applicable) after the Contractor has furnished evidence of full payment to the surety. The retainage provisions in paragraph (e) of this clause shall not apply to that portion of progress payments attributable to bond premiums.

(h) Final Payment. The Government shall pay the amount due the Contractor under this contract after--

(1) Completion and acceptance of all work;

(2) Presentation of a properly executed voucher; and

(3) Presentation of release of all claims against the Government arising by virtue of this contract, other than claims, in stated amounts, that the Contractor has specifically excepted from the operation of the release. A release may also be required of the assignee if the Contractor's claim to amounts payable under this contract has been assigned under the Assignment of Claims Act of 1940 (31 U.S.C. 3727 and 41 U.S.C. 15).

(i) Limitation Because of Undefinitized Work. Notwithstanding any provision of this contract, progress payments shall not exceed 80 percent on work accomplished on undefinitized contract actions. A "contract action" is any action resulting in a contract, as defined in FAR Subpart 2.1, including contract modifications for additional supplies or services, but not including contract modifications that are within the scope and under the terms of the contract, such as contract modifications issued pursuant to the Changes clause, or funding and other administrative changes.

(j) Interest Computation on Unearned Amounts. In accordance with 31 U.S.C. 3903(c)(1), the amount payable under subparagraph (d)(2) of this clause shall be--

(1) Computed at the rate of average bond equivalent rates of 91-day Treasury bills auctioned at the most recent auction of such bills prior to the date the Contractor receives the unearned amount; and

(2) Deducted from the next available payment to the Contractor.

78. RESERVED.

79. *FAR 52.232-17 INTEREST (JUN 1996)

(a) Except as otherwise provided in this contract under a Price Reduction for Defective Cost or Pricing Data clause or a Cost Accounting Standards clause, all amounts that become payable by the Contractor to the Government under this contract (net of any applicable tax credit under the Internal Revenue Code (26 U.S.C. 1481)) shall bear simple interest from the date due until paid unless paid within 30 days of becoming due. The interest rate shall be the interest rate established by the Secretary of the Treasury as provided in Section 12 of the Contract Disputes Act of 1978 (Public Law 95-563), which is applicable to the period in which the amount becomes due, as provided in paragraph (b) of this clause, and then at the rate applicable for each six-month period as fixed by the Secretary until the amount is paid.

(b) Amounts shall be due at the earliest of the following dates:

(1) The date fixed under this contract.

(2) The date of the first written demand for payment consistent with this contract, including any demand resulting from a default termination.

(3) The date the Government transmits to the Contractor a proposed supplemental agreement to confirm completed negotiations establishing the amount of debt.

(4) If this contract provides for revision of prices, the date of written notice to the Contractor stating the amount of refund payable in connection with a pricing proposal or a negotiated pricing agreement not confirmed by contract modification.

(c) The interest charge made under this clause may be reduced under the procedures prescribed in 32.614-2 of the Federal Acquisition Regulation in effect on the date of this contract.

80. *FAR 52.232-23 ASSIGNMENT OF CLAIMS (JAN 1986)

(a) The Contractor, under the Assignment of Claims Act, as amended, 31 U.S.C. 3727, 41 U.S.C. 15 (hereafter referred to as "the Act"), may assign its rights to be paid amounts due or to become due as a result of the performance of this contract to a bank, trust company, or other financing institution, including any Federal lending agency. The assignee under such an assignment may thereafter further assign or reassign its right under the original assignment to any type of financing institution described in the preceding sentence.

(b) Any assignment or reassignment authorized under the Act and this clause shall cover all unpaid amounts payable under this contract, and shall not be made to more than one party, except that an assignment or reassignment may be made to one party as agent or trustee for two or more parties participating in the financing of this contract.

(c) The Contractor shall not furnish or disclose to any assignee under this contract any classified document (including this contract) or information related to work under this contract until the Contracting Officer authorizes such action in writing.

81. *FAR 52.232-27 PROMPT PAY FOR CONSTRUCTION CONTRACTS (FEB 2002)

Notwithstanding any other payment terms in this contract, the Government will make invoice payments under the terms and conditions specified in this clause. The Government considers payment as being made on the day a check is dated or the date of an electronic funds transfer. Definitions of pertinent terms are set forth in sections 2.101, 32.001, and 32.902 of the Federal Acquisition Regulation. All days referred to in this clause are calendar days, unless otherwise specified. (However, see paragraph (a)(3) concerning payments due on Saturdays, Sundays, and legal holidays.)

(a) *Invoice payments*—(1) *Types of invoice payments.* For purposes of this clause, there are several types of invoice payments that may occur under this contract, as follows:

(i) Progress payments, if provided for elsewhere in this contract, based on Contracting Officer approval of the estimated amount and value of work or services performed, including payments for reaching milestones in any project.

(A) The due date for making such payments is 14 days after the designated billing office receives a proper payment request. If the designated billing office fails to annotate the payment request with the actual date of receipt at the time of receipt, the payment due date is the 14th day after the date of the Contractor's payment request, provided the designated billing office receives a proper payment request and there is no disagreement over quantity, quality, or Contractor compliance with contract requirements.

(B) The due date for payment of any amounts retained by the Contracting Officer in accordance with the clause at 52.232–5, Payments Under Fixed-Price Construction Contracts, is as specified in the contract or, if not specified, 30 days after approval by the Contracting Officer for release to the Contractor.

(ii) Final payments based on completion and acceptance of all work and presentation of release of all claims against the Government arising by virtue of the contract, and payments for partial deliveries that have been accepted by the Government (*e.g.,* each separate building, public work, or other division of the contract for which the price is stated separately in the contract).

(A) The due date for making such payments is the later of the following two events:

(*1*) The 30th day after the designated billing office receives a proper invoice from the Contractor.

(*2*) The 30th day after Government acceptance of the work or services completed by the Contractor. For a final invoice when the payment amount is subject to contract settlement actions (*e.g.,* release of claims), acceptance is deemed to occur on the effective date of the contract settlement.

(B) If the designated billing office fails to annotate the invoice with the date of actual receipt at the time of receipt, the invoice payment due date is the 30th day after the date of the Contractor's invoice, provided the designated billing office receives a proper invoice and there is no disagreement over quantity,

quality, or Contractor compliance with contract requirements.

(2) *Contractor's invoice.* The Contractor shall prepare and submit invoices to the designated billing office specified in the contract. A proper invoice must include the items listed in paragraphs (a)(2)(i) through (a)(2)(xi) of this clause. If the invoice does not comply with these requirements, the designated billing office must return it within 7 days after receipt, with the reasons why it is not a proper invoice. When computing any interest penalty owed the Contractor, the Government will take into account if the Government notifies the Contractor of an improper invoice in an untimely manner.

(i) Name and address of the Contractor.

(ii) Invoice date and invoice number. (The Contractor should date invoices as close as possible to the date of mailing or transmission.)

(iii) Contract number or other authorization for work or services performed (including order number and contract line item number).

(iv) Description of work or services performed.

(v) Delivery and payment terms (*e.g.,* discount for prompt payment terms).

(vi) Name and address of Contractor official to whom payment is to be sent (must be the same as that in the contract or in a proper notice of assignment).

(vii) Name (where practicable), title, phone number, and mailing address of person to notify in the event of a defective invoice.

(viii) For payments described in paragraph (a)(1)(i) of this clause, substantiation of the amounts requested and certification in accordance with the requirements of the clause at 52.232–5, Payments Under Fixed-Price Construction Contracts.

(ix) Taxpayer Identification Number (TIN). The Contractor shall include its TIN on the invoice only if required elsewhere in this contract.

(x) Electronic funds transfer (EFT) banking information.

(A) The Contractor shall include EFTbanking information on the invoice only if required elsewhere in this contract.

(B) If EFT banking information is not required to be on the invoice, in order for the invoice to be a proper invoice, the Contractor shall have submitted correct EFT banking information in accordance with the applicable solicitation provision (*e.g.,* 52.232–38, Submission of Electronic Funds Transfer Information with Offer), contract clause (*e.g.,* 52.232–33, Payment by Electronic Funds Transfer—Central Contractor Registration, or 52.232–34, Payment by Electronic Funds Transfer—Other Than Central Contractor Registration), or applicable agency procedures.

(C) EFT banking information is not required if the Government waived the requirement to pay by EFT.

(xi) Any other information or documentation required by the contract.

(3) *Interest penalty.* The designated payment office will pay an interest penalty automatically, without request from the Contractor, if payment is not made by the due date and the conditions listed in paragraphs (a)(3)(i) through (a)(3)(iii) of this clause are met, if applicable. However, when the due date falls on a Saturday, Sunday, or legal holiday, the designated payment office may make payment on the following working day without incurring a late payment interest penalty.

(i) The designated billing office received a proper invoice.

(ii) The Government processed a receiving report or other Government documentation authorizing payment and there was no disagreement over quantity, quality, Contractor compliance with any contract term or condition, or requested progress payment amount.

(iii) In the case of a final invoice for any balance of funds due the Contractor for work or services performed, the amount was not subject to further contract settlement actions between the Government and the Contractor.

(4) *Computing penalty amount.* The Government will compute the interest penalty in accordance with the Office of Management and Budget prompt payment regulations at 5 CFR part 1315.

(i) For the sole purpose of computing an interest penalty that might be due the Contractor for payments described in paragraph (a)(1)(ii) of this clause, Government acceptance or approval is deemed to occur constructively on the 7th day after the Contractor has completed the work or services in accordance with the terms and conditions of the contract. If actual acceptance or approval occurs within the constructive acceptance or approval period, the Government will base the determination of an interest penalty on the actual date

of acceptance or approval. Constructive acceptance or constructive approval requirements do not apply if there is a disagreement over quantity, quality, or Contractor compliance with a contract provision. These requirements also do not compel Government officials to accept work or services, approve Contractor estimates, perform contract administration functions, or make payment prior to fulfilling their responsibilities.

(ii) The prompt payment regulations at 5 CFR 1315.10(c) do not require the Government to pay interest penalties if payment delays are due to disagreement between the Government and the Contractor over the payment amount or other issues involving contract compliance, or on amounts temporarily withheld or retained in accordance with the terms of the contract. The Government and the Contractor shall resolve claims involving disputes, and any interest that may be payable in accordance with the clause at FAR 52.233–1, Disputes.

(5) *Discounts for prompt payment.* The designated payment office will pay an interest penalty automatically, without request from the Contractor, if the Government takes a discount for prompt payment improperly. The Government will calculate the interest penalty in accordance with the prompt payment regulations at 5 CFR part 1315.

(6) *Additional interest penalty.* (i) The designated payment office will pay a penalty amount, calculated in accordance with the prompt payment regulations at 5 CFR part 1315 in addition to the interest penalty amount only if—

(A) The Government owes an interest penalty of $1 or more;

(B) The designated payment office does not pay the interest penalty within 10 days after the date the invoice amount is paid; and

(C) The Contractor makes a written demand to the designated payment office for additional penalty payment, in accordance with paragraph (a)(6)(ii) of this clause, postmarked not later than 40 days after the date the invoice amount is paid.

(ii)(A) The Contractor shall support written demands for additional penalty payments with the following data. The Government will not request any additional data. The Contractor shall—

(*1*) Specifically assert that late payment interest is due under a specific invoice, and request payment of all overdue late payment interest penalty and such additional penalty as may be required;

(*2*) Attach a copy of the invoice on which the unpaid late payment interest was due; and

(*3*) State that payment of the principal has been received, including the date of receipt.

(B) If there is no postmark or the postmark is illegible—

(1) The designated payment office that receives the demand will annotate it with the date of receipt provided the demand is received on or before the 40th day after payment was made; or

(*2*) If the designated payment office fails to make the required annotation, the Government will determine the demand's validity based on the date the Contractor has placed on the demand, provided such date is no later than the 40th day after payment was made.

(b) *Contract financing payments.* If this contract provides for contract financing, the Government will make contract financing payments in accordance with the applicable contract financing clause.

(c) *Subcontract clause requirements.* The Contractor shall include in each subcontract for property or services (including a material supplier) for the purpose of performing this contract the following:

(1) *Prompt payment for subcontractors.* A payment clause that obligates the Contractor to pay the subcontractor for satisfactory performance under its subcontract not later than 7 days from receipt of payment out of such amounts as are paid to the Contractor under this contract.

(2) *Interest for subcontractors.* An interest penalty clause that obligates the Contractor to pay to the subcontractor an interest penalty for each payment not made in accordance with the payment clause—

(i) For the period beginning on the day after the required payment date and ending on the date on which payment of the amount due is made; and

(ii) Computed at the rate of interest established by the Secretary of the Treasury, and published in the **Federal Register,** for interest payments under section 12 of the Contract Disputes Act of 1978 (41 U.S.C. 611) in effect at the time the Contractor accrues the obligation to pay an interest penalty.

(3) *Subcontractor clause flowdown.* A clause requiring each subcontractor to

(i) Include a payment clause and an interest penalty clause conforming to the standards set forth in paragraphs (c)(1) and (c)(2) of this clause in each of its subcontracts; and

(ii) Require each of its subcontractors to include such clauses in their subcontracts with each lower-tier subcontractor or supplier.

(d) *Subcontract clause interpretation.* The clauses required by paragraph (c) of this clause shall not be construed to impair the right of the Contractor or a subcontractor at any tier to negotiate, and to include in their subcontract, provisions that—

(1) *Retainage permitted.* Permit the Contractor or a subcontractor to retain (without cause) a specified percentage of each progress payment otherwise due to a subcontractor for satisfactory performance under the subcontract without incurring any obligation to pay a late payment interest penalty, in accordance with terms and conditions agreed to by the parties to the subcontract, giving such recognition as the parties deem appropriate to the ability of a subcontractor to furnish a performance bond and a payment bond;

(2) *Withholding permitted.* Permit the Contractor or subcontractor to make a determination that part or all of the subcontractor's request for payment may be withheld in accordance with the subcontract agreement; and

(3) *Withholding requirements.* Permit such withholding without incurring any obligation to pay a late payment penalty if—

(i) A notice conforming to the standards of paragraph (g) of this clause previously has been furnished to the subcontractor; and

(ii) The Contractor furnishes to the Contracting Officer a copy of any notice issued by a Contractor pursuant to paragraph (d)(3)(i) of this clause.

(e) *Subcontractor withholding procedures.* If a Contractor, after making a request for payment to the Government but before making a payment to a subcontractor for the subcontractor's performance covered by the payment request, discovers that all or a portion of the payment otherwise due such subcontractor is subject to withholding from the subcontractor in accordance with the subcontract agreement, then the Contractor shall—

(1) *Subcontractor notice.* Furnish to the subcontractor a notice conforming to the standards of paragraph (g) of this clause as soon as practicable upon ascertaining the cause giving rise to a withholding, but prior to the due date for subcontractor payment;

(2) *Contracting Officer notice.* Furnish to the Contracting Officer, as soon as practicable, a copy of the notice furnished to the subcontractor pursuant to paragraph (e)(1) of this clause;

(3) *Subcontractor progress payment reduction.* Reduce the subcontractor's progress payment by an amount not to exceed the amount specified in the notice of withholding furnished under paragraph (e)(1) of this clause;

(4) *Subsequent subcontractor payment.* Pay the subcontractor as soon as practicable after the correction of the identified subcontract performance deficiency, and—

(i) Make such payment within—

(A) Seven days after correction of the identified subcontract performance deficiency (unless the funds therefor must be recovered from the Government because of a reduction under paragraph (e)(5)(i)) of this clause; or

(B) Seven days after the Contractor recovers such funds from the Government; or

(ii) Incur an obligation to pay a late payment interest penalty computed at the rate of interest established by the Secretary of the Treasury, and published in the **Federal Register**, for interest payments under section 12 of the Contracts Disputes Act of 1978 (41 U.S.C. 611) in effect at the time the Contractor accrues the obligation to pay an interest penalty;

(5) *Notice to Contracting Officer.* Notify the Contracting Officer upon—

(i) Reduction of the amount of any subsequent certified application for payment; or

(ii) Payment to the subcontractor of any withheld amounts of a progress payment, specifying—

(A) The amounts withheld under paragraph (e)(1) of this clause; and

(B) The dates that such withholding began and ended; and

(6) *Interest to Government.* Be obligated to pay to the Government an amount equal to interest on the withheld payments (computed in the manner provided in 31 U.S.C. 3903(c)(1)), from the 8th day after receipt of the withheld amounts from the Government until—

(i) The day the identified subcontractor performance deficiency is corrected; or

(ii) The date that any subsequent payment is reduced under paragraph (e)(5)(i) of this clause.

(f) *Third-party deficiency reports*—(1) *Withholding from subcontractor.* If a Contractor, after making payment to a first-tier subcontractor, receives from a supplier or subcontractor of the first-tier subcontractor (hereafter referred to as a ''second-tier subcontractor'') a written notice in accordance with section 2 of the Act of August 24, 1935 (40 U.S.C. 270b, Miller Act), asserting a deficiency in such first-tier subcontractor's performance under the contract for which the Contractor may be ultimately liable, and the Contractor determines that all or a portion of future payments otherwise due such first-tier subcontractor is subject to withholding in accordance with the subcontract agreement, the Contractor may, without incurring an obligation to pay an interest penalty under paragraph (e)(6) of this clause—

(i) Furnish to the first-tier subcontractor a notice conforming to the standards of paragraph (g) of this clause as soon as practicable upon making such determination; and

(ii) Withhold from the first-tier subcontractor's next available progress payment or payments an amount not to exceed the amount specified in the notice of withholding furnished under paragraph (f)(1)(i) of this clause.

(2) *Subsequent payment or interest charge.* As soon as practicable, but not later than 7 days after receipt of satisfactory written notification that the identified subcontract performance deficiency has been corrected, the Contractor shall—

(i) Pay the amount withheld under paragraph (f)(1)(ii) of this clause to such first-tier subcontractor; or

(ii) Incur an obligation to pay a late payment interest penalty to such first-tier subcontractor computed at the rate of interest established by the Secretary of the Treasury, and published in the **Federal Register**, for interest payments under section 12 of the Contracts Disputes Act of 1978 (41 U.S.C. 611) in effect at the time the Contractor accrues the obligation to pay an interest penalty.

(g) *Written notice of subcontractor withholding.* The Contractor shall issue a written notice of any withholding to a subcontractor (with a copy furnished to the Contracting Officer), specifying—

(1) The amount to be withheld;

(2) The specific causes for the withholding under the terms of the subcontract; and

(3) The remedial actions to be taken by the subcontractor in order to receive payment of the amounts withheld.

(h) *Subcontractor payment entitlement.* The Contractor may not request payment from the Government of any amount withheld or retained in accordance with paragraph (d) of this clause until such time as the Contractor has determined and certified to the Contracting Officer that the subcontractor is entitled to the payment of such amount.

(i) *Prime-subcontractor disputes.* A dispute between the Contractor and subcontractor relating to the amount or entitlement of a subcontractor to a payment or a late payment interest penalty under a clause included in the subcontract pursuant to paragraph (c) of this clause does not constitute a dispute to which the Government is a party. The Government may not be interpleaded in any judicial or administrative proceeding involving such a dispute.

(j) *Preservation of prime-subcontractor rights.* Except as provided in paragraph (i) of this clause, this clause shall not limit or impair any contractual, administrative, or judicial remedies otherwise available to the Contractor or a subcontractor in the event of a dispute involving late payment or nonpayment by the Contractor or deficient subcontract performance or nonperformance by a subcontractor.

(k) *Non-recourse for prime contractor interest penalty.* The Contractor's obligation to pay an interest penalty to a subcontractor pursuant to the clauses included in a subcontract under paragraph (c) of this clause shall not be construed to be an obligation of the Government for such interest penalty. A cost-reimbursement claim may not include any amount for reimbursement of such interest penalty.

(l) *Overpayments.* If the Contractor becomes aware of a duplicate payment or that the Government has otherwise overpaid on an invoice payment, the Contractor shall immediately notify the Contracting Officer and request instructions for disposition of the overpayment.

(End of clause)

82. *FAR 52.232-33 PAYMENT BY ELECTRONIC FUNDS TRANSFER –CENTRAL CONTRACTOR REGISTRATION (MAY 1999)

(a) *Method of payment*. (1) All payments by the Government under this contract shall be made by electronic funds transfer (EFT), except as provided in paragraph (a)(2) of this clause. As used in this clause, the term ''EFT'' refers to the funds transfer and may also include the payment information transfer.

(2) In the event the Government is unable to release one or more payments by EFT, the Contractor agrees to either—

(i) Accept payment by check or some other mutually agreeable method of payment; or

(ii) Request the Government to extend the payment due date until such time as the Government can make payment by EFT (but see paragraph (d) of this clause).

(b) *Contractor's EFT information*. The Government shall make payment to the Contractor using the EFT information contained in the Central Contractor Registration (CCR) database. In the event that the EFT information changes, the Contractor shall be responsible for providing the updated information to the CCR database.

(c) *Mechanisms for EFT payment*. The Government may make payment by EFT through either the Automated Clearing House (ACH) network, subject to the rules of the National Automated Clearing House Association, or the Fedwire Transfer System. The rules governing Federal payments through the ACH are contained in 31 CFR part 210.

(d) *Suspension of payment*. If the Contractor's EFT information in the CCR database is incorrect, then the Government need not make payment to the Contractor under this contract until correct EFT information is entered into the CCR database; and any invoice or contract financing request shall be deemed not to be a proper invoice for the purpose of prompt payment under this contract. The prompt payment terms of the contract regarding notice of an improper invoice and delays in accrual of interest penalties apply.

(e) *Contractor EFT arrangements*. If the Contractor has identified multiple payment receiving points (i.e., more than one remittance address and/or EFT information set) in the CCR database, and the Contractor has not notified the Government of the payment receiving point applicable to this contract, the Government shall make payment to the first payment receiving point (EFT information set or remittance address as applicable) listed in the CCR database.

(f) *Liability for uncompleted or erroneous transfers*. (1) If an uncompleted or erroneous transfer occurs because the Government used
the Contractor's EFT information incorrectly, the Government remains responsible for—

(i) Making a correct payment;

(ii) Paying any prompt payment penalty due; and

(iii) Recovering any erroneously directed funds.

(2) If an uncompleted or erroneous transfer occurs because the Contractor's EFT information was incorrect, or was revised within 30 days of Government release of the EFT payment transaction instruction to the Federal Reserve System, and—

(i) If the funds are no longer under the control of the payment office, the Government is deemed to have made payment and the Contractor is responsible for recovery of any erroneously directed funds; or

(ii) If the funds remain under the control of the payment office, the Government shall not make payment, and the provisions of paragraph (d) of this clause shall apply.

(g) *EFT and prompt payment*. A payment shall be deemed to have been made in a timely manner in accordance with the prompt payment terms of this contract if, in the EFT payment transaction instruction released to the Federal Reserve System, the date specified for settlement of the payment is on or before the prompt payment due date, provided the specified payment date is a valid date under the rules of the Federal Reserve System.

(h) *EFT and assignment of claims*. If the Contractor assigns the proceeds of this contract as provided for in the assignment of claims terms of this contract, the Contractor shall require as a condition of any such assignment, that the assignee shall register in the CCR database and shall be paid by EFT in accordance with the terms of this clause. In all respects, the requirements of this clause shall apply to the assignee as if it were the Contractor. EFT information that shows the ultimate recipient of the transfer to be other than the Contractor, in the absence of a proper assignment of claims acceptable to the Government, is incorrect EFT information within the meaning of paragraph (d) of this clause.

(i) *Liability for change of EFT information by financial agent*. The Government is not liable for errors

resulting from changes to EFT information made by the Contractor's financial agent.

(j) *Payment information*. The payment or disbursing office shall forward to the Contractor available payment information that is suitable for transmission as of the date of release of the EFT instruction to the Federal Reserve System. The Government may request the Contractor to designate a desired format and method(s) for delivery of payment information from a list of formats and methods the payment office is capable of executing. However, the Government does not guarantee that any particular format or method of delivery is available at any particular payment office and retains the latitude to use the format and delivery method most convenient to the Government. If the Government makes payment by check in accordance with paragraph (a) of this clause, the Government shall mail the payment information to the remittance address contained in the CCR database.
(End of Clause)

83. DFARS 252.232-7004 DOD PROGRESS PAYMENT RATES (OCT 2001)

(a) If the contractor is a small business concern, the Progress Payments clause of this contract is modified to change each mention of the progress payment rate and liquidation rate (excepting paragraph (k), *Limitations on Undefinitized Contract Actions*) to 90 percent.

(b) If the contractor is a small disadvantaged business concern, the Progress Payments clause of this contract is modified to change each mention of the progress payment rate and liquidation rate (excepting paragraph (k), *Limitations on Undefinitized Contract Actions*) to 95 percent.
(End of clause)

84. DFARS 252.232-7005 REIMBURSEMENT OF SUBCONTRACTOR ADVANCE PAYMENTS--DOD PILOT MENTOR-PROTEGE PROGRAM (SEP 2001)

(a) The Government will reimburse the Contractor for any advance payments made by the Contractor, as a mentor firm, to a protege firm, pursuant to an approved mentor-protege agreement, provided-

(1) The Contractor's subcontract with the protege firm includes a provision substantially the same as FAR 52.232-12, Advance Payments;

(2) The Contractor has administered the advance payments in accordance with the policies of FAR Subpart 32.4; and

(3) The Contractor agrees that any financial loss resulting from the failure or inability of the protege firm to repay any unliquidated advance payments is the sole financial responsibility of the Contractor.

(b) For a fixed price type contract, advance payments made to a protege firm shall be paid and administered as if they were 100 percent progress payments. The Contractor shall include as a separate attachment with each Standard Form (SF) 1443, Contractor's Request for Progress Payment, a request for reimbursement of advance payments made to a protege firm. The attachment shall provide a separate calculation of lines 14a through 14e of SF 1443 for each protege, reflecting the status of advance payments made to that protege.

(c) For cost reimbursable contracts, reimbursement of advance payments shall be made via public voucher. The Contractor shall show the amounts of advance payments made to each protege on the public voucher, in the form and detail directed by the cognizant contracting officer or contract auditor.
(End of clause)

85. *FAR 52.233-1 DISPUTES (JULY 2002)

(a) This contract is subject to the Contract Disputes Act of 1978, as amended (41 U.S.C. 601-613).

(b) Except as provided in the Act, all disputes arising under or relating to this contract shall be resolved under this clause.

(c) "Claim," as used in this clause, means a written demand or written assertion by one of the contracting parties seeking, as a matter of right, the payment of money in a sum certain, the adjustment or interpretation of contract terms, or other relief arising under or relating to this contract. However, a written demand or written

assertion by the Contractor seeking the payment of money exceeding $100,000 is not a claim under the Act until certified. A voucher, invoice, or other routine request for payment that is not in dispute when submitted is not a claim under the Act. The submission may be converted to a claim under the Act, by complying with the submission and certification requirements of this clause, if it is disputed either as to liability or amount or is not acted upon in a reasonable time.

(d)(1) A claim by the Contractor shall be made in writing and, unless otherwise stated in this contract, submitted within 6 years after accrual of the claim to the Contracting Officer for a written decision. A claim by the Government against the Contractor shall be subject to a written decision by the Contracting Officer.

(2) (i) Contractors shall provide the certification specified in paragraph (d)(2)(iii) of this clause when submitting any claim exceeding $100,000.

(ii) The certification requirement does not apply to issues in controversy that have not been submitted as all or part of a claim.

(iii) The certification shall state as follows:

'I certify that the claim is made in good faith; that the supporting data are accurate and complete to the best of my knowledge and belief; that the amount requested accurately reflects the contract adjustment for which the Contractor believes the Government is liable; and that I am duly authorized to certify the claim on behalf of the Contractor.'

(3) The certification may be executed by any person duly authorized to bind the Contractor with respect to the claim.

(e) For Contractor claims of $100,000 or less, the Contracting Officer must, if requested in writing by the Contractor, render a decision within 60 days of the request. For Contractor-certified claims over $100,000, the Contracting Officer must, within 60 days, decide the claim or notify the Contractor of the date by which the decision will be made.

(f) The Contracting Officer's decision shall be final unless the Contractor appeals or files a suit as provided in the Act.

(g) If the claim by the Contractor is submitted to the Contracting Officer or a claim by the Government is presented to the Contractor, the parties, by mutual consent, may agree to use alternative dispute resolution (ADR). If the Contractor refuses an offer for ADR, the Contractor shall inform the Contracting Officer, in writing, of the Contractor's specific reasons for rejecting the offer.

(h) The Government shall pay interest on the amount found due and unpaid from (1) the date the Contracting Officer receives the claim (certified if required), or (2) the date that payment otherwise would be due, if that date is later, until the date of payment. With regard to claims having defective certifications, as defined in (FAR) 48 CFR 33.201, interest shall be paid from the date that the Contracting Officer initially receives the claim. Simple interest on claims shall be paid at the rate, fixed by the Secretary of the Treasury as provided in the Act, which is applicable to the period during which the Contracting Officer receives the claim and then at the rate applicable for each 6-month period as fixed by the Treasury Secretary during the pendency of the claim.

(i) The Contractor shall proceed diligently with performance of this contract, pending final resolution of any request for relief, claim, appeal, or action arising under the contract, and comply with any decision of the Contracting Officer.

86. *FAR 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.

87. RESERVED

88. FAR 52.236-2 DIFFERING SITE CONDITIONS (APR 1984)

(a) The Contractor shall promptly, and before the conditions are disturbed, give a written notice to the Contracting Officer of

(1) subsurface or latent physical conditions at the site which differ materially from those indicated in this contract, or

(2) unknown physical conditions at the site, of an unusual nature, which differ materially from those ordinarily encountered and generally recognized as inhering in work of the character provided for in the contract.

(b) The Contracting Officer shall investigate the site conditions promptly after receiving the notice. If the conditions do materially so differ and cause an increase or decrease in the Contractor's cost of, or the time required for, performing any part of the work under this contract, whether or not changed as a result of the conditions, an equitable adjustment shall be made under this clause and the contract modified in writing accordingly.

(c) No request by the Contractor for an equitable adjustment to the contract under this clause shall be allowed, unless the Contractor has given the written notice required, provided, that the time prescribed in (a) above for giving written notice may be extended by the Contracting Officer.

(d) No request by the Contractor for an equitable adjustment to the contract for differing site conditions shall be allowed if made after final payment under this contract.

89. *FAR 52.236-3 SITE INVESTIGATION AND CONDITIONS AFFECTING THE WORK (APR 1984)

(a) The Contractor acknowledges that it has taken steps reasonably necessary to ascertain the nature and location of the work, and that it has investigated and satisfied itself as to the general and local conditions which can affect the work or its cost, including but not limited to

(1) conditions bearing upon transportation, disposal, handling, and storage of materials;
(2) the availability of labor, water, electric power, and roads;
(3) uncertainties of weather, river stages, tides, or similar physical conditions at the site;
(4) the conformation and conditions of the ground; and
(5) the character of equipment and facilities needed preliminary to and during work performance. The Contractor also acknowledges that it has satisfied itself as to the character, quality, and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, including all exploratory work done by the Government, as well as from the drawings and specifications made a part of this contract. Any failure of the Contractor to take the actions described and acknowledged in this paragraph will not relieve the Contractor from responsibility for estimating properly the difficulty and cost of successfully performing the work, or for proceeding to successfully perform the work without additional expense to the Government.

(b) The Government assumes no responsibility for any conclusions or interpretations made by the Contractor based on the information made available by the Government. Nor does the Government assume responsibility for any understanding reached or representation made concerning conditions which can affect the work by any of its officers or agents before the execution of this contract, unless that understanding or representation is expressly stated in this contract.

90. *FAR 52.236-5 MATERIAL AND WORKMANSHIP (APR 1984)

(a) All equipment, material, and articles incorporated into the work covered by this contract shall be new and of the most suitable grade for the purpose intended, unless otherwise specifically provided in this contract. References in the specifications to equipment, material, articles, or patented processes by trade name, make, or catalog number, shall be regarded as establishing a standard of quality and shall not be construed as limiting competition. The Contractor may, at its option, use any equipment, material, article, or process that, in the judgment of the Contracting Officer, is equal to that named in the specifications, unless otherwise specifically provided in this contract.

(b) The Contractor shall obtain the Contracting Officer's approval of the machinery and mechanical and other equipment to be incorporated into the work. When requesting approval, the Contractor shall furnish to the Contracting Officer the name of the manufacturer, the model number, and other information concerning the performance, capacity, nature, and rating of the machinery and mechanical and other equipment. When required by this contract or by the Contracting Officer, the Contractor shall also obtain the Contracting Officer's approval of the material or articles which the Contractor contemplates incorporating into the work. When requesting approval, the Contractor shall provide full information concerning the material or articles. When directed to do so, the Contractor shall submit samples for approval at the Contractor's expense, with all shipping charges prepaid. Machinery, equipment, material, and articles that do not have the required approval shall be installed or used at the risk of subsequent rejection.

(c) All work under this contract shall be performed in a skillful and workmanlike manner. The Contracting Officer may require, in writing, that the Contractor remove from the work any employee the Contracting Officer deems incompetent, careless, or otherwise objectionable.

91. RESERVED

92. *FAR 52.236-6 SUPERINTENDENCE BY THE CONTRACTOR (APR 1984)

At all times during performance of this contract and until the work is completed and accepted, the Contractor shall directly superintend the work or assign and have on the work site a competent superintendent who is satisfactory to the Contracting Officer and has authority to act for the Contractor.

93. FAR 52.236-7 PERMITS AND RESPONSIBILITIES (NOV 1991)

The Contractor shall, without additional expense to the Government, be responsible for obtaining any necessary licenses and permits, and for complying with any Federal, State, and municipal laws, codes, and regulations applicable to the performance of the work. The Contractor shall also be responsible for all damages to persons or property that occur as a result of the Contractor's fault or negligence. The Contractor shall also be responsible for all materials delivered and work performed until completion and acceptance of the entire work, except for any completed unit of work which may have been accepted under the contract.

94. *FAR 52.236-8 OTHER CONTRACTS (APR 1984)

The Government may undertake or award other contracts for additional work at or near the site of the work under this contract. The Contractor shall fully cooperate with the other contractors and with Government employees and shall carefully adapt scheduling and performing the work under this contract to accommodate the additional work, heeding any direction that may be provided by the Contracting Officer. The Contractor shall not commit or permit any act that will interfere with the performance of work by any other contractor or by Government employees.

95. *FAR 52.236-9 PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS (APR 1984)

(a) The Contractor shall preserve and protect all structures, equipment, and vegetation (such as trees, shrubs, and grass) on or adjacent to the work site, which are not to be removed and which do not unreasonably interfere with the work required under this contract. The Contractor shall only remove trees when specifically authorized to do so, and shall avoid damaging vegetation that will remain in place. If any limbs or branches of trees are broken during contract performance, or by the careless operation of equipment, or by workmen, the Contractor shall trim those limbs or branches with a clean cut and paint the cut with a tree-pruning compound as directed by the Contracting Officer.

(b) The Contractor shall protect from damage all existing improvements and utilities

(1) at or near the work site, and

(2) on adjacent property of a third party, the locations of which are made known to or should be known by the Contractor. The Contractor shall repair any damage to those facilities, including those that are the property of a third party, resulting from failure to comply with the requirements of this contract or failure to exercise reasonable care in performing the work. If the Contractor fails or refused to repair the damage promptly, the Contracting Officer may have the necessary work performed and charge the cost to the Contractor.

96. *FAR 52.236-10 OPERATIONS AND STORAGE AREAS (APR 1984)

(a) The Contractor shall confine all operations (including storage of materials) on Government premises to areas authorized or approved by the Contracting Officer. The Contractor shall hold and save the Government, its officers and agents, free and harmless from liability of any nature occasioned by the Contractor's performance.

(b) Temporary buildings (e.g., storage sheds, shops, offices) and utilities may be erected by the Contractor only with the approval of the Contracting Officer and shall be built with labor and materials furnished by the Contractor without expense to the Government. The temporary buildings and utilities shall remain the property of the Contractor and shall be removed by the Contractor at its expense upon completion of the work. With the written consent of the Contracting Officer, the buildings and utilities may be abandoned and need not be removed.

(c) The Contractor shall, under regulations prescribed by the Contracting Officer, use only established roadways, or use temporary roadways constructed by the Contractor when and as authorized by the Contracting Officer. When materials are transported in prosecuting the work, vehicles shall not be loaded beyond the loading

capacity recommended by the manufacturer of the vehicle or prescribed by any Federal, State, or local law or regulation. When it is necessary to cross curbs or sidewalks, the Contractor shall protect them from damage. The Contractor shall repair or pay for the repair of any damaged curbs, sidewalks, or roads.

97. *FAR 52.236-11 USE AND POSSESSION PRIOR TO COMPLETION (APR 1984)

(a) The Government shall have the right to take possession of or use any completed or partially completed part of the work. Before taking possession of or using any work, the Contracting Officer shall furnish the Contractor a list of items of work remaining to be performed or corrected on those portions of the work that the Government intends to take possession of or use. However, failure of the Contracting Officer to list any item of work shall not relieve the Contractor of responsibility for complying with the terms of the contract. The Government's possession or use shall not be deemed an acceptance of any work under the contract.

(b) While the Government has such possession or use, the Contractor shall be relieved of the responsibility for the loss of or damage to the work resulting from the Government's possession or use, notwithstanding the terms of the clause in this contract entitled "Permits and Responsibilities." If prior possession or use by the Government delays the progress of the work or causes additional expense to the Contractor, an equitable adjustment shall be made in the contract price or the time of completion, and the contract shall be modified in writing accordingly.

98. *FAR 52.236-12 CLEANING UP (APR 1984)

The Contractor shall at all times keep the work area, including storage areas, free from accumulations of waste materials. Before completing the work, the Contractor shall remove from the work and premises any rubbish, tools, scaffolding, equipment, and materials that are not the property of the Government. Upon completing the work, the Contractor shall leave the work area in a clean, neat, and orderly condition satisfactory to the Contracting Officer.

99. *FAR 52.236-13 ACCIDENT PREVENTION-ALTERNATE I (NOV 1991)

(a) The Contractor shall provide and maintain work environments and procedures which will (1) safeguard the public and Government personnel, property, materials, supplies, and equipment exposed to Contractor operations and activities; (2) avoid interruptions of Government operations and delays in project completion dates; and (3) control costs in the performance of this contract.

(b) For these purposes on contracts for construction or dismantling, demolition, or removal of improvements, the Contractor shall--

(1) Provide appropriate safety barricades, signs, and signal lights;

(2) Comply with the standards issued by the Secretary of Labor at 29 CFR Part 1926 and 29 CFR Part 1910; and

(3) Ensure that any additional measures the Contracting Officer determines to be reasonably necessary for the purposes are taken.

(c) If this contract is for construction or dismantling, demolition or removal of improvements with any Department of Defense agency or component, the Contractor shall comply with all pertinent provisions of the latest version of U.S. Army Corps of engineers Safety and Health Requirements Manual, EM 385-1-1, in effect on the date of the solicitation.

(d) Whenever the Contracting Officer becomes aware of any noncompliance with these requirements or any condition which poses a serious or imminent danger to the health or safety of the public or Government personnel, the Contracting Officer shall notify the Contractor orally, with written confirmation, and request immediate initiation of corrective action. This notice, when delivered to the Contractor or the Contractor's representative at the work site, shall be deemed sufficient notice of the noncompliance and that corrective action is required. After receiving the notice, the Contractor shall immediately take corrective action. If the Contractor fails

or refuses to promptly take corrective action, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. The Contractor shall not be entitled to any equitable adjustment of the contract price or extension of the performance schedule on any stop work order issued under this clause.

(e) The Contractor shall insert this clause, including this paragraph (e), with appropriate changes in the designation of the parties, in subcontractors.

(f) Before commencing the work, the Contractor shall--

(1) Submit a written proposed plan for implementing this clause. The plan shall include an analysis of the significant hazards to life, limb, and property inherent in contract work performance and a plan for controlling these hazards; and

(2) Meet with representatives of the Contracting Officer to discuss and develop a mutual understanding relative to administration of the overall safety program.

100.*FAR 52.236-14 AVAILABILITY AND USE OF UTILITY SERVICES (APR 1984)

(a) The Government shall make all reasonably required amounts of utilities available to the Contractor from existing outlets and supplies, as specified in the contract. Unless otherwise provided in the contract, the amount of each utility service consumed shall be charged to or paid for by the Contractor at prevailing rates charged to the Government or, where the utility is produced by the Government, at reasonable rates determined by the Contracting Officer. The Contractor shall carefully conserve any utilities furnished without charge.

(b) The Contractor, at its expense and in a workmanlike manner satisfactory to the Contracting Officer, shall install and maintain all necessary temporary connections and distribution lines, and all meters required to measure the amount of each utility used for the purpose of determining charges. Before final acceptance of the work by the Government, the Contractor shall remove all the temporary connections, distribution lines, meters, and associated paraphernalia.

101.FAR 52.236-15 SCHEDULES FOR CONSTRUCTION CONTRACTS (APR 1984)

(a) The Contractor shall, within five days after the work commences on the contract or another period of time determined by the Contracting Officer, prepare and submit to the Contracting Officer for approval three copies of a practicable schedule showing the order in which the Contractor proposes to perform the work, and the dates on which the Contractor contemplates starting and completing the several salient features of the work (including acquiring materials, plant, and equipment). The schedule shall be in the form of a progress chart of suitable scale to indicate appropriately the percentage of work scheduled for completion by any given date during the period. If the Contractor fails to submit a schedule within the time prescribed, the Contracting Officer may withhold approval of progress payments until the Contractor submits the required schedule.

(b) The Contractor shall enter the actual progress on the chart as directed by the Contracting Officer, and upon doing so shall immediately deliver three copies of the annotated schedule to the Contracting Officer. If, in the opinion of the Contracting Officer, the Contractor falls behind the approved schedule, the Contractor shall take steps necessary to improve its progress, including those that may be required by the Contracting Officer, without additional cost to the Government. In this circumstance, the Contracting Officer may require the Contractor to increase the number of shifts, overtime operations, days of work, and/or the amount of construction plant, and to submit for approval any supplementary schedule or schedules in chart form as the Contracting Officer deems necessary to demonstrate how the approved rate of progress will be regained.

(c) Failure of the Contractor to comply with the requirements of the Contracting Officer under this clause shall be grounds for a determination by the Contracting Officer that the Contractor is not prosecuting the work with sufficient diligence to ensure completion within the time specified in the contract. Upon making this determination, the Contracting Officer may terminate the Contractor's right to proceed with the work, or any separable part of it, in accordance with the default terms of this contract.

102.*FAR 52.236-17 LAYOUT OF WORK (APR 1984)

The Contractor shall lay out its work from Government-established base lines and bench marks indicated on the drawings, and shall be responsible for all measurements in connection with the layout. The Contractor shall furnish, at its own expense, all stakes, templates, platforms, equipment, tools, materials, and labor required to lay out any part of the work. The Contractor shall be responsible for executing the work to the lines and grades that may be established or indicated by the Contracting Officer. The Contractor shall also be responsible for maintaining and preserving all stakes and other marks established by the Contracting Officer until authorized to remove them. If such marks are destroyed by the Contractor or through its negligence before their removal is authorized, the Contracting Officer may replace them and deduct the expense of the replacement from any amounts due or to become due to the Contractor.

103.FAR 52.236-21 SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION (FEB 1997)

(a) The Contractor shall keep on the work site a copy of the drawings and specifications and shall at all times give the Contracting Officer access thereto. Anything mentioned in the specifications and not shown on the drawings, or shown on the drawings and not mentioned in the specifications, shall be of like effect as if shown or mentioned in both. In case of difference between drawings and specifications, the specifications shall govern. In case of discrepancy in the figures, in the drawings, or in the specifications, the matter shall be promptly submitted to the Contracting Officer, who shall promptly make a determination in writing. Any adjustment by the Contractor without such a determination shall be at its own risk and expense. The Contracting Officer shall furnish from time to time such detailed drawings and other information as considered necessary, unless otherwise provided.

(b) Wherever in the specifications or upon the drawings the words "directed," "required," "ordered," "designated," "prescribed," or words of like import are used, it shall be understood that the "direction," "requirement," "order," "designation," or "prescription," of the Contracting Officer is intended and similarly the words "approved," "acceptable," "satisfactory," or words of like import shall mean "approved by," or "acceptable to," or "satisfactory to" the Contracting Officer, unless otherwise expressly stated.

(c) Where "as shown," "as indicated," "as detailed," or words of similar import are used, it shall be understood that the reference is made to the drawings accompanying this contract unless stated otherwise. The word "provided" as used herein shall be understood to mean "provide complete in place," that is "furnished and installed."

(d) Shop drawings means drawings, submitted to the Government by the Contractor, subcontractor, or any lower tier subcontractor pursuant to a construction contract, showing in detail

(1) the proposed fabrication and assembly of structural elements, and

(2) the installation (i.e., fit, and attachment details) of materials or equipment. It includes drawings, diagrams, layouts, schematics, descriptive literature, illustrations, schedules, performance and test data, and similar materials furnished by the Contractor to explain in detail specific portions of the work required by the contract. The Government may duplicate, use, and disclose in any manner and for any purpose shop drawings delivered under this contract.

(e) If this contract requires shop drawings, the Contractor shall coordinate all such drawings, and review them for accuracy, completeness, and compliance with contract requirements and shall indicate its approval thereon as evidence of such coordination and review. Shop drawings submitted to the Contracting Officer without evidence of the Contractor's approval may be returned for resubmission. The Contracting Officer will indicate an approval or disapproval of the shop drawings and if not approved as submitted shall indicate the Government's reasons therefor. Any work done before such approval shall be at the Contractor's risk. Approval by the Contracting Officer shall not relieve the Contractor from responsibility for any errors or omissions in such drawings, nor from responsibility for complying with the requirements of this contract, except with respect to variations described and approved in accordance with (f) below.

(f) If shop drawings show variations from the contract requirements, the Contractor shall describe such variations in writing, separate from the drawings, at the time of submission. If the Contracting Officer approves any such variation, the Contracting Officer shall issue an appropriate contract modification, except that, if the variation is minor or does not involve a change in price or in time of performance, a modification need not be issued.

(g) The Contractor shall submit to the Contracting Officer for approval four copies (unless otherwise indicated) of all shop drawings as called for under the various headings of these specifications. Three sets (unless otherwise indicated) of all shop drawings, will be retained by the Contracting Officer and one set will be returned to the Contractor.

104. *FAR 52.236-26 PRECONSTRUCTION CONFERENCE (FEB 1995)

If the Contracting Officer decides to conduct a preconstruction conference, the successful offeror will be notified and will be required to attend. The Contracting Officer's notification will include specific details regarding the date, time, and location of the conference, any need for attendance by subcontractors, and information regarding the items to be discussed.

105. DFARS 252.236-7000 MODIFICATION OF PROPOSALS - PRICE BREAKDOWN (DEC 1991)

(a) The Contractor shall furnish a price breakdown, itemized as required and within the time specified by the Contracting Officer, with any proposal for a contract modification.

(b) The price breakdown--

(1) Must include sufficient detail to permit an analysis of profit, and of all costs for--

(i) Material;

(ii) Labor,

(iii) Equipment;

(iv) Subcontracts; and

(2) Most cover all work involved in the modification, whether the work was deleted, added, or changed.

(c) The Contractor shall provide similar price breakdowns to support any amounts claimed for subcontracts.

(d) The Contractor's proposal shall include a justification for any time extension proposed.

106. DFARS 252.236-7008 CONTRACT PRICES - BIDDING SCHEDULES (DEC 1991)

(a) The Government's payment for the items listed in the Bidding Schedule shall constitute full compensation to the Contractor for--

(1) Furnishing all plant, labor, equipment, appliances, and materials; and

(2) Performing all operations required to complete the work in conformity with the drawings and specifications.

(b) The Contractor shall include in the prices for the items listed in the Bidding Schedule all costs for work in the specifications, whether or not specifically listed in the Bidding Schedule.

107. *FAR 52.242-13 BANKRUPTCY (JUL 1995)

In the event the Contractor enters into proceedings relating to bankruptcy, whether voluntary or involuntary, the Contractor agrees to furnish, by certified mail or electronic commerce method authorized by the contract, written notification of the bankruptcy to the Contracting Officer responsible for administering the contract. This notification shall be furnished within five days of the initiation of the proceedings relating to bankruptcy filing. This notification shall include the date on which the bankruptcy petition was filed, the identity of the court in which the bankruptcy petition was filed, and a listing of Government contract numbers and contracting offices for all Government contracts against which final payment has not been made. This obligation remains in effect until final payment under this contract.

108. *FAR 52.242-14 SUSPENSION OF WORK (APR 1984)

(a) The Contracting Officer may order the Contractor, in writing, to suspend, delay, or interrupt all or any part of the work of this contract for the period of time that the Contracting Officer determines appropriate for the convenience of the Government.

(b) If the performance of all or any part of the work is, for an unreasonable period of time, suspended, delayed, or interrupted (1) by an act of the Contracting Officer in the administration of this contract, or (2) by the Contracting Officer's failure to act within the time specified in this contract (or within a reasonable time if not specified), an adjustment shall be made for any increase in the cost of performance of this contract (excluding profit) necessarily caused by the unreasonable suspension, delay, or interruption, and the contract modified in writing accordingly. However, no adjustment shall be made under this clause for any suspension, delay, or interruption to the extent that performance would have been so suspended, delayed, or interrupted by any other cause, including the fault or negligence of the Contractor, or for which an equitable adjustment is provided for or excluded under any other term or condition of this contract.

(c) 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 (but this requirement shall not apply as to a claim resulting from a suspension order), and (2) unless the claim, in an amount stated, is asserted in writing as soon as practicable after the termination of the suspension, delay, or interruption, but not later than the date of final payment under the contract.

109. FAR 52.243-4 CHANGES (AUG 1987)

(a) The Contracting Officer may, at any time, without notice to the sureties, if any, by written order designated or indicated to be a change order, make changes in the work within the general scope of the contract, including changes--

(1) In the specifications (including drawings and designs);

(2) In the method or manner of performance of the work;

(3) In the Government-furnished facilities, equipment, materials, services, or site; or

(4) Directing acceleration in the performance of the work.

(b) Any other written or oral order (which, as used in this paragraph (b), includes direction, instruction, interpretation, or determination) from the Contracting Officer that causes a change shall be treated as a change order under this clause; provided, that the Contractor gives the Contracting Officer written notice stating

(1) the date, circumstances, and source of the order and

(2) that the Contractor regards the order as a change order.

(c) Except as provided in this clause, no order, statement, or conduct of the Contracting Officer shall be treated as a change under this clause or entitle the Contractor to an equitable adjustment.

(d) If any change under this clause causes an increase or decrease in the Contractor's cost of, or the time required for, the performance of any part of the work under this contract, whether or not changed by any such order, the Contracting Officer shall make an equitable adjustment and modify the contract in writing. However, except for an adjustment based on defective specifications, no adjustment for any change under paragraph (b) of this clause shall be made for any costs incurred more than 20 days before the Contractor gives written notice as required. In the case of defective specifications for which the Government is responsible, the equitable adjustment shall include any increased cost reasonably incurred by the Contractor in attempting to comply with the defective specifications.

(e) The Contractor must assert its right to an adjustment under this clause within 30 days after

(1) receipt of a written change order under paragraph (a) of this clause or

(2) the furnishing of a written notice under paragraph (b) of this clause, by submitting to the Contracting Officer a written statement describing the general nature and amount of the proposal, unless this period is extended by the Government. The statement of proposal for adjustment may be included in the notice under paragraph (b) above.

(f) No proposal by the Contractor for an equitable adjustment shall be allowed if asserted after final payment under this contract.

110. DFARS 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.

111. DFARS 252.243-7002 REQUESTS FOR EQUITABLE ADJUSTMENT (MAR 1998)

(a) The amount of any request for equitable adjustment to contract terms shall accurately reflect the contract adjustment for which the Contractor believes the Government is liable. The request shall include only costs for performing the change, and shall not include any costs that already have been reimbursed or that have been separately claimed. All indirect costs included in the request shall be properly allocable to the change in accordance with applicable acquisition regulations.

(b)In accordance with 10 U.S.C. 2410(a), any request for equitable adjustment to contract terms that exceeds the simplified acquisition threshold shall bear, at the time of submission, the following certificate executed by an individual authorized to certify the request on behalf of the Contractor:
I certify that the request is made in good faith, and that the supporting data are accurate and complete to the best of may knowledge and belief.

(Official's Name)

(Title)

(c) The certification in paragraph (b) of this clause requires full disclosure of all relevant facts, including--

(1) Cost or pricing data if required in accordance with subsection 15.403-4 of the Federal Acquisition Regulation; and

(2) Information other than cost or pricing data, in accordance with subsection 15.403-3 of the FAR, including actual cost data and data to support any estimated costs, even if cost or pricing data are not required.

(d) The certification requirement in paragraph (b) of this clause does not apply to----

(1) Requests for routine contract payments; for example, requests for payment for accepted supplies and services, routine vouchers under a cost-reimbursement type contract, or progress payment invoices; or

(2) Final adjustment under an incentive provision of the contract.

(End of clause)

112. *FAR 52.244-2 SUBCONTRACTS (AUG 1998)

(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 Acquistion Regulation (FAR).

"Consent of 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 sevices for performance of the the prime contract or a subcontract. It includes, but is not limited to purchase orders, and changes and modifications to purchase orders.

(b) This clause does not apply to subcontracts for special test equipment when the contract contains the clause at FAR 52.245-18, Special Test Equipment.

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

(d) 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 theshold or 5 percent of the total estimated cost of the contract; or

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

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

_____

_____

_____

(f)(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 (c), (d), or (e) 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 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.

(g) 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 acceptability of any cost under this contract; or

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

(h) 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 subcontracts shall not exceed the fee limitations in FAR 15.404-4(c)(4)(i).

(i) 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 by the Government.

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

(k) Paragraphs (d) and (f) of this clause do not apply to the following subcontracts, which ere evaluated during negotiations:

_____

_____

_____

(End of clause)

113. FAR 52.244-6 SUBCONTRACTS FOR COMMERCIAL ITEMS (MAY 2002)

(a) *Definitions.* As used in this clause—

"Commercial item" has the meaning contained in the clause at 52.202-1, Definitions.

"Subcontract" includes a transfer of commercial items between divisions, subsidiaries, or affiliates of the Contractor or subcontractor at any tier.

(b) To the maximum extent practicable, the Contractor shall incorporate, and require its subcontractors at all tiers to incorporate, commercial items or nondevelopmental items as components of items to be supplied under this contract.

(c)(1) The Contractor shall insert the following clauses in subcontracts for commercial items:

(i) 52.219-8, Utilization of Small Business Concerns (Oct 2000) (15 U.S.C. 637(d)(2) and (3)), in all subcontracts that offer further subcontracting opportunities. If the subcontract (except subcontracts to small business concerns) exceeds $500,000 ($1,000,000 for construction of any public facility), the subcontractor must include 52.219-8 in lower tier subcontracts that offer subcontracting opportunities.

(ii) 52.222-26, Equal Opportunity (Apr 2002) (E.O. 11246).

(iii) 52.222-35, Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (Dec 2001) (38 U.S.C. 4212(a));

(iv) 52.222-36, Affirmative Action for Workers with Disabilities (June 1998) (29 U.S.C. 793).

(v) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (June 2000) (46 U.S.C. Appx 1241) (flowdown not required for subcontracts awarded beginning May 1, 1996).

(2) While not required, the Contractor may flow down to subcontracts for commercial items a minimal number of additional clauses necessary to satisfy its contractual obligations.

(d) The Contractor shall include the terms of this clause, including this paragraph (d), in subcontracts awarded under this contract.

(End of clause)

114. *FAR 52.245-2 GOVERNMENT PROPERTY (FIXED-PRICE CONTRACTS) (DEC 1989) [For Government Property over $100,000]

(a) Government-furnished property.

(1) The Government shall deliver to the Contractor, for use in connection with and under the terms of this contract, the Government-furnished property described in the Schedule or specifications together with any related data and information that the Contractor may request and is reasonably required for the intended use of the property (hereinafter referred to as "Government-furnished property").

(2) The delivery or performance dates for this contract are based upon the expectation that Government-furnished property suitable for use (except for property furnished "as is") will be delivered to the Contractor at the times stated in the Schedule or, if not so stated, in sufficient time to enable the Contractor to meet the contract's delivery or performance dates.

(3) If Government-furnished property is received by the Contractor in a condition not suitable for the intended use, the Contractor shall, upon receipt of it, notify the Contracting Officer, detailing the facts, and, as directed by the Contracting Officer and at Government expense, either repair, modify, return, or otherwise dispose of the property. After completing the directed action and upon written request of the Contractor, the Contracting Officer shall make an equitable adjustment as provided in paragraph (h) of this clause.

(4) If Government-furnished property is not delivered to the Contractor by the required time, the Contracting Officer shall, upon the Contractor's timely written request, make a determination of the delay, if any, caused the Contractor and shall make an equitable adjustment in accordance with paragraph (h) of this clause.

(b) Changes in Government-furnished property.

(1) The Contracting Officer may, by written notice,

(i) decrease the Government-furnished property provided or to be provided under this contract, or

(ii) substitute other Government-furnished property for the property to be provided by the Government, or to be acquired by the Contractor for the Government, under this contract. The Contractor shall promptly take such action as the Contracting Officer may direct regarding the removal, shipment, or disposal of the property covered by such notice.

(2) Upon the Contractor's written request, the Contracting Officer shall make an equitable adjustment to the contract in accordance with paragraph (h) of this clause, if the Government has agreed in the Schedule to make the property available for performing this contract and there is any--

(i) Decrease or substitution in this property pursuant to subparagraph (b)(1) above; or

(ii) Withdrawal of authority to use this property, if provided under any other contract or lease.

(c) Title in Government property.

(1) The Government shall retain title to all Government-furnished property.

(2) All Government-furnished property and all property acquired by the Contractor, title to which vests in the Government under this paragraph (collectively referred to as "Government property"), are subject to the provisions of this clause. However, special tooling accountable to this contract is subject to the provisions of the Special Tooling clause and is not subject to the provisions of this clause. Title to Government property shall not be affected by its incorporation into or attachment to any property not owned by the Government, nor shall government property become a fixture or lose its identity as personal property by being attached to any real property.

(3) Title to each item of facilities and special test equipment acquired by the Contractor for the Government under this contract shall pass to and vest in the Government when its use in performing this contract commences or when the Government has paid for it, whichever is earlier, whether or not title previously vested in the Government.

(4) If this contract contains a provision directing the Contractor to purchase material for which the Government will reimburse the Contractor as a direct item of cost under this contract--

(i) Title to material purchased from a vendor shall pass to and vest in the Government upon the vendor's delivery of such material; and

(ii) Title to all other material shall pass to and vest in the Government upon--

(A) Issuance of the material for use in contract performance;

(B) Commencement of processing of the material or its use in contract performance; or

(C) Reimbursement of the cost of the material by the Government, whichever occurs first.

(d) Use of Government property. The Government property shall be used only for performing this contract, unless otherwise provided in this contract or approved by the Contracting Officer.

(e) Property Administration.

(1) The Contractor shall be responsible and accountable for all Government property provided under this contract and shall comply with Federal Acquisition Regulation (FAR) Subpart 45.5, as in effect on the date of this contract.

(2) The Contractor shall establish and maintain a program for the use, maintenance, repair, protection, and preservation of Government property in accordance with sound industrial practice and the applicable provisions of Subpart 45.5 of the FAR.

(3) If damage occurs to Government property, the risk of which has been assumed by the Government under this contract, the Government shall replace the items or the Contractor shall make such repairs as the Government directs. However, if the Contractor cannot effect such repairs within the time required, the Contractor shall dispose of the property as directed by the Contracting Officer. When any property for which the Government is responsible is replaced or repaired, the Contracting Officer shall make an equitable adjustment in accordance with paragraph (h) of this clause.

(4) The Contractor represents that the contract price does not include any amount for repairs or replacement for which the Government is responsible. Repair or replacement of property for which the Contractor is responsible shall be accomplished by the Contractor at its own expense.

(f) Access. The Government and all its designees shall have access at all reasonable times to the premises in which any Government property is located for the purpose of inspecting the Government property.

(g) Risk of loss. Unless otherwise provided in this contract, the Contractor assumes the risk of, and shall be responsible for, any loss or destruction of, or damage to, Government property upon its delivery to the Contractor or upon passage of title to the Government under paragraph (c) of this clause. However, the Contractor is not responsible for reasonable wear and tear to Government property or for Government property properly consumed in performing this contract.

(h) Equitable adjustment. When this clause specifies an equitable adjustment, it shall be made to any affected contract provision in accordance with the procedures of the Changes clause. When appropriate, the Contracting Officer may initiate an equitable adjustment in favor of the Government. The right to an equitable adjustment shall be the Contractor's exclusive remedy. The Government shall not be liable to suit for breach of contract for--

(1) Any delay in delivery of Government-furnished property;

(2) Delivery of Government-furnished property in a condition not suitable for its intended use;

(3) A decrease in or substitution of Government-furnished property; or

(4) Failure to repair or replace Government property for which the Government is responsible.

(i) Final accounting and disposition of Government property. Upon completing this contract, or at such earlier dates as may be fixed by the Contracting Officer, the Contractor shall submit, in a form acceptable to the Contracting Officer, inventory schedules covering all items of Government property (including any resulting scrap) not consumed in performing this contract or delivered to the Government. The Contractor shall prepare for shipment, deliver f.o.b. origin, or dispose of the Government property as may be directed or authorized by the Contracting Officer. The net proceeds of any such disposal shall be credited to the contract price or shall be paid to the Government as the Contracting Officer directs.

(j) Abandonment and restoration of Contractor's premises. Unless otherwise provided herein, the Government--

(1) May abandon any Government property in place, at which time all obligations of the Government regarding such abandoned property shall cease; and

(2) Has no obligation to restore or rehabilitate the Contractor's premises under any circumstances (e.g., abandonment, disposition upon completion of need, or upon contract completion). However, if the Government-furnished property (listed in the Schedule or specifications) is withdrawn or is unsuitable for the

intended use, or if other Government property is substituted, then the equitable adjustment under paragraph (h) of this clause may properly include restoration or rehabilitation costs.

(k) Communications. All communications under this clause shall be in writing.

(l) Overseas contracts. If this contract is to be performed outside of the United States of America, its territories, or possessions, the words "Government" and "Government-furnished" (wherever they appear in this clause) shall be construed as "United States Government" and "United States Government-furnished," respectively.

115. *FAR 52.245-4 GOVERNMENT-FURNISHED PROPERTY (SHORT FORM) (APR 1984) [For Government Property $100,000 or Less]

(a) The Government shall delivery to the Contractor, at the time and locations stated in this contract, the Government-furnished property described in the Schedule or specifications. If that property, suitable for its intended use, is not delivered to the Contractor, the Contracting Officer shall equitably adjust affected provisions of this contract in accordance with the Changed clause when--

(1) The Contractor submits a timely written request for an equitable adjustment; and

(2) The facts warrant an equitable adjustment.

(b) Title to Government-furnished property shall remain in the Government. The Contractor shall use the Government-furnished property only in connection with this contract. The Contractor shall maintain adequate property control records in accordance with sound industrial practice and will make such records available for Government inspection at all reasonable times, unless the clause at Federal Acquisition Regulation 52.245-1, Property Records, is included in this contract.

(c) Upon delivery of Government-furnished property to the Contractor, the Contractor assumes the risk and responsibility for its loss or damage, except--

(1) For reasonable wear and tear;

(2) To the extent property is consumed in performing this contract; or

(3) As otherwise provided for by the provisions of this contract.

(d) Upon completing this contract, the Contractor shall follow the instructions of the Contracting Officer regarding the disposition of all Government-furnished property not consumed in performing this contract or previously delivered to the Government. The Contractor shall prepare for shipment, deliver f.o.b. origin, or dispose of the Government property, as may be directed or authorized by the Contracting Officer. The net proceeds of any such disposal shall be credited to the contract price or shall be paid to the Government as directed by the Contracting Officer.

(e) If this contract is to be performed outside the United States of America, its territories, or possessions, the words "Government" and "Government-furnished" (wherever they appear in this clause) shall be construed as "United States Government" and "United States Government-furnished," respectively.

116. *FAR 52.246-12 INSPECTION OF CONSTRUCTION (AUG 1996)

(a) Definition. "Work" includes, but is not limited to, materials, workmanship, and manufacture and fabrication of components.

(b) The Contractor shall maintain an adequate inspection system and perform such inspections as will ensure that the work performed under the contract conforms to contract requirements. The Contractor shall maintain complete inspection records and make them available to the Government. All work shall be conducted under the general direction of the Contracting Officer and is subject to Government inspection and test at all places and at all reasonable times before acceptance to ensure strict compliance with the terms of the contract.

(c) Government inspections and tests are for the sole benefit of the Government and do not--

(1) Relieve the Contractor of responsibility for providing adequate quality control measures;

(2) Relieve the Contractor of responsibility for damage to or loss of the material before acceptance;

(3) Constitute or imply acceptance; or

(4) Affect the continuing rights of the Government after acceptance of the completed work under paragraph (i) below.

(d) The presence or absence of a Government inspector does not relieve the Contractor from any contract requirement, nor is the inspector authorized to change any term or condition of the specification without the Contracting Officer's written authorization.

(e) The Contractor shall promptly furnish, at no increase in contract price, all facilities,labor, and material reasonably needed for performing such safe and convenient inspections and tests as may be required by the Contracting Officer. The Government may charge to the Contractor any additional cost of inspection or test when work is not ready at the time specified by the Contractor for inspection or test, or when prior rejection makes reinspection or retest necessary. The Government shall perform all inspections and tests in a manner that will not unnecessarily delay the work. Special, full size, and performance tests shall be performed as described in the contract.

(f) The Contractor shall, without charge, replace or correct work found by the Government not to conform to contract requirements, unless in the public interest the Government consents to accept the work with an appropriate adjustment in contract price. The Contractor shall promptly segregate and remove rejected material from the premises.

(g) If the Contractor does not promptly replace or correct rejected work, the Government may

(1) by contract or otherwise, replace or correct the work and charge the cost to the Contractor or

(2) Terminate for default the Contractor's right to proceed.

(h) If, before acceptance of the entire work, the Government decides to examine already completed work by removing it or tearing it out, the Contractor, on request, shall promptly furnish all necessary facilities, labor, and material. If the work is found to be defective or nonconforming in any material respect due to the fault of the Contractor or its subcontractors, the Contractor shall defray the expenses of the examination and of satisfactory reconstruction. However, if the work is found to meet contract requirements, the Contracting Officer shall make an equitable adjustment for the additional services involved in the examination and reconstruction, including, if completion of the work was thereby delayed, an extension of time.

(i) Unless otherwise specified in the contract, the Government shall accept, as promptly as practicable after completion and inspection, all work required by the contract or that portion of the work the Contracting Officer determines can be accepted separately. Acceptance shall be final and conclusive except for latent defects, fraud, gross mistakes amounting to fraud, or the Government's rights under any warranty or guarantee.

117. *FAR 52.246-21 WARRANTY OF CONSTRUCTION (MAR 1994)

(a) In addition to any other warranties in this contract, the Contractor warrants, except as provided in paragraph (i) of this clause, that work performed under this contract conforms to the contract requirements and is free of any defect in equipment, material, or design furnished, or workmanship performed by the Contractor or any subcontractor or supplier at any tier.

(b) This warranty shall continue for a period of 1 year from the date of final acceptance of the work. If the Government takes possession of any part of the work before final acceptance, this warranty shall continue for a period of 1 year from the date the Government takes possession.

(c) The Contractor shall remedy at the Contractor's expense any failure to conform, or any defect. In addition, the Contractor shall remedy at the Contractor's expense any damage to Government-owned or controlled real or personal property, when that damage is the result of--

(1) The Contractor's failure to conform to contract requirements; or
(2) Any defect of equipment, material, workmanship, or design furnished.

(d) The Contractor shall restore any work damaged in fulfilling the terms and conditions of this clause. The Contractor's warranty with respect to work repaired or replaced will run for 1 year from the date of repair or replacement.

(e) The Contracting Officer shall notify the Contractor, in writing, within a reasonable time after the discovery of any failure, defect, or damage.

(f) If the Contractor fails to remedy any failure, defect, or damage within a reasonable time after receipt of notice, the Government shall have the right to replace, repair, or otherwise remedy the failure, defect, or damage at the Contractor's expense.

(g) With respect to all warranties, express or implied, from subcontractors, manufacturers, or suppliers for work performed and materials furnished under this contract, the Contractor shall--

(1) Obtain all warranties that would be given in normal commercial practice;

(2) Require all warranties to be executed, in writing, for the benefit of the Government, if directed by the Contracting Officer; and

(3) Enforce all warranties for the benefit of the Government, if directed by the Contracting Officer.

(h) In the event the Contractor's warranty under paragraph (b) of this clause has expired, the Government may bring suit at its expense to enforce a subcontractor's, manufacturer's, or supplier's warranty.

(i) Unless a defect is caused by the negligence of the Contractor or subcontractor or supplier at any tier, the Contractor shall not be liable for the repair of any defects of material or design furnished by the Government nor for the repair of any damage that results from any defect in Government-furnished material or design.

(j) This warranty shall not limit the Government's rights under the Inspection and Acceptance clause of this contract with respect to latent defects, gross mistakes, or fraud.

118. DFARS 252.247-7023 TRANSPORTATION OF SUPPLIES BY SEA (MAR 2000)

(a) Definitions.

As used in this clause--

(1) "Components" means articles, materials, and supplies incorporated directly into end products at any level of manufacture, fabrication, or assembly by the Contractor or any subcontractor.

(2) 'Department of Defense" (DOD) means the Army, Navy, Air Force, Marine Corps, and defense agencies.

(3) "Foreign flag vessel" means any vessel that is not a U.S.-flag vessel.

(4) "Ocean transportation" means any transportation aboard a ship, vessel, boat, barge, or ferry through international waters.

(5) "Subcontractor" means a supplier, materialman, distributor, or vendor at any level below the prime Contractor whose contractual obligation to perform results from, or is conditioned upon, award of the prime contract and who is performing any part of the work or other requirement of the prime contract.

(6) "Supplies" means all property, except land and interests in lard, that is clearly identifiable for eventual use by or owned by the DoD at the time of transportation by sea.

(i) An item is clearly identifiable for eventual use by the DoD if, for example, the contract documentation contains a reference to a DoD contract number or a military destination.

(ii) "Supplies" includes (but is not limited to) public works; buildings and facilities; ships; floating equipment and vessels of every character, type, and description, with parts, subassemblies, accessories, and equipment; machine tools; material; equipment; stores of all kinds; end items; construction materials; and components of the foregoing.

(7) "U.S.-flag vessel" means a vessel of the United States or belonging to the United States, including any vessel registered or having national status under the laws of the United States.

(b) (1) The Contractor shall use U.S. -flag vessels when transporting any supplies by sea under this contract.

(2) A subcontractor transporting supplies by sea under this contract shall use U.S.-flag vessel if--

(i) This Contract is a construction contract; or

(ii) The supplies being transported are-

(A) Noncommercial items; or

(B) Commercial items that-

(1) The Contractor is reselling or distributing to the Government without adding value (generally, the Contractor does not add value to items that it subcontracts for f.o.b. destination shipment);

(2) Are shipped in direct support of U.S. military contingency operations, exercises, or forces deployed in humanitarian or peacekeeping operations; or

(3) Are commissary or exchange cargoes transported outside of the Defense Transportation System in accordance with 10 U.S.C. 2643.

(c) The Contractor and its subcontractors may request that the Contracting Officer authorize shipment in foreign-flag vessels, or designate available U.S.-flag vessels, if the Contractor or a subcontractor believes that--

(1) U.S.-flag vessels are not available for timely shipment;

(2) The freight charges are inordinately excessive or unreasonable; or

(3) Freight charges are higher that charges to private persons for transportation of like goods.

(d) The Contractor must submit any request for use of other than U.S.-flag vessels in writing to the Contracting Officer at least 45 days prior to the sailing date necessary to meet its delivery schedules. The Contracting Officer will process requests submitted after such date(s) as expeditiously as possible, but the Contracting Officer's failure to grant approvals to meet the shipper's sailing date will not of itself constitute a compensable delay under this or any other clause of this contract. Requests shall contain at a minimum--

(1) Type, weight, and cube of cargo;

(2) Required shipping date:

(3) Special handling and discharge requirements;

(4) Loading and discharge points;

(5) Name of shipper and consignee;

(6) Prime contract number, and

(7) A documented description of efforts made to secure U.S.-flag vessels, including points of contact (with names and telephone numbers) with at least two U.S.-flag carriers contacted. Copies of telephone notes, telegraphic and facsimile message or letters will be sufficient for this purpose.

(e) The Contractor shall, within 30 days after each shipment covered by this clause, provide the Contracting Officer and the Division of National Cargo, Office of Market Development, Maritime Administration, U.S. Department of Transportation, Washington, DC 20590, one copy of the rated on board vessel operating carrier's ocean bill of lading, which shall contain the following information--

(1) Prime contract number;

(2) Name of vessel;

(3) Vessel flag of registry;

(4) Date of loading;

(5) Port of loading;

(6) Port of final discharge;

(7) Description of commodity;

(8) Gross weight in pounds and cubic feet if available;

(9) Total ocean freight in U.S. dollars; and

(10) Name of the steamship company.

(f) The Contractor agrees to provide with its final invoice under this contract a representation that to the best of its knowledge and belief--

(1) No ocean transportation was used in the performance of this contract;

(2) Ocean transportation was used and only U.S.-flag vessels were used for all ocean shipments under the contract;

(3) Ocean transportation was used, and the Contractor had the written consent of the Contracting Officer for all non-U.S.-flag ocean transportation; or

(4) Ocean transportation was used and some or all of the shipments were made on non-U.S.-flag vessels without the written consent of the Contracting Officer. The Contractor shall describe these shipments in the following format;

ITEM DESCRIPTION	CONTRACT LINE ITEMS	QUANTITY
TOTAL		

(g) If the final invoice does not include the required representation, the Government will reject and return it to the Contractor as an improper invoice for the purposes of the Prompt Payment clause of this contract. In the event there has been unauthorized use of non-U.S.-flag vessels in the performance of this contract, the Contracting Officer is entitled to equitably adjust the contract, based on the unauthorized use.

(h) The Contractor shall include this clause, including this paragraph (h) in all subcontracts under this contract that-

(1) Exceed the simplified acquistion threshold in Part 2 of the Federal Acquisition Regulation; and

(2) Are for a type of supplies described in paragraph (b) (2) of this clause.

119. DFARS 252.247-7024 NOTIFICATION OF TRANSPORTATION OF SUPPLIES BY SEA (MAR 2000)

(a) The Contractor has indicated by the response to the solicitation provision, Representation of Extent of Transportation by Sea, that it did not anticipate transporting by sea any supplies. If, however, after the award of this contract, the Contractor learns that supplies, as defined in the Transportation of Supplies by Sea clause of this contract, will be transported by sea, the Contractor--

(1) Shall notify the Contracting Officer of that fact; and

(2) Hereby agrees to comply with all the terms and conditions of the Transportation of Supplies by Sea clause of this contract.

(b) (1) The Contractor shall use U.S. -flag vessels when transporting any supplies by sea under this contract.

(2) A subcontractor transporting supplies by sea under this contract shall use U.S.-flag vessel if--

(i) This Contract is a construction contract; or

(ii) The supplies being transported are-

(A) Noncommercial items; or

(B) Commercial items that-

(1) The Contractor is reselling or distributing to the Government without adding value (generally, the Contractor does not add value to items that it subcontracts for f.o.b. destination shipment);

(2) Are shipped in direct support of U.S. military contingency operations, exercises, or forces deployed in humanitarian or peacekeeping operations; or

(3) Are commissary or exchange cargoes transported outside of the Defense Transportation System in accordance with 10 U.S.C. 2643.

120. FAR 52.248-3 VALUE ENGINEERING--CONSTRUCTION (FEB 2000) (ALERNATE I (APR 1984)

(a) General. The Contractor is encouraged to develop, prepare, and submit value engineering change proposals (VECP's) voluntarily. The Contractor shall share in any instant contract savings realized from accepted VECP's, in accordance with paragraph (f) of this clause.

(b) Definitions. "Collateral costs," as used in this clause, means agency costs of operation, maintenance, logistic support, or Government-furnished property.

"Collateral savings," as used in this clause, means those measurable net reductions resulting from a VECP in the agency's overall projected collateral costs, exclusive of acquisition savings, whether or not the acquisition cost changes.

"Contractor's development and implementation costs," as used in this clause, means those costs the Contractor incurs on a VECP specifically in developing, testing, preparing, and submitting the VECP, as well as those costs the Contractor incurs to make the contractual changes required by Government acceptance of a VECP.

"Government costs," as used in this clause, means those agency costs that result directly from developing and implementing the VECP, such as any net increases in the cost of testing, operations, maintenance, and logistic support. The term does not include the normal administrative costs of processing the VECP.

"Instant contract savings," as used in this clause, means the estimated reduction in Contractor cost of performance resulting from acceptance of the VECP, minus allowable Contractor's development and implementation costs, including subcontractors' development and implementation costs (see paragraph (h) of this clause).

"Value engineering change proposal (VECP)" means a proposal that--

(1) Requires a change to this, the instant contract, to implement; and

(2) Results in reducing the contract price or estimated cost without impairing essential functions or characteristics; provided, that it does not involve a change--

(i) In deliverable end item quantities only; or

(ii) To the contract type only.

(c) VECP preparation. As a minimum, the Contractor shall include in each VECP the information described in paragraphs (c) (1) through (7) of this clause. If the proposed change is affected by contractually required configuration management or similar procedures, the instructions in those procedures relating to format, identification, and priority assignment shall govern VECP preparation. The VECP shall include the following:

(1) A description of the difference between the existing contract requirement and that proposed, the comparative advantages and disadvantages of each, a justification when an item's function or characteristics are being altered, and the effect of the change on the end item's performance.

(2) A list and analysis of the contract requirements that must be changed if the VECP is accepted, including any suggested specification revisions.

(3) A separate, detailed cost estimate for

(i) the affected portions of the existing contract requirement and

(ii) the VECP. The cost reduction associated with the VECP shall take into account the Contractor's allowable development and implementation costs, including any amount attributable to subcontracts under paragraph (h) of this clause.

(4) A description and estimate of costs the Government may incur in implementing the VECP, such as test and evaluation and operating and support costs.

(5) A prediction of any effects the proposed change would have on collateral costs to the agency.

(6) A statement of the time by which a contract modification accepting the VECP must be issued in order to achieve the maximum cost reduction, noting any effect on the contract completion time or delivery schedule.

(7) Identification of any previous submissions of the VECP, including the dates submitted, the agencies and contract numbers involved, and previous Government actions, if known.

(d) Submission. The Contractor shall submit VECP's to the Resident Engineer at the worksite, with a copy to the Contracting Officer.

(e) Government action.

(1) The Contracting Officer will notify the Contractor of the status of the VECP within 45 calendar days after the contracting office receives it. If additional time is required, the Contracting Officer will notify the Contractor within the 45-day period and provide the reason for the delay and the expected date of the

decision. The Government will process VECP's expeditiously; however, it will not be liable for any delay in acting upon a VECP.

(2) If the VECP is not accepted, the Contracting Officer will notify the Contractor in writing, explaining the reasons for rejection. The Contractor may withdraw any VECP, in whole or in part, at any time before it is accepted by the Government. The Contracting Officer may require that the Contractor provide written notification before undertaking significant expenditures for VECP effort.

(3) Any VECP may be accepted, in whole or in part, by the Contracting Officer's award of a modification to this contract citing this clause. The Contracting Officer may accept the VECP, even though an agreement on price reduction has not been reached, by issuing the Contractor a notice to proceed with the change. Until a notice to proceed is issued or a contract modification applied a VECP to this contract, the Contractor shall perform in accordance with the existing contract. The decision to accept or reject all or part of any VECP is a unilateral decision made solely at the discretion of the Contracting Officer.

(f) Sharing.

(1) Rates. The Government's share of savings is determined by subtracting Government costs from instant contract savings and multiplying the result by

(i) 45 percent for fixed-price contracts or

(ii) 75 percent for cost-reimbursement contracts.

(2) Payment. Payment of any share due the Contractor for use of a VECP on this contract shall be authorized by a modification to this contract to--

(i) Accept the VECP;

(ii) Reduce the contract price or estimated cost by the amount of instant contract savings; and

(iii) Provide the Contractor's share of savings by adding the amount calculated to the contract price or fee.

(g) Deleted.

(h) Subcontracts. The Contractor shall include an appropriate value engineering clause in any subcontract of $50,000 or more and may include one in subcontracts of lesser value. In computing any adjustment in this contract's price under paragraph (f) of this clause, the Contractor's allowable development and implementation costs clearly resulting from a VECP accepted by the Government under this contract, but shall exclude any value engineering incentive payments to a subcontractor. The Contractor may choose any arrangement for subcontractor value engineering incentive payments; provided, that these payments shall not reduce the Government's share of the savings resulting from the VECP.

(i) Data. The Contractor may restrict the Government's right to use any part of a VECP or the supporting data by marking the following legend on the affected parts:

"These data, furnished under the Value Engineering--Construction clause of contract - _____, shall not be disclosed outside the Government or duplicated, used, or disclosed, in whole or in part, for any purpose other than to evaluate a value engineering change proposal submitted under the clause. This restriction does not limit the Government's right to use information contained in these data if it has been obtained or is otherwise available from the Contractor or from another source without limitations."

If a VECP is accepted, the Contractor hereby grants the Government unlimited rights in the VECP and supporting data, except that, with respect to data qualifying and submitted as limited rights technical data, the Government shall have the rights specified in the contract modification implementing the VECP and shall appropriately mark the data. (The terms "unlimited rights" and "limited rights" are defined in Part 27 of the Federal Acquisition Regulation.)

(End of Clause)

121. *FAR 52.249-1 TERMINATION FOR CONVENIENCE OF THE GOVERNMENT (FIXED-PRICE) (SHORT FORM) (APR 1984) [For Contracts $100,000 or Less]

The Contracting Officer, by written notice, may terminate this contract, in whole or in part, when it is in the Government's interest. If this contract is terminated, the rights, duties, and obligations of the parties, including

compensation to the Contractor, shall be in accordance with Part 49 of the Federal Acquisition Regulation in effect on the date of this contract.

122. *FAR 52.249-2 TERMINATION FOR CONVENIENCE OF THE GOVERNMENT (FIXED-PRICE) ALTERNATE I (SEP 1996) [For Contracts Over $100,000]

(a) The Government may terminate performance of work under this contract in whole or, from time to time, in part if the Contracting Officer determines that a termination is in the Government's interest. The Contracting Officer shall terminate by delivering to the Contractor a Notice of Termination specifying the extent of termination and the effective date.

(b) After receipt of a Notice of Termination, and except as directed by the Contracting Officer, the Contractor shall immediately proceed with the following obligations, regardless of any delay in determining or adjusting any amounts due under this clause:

(1) Stop work as specified in the notice.

(2) Place no further subcontracts or orders (referred to as subcontracts in this clause) for materials, services, or facilities, except as necessary to complete the continued portion of the contract.

(3) Terminate all subcontracts to the extent they relate to the work terminated.

(4) Assign to the Government, as directed by the Contracting Officer, all right, title, and interest of the Contractor under the subcontracts terminated, in which case the Government shall have the right to settle or to pay any termination settlement proposal arising out of those terminations.

(5) With approval or ratification to the extent required by the Contracting Officer, settle all outstanding liabilities and termination settlement proposals arising from the termination of subcontracts; the approval or ratification will be final for purposes of this clause.

(6) As directed by the Contracting Officer, transfer title and deliver to the Government

(i) the fabricated or unfabricated parts, work in process, completed work, supplies, and other material produced or acquired for the work terminated, and

(ii) the completed or partially completed plans, drawings, information, and other property that, if the contract had been completed, would be required to be furnished to the Government.

(7) Complete performance of the work not terminated.

(8) Take any action that may be necessary, or that the Contracting Officer may direct, for the protection and preservation of the property related to this contract that is in the possession of the Contractor and in which the Government has or may acquire an interest.

(9) Use its best efforts to sell, as directed or authorized by the Contracting Officer, any property of the types referred to in subparagraph (b) (6) of this clause; provided, however, that the Contractor

(i) is not required to extend credit to any purchaser and

(ii) may acquire the property under the conditions prescribed by, and at prices approved by, the Contracting Officer. The proceeds of any transfer or disposition will be applied to reduce any payments to be made by the Government under this contract, credited to the price or cost of the work, or paid in any other manner directed by the Contracting Officer.

(c) The Contractor shall submit complete termination inventory schedules no later than 120 days from the effective date of termination, unless extended in writing by the Contracting Officer upon written request of the Contractor within this 120-day period.

(d) After expiration of the plant clearance period as defined in Subpart 45.6 of the Federal Acquisition Regulation, the Contractor may submit to the Contracting Officer a list, certified as to quantity and quality, of termination inventory not previously disposed of, excluding items authorized for disposition by the Contracting Officer. The Contractor may request the Government to remove those items or enter into an agreement for their storage. Within 15 days, the Government will accept title to those items and remove them or enter into a storage agreement. The Contracting Officer may verify the list upon removal of the items, or if stored, within 45 days from submission of the list, and shall correct the list, as necessary, before final settlement.

(e) After termination, the Contractor shall submit a final termination settlement proposal to the Contracting Officer in the form and with the certification prescribed by the Contracting Officer. The Contractor shall submit the proposal promptly, but no later than 1 year from the effective date of termination, unless extended in writing by the Contracting Officer upon written request of the Contractor within this 1 year period. However, if the Contracting Officer determines that the facts justify it, a termination settlement proposal may be received and

acted on after 1 year or any extension. If the Contractor fails to submit the proposal within the time allowed, the Contracting Officer may determine, on the basis of information available, the amount, if any, due the Contractor because of the termination and shall pay the amount determined.

(f) Subject to paragraph (e) of this clause, the Contractor and the Contracting Officer may agree upon the whole or any part of the amount to be paid because of the termination. The amount may include a reasonable allowance for profit on work done. However, the agreed amount, whether under this paragraph (f) or paragraph (g) of this clause, exclusive of costs shown in subparagraph (g)(3) of this clause, may not exceed the total contract price as reduced by (1) the amount of payments previously made and (2) the contract price of work not terminated. The contract shall be amended, and the Contractor paid the agreed amount. Paragraph (f) of this clause shall not limit, restrict, or affect the amount that may be agreed upon to be paid under this paragraph.

(g) If the Contractor and the Contracting Officer fail to agree on the whole amount to be paid the Contractor because of the termination of work, the Contracting Officer shall pay the Contractor the amounts determined as follows, but without duplication of any amounts agreed upon under paragraph (f) of this clause:

(1) For contract work performed before the effective date of the termination, the total (without duplication of any items) of--

(i) The cost of this work;

(ii) The cost of settling and paying termination settlement proposals under terminated subcontracts that are properly chargeable to the terminated portion of the contract if not included in subdivision (g)(1)(i) of this clause; and

(iii) A sum, as profit on subdivision (g)(1)(i) of this clause, determined by the Contracting Officer under 49.202 of the Federal Acquisition Regulation, in effect on the date of this contract, to be fair and reasonable; however, if it appears that the Contractor would have sustained a loss on the entire contract had it been completed, the Contracting Officer shall allow no profit under this subdivision (iii) and shall reduce the settlement to reflect the indicated rate of loss.

(2) The reasonable costs of settlement of the work terminated, including--

(i) Accounting, legal, clerical, and other expenses reasonably necessary for the preparation of termination settlement proposals and supporting data;

(ii) The termination and settlement of subcontracts (excluding the amounts of such settlements); and

(iii) Storage, transportation, and other costs incurred, reasonably necessary for the preservation, protection, or disposition of the termination inventory.

(h) Except for normal spoilage, and except to the extent that the Government expressly assumed the risk of loss, the Contracting Officer shall exclude from the amounts payable to the Contractor under paragraph (g) of this clause, the fair value, as determined by the Contracting Officer, of property that is destroyed, lost, stolen, or damaged so as to become undeliverable to the Government or to a buyer.

(i) The cost principles and procedures of Part 31 of the Federal Acquisition Regulation, in effect on the date of this contract, shall govern all costs claimed, agreed to, or determined under this clause.

(j) The Contractor shall have the right of appeal, under the Disputes clause, from any determination made by the Contracting Officer under paragraph (e), (g), or (l) of this clause, except that if the Contractor failed to submit the termination settlement proposal within the time provided in paragraph (e) or (l), respectively, and failed to request a time extension, there is no right of appeal.

(k) In arriving at the amount due the Contractor under this clause, there shall be deducted--

(1) All unliquidated advance or other payments to the Contractor under the terminated portion of this contract;

(2) Any claim which the Government has against the Contractor under this contract; and

(3) The agreed price for, or the proceeds of sale of, materials, supplies, or other things acquired by the Contractor or sold under the provisions of this clause and not recovered by or credited to the Government.

(l) If the termination is partial, the Contractor may file a proposal with the Contracting Officer for an equitable adjustment of the price(s) of the continued portion of the contract. The Contracting Officer shall make any equitable adjustment agreed upon. Any proposal by the Contractor for an equitable adjustment under this clause shall be requested within 90 days from the effective date of termination unless extended in writing by the Contracting Officer.

(m) (1) The Government may, under the terms and conditions it prescribes, make partial payments and payments against costs incurred by the Contractor for the terminated portion of the contract, if the Contracting Officer believes the total of these payments will not exceed the amount to which the Contractor will be entitled.

(2) If the total payments exceed the amount finally determined to be due, the Contractor shall repay the excess to the Government upon demand, together with interest computed at the rate established by the Secretary of the Treasury under 50 U.S.C. App. 1215(b)(2). Interest shall be computed for the period from the date the excess payment is received by the Contractor to the date the excess is repaid. Interest shall not be charged on any excess payment due to a reduction in the Contractor's termination settlement proposal because of retention or other disposition of termination inventory until 10 days after the date of the retention or disposition, or a later date determined by the Contracting Officer because of the circumstances.

(n) Unless otherwise provided in this contract or by statute, the Contractor shall maintain all records and documents relating to the terminated portion of this contract for 3 years after final settlement. This includes all books and other evidence bearing on the Contractor's costs and expenses under this contract. The Contractor shall make these records and documents available to the Government, at the Contractor's office, at all reasonable times, without any direct charge. If approved by the Contracting Officer, photographs, microphotographs, or other authentic reproductions may be maintained instead of original records and documents.

123. *FAR 52.249-10 DEFAULT (FIXED-PRICE CONSTRUCTION) (APR 1984)

(a) If the Contractor refuses or fails to prosecute the work or any separable part, with the diligence that will insure its completion within the time specified in this contract including any extension, or fails to complete the work within this time, the Government may, by written notice to the Contractor, terminate the right to proceed with the work (or the separable part of the work) that has been delayed. In this event, the Government may take over the work and complete it by contract or otherwise, and may take possession of and use any materials, appliances, and plant on the work site necessary for completing the work. The Contractor and its sureties shall be liable for any damage to the Government resulting from the Contractor's refusal or failure to complete the work within the specified time, whether or not the Contractor's right to proceed with the work is terminated. This liability includes any increased costs incurred by the Government in completing the work.

(b) The Contractor's right to proceed shall not be terminated nor the Contractor charged with damages under this clause, if-

(1) The delay in completing the work arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor. Examples of such causes include

(i) acts of God or of the public enemy,

(ii) acts of the Government in either its sovereign or contractual capacity,

(iii) acts of another Contractor in the performance of a contract with the Government,

(iv) fires,

(v) floods,

(vi) epidemics,

(vii) quarantine restrictions,

(viii) strikes,

(ix) freight embargoes,

(x) unusually severe weather, or

(xi) delays of subcontractors or suppliers at any tier arising from unforeseeable causes beyond the control and without the fault or negligence of both the Contractor and the subcontractors or suppliers; and

(2) The Contractor, within 10 days from the beginning of any delay (unless extended by the Contracting Officer), notifies the Contracting Officer in writing of the causes of delay. The Contracting Officer shall ascertain the facts and the extent of delay. If, in the judgment of the Contracting Officer, the findings of fact warrant such action, the time for completing the work shall be extended. The findings of the Contracting Officer shall be final and conclusive on the parties, but subject to appeal under the Disputes clause.

(c) If, after termination of the Contractor's right to proceed, it is determined that the Contractor was not in default, or that the delay was excusable, the rights and obligation s of the parties will be the same as if the termination had been issued for the convenience of the Government.

(d) The rights and remedies of the Government in this clause are in addition to any other rights and remedies provided by law or under this contract.

124. ENVIRONMENTAL LITIGATION (1974 NOV OCE)

(a) If the performance of all or any part of the work is suspended, delayed, or interrupted due to an order of a court of competent jurisdiction as a result of environmental litigation, as defined below, the Contracting Officer, at the request of the Contractor, shall determine whether the order is due in any part to the acts or omissions of the Contractor or a Subcontractor at any tier not required by the terms of this contract. If it is determined that the order is not due in any part to acts or omissions of the Contractor or a Subcontractor at any tier other than as required by the terms of this contract, such suspension, delay, or interruption shall be considered as if ordered by the Contracting Officer in the administration of this contract under the terms of the "Suspension of Work" clause of this contract. The period of such suspension, delay, or interruption shall be considered unreasonable, and an adjustment shall be made for any increase in the cost of performance of this contract (excluding profit) as provided in that clause, subject to all the provisions thereof.

(b) The term "environmental litigation," as used herein, means a lawsuit alleging that the work will have an adverse effect on the environment or that the Government has not duly considered, either substantively or procedurally, the effect of the work on the environment.

125. EFARS 52.249-5000 BASIS FOR SETTLEMENT OF PROPOSALS

Actual costs will be used to determine equipment cost for a settlement proposal submitted on the total cost basis under FAR 49.206-2(b). In evaluating a termination settlement proposal using the total cost basis, the following principles will be applied to determine allowable equipment costs:

(1) Actual costs for each piece of equipment, or groups of similar serial or series equipment, need not be available in the contractor's accounting records to determine total actual equipment costs.

(2) If equipment costs have been allocated to a contract using predetermined rates, those charges will be adjusted to actual costs.

(3) Recorded job costs adjusted for unallowable and unallocable expenses will be used to determine equipment operating expenses.

(4) Ownership costs (depreciation) will be determined using the contractor's depreciation schedule (subject to the provisions of FAR 31.205-11).

(5) License, taxes, storage and insurance costs are normally recovered as an indirect expense and unless the contractor charges these costs directly to contracts, they will be recovered through the indirect expense rate.

126. INAPPLICABLE PROVISIONS AND CLAUSES (Local Provision). [Applicable only for projects or delivery orders less than $100,000]

This provision applies only to delivery orders and projects less than $100,000.

Pursuant to Pub. L. 103-355, the following provisions and clauses, as noted below, are inapplicable to this contract:

(a) FAR 28.102-3, Miller Act requirements;
(b) Not Used;
(c) FAR 52.203-5, Covenant Against Contingent Fees;
(d) FAR 52.203-6, Restrictions on Subcontractor Sales to the Government;
(e) FAR 52.203-7, Anti-Kickback Procedures;

(f) FAR 52.222-4, Contract Work Hours and Safety Standards Act-Overtime Compensation; and
(g) FAR 52.223-6, Drug-Free Workplace, except for individuals.

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SECTION 00800

SPECIAL CONTRACT REQUIREMENTS
5/00, Rev 4/03

PART 1 GENERAL

Attachments:
General Wage Decision No. ND020002

1.1 INDEFINITE QUANTITY

This is an indefinite quantity contract for road rehabilitation in accordance with drawings and specifications as specified herein and effective from the date of award through 30 September, 2003, with two one-year option years. The first option year starts on 01 October 2003 and ends on 30 September 2004, and the second option year starts on 01 October 2004 and ends on 30 September 2005. Each Delivery Order will be issued with a time of completion. Liquidated damages will be assessed as described in paragraph "LIQUIDATED DAMAGES".)

a. Delivery or performance shall be made only as authorized by orders issued in accordance with the ordering clause. The contractor shall furnish to the Government, when and if ordered, work for the items specified.

b. Except for any limitations on quantities in the delivery-order limitations clause, there is no limit on the number of orders that may be issued.

c. Any order issued during the effective period of this contract shall be completed by the Contractor within the time specified in the order. The contract shall govern the Contractor's and Government's rights and obligations with respect to that order to the same extent as if the order were completed during the contract effective period.

1.2 LIQUIDATED DAMAGES-CONSTRUCTION

a. If the Contractor fails to complete the work within the time specified in the contract, or any extension, the Contractor shall pay to the Government as liquidated damages, the sum as set out in the schedule below for each calendar day of delay.

b. If the Government terminates the Contractor's right to proceed, the resulting damage will consist of liquidated damages until such reasonable time as may be required for final completion of the work together with any increased costs occasioned the Government in completing the work.

c. If the Government does not terminate the Contractor's right to proceed, the resulting damage will consist of liquidated damages until the work is completed or accepted. (FAR 52.211-12)

Liquidated Damages Schedule

All delivery Orders will have $475.00 per day liquidated damages.

1.3 NOT USED

1.4 OPTION TO EXTEND THE TERM OF THE CONTRACT

a) The Government may extend the term of this contract by written notice to the Contractor within and up to the expiration of the current performance period; provided; that the Government shall give the Contractor a preliminary written notice of its intent to extend at least 60 days before the contract expires. The preliminary notice does not commit the Government to an extension.

b) If the Government exercises this option, the extended contract shall be considered to include this option provision.

c) The total duration of this contract, including the exercise of any options under this clause, shall not exceed past 30 September 2005. (FAR 52.217-9)

1.5 ORDERING

a) Any supplies and services to be furnished under this contract shall be ordered by issuance of delivery orders by the Contracting Officer. Such orders may be issued from date of award through 30 September 2003, with option year as specified in paragraph 1.4 above.

b) All delivery orders are subject to the terms and conditions of this contract. In the event of conflict between a delivery order and this contract, the contract shall control.

c) If mailed, a delivery order is considered "issued" when the Government deposits the order in the mail. All orders must be in written form (FAR 52.216-18)

1.6 DELIVERY ORDER LIMITATIONS

1.6.1 MINIMUM ORDER

When the Government requires supplies or services covered by this contract in amount of less than $15,000.00 for any one Project Site, Delivery Order, the Government is not obligated to purchase, nor is the Contractor obligated to furnish those items under the contract. (Based on FAR 52.216-19).

1.6.2 MAXIMUM ORDER

The Contractor is not obligated to honor--

(1) Any single Delivery Order in excess of $500,000.00 from the period of award through 30 September 2003 and any single Delivery Order in excess of $500,000.00 for the option years specified in paragraph 1.1. above.

(2) Any order when a combination of Delivery Orders in effect at any point in time is in excess of $500,000.00 for the period from Date of Award through 30 September 2003 and any order when a combination of Delivery Orders in effect at any point in time is in excess of $500,000.00 for the option year period specified in paragraph 1.1. above.

(3) A series of orders from the same ordering office within the time periods stated that together call for quantities exceeding the limitation in subparagraph (1) or (2) above.

1.6.3 Orders

If this is a requirements contract (i.e., includes the Requirements clause at subsection 52.216-21 of the Federal Acquisition Regulation (FAR)), the Government is not required to order a part of any one requirement from the Contractor if that requirement exceeds the maximum-order limitations in

paragraph 1.6.2 above.

1.6.4 Orders

Notwithstanding paragraphs 1.6.2 and 1.6.3 above, the Contractor shall honor any order exceeding the maximum order limitations in paragraph 1.6.2, unless that order (or orders) is returned to the ordering officer within 7 days after issuance, with written notice stating the Contractor's intent not to provide the item (or items) called for and the reasons. Upon receiving this notice, the Government may acquire the supplies or services from another source.

1.7 SUBMITTALS

See Section 01330 - Submittal Procedures.

Government approval is required for submittals with a "G" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL DESCRIPTIONS:Text

1.8 CONTRACT LIMITATIONS

Minimum Contract.

Basic Year - $15,000.00
2004 Option Year - $15,000.00
2005 Option Year - $15,000.00

Maximum Contract.

Basic Year - $500,000.00
2004 Option Year - $500,000.00
2005 Option Year - $500,000.00

1.9 PERFORMANCE OF WORK

The Contractor shall, upon receipt of duly executed delivery orders, perform all work required of this contract for projects described in said delivery orders. The Contractor shall complete all work under this contract within the period of time specified in delivery orders to be issued except that no delivery orders shall be issued hereunder after the expiration of this contract.

1.10 DESCRIPTION OF WORK ORDER

The Contracting Officer or his authorized representative will provide the Contractor with a description of the services to be provided for any work request. The Contractor shall respond to the need of the Government within 2 working days by visiting the work site in the company of the Contracting Officer or his authorized representative to examine conditions effecting construction time and to further clarify the scope of the work. Date for submittal of the Contractor's proposal for the construction time will be as agreed upon by the Government and the Contractor. Negotiations, if required, will be conducted to establish a completion date and resolve any questions on the schedule of items being ordered. The Delivery Order will then be issued by the Contracting Officer. The Delivery Order price will be determined by applying prices from the Bid Schedule to the services being ordered.

1.10.1 COMMENCEMENT OF WORK

The Contractor shall commence any mobilization and familiarization activities prior to actual work on individual delivery orders. However, within 30 calendar days or less if mutually agreed upon, the Contractor shall be fully operational and working at the site on any required delivery orders. A Notice to Proceed will be issued against each individual delivery order and the Contractor shall be required to commence work required by a delivery order at the time specified on the delivery order, prosecute the work, and complete the entire work not later than the completion time specified on the delivery order. The time stated for completion shall include final cleanup of the premises.

1.10.2 NOTICE OF COMPLETION OF DELIVERY ORDER

The Contractor shall notify the Contracting Officer upon completion of each individual delivery order. The Contractor shall give advance notice of the date the work will be fully completed and ready for final inspection. See CONTRACT CLAUSES clause "Inspection of Construction" for details on inspection and acceptance criteria

1.11 INSTRUCTIONS FOR PAYMENT

Pay requests authorized in CONTRACT CLAUSES clause: "Payments Under Fixed-Price Construction Contracts," will be paid pursuant to the clause, "Prompt Payment for Construction Contracts." Pay requests will be submitted on ENG Form 93 and 93a, "Payment Estimate-Contract Performance" and "Continuation." All information and substantiation required by the identified contract clauses will be submitted with the ENG Form 93, and the required certification will be included on the last page of the ENG Form 93a, signed by an authorized contractor official and dated when signed. The desig-nated billing office is the Area Engineer.

1.11.1 PAYMENTS FOR MODIFICATIONS

Payments may be made for cost bearing change orders within the scope of the contract only to the extent funds are authorized in the order on a two-part modification. Contractor pricing proposed must be submitted at the earliest possible time after the change order is issued, or at a specific time as directed by the Contracting Officer. At the discretion of the Contracting Officer, any and all payments may be withheld on the modification until the Contractor has submitted a qualifying price proposal, in as much detail as required by the Contracting Officer, and the final price has been agreed.

1.12 CONTRACT DRAWINGS AND SPECIFICATIONS

1.12.1 SETS FURNISHED

The contractor shall be responsible for making copies of specifications including amendments.

1.12.2 NOTIFICATION OF DISCREPANCIES

1.12.3 OMISSIONS

Omissions from the drawings or specifications or the misdescription of details of work which are manifestly necessary to carry out the intent of

the drawings and specifications, or which are customarily performed, shall not relieve the Contractor from performing such omitted or misdescribed details of the work but they shall be performed as if fully and correctly set forth and described in the drawings and specifications.

1.13 PHYSICAL DATA (APR 1984)

Data and information furnished or referred to below is for the Contractors' information. The Government shall not be responsible for any interpretation of or conclusion drawn from the data or information by the Contractor.

a. Physical conditions shall have been investigated by the Contractor for each delivery order to satisfy himself as to the condition of the site.

b. Weather conditions shall have been investigated by the Contractor to satisfy himself as to the hazards likely to arise therefrom. Complete weather records and reports may be obtained from the local U.S. Weather Bureau.

c. Transportation facilities shall have been investigated by the Contractor to satisfy himself as to the existence of access highways and railroad facilities. (FAR 52.236-4)

1.14 PAYMENT

1.14.1 PROMPT PAYMENT ACT

Pay requests authorized in CONTRACT CLAUSES clause: "Payments Under Fixed-Price Construction Contracts", will be paid pursuant to the clause, "Prompt Payment for Construction Contracts". Pay requests will be submitted on ENG Form 93 and 93a, "Payment Estimate-Contract Performance" and "Continuation". All information and substantiation required by the identified contract clauses will be submitted with the ENG Form 93, and the required certification will be included on the last page of the ENG Form 93a, signed by an authorized contractor official and dated when signed. The designated billing office is the Office of the Area Engineer.

1.14.2 PAYMENTS FOR MODIFICATIONS

Payments may be made for cost bearing change orders within the scope of the contract only to the extent funds are authorized in the order on a two-part modification. Contractor pricing proposed must be submitted at the earliest possible time after the change order is issued, or at a specific time as directed by the Contracting Officer. At the discretion of the Contracting Officer, any and all payments may be withheld on the modification until the Contractor has submitted a qualifying price proposal, in as much detail as required by the Contracting Officer, and the final price has been agreed.

1.14.3 PAYMENT FOR MATERIALS DELIVERED OFFSITE (MAR 1995)

a. Pursuant to FAR clause 52.232-5, Payments Under Fixed Priced Construction Contracts, materials delivered to the contractor at locations other than the site of the work may be taken into consideration in making payments if included in payment estimates and if all the conditions of the General Provisions are fulfilled. Payment for items delivered to locations other than the work site will be

limited to: (1) materials required by the technical provisions; or (2) materials that have been fabricated to the point where they are identifiable to an item of work required under this contract.

b. Such payment will be made only after receipt of paid or receipted invoices or invoices with canceled check showing title to the items in the prime contractor and including the value of material and labor incorporated into the item. Payment for materials delivered off-site includes petroleum products. (List additional items for which payments will be made for off-site delivery.) (EFAR 52.232-5000)

1.15 DAMAGE TO WORK

The responsibility for damage to any part of the permanent work shall be as set forth in the CONTRACT CLAUSES clause: "Permits and Responsibilities." However, if, in the judgment of the Contracting Officer, any part of the permanent work performed by the Contractor is damaged by flood or earthquake, which damage is not due to the failure of the Contractor to take reasonable precautions or to exercise sound engineering and construction practices in the conduct of the work, the Contractor will make the repairs as ordered by the Contracting Officer and full compensation for such repairs will be made at the applicable contract unit or lump sum prices as fixed and established in the contract. If, in the opinion of the Contracting Officer, there are no contract unit or lump sum prices applicable to any part of such work an equitable adjustment pursuant to CONTRACT CLAUSES clause: "Changes," of the contract will be made as full compensation for the repairs of that part of the permanent work for which there are no applicable contract unit or lump sum prices. Except as herein provided, damage to all work (including temporary construction), utilities, materials, equipment and plant shall be repaired to the satisfaction of the Contracting Officer at the Contractor's expense, regardless of the cause of such damage.

1.16 AVAILABILITY AND USE OF UTILITY SERVICES

Use of public and private utilities will be as found available. The Contractor shall make his own arrangements for use of public and private utilities.

1.17 QUANTITY SURVEYS (APR 1984)

a. Quantity surveys shall be conducted, and the data derived from these surveys shall be used in computing the quantities of work performed and the actual construction completed and in place.

b. The Contractor shall conduct the original and final surveys and surveys for any periods for which progress payments are requested. All these surveys shall be conducted under the direction of a representative of the Contracting Officer, unless the Contracting Officer waives this requirement in a specific instance. The Government shall make such computations as are necessary to determine the quantities of work performed or finally in place. The Contractor shall make the computations based on the surveys for any periods for which progress payments are requested.

c. Promptly upon completing a survey, the Contractor shall furnish the originals of all field notes and all other records relating to the survey or to the layout of the work to the Contracting Officer, who shall use them as necessary to determine the amount of progress payments. The

Contractor shall retain copies of all such material furnished to the Contracting Officer. (FAR 52.236.16)

1.18 VARIATIONS IN ESTIMATED QUANTITIES - SUBDIVIDED ITEMS (MAR 1995)

a. This Variation in Estimated Quantities Clause is applicable only to Items Nos. 0003A thru 0003BB, 0004A thru 0004BB, 0006A & 0006B, 00014A & 00014B, 00016A thru 00016J, 00017A & 00017B, 00020A & 00020B, 00022A thru 00022J, 00023A thru 00024B, 00028A & 00028B, 00030A thru 00030BB.

(1) Variation from the estimated quantity in the actual work performed under any second or subsequent sub-item or elimination of all work under such a second or subsequent sub-item will not be the basis for an adjustment in contract unit price.

(2) Where the actual quantity of work performed for Items No s.listed above is less than 85 percent of the quantity of the first sub-item listed under such item, the Contractor will be paid at the contract unit price for that sub-item for the actual quantity of work performed and, in addition, an equitable adjustment shall be made in accordance with the clause FAR 52.211-18, Variation in Estimated Quantity.

(3) If the actual quantity of work performed under Items Nos. listed above exceeds 115% or is less than 85% of the total estimated quantity of the sub-items under that item and/or if the quantity of work performed under the second sub-item or any subsequent sub-item under Items Nos. listed above exceeds 115% or is less than 85% of the estimated quantity of any such sub-item, and if such variation causes an increase or a decrease in the time required for performance of this contract the contract completion time will be adjusted in accordance with the clause. FAR 52.211-18, Variation in Estimated Quantity. (EFARS 52.212-5001)]

1.19 EVALUATION OF SUBDIVIDED ITEMS (MAR 1995)

Items Nos. 0003A thru 0003BB, 0004A thru 0004BB, 0006A & 0006B, 00014A & 00014B, 00016A thru 00016J, 00017A & 00017B, 00020A & 00020B, 00022A thru 00022J, 00023A thru 00024B, 00028A & 00028B, 00030A thru 00030BB are subdivided into two or more estimated quantities and are to be separately priced. The Government will evaluate each of these items on the basis of total price of its sub-items. (EFARS 52.212-5000)

1.20 TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER

a. 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 Construction)." In order for the Contracting Officer to award a time extension under this clause, the following conditions must be satisfied:

(1) 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.

(2) The unusually severe weather must actually cause a delay to the completion of the project. The delay must be beyond the control and

without the fault or negligence of the contractor.

b. 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 (5) DAY WORK WEEK

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
(26)	(20)	(15)	(04)	(05)	(07)	(04)	(04)	(04)	(21)	(11)	(22)

c. Upon acknowledgment of the Notice to Proceed (NTP) and continuing throughout the contract, the contractor will 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 work day. 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 delay days exceeds the number of days anticipated in paragraph b. 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 Construction)". (ER 415-1-15)

1.21 INSURANCE REQUIRED

In accordance with CONTRACT CLAUSES clause: "Insurance Work on a Government Installation," the Contractor shall procure the following minimum insurance:

Type	Amount
Workmen's Compensation and Employer's Liability Insurance	$100,000
General Liability Insurance	$500,000 per occurrence
Automobile Liability Insurance	
Bodily injury	$200,000 per person and $500,000 per occurrence
Property damage	$ 20,000 per occurrence

(Coverages per FAR 28.307-2)

1.22 SECURITY REQUIREMENTS

1.22.1 Contractor's Employee Identification

The Contractor shall be responsible for furnishing to each employee and for requiring each employee engaged on the work to display such identification as may be approved and directed by the Contracting Officer. All prescribed identification shall immediately be delivered to the Contracting Officer, for cancellation upon release of any employees. When the contract involves work in restricted security areas, only employees who are U.S. citizens

will be permitted to enter. Proof of U.S. citizenship is required prior to entry. When required by the Contracting Officer, the Contractor shall obtain and submit fingerprints of all persons employed or to be employed on the project. (Based on FAR 52.204-2)

1.23 CONTRACTOR QUALITY CONTROL (CQC)

See Section 01451A Contractor Quality Control.

1.24 NONDOMESTIC CONSTRUCTION MATERIALS

The List of nondomestic construction materials or their components included in the list set forth in paragraph 25.104 of the Federal Acquisition Regulation does not apply to the requirements of the contract clause entitled "Buy American Act Construction Materials".

1.25 DAILY WORK SCHEDULES AND WEEKLY COORDINATION MEETINGS

In order to closely coordinate work under this contract, the Contractor shall prepare a written agenda/meeting minutes and attend a weekly coordination meeting with the Contracting Officer and Using Service at which time the Contractor shall submit for coordination and approval, his proposed daily work schedule for the next two week period. The Contractor shall provide a copy of modifications (MODs), Serial Letters, Requests for Information (RFIs)and any other innformation that is needed in the minutes of the meeting. Required temporary utility services, time and duration of interruptions, and protection of adjoining areas shall be included with the Contractor's proposed 2-week work schedule. At this meeting, the Contractor shall also submit his schedule of proposed dates and times of all preparatory inspections to be performed during the next 2 weeks. Coordination action by the Contracting Officer relative to these schedules will be accomplished during these weekly meetings. Daily reports shall be completed and given to the Contracting Officer or Representative within 24 hours of work

1.26 EQUIPMENT OWNERSHIP AND OPERATING EXPENSE SCHEDULE (MAR 1995)

a. This statement shall become operative only for negotiated contracts where cost or pricing data is requested, and for modifications to sealed bid or negotiated contracts where cost or pricing data is requested. 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 of 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 IV. Copies of each regional schedule may be obtained through the following internet site: http://www.usace.army.mil/inet/usace-docs/eng-pamphlets/ep.htm. 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 developed using the formula provided in the schedule. For forward pricing, the Schedule in effect at the time of negotiations shall apply. For retrospective 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. (EFARS 52.231-5000)

1.27 AS-BUILT DRAWINGS

See SECTION 01040 - AS-BUILT DRAWINGS

1.28 PERFORMANCE OF WORK BY CONTRACTOR (APR 1984)

The Contractor shall perform on the site, and with its own organization, work equivalent to at least twenty (20) percent of the total amount of work to be performed under the contract. This percentage may be reduced by a supplemental agreement to this contract if, during performing the work, the Contractor requests a reduction and the Contracting Officer determines that the reduction would be to the advantage of the Government. (FAR 52.236-1)

1.29 PROFIT

a. Weighted guidelines method of determining profit shall be used on any equitable adjustment change order or modification issued under this contract. The profit factors shall be as follows:

Factor	Rate	Weight	Value
Degree of Risk	20	See Item	
Relative difficulty of work	15	b. below	
Size of Job	15		
Period of performance	15		
Contractor's investment	5		
Assistance by Government	5		
Subcontracting	25		
	100		

b. Based on the circumstances of each procurement action, each of the above factors shall be weighted from .03 to .12 as indicated below. The value shall be obtained by multiplying the rate by the weight. The value column when totalled indicates the fair and reasonable profit percentage under the circumstances of the particular procurement.

(1) Degree of Risk. Where the work involves no risk or the degree of risk

is very small, the weighting should be .03; as the degree of risk increases, the weighting should be increased up to a maximum of .12. Lump sum items will have, generally, a higher weighted value than the unit price items for which quantities are provided. Other things to consider: the portion of the work to be done by subcontractors, nature of work, where work is to be performed, reasonableness of negotiated costs, amount of labor included in costs, and whether the negotiation is before or after performance of work.

(2) Relative Difficulty of Work. If the work is most difficult and complex, the weighting should be .12 and should be proportionately reduced to .03 on the simplest of jobs. This factor is tied in to some extent with the degree of risk. Some things to consider: the nature of the work, by whom it is to be done, where, and what is the time schedule.

(3) Size of Job. All work not in excess of $100,000 shall be weighted at .12. Work estimated between $100,000 and $5,000,000 shall be proportionately weighted from .12 to .05.

(4) Periods of Performance. Jobs in excess of 24 months are to be weighted at .12. Jobs of lesser duration are to be proportionately weighted to a minimum of .03 for jobs not to exceed 30 days. No weight where additional time not required.

(5) Contractor's Investment. To be weighted from .03 to .12 on the basis of below average, average, and above average. Things to consider: amount of subcontracting, mobilization payment item, Government furnished property, equipment and facilities, and expediting assistance.

(6) Assistance by Government. To be weighted from .12 to .03 on the basis of average to above average. Things to consider: use of Government-owned property, equipment and facilities, and expediting assistance.

(7) Subcontracting. To be weighted inversely proportional to the amount of subcontracting. Where 80 percent or more of the work is to be subcontracted, the weighting is to be .03 and such weighting proportionately increased to .12 where all the work is performed by the Contractor's own forces.

1.30 LABOR CONDITIONS APPLICABLE TO TEMPORARY FACILITIES

It is the position of the Department of Defense that the Davis-Bacon Act, 40 U.S.C. 276a is applicable to temporary facilities such as batch plants, sandpits, rock quarries, and similar operations, located off the immediate site of the construction but set up exclusively to furnish required materials for a construction project on the site of the work. Clause "Payrolls and Basic Records" of the CONTRACT CLAUSES is applicable to such operations.

1.31 WAGE RATE APPLICATION

For copies of Wage Rates, See Attachment GENERAL WAGE DECISIONS. Applicable to all work.

1.32 (FAR 52.222-23) NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY FOR CONSTRUCTION (FEB 1999)

(a) The offeror's attention is called to the Equal Opportunity clause and the Affirmative Action Compliance Requirements for Construction clause of this solicitation.

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

Goals for Minority Participation for Each Trade	Goals for Female Participation for Each Trade
**********	**********
Mercer County	
1.3	6.9
McLean County	
4.4.	6.9

These goals are applicable to all the Contractor's construction work performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, the Contractor shall apply the goals established for the geographical area where the work is actually performed. Goals are published periodically in the Federal Register in notice form, and these notices may be obtained from any Office of Federal Contract Compliance Programs Office.

(c) The Contractor's compliance with Executive Order 11246, as amended, and the regulations in 41 CFR 60-4 shall be based on (1) its implementation of the Equal Opportunity clause, (2) specific affirmative action obligations required by the clause entitled "Affirmative Action Compliance Requirements for Construction," and (3) its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade. The Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor, or from project to project, for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, Executive Order 11246, as amended, and the regulations in 41 CFR 60-4. Compliance with the goals will be measured against the total work hours performed.

(d) The Contractor shall provide written notification to the Deputy Assistant Secretary for Federal Contract Compliance, U.S. Department of Labor, within 10 working days following award of any construction subcontract in excess of $10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the -

(1) Name, address, and telephone number of the subcontractor;

(2) Employer identification number of the subcontractor;

(3) Estimated dollar amount of the subcontract;

(4) Estimated starting and completion dates of the subcontract; and

(5) Geographical area in which the subcontract is to be performed.

(e) As used in this Notice, and in any contract resulting from this solicitation, the "covered area" is Bismarck EA-151, which Mercer Co. is a part of and Minot EA-152, which McLean Co. is a part of.

1.33 (EFARS 52.236-5000) PLANT AND MATERIAL REMOVAL AFTER CONTRACT TERMINATION(MAR 1995)

Should this contract be terminated as provided in clause 52.232-5001 because of the failure of Congress to provide additional funds for its completion, the contractor may be permitted to remove plant and material on which payments for preparatory work have been made, subject to an equitable deduction from the amounts due the contractor to reimburse the United States for the unabsorbed value of such plant and material.

1.34 FEDERAL HOLIDAYS

The following Federal legal holidays are observed by this installation:

New Year's Day	1 January
Martin Luther King's Birthday	Third Monday in January
President's Day	Third Monday in February
Memorial Day	Last Monday in May
Independence Day	4 July
Labor Day	First Monday in September
Columbus Day	Second Monday in October
Veterans Day	11 November
Thanksgiving Day	Fourth Thursday in November
Christmas Day	25 December

If a wage determination applies the number of holidays specified on it, it has priority over this clause.

PART 2 NOT USED

PART 3 NOT USED

-- End of Section --

General Decision Number ND020002

General Decision Number ND020002 Superseded General Decision No. ND010002
State: North Dakota

Construction Type:
HIGHWAY

County(ies):
STATEWIDE

HIGHWAY CONSTRUCTION PROJECTS

Modification Number	Publication Date
0	03/01/2002
1	11/01/2002
2	11/15/2002

COUNTY(ies):
STATEWIDE

ELEC0714B 01/01/2001

	Rates	Fringes
ADAMS, BILLINGS, BOTTINEAU, BOWMAN, BURKE, BURLIEGH, DIVIDE, DUNN, EMMONS, GOLDEN VALLEY, GRANT, HETTINGER, MCHENRY, MCKENZIE, MCLEAN, MERCER, MORTON, MOUNTRIAL, OLIVER, PIERCE, RENVILLE, ROLLETTE, SHERIDAN, SOIUX, SLOPE, STARK, WARD, & WILLIAMS COUNTIES:		
ELECTRICIANS:		
ELECTRICIAN	23.45	10.5%+a
CABLE SPLICER	23.85	10.5%+a

FOOTNOTE;
a. $5.20 per hour.

ELEC0714C 10/01/2000

	Rates	Fringes
LINE CONSTRUCTION:		
LINEMAN	23.06	2.00+23.75%
CABLE SPLICER	23.06	2.00+23.75%
LINE EQUIPMENT OPERATOR	20.75	2.00+23.75%
GROUNDMAN	13.84	2.00+23.75%

ELEC1426C 06/01/1993

	Rates	Fringes
BARNES, BENSON, CAVALIER, DICKEY, EDDY, FOSTER, GRAND FORKS, GRIGGS, KIDDER, LAMOURE, LOGAN, MCINTOSH, NELSON, PEMBINA, RAMSEY, RANSOM, RICHLAND, SARGENT, STEELE, STUTSMAN, TOWNER, TRAILL, WALSH, & WELLS COUNTIES:		
ELECTRICIANS:		
ELECTRICIAN	14.70	2.95+11.5%
CABLE SPLICER	15.45	2.95+11.5%

ENGI0049B 11/01/2002

	Rates	Fringes
POWER EQUIPMENT OPERATORS:		
GROUP 1	17.85	6.85
GROUP 2	17.70	6.85
GROUP 3	17.45	6.85
GROUP 4	17.30	6.85

GROUP 5	16.45	6.85
GROUP 6	15.15	6.85

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1:

All Terrain Vehicle Cranes 80 tons and over and Hydro Cranes 80 tons and over Crane Operator with 135' Boom and over Derrick (Guy & Stiff Leg) Gantry Crane Operator Helicopter Operator (Construction Work Only) Mole Operator, or Tunnel Mucking Machine Power Shovel and /or other Equipment with Shovel Type Controls 3-1/2 Cu. Yd. Mfg. Rated Capacity & Over Travelling Tower Crane

GROUP 2:

All Terrain Vehicle Cranes over 20 tons and up to 80 tons and Hydro Cranes 20 tons up to 80 tons Dredge Operator over 12" Finish Motor Grader Creter Crane Crane Operator up to 135' boom Master Mechanic: The inclusion of the classification of Master Mechanic in this Agreement does not mean that a Master Mechanic must be employed, but if employed, that he shall perform manual work Equipment Dispatcher Power Shovels up to 3-1/2 cu. yd. Mon-O-Rail Hoist Operator Front End Loader Operator over 8 cu. yd. Tugboat Backhoe Operator 3 cu. yds. and over

GROUP 3:

All Terrain Vehicle Cranes - thru 20 tons and Hydro Cranes thru 20 tons Drill Rigs, Heavy Duty Rotary or Churn or Cable Drill Front End Loader Operator 3 cu. yd. up thru 8 cu. yd. Locomotive, all types. Mechanic, Heavy Duty. Pipeline Wrapping, Cleaning & Bending Machine Operator. Power Actuated Horizontal Boring Machine Over 6" Operator. Refrigeration Plant Engineer. Slip Form Operator (Paving) (Concrete). Tandem Pushed Quad 9 or similar. Asphalt Paving Machine Operator. Asphalt Plant Operator. Motor Grader Operator. Crushing Plant Operator, Gravel Washing, and Screening Plant Operator Automated Grade Trimmer. Backhoe Operator over 1/2 cu. yd. up to 3 cu. yd. Boom Truck, Hydraulic - 8 tons and over. Cableway Operator Roto Milling Machine (surface planer) 43" and over. Concrete Batch Plant Operator Concrete Mixer Paving Machine Operator Concrete Paver - Bridge Decks Concrete Pump, Concrete Belt Placer, Dozer Operator Scraper Operator Tractor with boom attachment, Trenching Machine Operator, over 100 H.P. Dredge Operator or Engineer up thru 12" Paving Breaker - Non Hydro Hammer Type Power Actuated Horizontal Boring Machine over 6" Operator

GROUP 4:

Asphalt Paving Screed Operator concrete Spreader Operator, Backhoe up thru 1/2 cu. yd. Greaser Motor Grader Operator (Haul Road) Paving Breaker Hydro Hammer Type Console Board Operator Push Tractor Roller, Steel, and Rubber on Hot Mix Asphalt Paving Rotomill Operator (up to 42") Self-Propelled Traveling Soil Stabilizer Slip Form, Curb and Gutter Operator Distributor Operator (bituminous) Traeching Machine Operator. 40 H.P. - 100 H.P. Truck Mechanic Forklift Operator Sheepsfoot Packer with Dozer Attachment - 100 H.P. and over Front End Loader 1-1/2 cu. yds. up to 3 cu. yds. (Standard Mfg. Rating) Gravel Screeding Plant Operator (not crushing or washing) Logitudinal Float and Spray Operator Pugmill Operator Shouldering Machine Tamping Machine Operator

Tie Tamper and Ballast Machine Well Points
GROUP 5:
Boom Truck A-Frame or Hydraulic 3 to 8 tons broom - Self-Propelled Concrete Saw (Power Operated) Front End Loader Operator up to 1-1/2 cu. yds. Mobile Cement Mixer Off Road Hauler Power Actuated Augers and Boring Machine Operator - Up thru 6" Roller, (on other than Hot Mix Asphalt Paving) Sand and Chip Spreader - Self Propelled Truck Crane Oiler Vibrating Packer Operator (Pad type) (Self-propelled) Water Spraying Equipment - Self Propelled Sheepsfoot Roller on Compactor - Self Propelled
GROUP 6:
Brakeman or Switchman Form Trench Digger (power) Crane Oiler Gunite Operator Gunall Pick-up Sweeper, 1 yd. and Over Hopper Capacity Tractor Pulling Compaction or Areating Equipment Scissor Jack (self-propelled), Platform Lift Trenching Machine Operator, Under 40 H.P. Curb Machine Operator (Manual) Dredge or Tugboat Deck Hand Paint Machine Striping Operator Stump Chipper Operator Straw Mulcher and Blower

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* SUND3001A 11/01/2002

	Rates	Fringes
CARPENTERS	17.20	3.15
CEMENT MASON/FINISHER	17.20	3.15
ELECTRICIANS:		
CASS COUNTY	14.72	3.40
LABORERS:		
GROUP 1:	11.20	
GROUP 2:	11.45	
GROUP 3:	11.60	
GROUP 4:	12.35	
FLAGGERS/PILOT CARS	11.20	

LABORERS CLASSIFICATIONS

GROUP 1: General Construction Laborers: Sack Shaker (cement and mineral filler): Pipe Handler: Drill Runner Tender: Salamander Heater and Blower Tender.

GROUP 2: Semi Skilled Laborer: Bulk Cement Handler: Conduit Layer, Telephone or Electrical: Form Setter (pavement): Gas Electric or pneumatic tool operator: Chipping Hammer, Grinders and Paving Brakers (tamper-drit) Concrete Vibrator Operator: Chain Saw Operator: Concrete Saw Operator: Concrete Curing Man (not water): Bituminous worker (Shoveler, Dumper, Raker and Floated): Kettleman (bituminous or lead): Concrete Bucket Signlman: Power Buggy Operator: Brick and Mason Tender: Multiplate Pipelayer: Culvert Pipe Layers: Concrete Finishers Tender. Carpenters Tenders.

GROUP 3: Caisson Worker: Bottom Man (sanitary sewer, storm sewer water and gas liners): Concrete Mixer Operator (one bag capacity): Mortar Mixer.

GROUP 4: Pipe Layers (sanitary sewer, storm sewer, water and gas lines): Drill runner (includes Wagon Churn or Air Track) Powderman, Gunite and Sandblast, (Nozzleman, Reinforcing Steel Setters/Tiers.

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	Rates	Fringes
TRUCK DRIVER:		
Single Axle	15.67	6.00

Tandem Tri/Axle Truck	15.79	6.00
Tandem Tri/Axle Semi	16.10	6.00
Lowboy	16.10	6.00
Off Road Heavy Duty End Dump		
20 Yards And Under	16.10	6.00
Euclid, Over 20 Yards	16.87	6.00

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29 CFR 5.5(a)(1)(ii)).

In the listing above, the "SU" designation means that rates listed under that identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U. S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an

interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U. S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

4.) All decisions by the Administrative Review Board are final.

END OF GENERAL DECISION

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DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01200

CONSTRUCTION GENERAL

5/00; Rev 02/02

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PART 2 NOT USED

PART 3 NOT USED

-- End of Section Table of Contents --

SECTION 01200

CONSTRUCTION GENERAL
5/00; Rev 02/02

PART 1 GENERAL

1.1 SCOPE

The work covered in this section is outlined as a statement of construction requirements common to all the work. Specific requirements for materials and installations are provided under the Technical Sections herewith. No claims for extras shall be made on account of items presumed to have been omitted from this section.

1.2 CONSTRUCTION RIGHT-OF-WAY

The Contractor will be assigned working areas or working right-of-way limits for use in the prosecution of work under this contract, subject to the CONTRACT CLAUSES clause entitled "Operations and Storage Areas."

1.3 PROTECTION OF EXISTING FACILITIES AND WORKS

The Contractor shall be responsible for the protection of the work area from damage and upon completion of the work shall leave existing works in a condition equal to that which existed when the work started. All work, storage of materials, and construction plant shall be kept within the limits of the areas assigned. Prior to construction operations, the Contractor shall confer with the Contracting Officer's representative to determine the proximity of any possible under-ground obstructions, pipe or equipment which could be damaged as a result of construction operations. Existing utility lines that are shown on the drawings or the locations are otherwise made known to the Contractor shall be protected from damage, and if damaged, shall be repaired by the Contractor at no additional expense to the Government. In the event that the Contractor damages any existing utility lines that are not shown or the locations of which have not been made known to the Contractor, report thereof shall be made immediately to the Contracting Officer. If the Contracting Officer determines that repairs shall be made by the Contractor, such repairs will be ordered under CONTRACT CLAUSES clause entitled "Changes." The Contractor will be responsible for the protection of structures from any structural damage during the construction operations. Roads and surfaces shall be protected from damage by the work or if damaged shall be repaired with equal materials at no additional expense to the Government. At all times the plant and work areas shall be kept in a condition conducive to safety of workmen and the public and neat in appearance. Waste or surplus materials shall not be allowed to accumulate in the construction areas.

1.3.1 Protection of Appurtenances from Bituminous Material Applications

It shall be the responsibility of the Contractor to cover and protect the surfaces of roadway appurtenances, structures and installations by approved methods in advance of any bituminous material application adjacent thereto. Damages or defacement thereof shall be corrected as directed, by and at the expense of the Contractor.

1.3.2 Flood Protection Works

In all cases where materials in the existing flood protection works are used or connected with the construction of new work under this contract, the work shall be so planned and executed that the new work shall be completed to provide protection equivalent to the existing protection as the existing protection is weakened or removed. These operating restrictions shall be followed in order that the new work may be tied in, or connected promptly, by the Contractor, with the existing facilities so as to furnish a continuous service in an emergency. These ties or connections shall be made during periods of suspended construction operations and the Contractor shall leave incompleted pipe outlets and other structures in such conditions as to not interfere with the natural drainage from areas served by these pipes or structures.

1.4 CARE OF WATER

Full responsibility for care of water shall be borne by the Contractor until completion of work under this contract. The Contractor shall provide the materials and equipment and perform all work necessary to facilitate construction and to protect the work from damage by water. The Contractor shall make his own investigations and determinations of conditions, both existing and anticipated concerning care of water. Plans for care of water are subject to approval by the Contracting Officer prior to construction. Facilities shall be removed upon completion of the work.

1.5 DISPOSITION OF CONSTRUCTION FACILITIES

All buildings and facilities constructed by the Contractor shall be maintained in a satisfactory condition with strict observance of the rules of sanitation, safety and order as may be established by the Contracting Officer. Prior to final payment under the contract, all buildings and facilities constructed by the Contractor for his own use shall be removed from the site by the Contractor.

1.6 ACCESS ROADS

1.6.1 Access Roads

Access roads as required for the prosecution of the work shall be maintained (including sprinkling for dust control, safety personnel, signals and control) within the work areas assigned to the Contractor. Consideration shall be given to the avoidance of interference with others, safety and frequency of traffic, subject to review and approval prior to construction. Access road areas shall be restored to their original or suitable condition upon completion of this contract. The Contractor shall be responsible for repair of damage to existing roads caused by his operation.

1.7 PUBLIC ROADS

1.7.1 Traffic Control

The Contractor shall be responsible for the safe control of traffic on all haul and access roads used primarily for the work under these specifications and at their crossings with roads used by others. The Contractor shall, at his own expense, furnish all personnel, signal devices and signal necessary for the safe and efficient control of construction traffic on road systems used by the Contractor. A plan for traffic control, including a listing of equipment and its employment, shall be submitted for review and approval prior to construction.

1.7.2 Operations

When operations are being conducted near a U. S. or State Highway or when construction equipment is being used on or adjacent to such highway, the Contractor shall furnish signalmen and such warning signs as are necessary to provide adequate warning to the traveling public. The highways and streets shall be kept open at all times.

1.7.3 Barricades

At each location designated by the Contracting Officer and where safe operation requires the closing of roads, streets or other travel arteries leading to the work under this contract, the Contractor shall maintain a heavy plank barricade or other effective barrier during construction. Arrangements for closure of roads, streets or other travel arteries shall be made by the Contractor with local State, County or City officials. The Contractor shall notify the appropriate official in writing at least ten (10) days in advance of the date he desires to close a road to traffic and shall furnish a copy of the agreement to the Contracting Officer prior to closure. A satisfactory sign shall be placed on each barricade stating that the artery is closed. The cost of barricades shall be at the expense of the Contractor.

1.7.4 State and Federal Highways

Where the Contractor hauls across or on State or Federal highways, he shall enter into all agreements with the State Highway Commission and shall comply with any restrictions they may impose relative to load limits, care of traffic and cleanup. Such agreements shall clearly relieve the Government of any responsibility for damages resulting from hauling across or on State highways. Copies of such agreements shall be furnished to the Contracting Officer before the Contractor begins hauling on these highways.

1.7.5 State and Local Public Roads

(a) Load Limits:

The North Dakota Highway Commission and local County Road Commissions restrict the load weights of haul vehicles using highways and county roads during the spring thaw period. The load restrictions are usually imposed from 1 April through June depending on actual weather conditions.

(b) Hauling Regulations:

Prior to start of hauling operations on public roads, the Contractor shall furnish evidence to the Contracting Officer that an agreement has been consummated with State and County officials on the use of public roads and bridges. Such agreements shall clearly relieve the Government of any responsibility for damage resulting from hauling across or on these roads.

1.7.6 City Streets

Where the Contractor intends to cross or to use city streets for haul roads he shall enter into an agreement with the City and shall comply with any restrictions the City may impose relative to load limits, care of traffic and cleanup. Such agreements shall clearly relieve the Government of any responsibility for damage resulting from hauling across or on these highways. A copy of all such agreements shall be furnished the Contracting Officer before the Contractor begins hauling in city streets.

1.7.7 Utility Lines

It shall be the responsibility and obligation of the Contractor to make all arrangements with the affected companies for the necessary moving and alterations of utility lines and the continuation of service during construction as covered by the plans and specifications.

1.8 COOPERATION WITH OTHERS

The Contractor shall cooperate and coordinate his work with that of others as required for orderly completion of all work. In the event of disagreement between the Contractor and others, the decision of the Contracting Officer shall be final.

1.9 WORK BY OTHERS

Public and private authorities may be working in the area during the life of this contract. The Contractor shall coordinate his work with others to avoid undue interference, and shall conduct his operations, other than required access, within the limits of the assigned construction area or construction right-of-way limits. Specifications and drawings showing work under other contracts are available for examination at the Corps of Engineers District Office, 215 North 17th Street, Omaha, Nebraska 68102-4978, or at the Office of the Area Engineer , .

1.10 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 01330 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Proposed Methods of Operation; G-AO

Progress Charts; G-AO

Construction Right-of-Way

Right-of-Way Agreements

State and Federal Highways

Agreements for hauling on highways

State and Local Public Roads

Agreements for hauling on roads

SD-02 Shop Drawings

Care of Water; G-AO

Traffic Control; G-AO

SD-11 Closeout Submitttals

Warranty of Construction

List of warranties with copy of each

1.11 SPECIAL INSTRUCTIONS FOR PROGRESS CHARTS

To be submitted in accordance with the CONTRACT CLAUSES clause entitled "Schedule for Construction Contracts" shall indicate the required data for each of the principal features of the work. Contract changes or modifications will not include extensions of time unless the updated progress chart shows that the contract completion date is delayed due to the affect of the change on one or more principal features of the work.

1.12 WARRANTY OF CONSTRUCTION (MAR 1994)

(a) In addition to any other warranties in this contract, the Contractor warrants, except as provided in paragraph (i) of this clause, that work performed under this contract conforms to the contract requirements and is free of any defect in equipment, material, or design furnished, or workmanship performed by the Contractor or any subcontractor or supplier at any tier.

(b) This warranty shall continue for a period of 1 year from the date of final acceptance of the work. If the Government takes possession of any part of the work before final acceptance, this warranty shall continue for a period of 1 year from the date the Government takes possession.

(c) The Contractor shall remedy at the Contractor's expense any failure to conform, or any defect. In addition, the Contractor shall remedy at the Contractor's expense any damage to Government-owned or controlled real or personal property, when that damage is the result of--

(1) The Contractor's failure to conform to contract requirements; or

(2) Any defect of equipment, material, workmanship, or design furnished.

(d) The Contractor shall restore any work damaged in fulfilling the terms and conditions of this clause. The Contractor's warranty with respect to work repaired or replaced will run for 1 year from the date of repair or replacement.

(e) The Contracting Officer shall notify the Contractor, in writing, within a reasonable time after the discovery of any failure, defect, or damage.

(f) If the Contractor fails to remedy any failure, defect, or damage within a reasonable time after receipt of notice, the Government shall have the right to replace, repair, or otherwise remedy the failure, defect, or

damage at the Contractor's expense.

(g) With respect to all warranties, express or implied, from subcontractors, manufacturers, or suppliers for work performed and materials furnished under this contract, the Contractor shall--

(1) Obtain all warranties that would be given in normal commercial practice;

(2) Require all warranties to be executed, in writing, for the benefit of the Government, if directed by the Contracting Officer; and

(3) Enforce all warranties for the benefit of the Government, if directed by the Contracting Officer.

(h) In the event the Contractor's warranty under paragraph (b) of this clause has expired, the Government may bring suit at its expense to enforce a subcontractor's, manufacturer's, or supplier's warranty.

(i) Unless a defect is caused by the negligence of the Contractor or subcontractor or supplier at any tier, the Contractor shall not be liable for the repair of any defects of material or design furnished by the Government nor for the repair of any damage that results from any defect in Government-furnished material or design.

(j) This warranty shall not limit the Government's rights under the Inspection and Acceptance clause of this contract with respect to latent defects, gross mistakes, or fraud. (FAR 52.246-21)

1.13 PORTABLE TOILETS

Toilet facilities will not be available for Contractor's use. The Contractor shall provide and maintain portable toilets for use by the Contractor's staff. Toilet(s) shall be placed at the location directed by the Contracting Officer. To prevent overturning by high winds, all portable toilets shall be anchored down.

PART 2 NOT USED

PART 3 NOT USED

-- End of Section --

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DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01330

SUBMITTAL PROCEDURES

09/01; Omaha Update 02/03

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SECTION 01330

SUBMITTAL PROCEDURES
09/01; Omaha Update 02/03

PART 1 GENERAL

Attachments: Submittal Register
ENG Form 4025, Transmittal Form

1.1 CONTRACTOR RESPONSIBILITIES

The Contractor is responsible for total management of his work including scheduling, control, and certification of all submittals. The submittal management system provided in these specifications is intended to be a complete system for the Contractor to use to control the quality of materials, equipment and workmanship provided by manufacturers, fabricators, suppliers and subcontractors. The Contractor shall review each submittal for contract compliance. Submittals that comply will be forwarded to the Government. Submittals that do not conform will be returned to the originator to be corrected. The Submittal Register (ENG Form 4288) will be utilized to log and monitor all submittal activities. No construction or installation activities shall be performed prior to required approvals of applicable submittals. The Contractor shall perform a check to assure that all materials and/or equipment have been tested, submitted and approved during the preparatory phase of quality control inspections.

1.2 SUBMITTAL IDENTIFICATION (SD)

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

SD-01 Preconstruction Submittals

Tabular lists showing location, features, or other pertinent information regarding products, materials, equipment, or components to be used in the work.

In addition, the following items are included:

Work plan
Quality control plan

Permits

SD-02 Shop Drawings

Submittals which graphically show relationship of various components of the work, schematic diagrams of systems, details of fabrication, layouts of particular elements, connections, and other relational aspects of the work.

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

Samples, including both fabricated and unfabricated physical examples of materials, products, and units of work as complete units or as portions of units of work.

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-05 Design Data

Calculations, mix designs, analyses or other data pertaining to a part of work.

SD-06 Test Reports

Report signed by authorized official of testing laboratory that a material, product or system identical to the material, product or system to be provided has been tested in accordance with specified requirements. (Testing must have been within three years of date of contract award for the project.)

Report which includes findings of a test required to be performed by the contractor on an actual portion of the work or prototype prepared for the project before shipment to job site.

Report which includes finding of a test made at the job site or on sample taken from the job site, on portion of work during or after installation.

Investigation reports

Daily checklists

Final acceptance test and operational test procedure

SD-07 Certificates

A document, required of the Contractor, or through the Contractor, from a supplier, installer, manufacturer, or other lower tier Contractor, the purpose of which is to confirm the quality or orderly progression of a portion of the work by documenting procedures, acceptability of methods or personnel, qualifications, or other verifications of quality.

Statement signed by an official authorized to certify on behalf of the manufacturer of a product, system or material, attesting that the product,

system or material meets specified requirements. The statement must be dated after the award of the contract, must state the Contractor's name and address, must name the project and location, and must list the specific requirements which are being certified.

Confined space entry permits.

SD-08 Manufacturer's Instructions

Preprinted material describing installation of a product, system or material, including special notices and material safety data sheets, if any, concerning impedances, hazards, and safety precautions.

SD-09 Manufacturer's Field Reports

Documentation of the testing and verification actions taken by manufacturer's representative to confirm compliance with manufacturer's standards or instructions.

Factory test reports.

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.

In addition, the following items are included:

As-built drawings

Special warranties

Posted operating instructions

Training plan

1.3 SUBMITTAL CLASSIFICATION

Submittals are classified as follows:

1.3.1 Government Approved

Governmental 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." All submittals noted in the technical specifications and Submittal Register as "G-DO", "G-AE" or "G-AO" are subject to Government Approval.

1.3.2 Information Only (FIO)

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. The Contracting Officer has the

option to review any submittal.

1.3.3 Administrative Submittals

The submittal items listed below are not be included on the Submittal Register (as discussed below). Unless directed otherwise by the Contracting Officer, the following administrative submittals shall be submitted to the Area or Resident (as directed) Office, for approval, via a Serial Letter: Quality Control Plans (Section 01451A CONTRACTOR QUALITY CONTROL), Accident Prevention Plans (Section 01400 SPECIAL SAFETY REQUIREMENTS, Environmental Protection Plans (Section 01355 ENVIRONMENTAL PROTECTION) and other submittals as directed by the Contracting Officer. Format for the Serial Letter shall be as directed by the Area or Resident Office.

1.4 APPROVED SUBMITTALS

The Contracting Officer'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.

1.5 DISAPPROVED SUBMITTALS

The Contractor shall make all corrections required by the Contracting Officer 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.

1.6 WITHHOLDING OF PAYMENT

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

1.7 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.

1.8 SUBMITTAL REGISTER AND ENG FORM 4288 (RMS) SUBMITTAL REGISTER

At the end of this section is a submittal register (submittal form) 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 attached submittal register identifies only the submittal section, type of submittal, description of item submitted, paragraph number related to submittal item (section submittal paragraph if none listed), submittal classification (G), and submittal reviewer identifier (DO, AE or AO). Any submittal without a submittal classification and submittal reviewer identifier is considered to be For Information Only (FIO). The submittal register generated by the Government Resident Management System (RMS) Software is used for tracking construction submittals and is referred to as ENG Form 4288 (RMS). The Contractor shall maintain an ENG Form 4288 (RMS) for the project in accordance with the attached ENG Form 4288 (RMS) Instructions. The Contractor will be furnished one (1) set of ENG Forms 4288 (RMS) at the preconstruction conference. Much of the same information contained on the atttached submittal register will be included on the ENG Forms 4288 (RMS) furnished to the Contractor. The Contractor shall complete the appropriate columns as indicated on the attached ENG Form 4288 (RMS) Instructions and return to the Contracting Officer for approval within 20 calendar days after the preconstruction conference. The ENG Form 4288 (RMS)will become a part of the contract after approval. The TRANSMITTAL NUMBER AND ITEM NUMBER shall be left blank for use later to record the respective transmittal and item number corresponding to those listed on the transmittal form entitled: "TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR MANUFACTURER'S CERTIFICATES OF COMPLIANCE" (ENG Form 4025). The approved ENG Form 4288 (RMS) will become the scheduling document and will be used to control submittals throughout the life of the contract. The ENG Form 4288 (RMS) and the progress schedules shall be coordinated.

1.9 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 20 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.

1.10 TRANSMITTAL FORM (ENG FORM 4025)

The sample transmittal form (ENG Form 4025) attached to this section shall be used for submitting both Goverment approved and information only submittals in accordance with the instructions on the reverse side of the form. These forms will be furnished to the Contractor. 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.

1.11 SUBMITTAL PROCEDURES

Submittals shall be made as follows:

1.11.1 Procedures

1.11.1.1 "G-DO" or "G-AE" Submittals

All items listed as "G-DO" or "G-AE" submittals in the various sections or on the Submittal Register shall be mailed directly to the addressee shown below as directed. For each submittal, a completed information copy of the attached transmittal form shall also be mailed to the Area Engineer .

Technical Reviewer

Engineering Division (DO)
Attn: CENWO-ED-DI
U.S. Army Engineer District, Omaha
106 South 15th Street
Omaha, NE 68102-1618

Each required submittal which is in the form of a drawing shall be submitted as seven (7) prints of the drawing. Drawing prints shall be either blue or black line permanent-type prints on a white background or blueprint and shall be sufficiently clear and suitable for making legible copies.

All catalog and descriptive data shall be submitted in seven (7) copies. Catalog cuts and other descriptive data which have more than one model, size, or type or which shows optional equipment shall be clearly marked to show the model, size, or type and all optional equipment which is proposed for approval. Submittals on component items forming a system or that are interrelated shall be submitted at one time as a single submittal in order to demonstrate that the items have been properly coordinated and will function as a unit.

1.11.1.2 "G-AO" and FIO Submittals

Except as noted below, data for all items listed as "G-AO" Submittals in the various sections shall be submitted in five (5) copies to the Area Engineer using the transmittal form. Items not to be submitted in multiples, such as samples and test cylinders, shall be submitted to the Area or Resident Engineer (as directed) accompanied by five (5) copies of the transmittal form.

Except as noted below, data for all items listed as FIO Submittals in the various sections shall be submitted in three (3) copies to the Area Engineer using the transmittal form. Items not to be submitted in multiples, such as samples and test cylinders, shall be submitted to the Area or Resident Engineer (as directed) accompanied by three (3) copies of the transmittal form. The Government has the option to review any FIO submittal.

1.11.1.3 Certificates of Compliance

Each certificate shall be signed by an official authorized to certify in 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 the specific requirements.

1.11.1.4 Purchase Orders

Copies of purchase orders shall be furnished to the Contracting Officer when the Contractor requests assistance for expediting deliveries of equipment or materials, or when requested by the Contracting Officer for the purpose of quality assurance review. Each purchase order issued by the Contractor or his subcontractors for materials and equipment to be incorporated into the project shall (1) be clearly identified with the applicable DA contract number, (2) carry an identifying number, (3) be in sufficient detail to identify the material being purchased, (4) indicate a definite delivery date, and (5) display the DMS priority rating, if applicable.

1.11.1.5 Operation and Maintenance Instructions and/or Manuals

Where required by various technical sections, operations and maintenance instructions and/or manuals with parts lists included shall be provided by the Contractor in quintuplicate, unless otherwise specified, and shall be assembled in three-ring binders with index and tabbed section divider and having a cover indicating the contents by equipment or system name and project title and shall be submitted for approval to the Contracting Officer 90 days prior to final tests of mechanical and electrical systems, unless otherwise specified. Each operation and maintenance manual shall contain a copy of all warranties and a list of local service representatives required by Section 01200 Warranty of Construction. If field testing requires these copies to be revised, they shall be updated and resubmitted for approval within 10 calendar days after completion of tests. The Operations and Maintenance Instructions and/or Manuals shall be shown as a separate activity on the Contractor prepared construction schedule bar chart or network analysis system.

1.11.2 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.

1.12 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."

1.13 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.

1.13.1 "G-AE" or "G-DO" Submittals

The drawing print and five (5) sets of all catalog data and descriptive literature and drawing prints will be retained by the Contracting Officer and two (2) sets of catalog data and descriptive literature and drawing prints will be returned to the Contractor.

1.13.2 "G-AO" Submittals

Two (2) copies of "G-AO" submittals for approval will be returned to the Contractor except for samples, test cylinders, and O&M manuals for which two (2) copies of the transmittal form only will be returned to the Contractor.

1.14 INFORMATION ONLY SUBMITTALS

Normally submittals for information only will not be returned. Review by 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.

1.15 STAMPS

Stamps used by the Contractor on the submittal data to certify that the submittal meets contract requirements shall be similar to the following. The stamp shall be affixed and filled out on the back of each ENG Form 4025.

CONTRACTOR

(Firm Name)

_____ Approved

_____ Approved with corrections as noted on submittal data and/or attached sheets(s).

SIGNATURE: _____

TITLE: _____

DATE: _____

INSTRUCTIONS
ENG FORM 4288 (RMS)

1. The Contractor shall utilize the ENG Form 4288 (RMS) generated by the Government Residential Management System (RMS)software for tracking construction submittals. The Submittal Register information, columns (c) thru (f) from the Submittal Forms furnished with this solicitation, will be utilized by the Government to generate the ENG Form 4288 (RMS). The Government will furnish the Contractor a hard copy of the ENG Form 4288 (RMS) at the preconstruction conference. . The ENG Form 4288 (RMS) includes the following items and parties responsible for completing the information required on the ENG Form 4288 (RMS). The subparagraph headings below do not correspond to the Submittal Register column headings.

a. Activity Number: will be provided by the Contractor from his Network Analysis, if required, and when a network analysis is accepted.

b. Transmittal Number and Item Number: will be provided by the Contractor from ENG Form 4025 for each item.

c. Specification Paragraph Number: will be provided by the Government from the Submittal Register from column entitled "Specification Paragraph Number".

d. Description of Submittal: will be provided by the Government from the Submittal Register from column entitled "Description of Item Submitted".

e. Type of Submittal: will be provided by the Government from the Submittal Register from column entitled "Type of Submittal" or "Description of Item Submitted".

f. Classification: will be provided by the Government from the Submittal Register from column entitled "Classification".

g. Reviewing Office - Reviewer: will be provided by the Government from the Submittal Register from column entitled "Classification" or "Reviewer".

h. Contractor Schedule Dates: the Contractor will provide schedule dates for

"Submit Needed By" (Date the Contractor expects to submit an item. It is the Contractors responsibility to calculate the lead time needed for the government approval. Note if resubmittal is required it is the Contractors responsibility to make all adjustments necessary to meet the contract completion date.)

"Approval Needed By" (date the Contractor can receive approval and still obtain the material by need date.), and

"Material Needed By" (date that the material is needed at the site. If there is a network analysis it should reflect that date on the analysis.)

i. Contractor Action: Includes the following items: "Code" and "Submit to the Corps". These items will be completed by the Contractor. The action codes will be one of the following:

A - Approved as submitted.

B - Approved, except as noted.
G - Other (specify)

j. Government Action: This item includes a Government Action "Code" and "Date" and is reserved for Government use. The Government reserves the right to review any submittal for contract compliance. Receipt of an Action Code "F - Receipt Acknowledged" or failure of the Contractor to receive an Action Code by the Government, does not mean that the submittal is in compliance with the contract requirements. When used by the Government, the action code will be one of the following:

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).

2. Reviewer Abbreviation code will be as follows;

G-DO, G-AE or G-AO - Government Approved
For Information Only - Any submittal without a Government Approved abbreviation code.

INSTRUCTIONS
ENG FORM 4025

1. DATE at the top of form will be the date submitted to the Government which is to be completed by the Contractor.

2. TRANSMITTAL NO. Each new transmittal (i.e. [G-AE,] [G-DO,] G-AO or FIO) shall be numbered consecutively for each specification section in the space provided in "Transmittal No.". This number will be the identifying symbol for each submittal. Example: "15400A-001", "15895A-001" "15895A-002", "16415A-001", etc. For each new submittal or for a resubmittal, the appropriate box must be marked. Resubmittals must be designated by their original sequential number followed by an ".1", ".2", etc. for each sequential resubmittal. Example: "15895A-001.1" (previous submittal No. 15895A-001).

3. TO: Box will contain the name and address of the office which will review the submittal (as designated by the Contracting Officer).

4. FROM: Box will be the name and address of the Contractor. Contractor is to complete this box.

5. CONTRACT NO. box will contain the Contractors construction contract number (e.g., DACXXX-XX-C-XXXX).

6. CHECK ONE box

a. CHECK ONE box (for transmittal/ retransmittal) will be completed by the Contractor with one box marked. If a resubmittal is provided last transmittal number will be added.

b. CHECK ONE box will be completed by the Contractor with one box marked for the submittal type.

7. SPECIFICATION SECTION NO. box will be completed by the Contractor. The number will be the five digit number found in the specifications. No more than one section will be covered with each transmittal.

8. PROJECT TITLE AND LOCATION box will be completed by the Contractor.

9. Column a, will be completed by the Contractor and will contain a different number for each item submitted in that transmittal. Once a number is assigned to an item it will remain the same even if there is a resubmittal.

10. Column b, will be completed by the Contractor. The description of each item on this form will be the descriptions provided on the submittal register. The Contractor shall submit each submittal register item all at once on one transmittal if possible. If a submittal register item can not be submitted all at once Contractor should note that in the remarks box.

11. Column c, will be completed by the Contractor. The information will be the appropriate submittal description number as described this Section or shown on the submittal register (e.g. SD-XX).

12. Column d, will be completed by the Contractor. The number of copies will be determined by the Contractor after review of submittal register for the classification of the item and after review of paragraph: SUBMITTAL

PROCEDURES of this Section.

13. Column e, will be completed by the Contractor. The Contractor shall state all applicable paragraph numbers.

14. Column f, will be completed by the Contractor. The Contractor shall state all applicable drawing sheet numbers.

15. Column g, will be completed by the Contractor. The action codes will be one of the following:

A - Approved as submitted.
B - Approved, except as noted.
G - Other (specify)

16. Column h, will be completely by the Contractor. A check shall be placed in this 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".

17. Column i, is reserved for Government use and may or may not be provided. When used by the Government, the action code will be one of the following:

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).

18. REMARKS box self explained.

19. Contractor Quality Control Manager must provide name and sign all Eng Form 4025 certifying conformance. In the space for the name and signature, also include a phone number where the CQC Manager may be reached.

20. Section II will be completed by the Government. Contractor is not to write in this space.

See reverse side of ENG Form 4025 for additional instructions.

-- End of Section --

SUBMITTAL REGISTER

CONTRACT NO.

TITLE AND LOCATION
IDCC Roads,

CONTRACTOR

ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH #	CLASSIFICATION	GOVT OR A/E REVWR	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION			APPROVING AUTHORITY					
							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	MAILED TO CONTR/ DATE RCD FRM APPR AUTH	REMARKS
(a)	(b)	(c)	(d)	(e)	(f)		(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
		01200	SD-01 Preconstruction Submittals															
			Proposed Methods of Operation		G	AO												
			Progress Charts	1.11	G	AO												
			Construction Right-of-Way															
			State and Federal Highways	1.7.4														
			State and Local Public Roads	1.7.5														
			SD-02 Shop Drawings															
			Care of Water	1.4	G	AO												
			Traffic Control	1.7.1	G	AO												
			SD-11 Closeout Submittals															
			Warranty of Construction															
		01355	SD-01 Preconstruction Submittals															
			Environmental Protection Plan	1.7	G	RE												
		01400	SD-07 Certificates															
			Qualifications		G	AO												
		02241	SD-06 Test Reports															
			Test Results		G	AO												
		02245	SD-06 Test Reports															
			Initial Sampling & Testing		G	AO												
			Riprap-Field Gradation		G	AO												
			SD-07 Certificates															
			Waybills & Delivery Tickets															
		02246	SD-06 Test Reports															
			Riprap - Field Gradation		G	AO												
			SD-07 Certificates															
			Waybills & Delivery Tickets															

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		02300	SD-04 Samples															
			Rock Excavation - notification		G	AO												
			SD-06 Test Reports															
			Backfill - Testing		G	AO												
			Ground Surface - Testing		G	AO												
			Embankment-Testing															
			Subgrade - Compact Testing		G	AO												
			Subgrade - Pavement Testing		G	AO												
			Subgrade - Shoulders - Testing		G	AO												
			Shoulder Construction - Testing		G	AO												
			Moisture Content - Testing		G	AO												
			Optimum Moisture & Laboratory		G	AO												
			Maximum Density - Testing															
			SD-07 Certificates															
			Borrow Material - Letters From															
			Land Owners															
			Testing - Lab Certification															
		02564	SD-06 Test Reports															
			Density Tests		G	AO												
		02722	SD-06 Test Reports															
			Sampling and Testing		G	AO												
			Field Density Tests		G	AO												
		02741A	SD-03 Product Data															
			Waybills and Delivery Tickets		G	AO												
			Traffic Control		G	AO												
			Bituminous Tack Coat		G	AO												

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(a)	(b)	(c)	(d)	(e)	(f)		(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
		02741A	Bituminous Prime Coat		G AO													
			SD-04 Samples															
			Aggregates - General Source		G AO													
			Bituminous Material		G AO													
		02763	SD-03 Product Data															
			Paint Application Equipment		G AO													
			Glass Bead Dispencer		G AO													
			Blasting Equipment															
			Broom and Blower Equipment															
			Traffic Control		G AO													
			Paint		G AO													
			Glass Beads		G AO													
		02770	SD-06 Test Reports															
			Concrete Testing		G AO													
			Strength Testing		G AO													
			Air Content		G AO													
			Slump Test		G AO													
		02771	SD-06 Test Reports															
			Test Results		G AO													
			Concrete Testing		G AO													
			Reinforcement Bars		G AO													
		02785	SD-03 Product Data															
			Waybills and Delivery Tickets															
			Rapid Curing Cutback		G AO													
			Anionic Emulsified Asphalt		G AO													
			SD-04 Samples															

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(a)	(b)	(c)	(d)	(e)	(f)		(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
		02785	Aggregate		G	AO												
			Bituminous		G	AO												
		02921	SD-06 Test Reports															
			Seed Tests		G	AO												
		02975	SD-03 Product Data															
			Installation of Sealant		G	AO												
			Back-Up Materials		G	AO												
			SD-06 Test Reports															
			Test Requirements		G	AO												

TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES OR MANUFACTURE'S CERTIFICATES OF COMPLIANCE	DATE	TRANSMITTAL NO.

SECTION I - REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS (This section to be initiated by the Contractor)

TO:	FROM:	CONTRACT NO.	CHECK ONE: ☐ THIS IS A NEW TRANSMITTAL ☐ THIS IS A RE-SUBMITTAL OF TRANSMITTAL NO. _____
SPECIFICATION SECTION NO.	PROJECT TITLE AND LOCATION		CHECK ONE: ☐ FIO ☐ G-RE ☐ G-ED ☐ G-AE

ITEM NO. *a.*	DESCRIPTION OF ITEM SUBMITTED *(Type, size, model, etc.)* *b.*	MFG. OR CONTR. CAT., CURVE DRAWING OR BROCHURE NO. *c.*	NO. of COPIES *d.*	CONTRACT REFERENCE DOCUMENT SPEC. PARA. *e.*	DWG. SHEET *f.*	FOR CONTRACTOR USE CODE *g.*	VARIA-TION *(SEE #6)* *h.*	FOR CE USE CODE *i.*

REMARKS:

I certify that the above submittal items have been reviewed in detail and are correct and in strict compliance with the contract drawings and specifications except as otherwise stated.

_____

NAME, PHONE NUMBER, AND SIGNATURE OF CONTRACTOR QC

SECTION II - APPROVAL ACTION

ENCLOSURES RETURNED *(List by Item No.)*	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 new transmittal shall be numbered consecutively for each specification section in the space provided in "Transmittal No.". This number, in addition to the contract number, will be the identifying symbol for each submittal. Example: "15400A-001", "15895A-001" "15895A-002", "16415A-001", etc. For each new submittal or for a resubmittal, the appropriate box must be marked. Resubmittals must be designated by their original sequential number followed by an ".1", ".2", etc. for each sequential resubmittal. Example: "15895A-001.1" (previous submittal No. 15895A-001).

3. The "Item No." will be the same "Item No." as indicated on ENG FORM 4288-R for each entry on this form.

4. Submittals requiring expeditious handling will be submitted on a separate form.

5. Separate transmittal form will be used for submittals under separate sections 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 CENWO-CD-Q SUBMITTAL FORM, IFB-1 (Omaha Version of ENG Form 4025-R))

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10/00

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-- End of Section Table of Contents --

SECTION 01355

ENVIRONMENTAL PROTECTION
10/00

PART 1 GENERAL

Attachments
Authorization to Discharge Under the North Dakota Pollutant Discharge Elimination System (Permit No. NDR03-000)
Notice of Intent (NOI)
Notice of Termination (NOT)
Storm Water Pollution Prevention (SWPP) Plan

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. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

33 CFR 328	Definitions
40 CFR 68	Chemical Accident Prevention Provisions
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

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1	(1996) U.S. Army Corps on Engineers Safety and Health Requirements Manual
WETLAND MANUAL	Corps of Engineers Wetlands Delineation Manual Technical Report Y-87-1

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 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.

1.2.5 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" and would require a permit to discharge water from the governing agency.

1.2.6 Waters of the United States

All waters which are under the jurisdiction of the Clean Water Act, as defined in 33 CFR 328.

1.2.7 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 01330 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Environmental Protection Plan; G-RE,

The environmental protection plan.

1.7 ENVIRONMENTAL PROTECTION PLAN

Prior to commencing construction 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 Plans. The Contractor shall maintain a current version of the Environmental Protection Plan on site for review by interested parties.

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, submitting for approval, and implementing 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 environmental protection personnel.

d. Description of the Contractor's environmental protection personnel training program.

e. The Spill Control plan shall include 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. 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 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 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.

f. A non-hazardous solid waste disposal plan identifying methods and locations for solid waste disposal including clearing debris. The plan shall include schedules for disposal. The Contractor shall identify any subcontractors responsible for the transportation and disposal of solid 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 solid waste shall be attached to this plan during the construction.

g. 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.

h. An air pollution control plan detailing provisions to assure that dust, debris, materials, trash, etc., do not become air borne and travel off the project site.

i. 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.

j. A waste water management plan that identifies the methods and procedures for management and/or discharge of waste waters which are directly derived from construction activities, such as concrete curing water, clean-up water, dewatering of ground water, disinfection water, hydrostatic test water, and water used in flushing of lines.

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

This paragraph supplements the Contract Clause PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS. Prior to 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.

1.8.1 Applications, Supporting Documents, and Fees

The Contractor shall obtain and complete all environmental permit applications and notices including any documents required for a modification for an existing permit held by the Facility. The Contractor is responsible for preparing all supporting documents, including but not limited to engineering reports, emission surveys, diagrams, pollutant load calculations, etc. If, in lieu of permits, the governing agency requires review and approval of the design, the Contractor shall submit and obtain approval of the design and associated documents. The Contractor shall be responsible for all fees associated with the permits, applications, reviews, approvals, and notices.

1.6.2 Environmental Permits, Notices, Reviews, and/or Approvals

The following is a listing of permits, notices, reviews, and/or approvals which **may be** required for this project. This listing and requirements are not to be considered all-inclusive by the Contractor, but is provided as information that may be used in successfully accomplishing the environmental compliances. See Internet site http://http://www.health.state.nd.us/ndhd/for North Dakota's Environmental Issues.

a. The State of North Dakota has authority for the National Pollutant Discharge Elimination System (NPDES) program. If construction activities results in disturbance of 1 acre of land or more (sites that may be smaller than 1 acre but are part of common plan of development are considered to be over 1 acre), coverage under the Authorization to Discharge Under the North Dakota Pollutant Discharge Elimination System (NDPDES) Permit No. NDR03-0000 for storm water discharge from construction site is required. The Contractor shall be responsible for implementing the terms and requirements of the permit and shall be considered the "permittee". The Contractor shall prepare and implement a Storm Water Pollution Prevention Plan, inspections, and reporting in accordance with the NDR03-0000 Permit. The SWPPP and a copy of an unsigned Notice of Intent (NOI) shall be submitted by the Contracting Officer prior to construction commencing. The Contractor shall be responsible for all submittals to the State of North Dakota prior to construction activity beginning in accordance with Permit No. NDR03-0000. The Contractor shall retain copies of the storm water pollution prevention plan and all reports in accordance with the permit. All submissions to the State shall be by certified mail. The Contractor shall include copies of all submittals to the State of North Dakota (NOI/NOT), a return certified mail receipt, plans, and reports in the Appendix to the Environmental Protection Plan. The State of North Dakota web site for the NPDES Program is http://www.health.state.nd.us/wq/Storm/Construction/ConstructionHome.htm.

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

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.

3.2 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 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 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 State or Federally issued Clean Water Act permits.

3.3.1 Wetlands

The Contractor shall not enter, disturb, destroy, or allow discharge of contaminants into any wetlands.

3.4 AIR RESOURCES

Equipment operation, activities, or processes performed by the Contractor shall be in accordance with all Federal and State 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.

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 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. The Contractor shall comply with the provisions of the State. rules.

3.4.4 Burning

Burning will not be allowed on the project site unless specified in other sections of the specifications or authorized in writing by the Contracting Officer. 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 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.

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 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. There shall be no storage of fuel on the project site. Fuel must be brought to the project site each day that work is performed.

3.5.5 Waste Water

Disposal of waste water shall be as specified below.

a. Waste water from construction activities, such as onsite material processing, concrete curing, foundation and concrete clean-up, water used in concrete trucks, forms, etc. 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.

c. Water generated from the flushing of lines after disinfection or disinfection in conjunction with hydrostatic testing shall be land applied in accordance with all Federal, State, and local laws and regulations for land application .

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 HISTORICAL, ARCHAEOLOGICAL, AND CULTURAL RESOURCES

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 Contractors personnel or other persons from trespassing on, removing, or otherwise disturbing such resources.

3.8 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.

3.8.1 Bald Eagles

The Contractor shall be responsible for identifying and avoiding disturbing bald eagles which are roosting in the project area. Bald Eagles shall not be disturbed. The Government recommends avoiding roosting bald eagles by eliminating activity within 75 meters of the roosting bald eagle. However, this is a general recommendation, and may change dependant upon location, available cover, and concealment. It is the Contractor's responsibility to accurately determine appropriate distances to avoid disturbing the Bald Eagle. The Contractor shall ensure that his employees are able to identify bald eagles and shall avoid disturbing bald eagles.

3.8.2 Migratory Birds

In accordance with Migratory Bird Treaty Act, migratory birds shall not be disturbed during nesting. It is the Contractor's responsibility to identify and avoid migratory nesting birds.

3.9 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. The Contractor shall consult with the USDA jurisdictional office for additional cleaning requirements.

3.10 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.

3.11 TRAINING OF CONTRACTOR PERSONNEL

The Contractor's 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. 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.

3.12 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 --

NORTH DAKOTA DEPARTMENT OF HEALTH
NDPDES PROGRAM

Construction
Storm Water Pollution Prevention Plan
Guidance Forms

CONTENTS

1. PROJECT DESCRIPTION (SF 19388)
2. SITE MAP DEVELOPMENT
3. VEGETATIVE/STRUCTURAL PRACTICES (SF 19389)
4. OTHER BEST MANAGEMENT PRACTICES (SF 19390 and SF 19390-2)
5. SIGNIFICANT MATERIALS (SF 19387)
6. SIGNATORY CERTIFICATION (SF 19137)
7. SITE INSPECTION RECORD (SF 19391)

PROJECT DESCRIPTION
North Dakota Department of Health
Division of Water Quality

SFN 19388 (11/02)

Project Name	
Project Type	
Project Location	
Estimate of Project Size	

Description of the Nature of Activity

Description of Existing Soils, Fill Material, and Erodibility of Such Soils

Proposed Timetable for Construction Activities

Name of Receiving Waters

SITE MAP DEVELOPMENT

The site map should be suitably scaled and drawn to show the following required information:

MAP FEATURES

1) Construction site boundaries and area(s) of soil disturbance.

2) The location of springs, streams, wetlands, and other surface waters.

3) The location of areas used for storage of building materials, soils, or waste materials.

4) The locations of proposed and existing stormwater controls.

5) Stormwater runoff/run on drainage patterns.

6) Section, township, range, or lines of latitude and longitude.

BEST MANAGEMENT PRACTICES FOR EROSION AND SEDIMENT CONTROL
NORTH DAKOTA DEPARTMENT OF HEALTH
DIVISION OF WATER QUALITY
SFN 19389 (09/99)

STRUCTURAL PRACTICES:

- ○ Terraces/Contours
- ○ Pipe Slope Drains
- ○ Straw Bale Dikes
- ○ Silt Fences
- ○ Infiltration Trenches or Basins
- ○ Earth Dikes
- ○ Rock Outlet Protection
- ○ Check Dams
- ○ Drain Inlet Protection
- ○ Brush Barriers
- ○ Temporary Drain Diversion
- ○ Drainage Swales
- ○ Sediment Traps
- ○ Temporary Sediment Basins
- ○ Subsurface Drains
- ○ Retaining Walls

Clear Selections

Additional Practices:

NONSTRUCTURAL PRACTICES:

- ○ Temporary Seeding
- ○ Mulching
- ○ Filter Strips
- ○ Erosion Blankets
- ○ Permanent Seeding
- ○ Grassed Waterways
- ○ Tree Planting
- ○ Sod Stabilization

Clear Selections

Additional Practices:

OTHER BEST MANAGEMENT PRACTICES
Description of sediment tracking reduction and sediment recovery methods
NORTH DAKOTA DEPARTMENT OF HEALTH
DIVISION OF WATER QUALITY
SFN 19390 (11/02)

Description of Methods to Reduce Sediment Tracking:

Description of Methods for Recovering Sediments:

Description of Methods for Handling and Disposing of Contaminated Soils:

OTHER BEST MANAGEMENT PRACTICES
Spill Prevention methods, post construction controls and site inspections/maintenance
NORTH DAKOTA DEPARTMENT OF HEALTH
DIVISION OF WATER QUALITY
SFN 19390-2 (11/02)

Description of Spill Prevention and Response Procedures:

Description of Post Construction Controls:

Description of Procedures for Site Inspections and Maintenance

SIGNIFICANT MATERIALS
NORTH DAKOTA DEPARTMENT OF HEALTH
DIVISION OF WATER QUALITY

SFN 19387 (11/02)

INSTRUCTIONS: Based on your site's material inventory, provide the following information. For the definition of "significant materials," see Part VI of the permit. The **location** of the significant materials should be indicated on the site map.

MATERIAL	QTY KEPT ONSITE	STORAGE METHOD	DISPOSAL METHOD	PROCESSED ONSITE?	POLLUTION PREVENTION MEASURES
ex. Diesel Fuel	ex. 500 gallons	ex. Berm surrounding tank	ex. Using ND DoH Waste Management Guidelines	ex. NO	ex. Berm constructed around tank to capture any spills or leaks. Employees have been trained to prevent spills during fueling process and to contact management if a spill occurs.
				No	
				No	
				No	
				No	
				No	
				No	
				No	

SIGNATORY CERTIFICATION
North Dakota Department of Health
Division of Water Quality
SFN 19137 (11/02)

For Department Use Only

Permit Number:

INSTRUCTIONS: The following statement shall be signed by a responsible corporate officer, general partner, principle executive officer or ranking elected official. The statement may be signed by a duly authorized representative of the person above in accordance with Part IV-E of the permit.

CERTIFICATION

"I _____, certify under penalty of law that I have personally examined and am familiar with the information submitted herein. Based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Printed Name of Applicant		Title	
Signature of Applicant		Date	

ADDITIONAL SIGNATURES

INSTRUCTIONS: If more than one signature is required on the Stormwater Pollution Prevention Plan, use the space provided.

Date	Printed Name	Signature	Title	Company Name

NOTICE OF INTENT TO OBTAIN COVERAGE UNDER NDPDES GENERAL PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY

NORTH DAKOTA DEPARTMENT OF HEALTH
DIVISION OF WATER QUALITY
SFN 19145 (11/02)

Clear Entire Form

FOR DEPT. USE ONLY

Application No.

Date Received

GENERAL INFORMATION

Name of Owner or Operator of Construction Project Seeking Authorization to Discharge	Contact Person	Phone No.	
Mailing Address	City	State	Zip Code

Type of Owner or Operator: ☐ Developer/Builder ☐ General Contractor ☐ Municipality ☐ State of ND ☐ Federal ☐ Other (Specify):

This NOI is to obtain coverage under Small Construction Activity (see Part I.C of permit): ☐ YES ☐ NO

Clear Buttons

There are special reporting requirements for Small Construction Activity in Part III.D of permit

Name of Construction Project (Large Construction Activity only - see Part I.D of permit)

Brief Description of Construction Activity (Please fill out for **both** Small and Large Construction Activity)

LARGE CONSTRUCTION ACTIVITY INFORMATION

Names of Contractors Working at Site (if known)

1)

2)

3)

Project Start Date:

Estimated Completion Date:

Estimated Area of Total Disturbance in Acres

Facility Location						
	Street			City		
	OR	1/4 1/4	Section	Township	Range	County
	OR	Latitude o I II		Longitude o I II		County

Receiving Waters			
	☐ Natural Surface Drainage	Name or Description of Receiving Waters	
	OR ☐ Municipal Storm Sewer	Name of City	

Clear Buttons Above

SIGNATURE INFORMATION

RETURN COMPLETED APPLICATION TO:

North Dakota Department of Health
Division of Water Quality
1200 Missouri Ave., Rm. 203
PO Box 5520
Bismarck, ND 58506-5520

Telephone: 701-328-5210

I certify I am familiar with NDCC 61-28-08, and with the information contained in this application. To the best of my knowledge and belief, the information in this application is true, complete, and accurate.

Printed Name of Applicant(s)	Title
Signature of Applicant(s)	Application Date

(Attach additional pages if needed)

NOTICE OF TERMINATION TO CANCEL COVERAGE UNDER (NDPDES) GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY

NORTH DAKOTA DEPARTMENT OF HEALTH
DIVISION OF WATER QUALITY
DRAFT SFN 19146 (11/02)

Clear All Form Fields

FOR DEPT. USE ONLY

Date Received:____/____/____

GENERAL INFORMATION

Name of Construction Project			Permit Number
			NDR03 -
Name of Owner or Operator of Construction Project Which Received Authorization to Discharge	Contact Person		Telephone Number
Mailing Address	City	State	Zip Code

This Notice is to terminate coverage for all Small Construction Activity (see Part I.C of permit): ☐ YES ☐ NO

Clear Selections

There are special reporting requirements for Small Construction Activity in Part I.H and III.D of permit

LOCATION (for Large Construction Activity Only)

SITE LOCATION	Street			City		
	OR	1/4 1/4	Section	Township	Range	County
	OR	Latitude 0 I II		Longitude 0 I II		County

CERTIFICATION STATEMENT

I certify under penalty of law that for the construction project(s) and permit described above:

As of _____, disturbed soils at the identified site(s) have been finally stabilized, seventy percent restored vegetative coverage as compared to preexisting vegetation, and temporary erosion control measures have been removed, or that all storm water discharges associated with construction activity from the identified site, authorized by a NDPDES general permit have been eliminated.

I understand that by submitting this Notice of Termination, that I am no longer authorized to discharge storm water associated with construction activity by the general permit, and that discharging pollutants in storm water to waters of North Dakota is unlawful under North Dakota Century Code 61-28 where the discharge is not authorized by a NDPDES permit.

Return Completed Application to:

North Dakota Department of Health
Division of Water Quality
P.O. Box 5520
Bismarck, ND 58506-5520

Telephone: (701)328-5210

I certify I am familiar with NDCC 61-28-08 and with the information contained in this application. To the best of my knowledge and belief the information in this application is true, complete and accurate.

Printed Name of Applicant(s)	Title
Signature of Applicant(s)	Application Date

(Attach additional page if needed)

Permit No.: NDR03-0000

Effective Date: October 1, 1999

Mod. Effective Date: March 10, 2003

Expiration Date: September 30, 2004

AUTHORIZATION TO DISCHARGE UNDER THE

NORTH DAKOTA POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with Chapter 33-16-01 of the North Dakota Department of Health rules as promulgated under Chapter 61-28 (North Dakota Water Pollution Control Act) of the North Dakota Century Code,

facilities both qualifying for and satisfying the requirements identified in Part I of this permit

are authorized to discharge storm water associated with **CONSTRUCTION ACTIVITY**

to waters of the state

in accordance with effluent limitations, monitoring requirements, and other conditions set forth in Parts I-VI, hereof.

This permit and the authorization to discharge shall expire at midnight,

September 30, 2004.

_____
Dennis R. Fewless, Director
Division of Water Quality

_____
Date

PART I - PERMIT COVERAGE

A. Permit Area

This permit applies to all areas within the jurisdiction of the state of North Dakota

B. Eligibility and Limitations

1. Storm Water Discharges Covered by this Permit

This permit applies to all new and existing discharges of storm water from construction activity involving land disturbance of equal to or greater than one acre. This includes the disturbance of less than one acre of total land area that is part of a larger common plan of development or sale, if the larger common plan will ultimately disturb equal to or greater than one acre. Construction activity involves any of the following:

a. Construction activity including: clearing, grading, and excavation activities.
b. Examples of eligible construction projects include but are not limited to: road building/rebuilding, site development, housing subdivision development, utility trenching, etc.
c. Areas that are dedicated to producing earthen materials (such as soils, sand and gravel) for use at a construction site(s) as approved by the Department.

2. Storm Water Discharges *Not* Covered by this Permit

The following are not provided coverage under this permit:

a. Storm water discharges associated with industrial activity from any source other than construction activities of those approved operations as in Part I.B.1.b.
b. Storm water discharges associated with mining activities.
c. Storm water discharges associated with industrial activity from discharge points subject to existing effluent limitations guidelines.
d. Storm water discharges that the Department has shown to be contributing to a violation of a water quality standard.

C. Small Construction Activity Coverage

Small construction activity involves land disturbance of equal to or greater than one acre and less than five acres. Small construction activity also includes the disturbance of less than one acre of total land area that is part of a larger common plan of development or sale, if the larger common plan will ultimately disturb equal to or greater than one and less than five acres.

1. Notice of Intent (NOI)

An operator must submit one single NOI form to the Department to obtain coverage for storm water discharges from all of their small construction sites. An operator is the individual who has day to day supervision and control of activities occurring at the construction sites. This can be the owner, developer, the general contractor or, in some circumstances, the agent of one of these parties.

2. Contents of the NOI

The NOI for small construction activity shall contain, at a minimum, the following information:

a. Name and mailing address of the owner or operator.
b. Contact name and phone number.
c. A brief description of the construction activity type.
d. The signature of the applicant(s), signed in accordance with Part IV.E of this permit.

3. Deadlines

The NOI for small construction activity shall be submitted to the Department prior to the start of construction.

4. Submittal

Completed NOIs shall be submitted, by mail or hand delivery, to:

North Dakota Department of Health
Division of Water Quality
1200 Missouri Avenue
PO Box 5520
Bismarck, ND 58506-5520

Operators of small construction activity shall submit an Annual Location Record (see Part III.D) to the Department by January 31.

D. Large Construction Activity Coverage

Large construction activity involves land disturbance of equal to or greater than 5 acres. Large construction activity also includes the disturbance of less than one acre of total land area that is part of a larger common plan of development or sale, if the larger common plan will ultimately disturb equal to or greater than five acres.

1. Notice of Intent (NOI)

The operator of large construction activity shall submit an NOI and Storm Water Pollution Prevention (SWPP) Plan (see Part II.C.3) to obtain coverage for storm water discharges for each construction project. An operator is the individual who has day to day supervision and control of activities occurring at the construction site. This can be the owner, developer, the general contractor or, in some circumstances, the agent of one of these parties.

2. Contents of the NOI

The NOI for large construction activity shall contain, at a minimum, the following information:

a. Name and mailing address of the owner or operator.
b. Contact name and phone number.

c. The type of owner or operator of the construction site (federal, state, private, or other entity).
d. Name of construction project
e. A brief description of the construction activity.
f. List of contractors/subcontractors working at the site (if known).
g. Construction project's SIC code.
h. The anticipated starting date and the anticipated date of completion for the project.
i. The estimated area of total disturbance in acres.
j. County and location of the construction site, including latitude and longitude or township, range, section, and 1/4 section.
k. Name of receiving water(s) or the name of the receiving municipal storm sewer system and receiving water(s).
l. The signature of the applicant(s), signed in accordance with Part IV.E of this permit.

3. Deadlines

The NOI and SWPP Plan for large construction activity shall be submitted to the Department 30 days prior to the start of construction.

4. Submittal

Completed **NOIs** and **SWPP Plans** (see Part II.C) shall be submitted, by mail or hand delivery, to:

North Dakota Department of Health
Division of Water Quality
1200 Missouri Avenue
PO Box 5520
Bismarck, ND 58506-5520

E. Permit Certification

1. Automatic Coverage

If the applicant does not receive a request for additional information or a notification of denial from the Department within 10 days of receipt of the application by the Department, authorization to discharge in accordance with the conditions of this permit shall be deemed granted.

2. Request for Additional Information

The Department shall have the right to request additional data and/or deny the authorization for any particular discharge.

3. Individual or Alternative General Permits

a. The Department may, at any time and by written notification only, require any person authorized by this permit to apply for and obtain either an individual NDPDES permit or to seek coverage under an alternative NDPDES general permit.

b. Any person covered by this general permit may request to be excluded from such coverage by either applying for an individual NDPDES permit or filing a Notice of Intent to be covered under an alternative NDPDES general permit.

c. When an individual NDPDES permit is issued to a person otherwise subject to this permit or the person is approved for coverage under an alternative NDPDES general permit, the applicability of this permit to the individual permittee is automatically terminated upon the effective date of the individual permit or the date of approval for coverage under the alternative general permit.

d. When an individual NDPDES permit is denied to a person otherwise subject to this permit, or the person is denied for coverage under an alternative NDPDES general permit, the applicability of this permit remains in effect, unless otherwise specified by the Department.

4. Local Authority

This permit does not preempt or supersede the authority of local agencies to prohibit, restrict, or control discharges of storm water to storm sewer systems or other water courses within their jurisdiction.

F. Continuation of Coverage

Facilities covered under this permit can continue coverage under the renewed permit, provided a satisfactory request is made. Any request to retain coverage under a renewal of this permit shall be made in writing to the Department at least 15 days prior to the expiration date of this permit. If requested by the Department, a new NOI shall be submitted.

G. Transfer of Ownership or Control

1. Coverage under this permit may be transferred to a new permittee if the existing and new permittees notify the Department in writing, at least 48 hours before the transfer of ownership or control; and the notice includes a written agreement between the existing and new permittees containing a specific date of transfer or permit responsibility, coverage and liability between them. If requested by the Department, an NOT shall be submitted by the existing permittee and an NOI submitted by the new permittee.

2. The new owner or operator must comply with all regulations in this permit and with all provisions of the existing SWPP Plan until such time as the existing SWPP Plan is amended or replaced by a new SWPP Plan. If the personnel responsible for implementing the SWPP Plan change, these changes must be amended to the SWPP Plan within 30 days of transfer of ownership or control.

H. Notice of Termination (NOT)

1. Final Stabilization

Final stabilization is reached when all construction activities that are authorized by this permit have been completed, and uniform vegetative cover has been established with a

density of at least 70 percent of pre-disturbance levels, or equivalent permanent, physical erosion reduction methods have been employed.

2. Notice of Termination (NOT) for Small Construction Activity

Operators of small construction activity (see Part I.C) are not required to submit NOTs for their individual small construction sites, however, final stabilization is required on all sites. If an operator ceases all of its small construction activity and has submitted Annual Location Records (see Part III.D) that certify final stabilization has been completed on its small construction sites, an NOT must be submitted to end permit coverage for small construction activity.

3. Content of NOT for Small Construction Activity

a. Permit number.
b. Name and mailing address of the owner or operator.
c. Contact name and phone number.
d. Certification that all small construction activity has been finally stabilized.
e. Signature of the applicant(s), signed in accordance with Part IV.E of this permit.

4. Notice of Termination (NOT) for Large Construction Activity

When a site has been finally stabilized, an NOT shall be submitted to the Department.

5. Content of NOT for Large Construction Activity

The NOT shall contain, at a minimum, the following information:

a. Permit number.
b. Name of construction site.
c. Name and mailing address of the owner or operator.
d. Contact name and phone number.
e. County and location of the construction site, including latitude and longitude or township, range, section, and 1/4 section.
f. Certification that the site has been finally stabilized.
g. Signature of the applicant(s), signed in accordance with Part IV.E of this permit.

6. Submittal

Completed **NOTs** shall be submitted, by mail or hand delivery, to:

North Dakota Department of Health
Division of Water Quality
1200 Missouri Avenue
PO Box 5520
Bismarck, ND 58506-5520

PART II - SPECIAL CONDITIONS

A. Prohibition of Non-Storm Water Discharges

All discharges covered by this permit shall be composed entirely of storm water. The discharge of materials other than storm water must be identified as a potential source of pollution in the SWPP Plan (Part II.C.3). Unless otherwise determined by the Department, discharges of other than storm water must be in compliance with an appropriate NDPDES permit issued for the discharge.

B. Releases in Excess of Reportable Quantities

This permit does not relieve the permittee of the reporting requirements of 40 CFR 110, 40 CFR 117, and 40 CFR 302. Any release of a hazardous substance, including a release in a storm water discharge, must be reported to the agencies identified in Part IV.F. The discharge of hazardous substances in storm water discharges shall be minimized in accordance with the applicable SWPP Plan for the facility. Should a reportable quantity release occur, the SWPP Plan shall be revised to prevent the recurrence of such a release.

C. Storm Water Pollution Prevention Plans

All facilities covered by this permit shall prepare and implement a Storm Water Pollution Prevention (SWPP) Plan that is subject to Department approval. Guidance forms for preparing a SWPP Plan are located on the website **http://www.health.state.nd.us/wq/Storm/Construction/ConstructionHome.htm** or can be obtained from the Department. The main objective of the plan shall be to identify potential sources of pollution which may reasonably be expected to affect the quality of storm water discharges associated with construction activity; and to describe Best Management Practices (BMPs) which will be used to reduce the pollutants in the storm water discharges associated with construction activity. The implementation of these objectives will be used to meet the terms and conditions of this permit.

1. Plan Preparation and Implementation Deadlines

   a. SWPP Plans for large construction activity (see Part I.D) shall be submitted with the NOI. It is not necessary for operators of small construction activity (see Part I.C) to submit their SWPP Plans to the Department, unless requested in writing by the Department.

      Implementation of the plan shall be at the start of construction. The SWPP Plan may be submitted and/or implemented at later dates only upon written request by the permittee showing just cause and subsequent written approval by the Department.

   b. SWPP Plans approved and implemented under the previous version of this permit shall remain in effect under this permit. Operations covered under an existing SWPP Plan shall amend the SWPP Plan as described in Part II.C.2.d of this permit.

c. If the permittee must also operate under an approved state or local sediment and erosion control plan, or any other storm water management plan, it will be the permittee's responsibility to ensure that the SWPP Plan for this permit complies with all other required plans. A SWPP Plan is not a substitute for a storm water management plan developed under other regulatory programs. It is acceptable for the plan to reflect the storm water management measures developed under other regulatory programs and to incorporate the applicable portions of such programs by reference.

d. The permittee shall amend the SWPP Plan whenever there is a change in design, construction, operation, or maintenance, which has a significant effect on the potential for the discharge of pollutants to the water of the state, or if the SWPP Plan proves to be ineffective in achieving the general objectives of controlling pollutants in storm water discharges associated with construction activity.

2. <u>SWPP Plan Contents</u>

Key elements for SWPP Plans shall include, at a minimum, the following information:

a. *Site Description*

A site description shall contain, at a minimum, the following information:

i) A description of the nature of the construction activity.
ii) The proposed timetable for major activities.
iii) Estimates of the total area of the site, and the area of the site that is expected to undergo clearing, excavation, or grading.
iv) A description of the fill material to be used, the existing soils at the site, and the erodibility of such soils.
v) The name of any receiving water(s) and the size, type and location of any outfall or; for discharges to a municipal separate storm sewer, the name of the municipal owner of the system, the location of the storm sewer discharge, and the name of the ultimate receiving waters.

b. *Site Map*

A site map that indicates, at a minimum, the following information:

i) Construction site boundaries and area of soil disturbance
ii) The location of springs, streams, wetlands, and other surface waters
iii) The location of areas used for storage of building materials, soils, or wastes.
iv) The locations of proposed and existing storm water controls
v) Storm water runoff drainage patterns
vi) Township, range, section or lines of latitude and longitude

c. *Significant Material Inventory*

The location and description of any potential pollution sources, such as vehicle fueling, fertilizers or chemicals, etc. Generally, significant materials are raw materials, finished products, and byproducts. The term also includes materials

necessary for an operation which have the potential to be released with storm water. The description should identify methods of storage, disposal, and outdoor processing involving significant materials.

d. *Best Management Practices (BMPs)*

The plan shall clearly describe the relationship between the phases of construction and the implementation and maintenance of BMPs. The description of BMPs shall include the following components:

i) Erosion and Sediment Controls

a) Nonstructural

A description of nonstructural practices designed to preserve existing vegetation where practicable and re-vegetate open areas as soon as practicable after construction activity ceases. In developing vegetative practices, the permittee shall consider: temporary and permanent seeding, mulching, sod stabilization, filter strips, grassed waterways, erosion blankets, geotextiles, preservation of mature vegetation and tree or shrub planting.

b) Structural

A description of structural practices which indicates how, to the degree practicable, the permittee will divert flows from exposed soil, store flows, or otherwise limit runoff from exposed areas of the site. In developing structural practices, the permittee shall consider the relevance of: straw bale dikes, silt fences, earth dikes, brush barriers, drainage swales, check dams, subsurface drains, pipe slope drains, rock outlet protection, drain inlet and outlet protection, temporary drain diversion, sediment traps, temporary sediment basins, infiltration trenches or basins, and retaining walls.

ii) Other Controls

a) A description of methods to reduce the tracking of sediment onto public or private roads.

b) If applicable, a description of methods for handling and disposing of contaminated soils.

c) A description of methods for recovering sediments.

d) A description of spill prevention and response procedures for areas where potential spills can occur.

e. *Post-Construction Controls*

A description of the post-construction control measures to be implemented until final stabilization is achieved.

f. *Inspection and Maintenance*

A description of procedures which will be used to inspect and maintain, in good and effective operating condition, the storm water controls identified in the SWPP Plan. Site inspections must be in accordance with Part III of this permit.

g. *Signature*

All SWPP Plans must be signed in accordance with Part IV.E of this permit.

D. **Additional Terms and Conditions**

Storm water discharges from construction sites shall not cause pollution, contamination, or degradation to waters of the state.

1. Visible or measurable erosion which leaves the construction site is prohibited. Visible or measurable erosion is defined as:

   a. Deposits of mud, dirt, sediment, or similar material exceeding one-half cubic foot in volume in any area of 100 square feet or less on public or private streets, adjacent property, or into the storm and surface water either by deliberate actions or as a result of erosion; or

   b. Evidence of concentrated flows of water over bare soils, turbid or sediment-laden flows, or evidence of on-site erosion on bare soil slopes, where runoff of water is not filtered or captured on the site using the techniques in the approved SWPP Plan; or

   c. Earth slides, mud flows, earth sloughing, or other earth movement which leaves the property.

2. If any measurable quantity of sediment leaves the site because of structural failure or lack of design capacity of the BMPs, the sediment shall be placed back on the site or properly disposed of, as soon as is prudent. Under no conditions shall the sediment be washed into the storm sewers or drainage ways.

3. Concrete wash water shall not be discharged to waters of the state or to storm sewer systems.

4. Bulk storage structures for petroleum products and other chemicals shall have adequate protection so as to contain all spills and prevent any spilled materials from entering waters of the state.

5. No chemicals are to be added to the discharge unless permission for the use of a specific chemical is granted by the Department. In granting the use of such chemicals, special conditions and monitoring may need to be addressed through an individual NDPDES permit or an alternative NDPDES general permit.

6. All storm water discharges must comply with the requirements, policies, or guidelines, of municipalities and other local agencies. Any discharges of storm water to storm drainage systems or other water courses under their jurisdiction, including applicable requirements in municipal storm water management programs developed to comply with NDPDES permits, must comply with their local requirements.

PART III - EFFLUENT LIMITATIONS, MONITORING, RECORDING, AND REPORTING REQUIREMENTS

A. Effluent Limitations

The quality of storm water discharges associated with construction activity shall reflect the best which is attainable through the proper implementation of all items in the SWPP Plan for the construction site.

B. Monitoring Requirements

The permittee shall inspect the construction site to ensure that the storm water controls identified in the SWPP Plan are effective and properly maintained. The construction site perimeter, disturbed areas, and areas used for material storage shall be inspected for evidence of, or the potential for, erosion, sediment accumulation, sediment material residue and spills. The following guidelines shall be used for monitoring the effectiveness of the SWPP Plan:

1. Inspection Frequency:

   a. Large Construction Activity

      Inspections shall be performed by or under the direction of the permittee at least once every 7 calender days and within 24 hours after any storm event of greater than 0.50 inches of rain per 24-hour period. The permittee shall have the option of maintaining a rain gauge at their site or utilizing the nearest National Weather Service precipitation gauge station. Any gauge station used shall be located within 10 miles of the storm water discharge.

   b. Small Construction Activity

      Inspections shall be performed by or under the direction of the permittee at least once every 14 calendar days and within 24 hours after any storm event of greater than 0.50 inches of rain per 24-hour period. The permittee shall have the option of maintaining a rain gauge at their site or utilizing the nearest National Weather Service precipitation gauge station. Any gauge station used shall be located within 10 miles of the storm water discharge.

2. During storm events or periods of snow melt, when runoff occurs daily, all SWPP Plan controls shall be inspected by or under the supervision of the permittee daily.

3. Storm water runoff discharges shall be visibly monitored at the above frequency to evaluate the effectiveness of the SWPP Plan controls. If any measurable quantities of sediment are leaving the property, corrective action shall be taken as soon as is prudent to reduce the discharge of sediments.

4. There may be times when the performance of the site inspection may not be practical during an inspection period. Adverse climatic conditions, such as flooding, high winds, tornadoes, electrical storms, etc., or impracticable climatic conditions, such as drought, extended frozen conditions, etc., may prohibit inspections. Should this occur, the permittee must make a record of the description of why the inspection(s) could not be performed in lieu of the actual inspection data. Any available documentation of the events which did not allow for the inspection should also be available.

C. **Recording Requirements**

Inspection results shall be summarized and recorded on a Site Inspection Record (SIR). The SIRs shall be maintained on-site, in accordance with Part IV.D of this permit. The SIR shall contain, at a minimum, the following information:

1. The date and time of inspection.
2. The name of the person performing the inspection.
3. The date and duration (in hours) of the storm event.
4. The rainfall measurements or estimates (in inches) of the storm event.
5. The duration of time between this event and the end of the most recent storm event which was 0.50 inches or greater in precipitation.
6. All incidents of erosion, sediment accumulation, material residue, or spills shall be documented and noted on the SIR. The report shall include the location and description of the incident, estimated quantity of material or size of area affected, and a brief explanation of potential cause and remedial action taken.
7. Any measurable quantities of sediment released off the site, shall be recorded with a brief explanation as to the measures taken to prevent future releases as well as any measures taken to clean up the sediment that has left the site.
8. If no storm event occurs during an inspection period, “no discharge” shall be recorded on the SIR.

D. **Annual Location Record Report - (Small Construction Activity only)**

Operators of Small Construction Activity shall maintain a Location Record that shows the locations they operated small construction activity.

1. Contents of the Location Record

The Location Record shall contain the following:

a. Permit number
b. Name and mailing address of the owner or operator
c. Name of each small construction site
d. Location of each site (street address, latitude and longitude, or legal land description of township, range, section, and 1/4 section)
e. Start date of each site
f. The estimated area of total disturbance in acres of each site
g. Status of each site (in progress, grading complete, final stabilization date)

2. Submittal

A copy of the Annual Location Record shall be submitted to the Department by January 31 of each year, covering the small construction sites operated during the preceding calendar year (January 1 through December 31). The report shall be submitted to the Department at the following address:

North Dakota Department of Health
Division of Water Quality
1200 Missouri Avenue
PO Box 5520
Bismarck, ND 58506-5520

PART IV - COMPLIANCE RESPONSIBILITIES

A. **Duty to Comply** The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. The permittee shall give the Department advance notice of any planned changes at the permitted facility or of any activity which may result in permit noncompliance.

B. **Operation and Maintenance** The permittee shall at all times maintain in good working order, and operate as efficiently as possible, all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit and with the requirement of the SWPP Plans. If necessary to achieve compliance with the conditions of this permit, this shall include the operation and maintenance of backup or auxiliary systems.

C. **Duty to Provide Information** The permittee shall furnish to the Department, upon request, copies of records required to be kept by this permit. When a permittee becomes aware that it failed to submit any relevant facts or submitted incorrect information in a permit application or any report, it shall promptly submit such facts or information.

D. **Records Retention** All records and information (including calibration and maintenance) required by this permit shall be kept for at least three years or longer if requested by the Department or EPA.

E. **Signatory Requirements** All applications, reports, or information submitted to the Department shall be signed and certified by the permittee in accordance with the following criteria:

1. All permit applications shall be signed by a responsible corporate officer, a general partner, or a principal executive officer or ranking elected official, in addition to contractors and subcontractors involved in the construction activity or SWPP Plan.

2. All reports required by the permit and other information requested by the Department shall be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

   a. The authorization is made in writing by a person described above and submitted to the Department; or

b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters.

3. If an authorization under Part IV.E.2 is no longer accurate for any reason, a new authorization satisfying the above requirements must be submitted to the Department prior to or together with any reports, information, or applications to be signed by an authorized representative.

4. Any person signing a document under this section shall make the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted herein. Based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

F. **Immediate Notification** The permittee shall report any noncompliance of discharge which may seriously endanger health or the environment as soon as possible, but no later than twenty-four (24) hours from the time the permittee first became aware of the circumstance. The report shall be made to the EPA, Region VIII, National Emergency Response Center, at 1-800-424-8802 and the State of North Dakota, Division of Emergency Management, 1-800-472-2121. In addition, a written submission to both the Department and EPA shall be provided within five days of the time that the permittee became aware of the circumstances. The submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times; the estimated time noncompliance is expected to continue if it has not been corrected; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

G. **Bypassing** Any bypass is prohibited except where unavoidable to prevent loss of life, personal injury, or severe property damage, and there were no feasible alternatives to the bypass. The permittee shall provide notification of unanticipated bypasses as may be required by Part IV.F, Immediate Notification. If, for other reasons, a bypass is considered necessary, a request to bypass shall be submitted, at least 15 days in advance if possible, to the Department. No bypass of this type shall occur until permission has been obtained from the Department.

H. **Upset Conditions** An upset constitutes an affirmative defense to an action brought for noncompliance with technology-based permit effluent limitations if the requirements of the following paragraph are not met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence, that:

1. An upset occurred and the permittee can identify its cause(s);

2. The permitted facility was, at the time, being properly operated;

3. The permittee submitted notice of the upset as may be required under Part IV.F, Immediate Notification; and

4. The permittee complied with any remedial measures required under Part IV.I, Duty to Mitigate.

In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

I. **Duty to Mitigate** The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment. The permittee, at the Department's request, shall provide accelerated or additional monitoring as necessary to determine the nature and impact of any discharge.

J. **Removed Materials** Collected screening, grit, solids, sludge, or other pollutants removed in the course of treatment shall be buried or disposed of in such a manner to prevent any pollutant from entering waters of the state or creating a health hazard.

PART V - GENERAL REQUIREMENT

A. **Right of Entry** The permittee shall allow Department and EPA representatives, at reasonable times and, if requested, upon the presentation of credentials, to inspect any facilities or equipment (including monitoring and control equipment), to sample discharges, and to have access to and copy any records required to be kept by this permit. For facilities which discharge to a municipal or other separated storm sewer, this shall also pertain to authorized representatives of the municipal operator or the separate storm sewer receiving the discharge.

B. **Availability of Reports** Except for data determined to be confidential under 40 CFR, Part 2, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Department. As required by the Act, permit applications, permits, and effluent data shall not be considered confidential.

C. **Transfers** This permit is not transferable except upon the filing of a Statement of Acceptance by the new party and subsequent Department approval. The Department may require the new operator to apply for and obtain an individual NDPDES permit as stated in Part I.G. The current permit holder should inform the new controller, operator, or owner of the existence of this permit and also notify the Department of the possible change.

D. **New Limitations or Prohibitions** The permittee shall comply with any effluent standards or prohibitions established under Section 306(a), Section 307 (a), of Section 405 of the Act for any pollutant (toxic or conventional) present in the discharge or removed substances within the time identified in the regulations, even if the permit has not yet been modified to incorporate the requirements.

E. **Permit Actions** This permit may be modified, revoked and reissued, or terminated for cause. Also, if there is evidence indicating potential or realized impacts on water quality due to any storm water discharge associated with construction activity covered by this permit, the owner or operator of such discharge may be required to obtain an individual permit or coverage under an alternative general permit in accordance with Part I.E of this permit. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit conditions.

F. **Need to Halt or Reduce** It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

G. **State Laws** Nothing in this permit shall be construed to preclude the institution of legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation preserved under Section 510 of the Act.

H. **Oil and Hazardous Substance Liability** Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable state law or regulation preserved under Section 311 of the Act.

I. **Property Rights** The issuance of this permit does not convey any property rights of any sort, nor any exclusive privileges; nor does it authorize any injury to private property or any invasion of personal rights; nor any infringement of federal, state, or local laws or regulations.

J. **Severability** The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby.

PART VI - DEFINITIONS

"the Act" means the Clean Water Act.

"BMP" or "Best Management Practices" means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the state. BMPs also include treatment requirements, operating procedures and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

“Bypass" means the intentional diversion of waste streams from any portion of a treatment facility."Construction" means any activity associated with construction, including but not limited to: clearing, grading, and excavation.

"Department" means the North Dakota State Department of Health, Division of Water Quality.

"Grab" sample, for monitoring requirements, means a single "dip and take" sample collected at a representative point in the discharge stream.

“Large Construction Activity” means land disturbance of equal to or greater than 5 acres. Large construction activity also includes the disturbance of less than one acre of total land area that is part of a larger common plan of development or sale, if the larger common plan will ultimately disturb equal to or greater than five acres.

“Non-storm water discharges” means discharges other than storm water. The term includes both process and non-process sources. Process waste water sources that require a separate NDPDES permit include, but are not limited to industrial processes, domestic facilities and cooling water. Non-storm water sources that may be addressed in this permit include, but are not limited to: fire hydrant flushing and testing, potable water line flushing, infrequent building and pavement washdowns without detergents, uncontaminated foundation drains, springs, lawn watering and air conditioning condensate.

"Severe property damage" means substantial physical damage to property, damage to treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

"Significant materials" includes, but is not limited to: raw materials; fuels; materials such as solvents, detergents, and plastic pellets; finished materials such as metallic products; raw materials used in food processing or production; hazardous substances designated under Section 101(14) of CERCLA; any chemical the facility is required to report pursuant to Section 313 of Title III of SARA; fertilizers; pesticides; and waste products such as ashes, slag, and sludge that have the potential to be released with storm water discharges.

"Significant spills" includes, but is not limited to: releases of oil or hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (see 40 CFR 110.10 and CFR 117.21) or Section 102 of CERCLA (see 40 CFR 302.4).

“Small Construction Activity” means land disturbance of equal to or greater than one acre and less than five acres. Small construction activity also includes the disturbance of less than one acre of total land area that is part of a larger common plan of development or sale, if the larger common plan will ultimately disturb equal to or greater than one and less than five acres.

"Storm water" means storm water runoff, snow melt runoff, and surface runoff and drainage.

“Storm water discharge associated with industrial activity" means the discharge from any conveyance which is used for collecting and conveying storm water and which is directly related to manufacturing, processing, or raw materials storage areas at an industrial plant. The term does not include discharges from facilities or activities excluded from the NDPDES program. For the categories of industries identified in subparagraphs (i) through (x) of this subsection, the term includes, but is not limited to, storm water discharges from industrial plant yards; immediate access roads and rail lines used or traveled by carriers of raw materials, manufactured products, waste material, or byproducts used or created by the facility; material handling sites; refuse sites; sites used for the application or disposal of process waste waters (as defined at 40 CFR 401); sites used for the storage and maintenance of material handling equipment; sites used for residual treatment, storage, or disposal; shipping and receiving areas; manufacturing buildings; storage areas (including tank farms) for raw materials, and intermediate and finished products; and areas where industrial activity has taken place in the past and significant materials remain and are exposed to storm water. For the categories of industries identified in subparagraph (xi), the term includes only storm water discharges from all areas listed in the previous sentence (except access roads) where material handling equipment or activities, raw materials, intermediate products, final products, waste materials, by products, or industrial machinery <u>are exposed to storm water</u>. For the purposes of this paragraph, material handling activities include: storage, loading and unloading, transportation, or conveyance of any raw material, intermediate product, finished product, byproduct or waste product. The term excludes areas located on plant lands separate from the plant's industrial activities, such as office buildings and accompanying parking lots, as long as the drainage from the excluded areas is not mixed with storm water drained from the above described areas. Industrial facilities (including industrial facilities that are federally or municipally owned or operated that meet the description of the facilities listed in this paragraph [(i)-(xi)] include those facilities designated under 122.26(a)(1)(v). The following categories of facilities are considered to be engaging in "industrial activity" for purposes of this subsection:

(i) Facilities subject to storm water effluent limitations guidelines, new source performance standards, or toxic pollutant effluent standards under 40 CFR, Subchapter N (except facilities with toxic pollutant effluent standards which are exempted under category (xi) of this paragraph);

(ii) Facilities classified as Standard Industrial Classifications 24 (except 2434), 26 (except 265 and 267), 28 (except 283), 29, 311, 32 (except 323), 33, 3441, 373;

(iii) Facilities classified as Standard Industrial Classifications 10 through 14 (mineral industry), including active or inactive mining operations [except for areas of coal mining operations meeting the definition of a reclamation area under 40 CFR 434.11(1)], and oil and gas exploration, production, processing, or treatment operations, or transmission facilities that discharge storm water contaminated by contact with, or that has come into contact with, any overburden, raw material, intermediate products, finished products, byproducts, or waste products located on the site of such operations; inactive mining operations are mining sites that are not being actively mined, but which have an identifiable owner/operator;

(iv) Hazardous waste treatment, storage, or disposal facilities, including those that are operating under interim status or a permit under Subtitle C of RCRA;

(v) Landfills, land application sites, and open dumps that have received any industrial wastes (waste that is received from any of the facilities described under this subsection), including those that are subject to regulation under Subtitle D of RCRA;

(vi) Facilities involved in the recycling of materials, including metal scrap yards, battery reclaimers, salvage yards, and automobile junkyards, including but limited to those classified as Standard Industrial Classification 5015 and 5093;

(vii) Steam electric power generating facilities, including coal handling sites;

(viii) Transportation facilities classified as Standard Industrial Classifications 40, 41, 42, 44, and 45, which have vehicle maintenance shops, equipment cleaning operations, or airport deicing operations. Only those portions of the facility that are either involved in vehicle maintenance (including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication), equipment cleaning operations, airport deicing operations, or which are otherwise identified under paragraphs (i) - (vii) or (ix) - (xi) of this subsection are associated with industrial activity;

(ix) Treatment works treating domestic sewage or any other sewage sludge or wastewater treatment device or system used in the storage treatment, recycling, and reclamation of municipal or domestic sewage, including lands dedicated to the disposal of sewage sludge that are located within the confines of the facility, with design flow of 1.0 mgd or more, or required to have an approved pretreatment program under 40 CFR 403. Not included are farm lands, domestic gardens, or lands used for sludge management where sludge is beneficially reused and which are not physically located in the confines of the facility, or areas that are in compliance with 40 CFR 503;

(x) Construction activity including clearing, grading, and excavation activities except: operations that result in the disturbance of less than five acres of total land area which are not part of a larger common plan of development or sale;

(xi) Facilities under Standard Industrial Classifications 20, 21, 22, 23, 2434, 25, 265, 267, 27, 283, 31 (except 311), 34 (except 3441), 35, 36, 37 (except 373), 38, 39, 4221-25 [and which are not otherwise included within categories (i) - (x)].

“Storm water discharge associated with small construction activity” means the discharge of storm water from:

(i) Construction activities including clearing, grading, and excavating that result in land disturbance of equal to or greater than one acre and less than five acres. Small construction activity also includes the disturbance of less than one acre of total land area that is part of a larger common plan of development or sale if the larger common plan will ultimately disturb equal

to or greater than one and less than five acres. Small construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the facility.

(ii) Any other construction activity designated by EPA or the Department, based on the potential for contribution to a violation of a water quality standard or for significant contribution of pollutants to waters of the state.

"Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

"Waters of the state": Any and all surface waters that are contained in or flow in or through the state of North Dakota as defined in NDCC 61-28-02. This definition includes all water courses, even if they are usually dry.

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SECTION 01400

SPECIAL SAFETY REQUIREMENTS
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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.

CODE OF FEDERAL REGULATIONS (CFR)

29 CFR 1926	Safety and Health Regulations for Construction

ENGINEERING MANUALS (EM)

EM 385-1-1	(1996 and Changes) Safety and Health Requirements Manual

1.2 SUMMARY

1.2.1 General

This section provides guidelines for preparation of accident prevention plans, and to implement the accident prevention clause (this specification) and EM 385-1-1, Safety and Health Requirements Manual. The U.S. Army Corps of Engineers Safety and Health Requirements Manual, EM 385-1-1 is available from U.S. Government bookstores operated by the Government Printing Office [and a copy is included on the CD-ROM issued with this solicitation.] Changes to EM 385-1-1 applicable to this contract include only those revisions posted at the following website (all revisions up to the time this solicitation is issued): http://www.hq.usace.army.mil/soh/hqusace_soh.htm ("Changes to EM"). U.S. Government bookstores are located in most major cities including Milwaukee, Chicago, Kansas City, Denver, and Pueblo, Colorado.

1.3 PRECONSTRUCTION CONFERENCE

See Contract Clause "PRECONSTRUCTION CONFERENCE". A preconstruction conference will be scheduled prior to beginning of site work. Requirements relative to planning and administration of the overall safety program will be discussed.

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 01330SUBMITTAL PROCEDURES:

Administrative Submittals

Accident Prevention Plan;

The written site-specific Accident Prevention Plan.

SD-07 Certificates

Qualifications; G-AO.

A written report providing evidence of qualifications for personnel, facilities and equipment assigned to the work.

1.5 ACCIDENT PREVENTION PLAN

The Contractor shall submit, prior to the start of on site construction activity, a proposed accident prevention plan which shall be the accident prevention policy to be followed by all of the Contractor's and subcontractor's personnel and supervisory staff during performance of the work.

1.5.1 Requirements

The proposed plan shall be developed after a careful analysis of the work involved and shall be tailored specifically to the conditions of this project. The Contractor's accident prevention plan shall contain, as a minimum, the following general information or procedures for the activity indicated. The Contractor shall submit his plan for review and acceptance prior to commencing work.

1.5.1.1 Responsible Individual(s)

The Contractor shall designate an onsite employee as the individual responsible for insuring the accident prevention plan is implemented and enforced.

1.5.1.2 Subcontractor Supervision

Explain procedures to assure that subcontractor(s) fully comply with the accident prevention plan.

1.5.1.3 Indoctrination of New Employees

The plan shall include provisions for advising workers of the purpose of the accident prevention plan, specific hazards on the job and precautions to be taken, emergency procedures, information concerning tool box safety meetings, required protective equipment, cleanup rules and location of company safety rules (posting or handout).

1.5.1.4 Tool Box Safety Meetings

Hold weekly "Tool Box" safety meetings. Timely safety subjects shall be determined by a responsible individual. Employees will be informed of time, location, who will conduct, and subject. Identify procedures for including subcontractors. The Contractor shall provide a copy of the Weekly Tool Box Meeting and Monthly Supervisor's Safety Meeting to the Contracting Officer.

1.5.1.5 Fire Prevention and Protection

Identify source of fire protection. Insure adequate fire extinguishers, water barrels, or other fire-fighting equipment is located on site. Explain prevention activities to include storage areas and special hazards such as welding and use of flammable liquids, and other special hazards.

1.5.1.6 Housekeeping

Daily cleanup of all debris and waste materials is required. Adequate disposal containers should be placed strategically around the site. Debris shall be removed on a regular basis. Explain procedures that include use of barrels, dumpsters, trash chutes, etc.

1.5.1.7 Mechanical Equipment Inspection

All mechanical equipment (trucks, cranes, forklifts, backhoes, graders, etc.) shall be inspected prior to use and at fixed intervals throughout the life of the contract. Explain how inspections will be accomplished (frequency, by whom, and records to be kept).

1.5.1.8 First Aid and Medical Facilities

First aid facilities shall be made available on the job site. Arrangements for emergency medical attention shall be made prior to start of work. All emergency numbers (doctor, hospital, ambulance, fire department) shall be posted at the project superintendent's office.

1.5.1.9 Sanitation

Include provisions for toilet facilities, drinking water and washing facilities. A sufficient number of toilet facilities as specified in EM 385-1-1 shall be provided unless permission is granted to use existing facilities (portable chemical are authorized). Insure safe drinking water and individual cups are available. For the projects where corrosive or toxic materials are used, separate washing facilities are required.

1.5.1.10 Safety Promotions

The Contractor shall promote accident prevention. Identify method (posters, awards etc.).

1.5.1.11 Accident Reporting

All accidents (employee injuries, vehicle, building, or equipment damage etc.) regardless of their severity, shall be reported to the onsite government representative or to the area engineer, who in turn will advise the Contractor of forms to be submitted and timeframes.

1.5.1.12 Job Hazard Analysis

When job situations change and it is necessary to alter safety requirements, a Job Hazard Analysis will be accomplished, documented, and added as an addendum to the Accident Prevention Plan. Each Job Hazard Analysis shall include, but not be limited to, a description of the work, probable hazards related to that work and positive precautionary measures to be taken to reduce or eliminate each hazard. An example of changing situations may be new subcontractors performing work such as earth moving, trenching, concrete work, roofing, electrical, masonry etc. The onsite

government representative will determine the format and amount of detail required of the written plan.

1.6 EXCAVATION AND TRENCHING

The standards for excavation and trenching are outlined in 29 CFR 1926, Subpart P. These standards shall be followed in addition to those outlined in EM 385-1-1.

PART 2 PRODUCTS (NOT APPLICABLE)

PART 3 EXECUTION (NOT APPLICABLE)

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SECTION 01451A

CONTRACTOR QUALITY CONTROL
1/03; Omaha Revision 2/03

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.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM D 3740	(2001) 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	(2000b) 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.

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 in compliance with the Contract Clause titled "Inspection of Construction." 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 construction operations, both onsite and offsite, and shall be keyed to the proposed construction 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 construction 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 construction and construction related activities at the site.

3.2 QUALITY CONTROL PLAN

The Contractor shall furnish for review by the Government, not later than 10

days after receipt of notice to proceed, the Contractor Quality Control (CQC) Plan proposed to implement the requirements of the Contract Clause titled "Inspection of Construction." 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 30 days of operation. Construction 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 construction 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 01330 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 construction 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 construction. Acceptance is conditional and will be predicated on satisfactory performance during the construction. 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 Preconstruction Conference, before start of construction, 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 10 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 construction person with a minimum of 5 years in related work. This CQC System Manager shall be on the site at all times during construction and shall be employed by the prime Contractor. The CQC System Manager shall be assigned as System Manager but may have duties as project superintendent in addition to quality control. 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 CQC Personnel

A staff shall be maintained under the direction of the CQC system manager to perform all QC activities. The staff must be of sufficient size to ensure adequate QC coverage of all work phases, work shifts, and work crews involved in the construction. These personnel may perform other duties, but must be fully qualified by experience and technical training to perform their assigned QC responsibilities and must be allowed sufficient time to carry out these responsibilities. The QC plan will clearly state the duties and responsibilities of each staff member. Other technical specifications may specify individuals for maintaining quality control for specific areas of work. These individuals shall be under the direction of the CQC System Manager.

3.4.4 Additional Requirement

In addition to the above experience and/or education requirements the CQC System Manager shall have completed the course entitled "Construction Quality Management For Contractors". This course is periodically offered at each of the four area offices in the Omaha District according to the following revolving training schedule:.

Badger Area	First Session	Between 15 & 25 April
	Second Session	Between 15 & 25 October
Point of Contact	Roy Brewer	(319) 753-1386
Black Hills Area	First Session	Between 1 & 10 March
	Second Session	Between 1 & 10 September
Point of Contact	Dwight Pochant	(605) 923-2983
Fort Crook Area	First Session	Between 15 & 25 January
	Second Session	Between 15 & 25 July
Point of Contact	Al Kreisler	(402) 293-2540
Rocky Mountain	First Session	Between 1 & 10 June

	Second Session	Between 1 & 10 December
Point of Contact	Paul Jendzejec	(719) 556-4184

The exact date and location for the sessions will be determined approximately 30 days in advance of the training. The cost of training is presently established at $50 to be paid by each student in advance of the training. For information about a particular session, the best source is the point of contact listed above.

3.4.5 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 01330 SUBMITTAL PROCEDURES. The CQC organization shall be responsible for certifying that all submittals and deliverables are in compliance with the contract requirements. When Section 15950A HEATING, VENTILATING AND AIR CONDITIONING (HVAC) CONTROL SYSTEMS; 15951A DIRECT DIGITAL CONTROL FOR HVAC; 15990A TESTING, ADJUSTING, AND BALANCING OF HVAC SYSTEMS; or 15995A COMMISSIONING OF HVAC SYSTEMS are included in the contract, the submittals required by those sections shall be coordinated with Section 01330 SUBMITTAL PROCEDURES to ensure adequate time is allowed for each type of submittal required.

3.6 CONTROL

Contractor Quality Control is the means by which the Contractor ensures that the construction, to include that of subcontractors 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 construction 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. Prior to the preparatory meeting for each definable feature of work, the Contractor shall provide all technical references (i.e. building codes, life safety codes, etc.) referenced in the project specifications for feature(s) of work being addressed at the preparatory meeting. These technical references shall be onsite and available for use by Contractor and Government personnel before the preparatory meeting is held and maintained until the feature(s) of work is/are accepted by the Government.

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 construction 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 48 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 the actual cost for the recheck 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 Resident or Area (as directed) Office.

For delivery by mail: Commander and Director
U.S. Army Engineer Waterways Experiment Station
Attn: CEWES-GS
3909 Hallsferry Road
Vicksburg, Mississippi 39180-6199

For other deliveries: Commander and Director
U.S. Army Engineer Waterways Experiment Station
Attn: CEWES-GS
3909 Hallsferry Road
Vicksburg, Mississippi 39180-6199

Coordination for each specific test, exact delivery location, and dates will be made through the Resident or Area (as directed) Office.

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 in accordance with the contract clause titled "Inspection of Construction".

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.

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 Contracting Officer's Representative on the first day following the date(s) covered by the report, except that reports need not be submitted for days on which no work is performed. As a minimum, one report shall be prepared and submitted for every 7 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

Sample forms enclosed at the end of this section.

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.

_____
(FIRM NAME)

DAILY QUALITY CONTROL REPORT

Daily Report No.: _____ DATE: _____
Contract No. _____
Project Title & Location:
_____
Weather: ____ Precipitation: _____ in. _____ Temp:____ Min. ____ Max. ____

1. Contract/Subcontractors and Area of Responsibility:

NUMBER:	TRADE	HOURS	EMPLOYER	LOCATION/DESCRIPTION WORK

2. Operating Plant or Equipment. (Not hand tools)

Plant/Equipment	Date of Arrival/Departure	Date of Safety Check	Hours Used	Hours Idle	Hours Repair

3. Work Performed Today: (Indicate location and description of work performed by prime and/or subcontractors. When network analysis is used, identify work by NAS activity number).

4. Control Activities Performed:
   Preparatory Inspections: (Identify feature of work and attach minutes).
   Initial Inspections: (Identify feature of work and attach minutes).
   Follow-Up Inspections: (List inspections performed, results of inspection compared to specification requirements, and corrective actions taken when deficiencies are noted).

5. Tests Performed and Test Results: (Identify test requirement by paragraph number in specifications and/or sheet number in plans).

6. Material Received: (Note inspection results and storage provided).

7. Submittals Reviewed:

(a) Submittal No.	(b) Spec/Plan Reference	(c) By Whom	(d) Action

8. Offsite Surveillance Activities, Including Action Taken:

_____
_____
_____
_____
_____
_____
_____
_____

9. Job Safety: (List items checked, results, instructions and corrective actions taken).

_____
_____
_____
_____
_____
_____
_____
_____
_____

10. Remarks: (Instructions received or given. Conflict(s) in Plans and/or specifications. Delays encountered.).

_____
_____
_____
_____
_____
_____
_____

Contractor's Verification: On behalf of the Contractor, I certify this report is complete and correct, and all materials and equipment used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as may be noted above.

_____

CQC System Manager Date

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SECTION 02241

AGGREGATE BASE COURSE (Stockpile Only)

PART 1. GENERAL

1.0. SCOPE

The work covered by this section consists of furnishing all plant, labor, equipment and materials, and performing all operations in connection with furnishing and stockpiling at sites in accordance with these specifications and plans and as directed by the Contracting Officer's Representative (COR). Aggregate material shall consist Class 5 Aggregate Base, as specified in Standard Specifications for Road and Bridge Construction; Volume 1 of 2, North Dakota Department of Transportation, change dated 11-16-01. The Contractor shall perform all sampling and testing required for quality control in accordance with Section 01451 CONTRACTOR QUALITY CONTROL and as specified. The quarry operators shall be responsible for operating all quarries and for conditioning the area after operations are complete, in accordance with all applicable Federal, State, and local laws and regulations.

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.

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO)

Standard Specifications for Road and Bridge Construction; Volume 1 of 2, North Dakota Department of Transportation

1.2. UNIT PRICE

1.2.1. Measurement for Payment

The quantity of aggregate material will be measured in 2000 pound tons. The aggregate material shall be weighed: (1) on public or private scales, which have been certified by the State of North Dakota. The contractor shall furnish the COR a copy of each printed weigh bill when printing scales are used, or a copy signed by a public or bonded weigh-master for each load delivered; or (2) aggregate material may be weighed on contractor furnished scales under supervision of the COR. Each time, gross tare and net weight, name of project, name of contractor, contract number and signature of bonded weigh-master. All aggregate material shall be weighed to the nearest pound and the net weight reduced to the nearest hundredth of a ton.

1.2.2. Basis for Payment

Payment for aggregate material stockpiled, will be made at the respective contact unit price in the unit price schedule. No payment will be made for any material wasted, used for the convenience of the Contractor, unused or rejected.

1.2.3. Haul Delivery Charges

The delivery charges will be included in the bid price.

1.3. SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

Submittals Required	Specification Reference	Action Required
SD-06 Test Reports		
Test Results	1.5.2	G-AO

1.4. WAYBILLS AND DELIVERY TICKETS

Copies of waybills or delivery tickets shall be submitted during the progress of the work. Before the final payment is allowed, waybills and certified delivery tickets shall be furnished for all actually stockpiled materials.

1.5. SAMPLING AND TESTING

1.5.1. General Requirements

The Contractor shall be responsible for all sampling and testing specified. All samples including samples taken during production shall be representative of the aggregate material furnished or proposed to be furnished.

1.5.2. Test Results

Results shall verify that materials comply with this specification. When a material source is changed, the new material will be tested for compliance. When deficiencies are found, the initial analysis shall be repeated and the material already placed shall be retested to determine the extent of unacceptable material. All stockpiled aggregate unacceptable material shall be replaced or modified as directed by the Contracting Officer’s Representative.

PART 2. PRODUCTS

2.1. MATERIALS

2.1.1. General Requirements

The material shall contain not more than 5 percent of undesirable material by weight. Undesirable material is defined as dirt, sand, clay, and rock fines. The Contractor shall select the source or sources from which he proposes to obtain the material and perform the initial sampling and testing of the materials well in advance of the time required for use in the work.

2.1.2. Sources

The contractor shall notify the Contracting Officer's Representative of the selected rock source and/or production site and furnish a location map.

2.2. AGGREGATE - Class 5

Sieve Size	Percent Passing
1”	100

¾"	90-100
No. 4	35-70
No. 30	16-40
No. 200	4-10
Shale - 1	12%
L.A. Abrasion - 2	50%
Fractured Faces - 3	10%

1 - Allowable Percentages
2 - Maximum allowable unless range shown. N.P. = Non Plastic as per AASHTO T-90. Use material passing the No. 40 sieve (standard Method). For Class 5 aggregate the maximum allowable Plasticity index shall be determined from the following formula: Max. allowable PI for Class 5 = 10 - (% Passing No. 40 Sieve/10).
3 - Minimum weight percentage allowable for the portion of the aggregate on a No. 4 sieve having at least 1 fractured face for Classes 4, 5, 13, 27, 29, 31, and 33, and at least 2 fractured faces for Class 7.

PART 3. EXECUTION

3.1. GENERAL

The Contractor's operations shall be conducted in a manner that will produce aggregate meeting requirements specified.

3.2. STOCKPILE

3.2.1. General

Materials shall be handled to preserve their quality and fitness for work. Aggregates shall be transported in vehicles constructed to prevent loss or segregation of materials after loading and measuring.

3.2.2. Stockpiling Site Preparation. Prior to stockpiling of materials, storage sites shall be cleared and leveled by the Contractor. Sites shall be firm, smooth, and well drained. A bed of aggregate shall be maintained under the stockpile to prevent contaminating of stockpiled material with soil or foreign matter.

3.2.3 Stockpiling. The Contractor is responsible for pushing materials into piles. Piles shall be no higher than 15'

3.2.4 Location of Stockpile. Stockpile will be located in area as indicated on bid sheets and map.

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SECTION 02245

RIPRAP STONE PROTECTION (Quarried)

(Placed and/or Stockpiled)

PART 1. GENERAL

1.0. SCOPE

The work covered by this section consists of furnishing all plant, labor, equipment and materials, and performing all operations in connection with furnishing and stockpiling **or** construction of stone protection at area sites in accordance with these specifications and plans and as directed by the Contracting Officer's Representative (COR). Stone protection material shall consist of all stone to be furnished for riprap. The Contractor shall so control operations during production of stone protection material as to insure that the material delivered and placed will meet all specification requirements. The Contractor shall perform all sampling and testing required for quality control in accordance with Section 01451 CONTRACTOR QUALITY CONTROL and as specified. The quarry operators shall be responsible for operating all quarries and for conditioning the area after operations are complete, in accordance with all applicable Federal, State, and local laws and regulations.

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.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM C 88-76 (1990) Soundness of Aggregates by Use of Sodium Sulfate of Magnesium Sulfate

AMERCIAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO)

AASHTO T 103 (1991) Soundness of Aggregates by Freezing and Thawing

ARMY CORPS OF ENGINEERS (COE)

COE CRD-C 100 (1975) Sampling Concrete Aggregate and Aggregate Sources, and Selection of Material for Testing

COE CRD-C 107 (1994) Specific Gravity and Adsorption of Course Aggregate

1.2. UNIT PRICE

The material shall be weighed: (1) on public or private scales, which have been certified by the State of North Dakota. The contractor shall furnish the COR a copy of each printed weigh bill when printing scales are used, or a copy signed by a public or bonded weigh-master for each load delivered; or (2) material may be weighed on contractor furnished scales under supervision of the COR. Each time, gross tare and net weight, name of project, and name of contractor, contract number and signature of bonded weigh-master.

1.2.1. Measurement for Payment

1.2.1.1 Riprap (Types I, II, III & IV): The quantity of riprap material completed and accepted as determined by the Contracting Officer's Representative (COR) will be measured in 2000 pound tons of riprap material used in the accepted work. All riprap material shall be weighed to the nearest 20 pounds and the net weight reduced to the nearest hundredth of a ton.

1.2.1.2 Spalls (Type V): The quantity of material completed and accepted as determined by the Contracting Officer's Representative (COR) will be measured in 2000 pound tons of material used in the accepted work. All material shall be weighed to the nearest pound.

1.2.2. Basis for Payment

Payment for material, constructed and accepted, or stockpiled, will be made at the respective contract unit price in the unit price schedule. No payment will be made for any material wasted, used for the convenience of the Contractor, unused or rejected.

1.3. SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01300 SUBMITTAL PROCEDURES:

Submittals Required	Submittal Reference	Action Required
SD-07 Certificates		
Waybills and Delivery Tickets	1.4	FIO
SD-06 Test Reports		
Initial Sampling & Testing	1.5.3	G-AO
Riprap – Field Gradation	3.3.2	G-AO

1.4. WAYBILLS AND DELIVERY TICKETS

Copies of waybills or delivery tickets shall be submitted during the progress of the work. Before the final payment is allowed, waybills and certified delivery tickets shall be furnished for all stone protection materials actually used in the stockpiling or construction.

1.5. SAMPLING AND TESTING

1.5.1. General Requirements

The Contractor shall be responsible for sampling and testing specified. All samples including samples taken during production shall be representative of the stone protection material furnished or proposed to be furnished. All sampling operations shall take place in the presence of a representative of the Contracting Officer's Representative. At the same time samples for initial tests are obtained, the ledge or ledges in quarries sampled shall be marked with an approved semi-permanent marking which will be readily visible during the period of riprap production. No rock shall be furnished from any ledge, which has not been sampled, tested, and approved for use on this project.

1.5.2. Test Results

Results shall verify that materials comply with this specification. When a material source is changed, the new material will be tested for compliance. When deficiencies are found, the initial analysis shall be repeated and the material already placed shall be retested to determine the extent of unacceptable material. All in-place unacceptable material shall be replaced or modified as directed by the Contracting Officer's Representative.

1.5.3 Initial Sampling and Testing

Tests for bulk specific gravity, soundness in magnesium sulfate soundness, in freezing and thawing shall be performed on samples of material obtained from each ledge proposed for use as stone protection prior to start of construction. Test results shall describe type of failure of the discrete particles. Certified test results performed not longer than 12 months

prior to delivery to the project together with the name of the owner of the quarry and the legal description shall be submitted to the Contracting Officer's Representative. The Contractor shall submit a geologic section of each quarry indicating the various rock units identified by geologic name of formation and member and indicate from what ledge the samples were obtained. Samples shall be taken in accordance with Corps of Engineers Specification CRD C-100-75 or other approved methods.

1.5.3.1. Bulk Specific Gravity

Saturated Surface-Dry basis, Corps of Engineers Test Method CRD-C107-69. The test method shall be modified as follows: Total sample shall weigh 5,000 grams + or - 2 percent. Individual particles shall weigh approximately 300 grams each.

1.5.3.2. Soundness in Magnesium Sulfate

Soundness in magnesium sulfate shall be determined according to ASTM C-88-76 with test modifications as listed below. The combined loss at 5 cycles shall be not more than 8 percent. The test report shall show the percentages of loss calculated as described herein and the number of pieces affected, classified as to number disintegrating, splitting, crumbing, cracking, flaking, etc.

1.5.3.2.1. Sample Preparation

Breaking it into fragments reasonable uniform in size and shape and weighing approximately 100 grams each shall prepare the sample. The test sample shall weigh 5000-gram +/- 2 percent. The sample shall be thoroughly washed and dried previous to test as described for coarse aggregate.

1.5.3.2.2. Sample Immersion and Temperature

The sample immersed in the solution shall be maintained at a temperature of 80 degrees F +/- 2 degrees F for the immersion period.

1.5.3.2.3. Quantitative Examination

At the end of the fifth cycle, the percentage loss shall be determined by the three following methods. The test report shall show the loss computed by each method; however, only the combined loss shall be used for acceptance or rejection of the material.

1.5.3.2.4. Loss by Breaking

An individual piece, which has broken or split into three or more fragments shall be considered to have failed the test, provided each of the three such fragments is at least 10 percent of the original piece by weight. The total original weight of all pieces failing the test, expressed as percentage of the total original weight of the sample, shall be considered as percentage loss by breaking.

1.5.3.2.5 Loss by Crumbling and Flaking

After the loss by breaking has been determined, the pieces that have not failed in that determination shall be screened on the ½-inch sieve and the material retained on the sieve shall be weighed for purposes required determining combined losses. The pieces, which have failed by breaking, shall then be added to the material remaining on the ½-inch sieve and screened. The difference between the total original weight of the sample and the total weight of the material retained on the ½-inch sieve expressed as percentage of the total original weight shall be considered as percentage loss by crumbling and flaking.

1.5.3.2.6. Combined Loss

The difference between the total original weight of the sample and the weight of the material retained on the ½-inch sieve, after screening the pieces which did not fail by breaking, expressed as percentage of the total original weight, shall be considered as percentage combined loss.

1.5.3.3. Soundness in Freezing and Thawing

The test for freezing and thawing shall consist of AASHTO T 103, Ledge Rock Method, Procedure C, modified as indicated below. The loss of 12 cycles shall not exceed 5.0 percent. The test report shall describe the type of failure of discrete particles.

1.5.3.3.1 Temperature

The temperature of the surrounding medium during freezing shall be maintained in the range of -20 to -10 degrees F.

1.5.3.3.2 Freeze/Thaw Cycle

The length of a freezing and thawing cycle shall be sufficient to totally freeze and totally thaw each piece of the same during each cycle. The laboratory shall specifically determine for each sample that the cycle used is sufficient to accomplish total freezing and total thawing and shall report this in the test report. However, in no case shall the cycle consist of less than 2-1/2 hours of freezing following by 1 hour of thawing. The sample shall be held in the frozen condition whenever necessary to break the cycle (overnight, weekends, etc.).

1.5.3.4 Immersion

Procedure C, Partial Immersion shall be used, except that soaking prior to testing shall be in accordance with Procedure A.

PART 2. PRODUCTS

2.1. MATERIALS

2.1.1. General Requirements

All stone for stone slope protection (riprap) shall be durable angular fracture, quarried rock with a minimum of one flat surface as approved by the Contracting Officer's Representative. Rounded field boulders will not be allowed. Material delivered to the site shall be free from cracks, seams, and other defects that will cause rapid or excessive deterioration or degradation during service. The bulk stone protection material delivered to the project shall be of such quality that tests performed on representative samples have results within the limits specified. The material shall contain not more than 5 percent of undesirable material by weight. Undesirable material is defined as individual pieces of stone, which do not meet the quality requirements when tested as specified, and which can be visually differentiated from the satisfactory pieces, plus dirt, sand, clay, and rock fines. Stone protection material shall not contain disintegrating granite or shale. The Contractor shall select the source or sources from which he proposes to obtain the material and perform the initial sampling and gradation testing of the materials well in advance of the time required for use in the work.

2.1.2. Sources

The contractor shall notify the Contracting Officer's Representative of the selected rock source and/or production site and furnish a location map.

2.2. RIPRAP

The riprap shall consist of stone meeting the requirements specified and shall be free from thin slabby pieces having a maximum dimension more than four times the least dimension. Stone for riprap shall be reasonably well graded from coarse to fine. Dirt and fines of less than 1/2-inch maximum cross section, accumulated from interledge layers or from blasting or handling operations shall not exceed 5 percent by weight.

2.3. GRADATION

The riprap and spalls shall be reasonably well-graded falling within the limits as shown on the tables below:

2.3.1. Riprap(Type I)

Weight in Pounds Per Stone	Percent of Total Weight Lighter Than or Passing
5200	100
3,000	60-85
1,500	30-60
800	15-40
250	0-10

2.3.2. Riprap(Type II)

Weight in Pounds Per Stone	Percent of Total Weight Lighter Than or Passing
2,000	100
1,500	60-85
1,000	30-60
500	10-30

2.3.3. Riprap(Type III)

Weight in Pounds Per Stone	Percent of Total Weight Lighter Than or Passing
1,100	100
700	40-90
500	20-60
250	0-20

2.3.4. Riprap(Type IV)

Weight in Pounds Per Stone	Percent of Total Weight Lighter Than or Passing
500	100
250	15-50
90	0-15

2.3.5 Riprap (Type V)

2.3.5. Spall Material

Spalls shall be composed of durable fragments of quarried stone or granite reasonably well graded meeting the gradation below:

Size	% Passing
7″	100
4″	60-85
1″	15-40
#4	0-10

PART 3. EXECUTION

3.1. GENERAL

Operations shall be controlled to produce a reasonably well-graded stone of required size, and the Contracting Officer may require changes as necessary to produce the required product.

3.2. PLACEMENT

3.2.1. Dumped Riprap

Dumped stone not to exceed a drop height of ten feet from equipment to point of placement shall be placed in such a manner as to produce a reasonably well-graded mass of rock with the minimum practicable percentage of voids. The larger stones in the final position shall be roughly graded to conform to the contour specified. The finished protection shall be generally free from pockets of small stones or clusters of larger stones. Placement of stone shall be accomplished by dumping at the base of the slope <u>or</u> by machine from the top of the slope using a loader, excavator or other suitable similar equipment. Drifting, manipulating, and moving stone at any time prior to placement by means of dozers or other blade equipment will not be permitted. Rearranging of individual stones by mechanical equipment or by hand will be required to the extent necessary to obtain a reasonably well-graded distribution of stone sizes as specified herein. The Contractor shall maintain the riprap until accepted and any material displaced by any cause shall be replaced at his expense to the lines and grades shown on the drawings.

3.2.2. Placed Riprap

Riprap stone as designated on site drawings shall be placed in such manner as to produce a reasonably well-graded mass of rock with the minimum practicable percentage of voids. Riprap shall be placed to its full course thickness and in such a manner as to avoid damage to the bedding material and to minimize segregation of the riprap. The larger stones shall be well distributed and the entire mass of stones in their final position shall be roughly graded to conform to the gradation specified. The finished riprap shall be free from objectionable pockets of small stones and clusters of larger stones. Placed riprap in layers will not be permitted. The desired distribution of the various sizes of stones throughout the mass shall be obtained by selective loading of the material at the quarry or other source and by controlled dumping of successive loads during final placement operations. All stone shall be placed by zero drop height means with a clam, orange peel, skip box, grapple, excavator thumb or other accepted means. Zero drop height placement procedures are to be utilized for riprap stone to avoid displacing or damaging the underlying bedding. Dumping of stone at the top of slopes and rolling or pushing into place will not be permitted. Manipulating or moving stone at any time prior to placement by means of dozers or other blade equipment will not be permitted. Rearranging of individual stones by mechanical equipment or by hand will be required to the extent necessary to obtain a reasonably well-graded distribution of stone sizes as specified above.

3.2.3. Stockpiled

3.2.3.1 General

Materials shall be handled to preserve their quality and fitness for work. Aggregates shall be transported in vehicles constructed to prevent loss or segregation of materials after loading and measuring.

3.2.3.2 Stockpiling Site Preparation

Prior to stockpiling of materials, storage sties shall be cleared and leveled by the Contractor. Sites shall be firm, smooth, and well drained. A bed of aggregate shall be maintained under the stockpile to prevent contaminating of stockpiled material with soil or foreign matter.

3.2.3.3 Stockpiling

The Contractor is responsible for pushing materials into piles. Piles shall be no higher than 15’.

3.2.3.4 Location of Stockpile

Stockpile will be loaded in areas as bid.

The Contractor shall maintain the riprap stone until accepted and any material displaced by any cause shall be replaced at his expense to the lines and grades shown on the drawings.

3.3. FIELD GRADATION

3.3.1. General

If the material fails to meet the gradation limits specified, the Contractor shall discontinue placement of the material and adjust his operations or he shall propose another source. The Contractor shall verify with the necessary additional tests that acceptable materials are being produced. Tests, which do not pass the

gradation requirements, will not be counted in the additional required tests above. The contractor at his expense will perform all field tests.

3.3.2. Riprap

A field gradation test of riprap material shall be performed by the Contractor to determine if the material as delivered to the job meets the gradation requirements of this specification. A sample consisting of 12 tons shall be taken of material delivered the job and checked for gradation and elongation. The material delivered from the initial test that meets specifications shall be placed in a well-marked area as designated by the Contracting Officer's Representative to serve as a visual model for acceptable material. Material that does not meet specifications shall not be counted as a required test. The contractor shall state in writing the method used in processing, loading, and handling this sample, and shall notify the Contracting Officer's Representative any time any methods are changed. Riprap material shall not be placed until the material delivered to the job has passed a field gradation test. At the discretion of the Contracting Officer's Representative, random loads will be dumped or the in-place material will be sampled and gradation control check shall be performed by the Contractor at the discretion and under the supervision of the Contracting Officer's Representative.

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SECTION 02246

RIPRAP STONE PROTECTION (Field Rock)

PART 1. GENERAL

1.0. SCOPE

The work covered by this section consists of furnishing all plant, labor, equipment and materials, and performing all operations in connection with furnishing and stockpiling **or** construction of stone protection at area sites in accordance with these specifications and plans and as directed by the Contracting Officer's Representative (COR). Stone protection material shall consist of all stone to be furnished for riprap. The Contractor shall so control operations during production of stone protection material as to insure that the material delivered and placed will meet all specification requirements. The Contractor shall perform all sampling and testing required for quality control in accordance with Section 01451 CONTRACTOR QUALITY CONTROL and as specified. The quarry operators shall be responsible for operating all quarries and for conditioning the area after operations are complete, in accordance with all applicable Federal, State, and local laws and regulations.

1.1. UNIT PRICE

The material shall be weighed: (1) on public or private scales, which have been certified by the State of North Dakota. The contractor shall furnish the COR a copy of each printed weigh bill when printing scales are used, or a copy signed by a public or bonded weigh-master for each load delivered; or (2) material may be weighed on contractor furnished scales under supervision of the COR. Each time, gross tare and net weight, name of project, name of contractor, contract number and signature of bonded weigh-master.

1.1.1. Measurement for Payment

1.1.1.1 Riprap (Types I, II, III & IV): The quantity of riprap material completed and accepted as determined by the Contracting Officer's Representative (COR) will be measured in 2000 pound tons of riprap material used in the accepted work. All riprap material shall be weighed to the nearest 20 pounds and the net weight reduced to the nearest hundredth of a ton.

1.1.1.2 Spalls (Type V): The quantity of material completed and accepted as determined by the Contracting Officer's Representative (COR) will be measured in 2000 pound tons of material used in the accepted work. All material shall be weighed to the nearest pound.

1.1.2. Basis for Payment

Payment for material, constructed and accepted, or stockpiled, will be made at the respective contract unit price in the unit price schedule. No payment will be made for any material wasted, used for the convenience of the Contractor, unused or rejected.

1.2. SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

Submittals Required	Submittal Reference	Action Required
SD-07 Certificates		
Waybills and Delivery Tickets	1.3	FIO
SD-06 Test Reports		
Riprap - Field Gradation	3.3.2	G-AO

1.3. WAYBILLS AND DELIVERY TICKETS

Copies of waybills or delivery tickets shall be submitted during the progress of the work. Before the final payment is allowed, waybills and certified delivery tickets shall be furnished for all stone protection materials actually used in the stockpiling or construction.

1.4. SAMPLING AND TESTING

1.4.1. General Requirements

No testing is required on field boulders.

PART 2. PRODUCTS

2.1. MATERIALS

2.1.1. General Requirements

All stone for stone slope protection (riprap) shall be durable angular fractured rock with a minimum of one flat surface as approved by the Contracting Officer’s Representative. Material delivered to the site shall be free from cracks, seams, and other defects that will cause rapid or excessive deterioration or degradation during service. The material shall contain not more than 5 percent of undesirable material by weight. Undesirable material is defined as dirt, sand, clay, and rock fines. Stone protection material shall not contain disintegrating granite or shale. The Contractor shall select the source or sources from which he proposes to obtain the material and perform the initial sampling and gradation testing of the materials well in advance of the time required for use in the work.

2.1.2. Sources

The contractor shall notify the Contracting Officer's Representative of the selected rock source and/or production site and furnish a location map.

2.2. RIPRAP

The riprap shall consist of stone meeting the requirements specified and shall be free from thin slabby pieces having a maximum dimension more than four times the least dimension. Stone for riprap shall be reasonably well graded from coarse to fine. Dirt and fines of less than 1/2 inch maximum cross section, shall not exceed 5 percent by weight.

2.3. GRADATION

The riprap and spalls shall be reasonably well-graded falling within the limits as shown on the tables below:

2.3.1. Riprap(Type I)

Weight in Pounds Per Stone	Percent of Total Weight Lighter Than or Passing
5200	100
3,000	60-85
1,500	30-60
800	15-40
250	0-10

2.3.2. Riprap(Type II)

Weight in Pounds Per Stone	Percent of Total Weight Lighter Than or Passing
2,000	100
1,500	60-85
1,000	30-60
500	10-30

2.3.3. Riprap(Type III)

Weight in Pounds Per Stone	Percent of Total Weight Lighter Than or Passing
1,100	100
700	40-90
500	20-60
250	0-20

2.3.4. Riprap(Type IV)

Weight in Pounds Per Stone	Percent of Total Weight Lighter Than or Passing
500	100
250	15-50
90	0-15

2.3.5 Riprap (Type V - Spalls)

Spalls shall be composed of durable fragments of stone reasonably well graded meeting the gradation below:

Size	% Passing
7”	100
4”	60-85
1”	15-40
#4	0-10

PART 3. EXECUTION

3.1. GENERAL

Operations shall be controlled to produce a reasonably well-graded stone of required size, and the Contracting Officer may require changes as necessary to produce the required product.

3.2. PLACEMENT

3.2.1. Dumped Riprap

Dumped stone not to exceed a drop height of ten feet from equipment to point of placement shall be placed in such a manner as to produce a reasonably well-graded mass of rock with the minimum practicable percentage of voids and shall be constructed to the lines and grades shown on the typical section. The larger stones in the final position shall be roughly graded to conform to the contour specified. The finished protection shall be generally free from pockets of small stones or clusters of larger stones. Placement of stone shall be accomplished by dumping at the base of the slope <u>or</u> by machine from the top of the slope using a loader, excavator or other suitable similar equipment. Drifting, manipulating, and moving stone at any time prior to placement by means of dozers or other blade equipment will not be permitted. Rearranging of individual stones by mechanical equipment or by hand will be required to the extent necessary to obtain a reasonably well-graded distribution of stone sizes as specified herein. The Contractor shall maintain the riprap until accepted and any material displaced by any cause shall be replaced at his expense to the lines and grades shown on the drawings.

3.2.2. Placed Riprap

Riprap stone as designated on site drawings shall be placed in such manner as to produce a reasonably well-graded mass of rock with the minimum practicable percentage of voids. Riprap shall be placed to its full course thickness and in such a manner as to avoid damage to the bedding material and to minimize segregation of the riprap. The larger stones shall be well distributed and the entire mass of stones in their final position shall be roughly graded to conform to the gradation specified. The finished riprap shall be free from objectionable pockets of small stones and clusters of larger stones. Placed riprap in layers will not be permitted. The desired distribution of the various sizes of stones throughout the mass shall be obtained by selective loading of the material at the quarry or other source and by controlled dumping of successive loads during final placement operations. All stone shall be placed by zero drop height means with a clam, orange peel, skip box, grapple, excavator thumb or other accepted means. Zero drop height placement procedures are to be utilized for riprap stone to avoid displacing or damaging the underlying bedding. Dumping of stone at the top of slopes and rolling or pushing into place will not be permitted. Manipulating or moving stone at any time prior to placement by means of dozers or other blade equipment will not be permitted. Rearranging of individual stones by mechanical equipment or by hand will be required to the extent necessary to obtain a reasonably well-graded distribution of stone sizes as specified above.

3.2.3. Stockpiled

3.2.3.1 General

Materials shall be handled to preserve their quality and fitness for work. Aggregates shall be transported in vehicles constructed to prevent loss or segregation of materials after loading and measuring.

3.2.3.2 Stockpiling Site Preparation

Prior to stockpiling of materials, storage sties shall be cleared and leveled by the Contractor. Sites shall be firm, smooth, and well drained. A bed of aggregate shall be maintained under the stockpile to prevent contaminating of stockpiled material with soil or foreign matter.

3.2.3.3 Stockpiling

The Contractor is responsible for pushing materials into piles. Piles shall be no higher than 15’.

3.3. FIELD GRADATION

3.3.1. General

If the material fails to meet the gradation limits specified, the Contractor shall discontinue placement of the material and adjust his operations or he shall propose another source. The Contractor shall verify with the necessary additional tests that acceptable materials are being produced. Tests, which do not pass the gradation requirements, will not be counted in the additional required tests above. The contractor at his expense will perform all field tests.

3.3.2. Riprap

A field gradation test of riprap material shall be performed by the Contractor to determine if the material as delivered to the job meets the gradation requirements of this specification. A sample consisting of 12 tons shall be taken of material delivered the job and checked for gradation and elongation. The material delivered from the initial test that meets specifications shall be placed in a well-marked area as designated by the Contracting Officer’s Representative to serve as a visual model for acceptable material. Material that does not meet specifications shall not be counted as a required test. The contractor shall state in writing the method used in processing, loading, and handling this sample, and shall notify the Contracting Officer’s Representative any time any methods are changed. Riprap material shall not be placed until the material delivered to the job has passed a field gradation test. At the discretion of the Contracting Officer’s Representative, random loads will be dumped or the in-place material will be sampled and gradation control check shall be performed by the Contractor at the discretion and under the supervision of the Contracting Officer’s Representative.

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SECTION 02300

EARTHWORK

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.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM C 136	Sieve Analysis of Fine and Coarse Aggregates
ASTM D 422	Particle-Size Analysis of Soils
ASTM D 1140	Amount of Material in Soils Finer than the No. 200 (75-micrometer) Sieve
ASTM D 1556	Density and Unit Weight of Soil in Place by the Sand-Cone Method
ASTM D 1557	Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/cu. ft. (2,700 kN-m/cu. m.))
ASTM D 2167	Density and Unit Weight of Soil in Place by the Rubber Balloon Method
ASTM D 2487	Classification of Soils for Engineering Purposes (Unified Soil Classification System)
ASTM D 2922	Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth)
ASTM D 2937	Density of Soil in Place by the Drive-Cylinder Method
ASTM D 3017	Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth)
ASTM D 4318	Liquid Limit, Plastic Limit, and Plasticity Index of Soils

1.2. MEASUREMENT

1.2.1. Excavation/ Backfill

The unit of measurement for excavation and borrow will be the cubic yard, computed by the average end area method from cross sections taken before and after the excavation and/or borrow operations. The contractor shall be responsible for all surveys needed to show quantities of material moved. The volume to be paid will be the number of cubic yards of material measured in its original position and removed from the excavation and borrow areas, including the excavation for ditches, gutters, and channel changes, when the material is acceptably utilized as backfill or disposed of as herein specified. The measurements will include authorized excavation of rock, authorized excavation of unsatisfactory subgrade soil, and the volume of loose, scattered rocks and boulders collected within the limits of the work; allowance will be made on the same basis for selected backfill ordered as replacement. The measurement will not include the volume of subgrade material or other material that is scarified or plowed and reused in-place, and will not include the volume excavated without authorization or the volume of any material used for purposes other than directed. The volumes of overburden stripped from borrow pits and the volumes of excavation for ditches to drain

borrow pits, unless used as borrow material, will not be measured for payment. The measurement will not include the volume of any excavation performed prior to the taking of elevations and measurements of the undisturbed grade.

In lieu of surveys, the contractor and COR by agreement may determine quantities of material used by utilizing full loaded truck capacities minus a 20% shrinkage factor for lossage and compaction of hauled borrow or excavated material. This agreement will be based on the fully loaded trucks and submission of load transfer tickets showing transport of material from the borrow site to the site of placement.

1.2.2. Topsoil Requirements

Separate excavation, hauling, and spreading or piling of topsoil and related miscellaneous operations will be considered subsidiary obligations of the Contractor, covered under the contract unit price for excavation.

1.2.3 Haul Requirements

Haul charges will be computed into the excavation/ backfill unit cost with a maximum average haul radius of 10 miles from the borrow to the placement site.

1.3. PAYMENT

Payment will constitute full compensation for all labor, equipment, tools, supplies, and incidentals necessary to complete the work.

1.3.1. Excavation/ Borrow

Excavation/ Borrow will be paid for at the contract unit prices per cubic yard for common or rock excavation.

1.4. DEFINITIONS

1.4.1. Satisfactory Materials

Satisfactory materials shall comprise any materials classified by ASTM D 2487 as GW, GP, GM, GC, SW, and SP. Satisfactory materials for grading shall be comprised of stones less than 8 inches; except for fill material for pavements and railroads which shall be comprised of stones less than 3 inches in any dimension.

1.4.2. Unsatisfactory Materials

Materials, which do not comply with the requirements for satisfactory materials, are unsatisfactory. Unsatisfactory materials also include man-made fills; trash; refuse; backfills from previous construction; and material classified as satisfactory which contains root and other organic matter or frozen material. The Contracting Officer shall be notified of any contaminated materials.

1.4.3. Cohesionless and Cohesive Materials

Cohesionless materials include materials classified in ASTM D 2487 as GW, GP, SW, and SP. Cohesive materials include materials classified as GC, SC, ML,

CL, MH, and CH. Materials classified as GM and SM will be identified as cohesionless only when the fines are nonplastic. Testing required for classifying materials shall be in accordance with ASTM D 4318, ASTM C 136, ASTM D 422, and ASTM D 1140.

1.4.4. Degree of Compaction

Degree of compaction required is expressed as a percentage of the maximum density obtained by the test procedure presented in ASTM D 1557 abbreviated as a percent of laboratory maximum density.

1.4.5. Topsoil

Material suitable for topsoil obtained from the required excavation. Topsoil shall not contain more than five percent by volume of stones, stumps or objects larger than 1 inch in any dimension. Topsoil shall be conserved to cover to a minimum depth of 4 inches all areas to be disturbed except areas to be paved or similarly surfaced in this contract.

1.5. SUBMITTALS

Government approval is required for submittals with a "G-AO" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

	Submittals Required	Specification Reference	Action Required
SD-04 Samples			
	Rock Excavation - notification	1.7.1	G-AO
SD-06 Test Reports			
	Backfill - Testing	3.4	G-AO
	Ground Surface - Testing	3.5.1	G-AO
	Embankment - Testing	3.6.1	G-AO
	Subgrade - Compaction - Testing	3.7.2	G-AO
	Subgrade - Pavement - Testing	3.7.2.1	G-AO
	Subgrade - Shoulders - Testing	3.7.2.2	G-AO
	Shoulder Construction - Testing	3.8	G-AO
	Moisture Contents - Testing	3.11.4	G-AO
	Optimum Moisture & Laboratory Maximum Density - Testing	3.11.5	G-AO

SD-07 Certificates

Testing - Lab Certification	3.11	FIO
Borrow Material - Letters from Land owners	3.3	FIO

1.6. SUBSURFACE DATA

Subsurface soil boring logs may if available be appended to the DELIVERY ORDER. The subsoil investigation report and samples of materials taken from subsurface investigations may be examined at the Project Office. These data represent the best subsurface information available; however, variations may exist in the subsurface between boring locations.

1.7. CLASSIFICATION OF EXCAVATION

No consideration will be given to the nature of the materials, and all excavation will be designated as unclassified excavation.

1.7.1. Rock Excavation

Rock excavation shall include excavating, grading, and disposing of material classified as rock and shall include the satisfactory removal and disposal of boulders 1/2 cubic yard or more in volume; rock material that is in ledges, bedded deposits, and unstratified masses, and firmly cemented conglomerate. The removal of any concrete or masonry structures, except pavements, exceeding 1/2 cubic yard in volume that may be encountered in the work shall be included in this classification. If at any time during excavation, including excavation from borrow areas, the Contractor encounters material that may be classified as rock excavation, such material shall be uncovered and the Contracting Officer notified by the Contractor. The Contractor shall not proceed with the excavation of this material until the Contracting Officer has classified the materials as common excavation or rock excavation. Failure on the part of the Contractor to uncover such material, notify the Contracting Officer, and allow ample time for classification of the undisturbed surface of such material will cause the forfeiture of the Contractor's right of claim to any classification or volume of material to be paid for other than that allowed by the Contracting Officer for the areas of work in which such deposits occur.

1.7.2. Common Excavation

Common excavation shall include the satisfactory removal and disposal of all materials not classified as rock excavation.

1.8. BLASTING

Blasting will not be permitted.

1.9. UTILIZATION OF EXCAVATED MATERIALS

Unsatisfactory materials removed from excavations shall be disposed of in designated waste disposal or spoil areas. Satisfactory material removed from excavations shall be used, insofar as practicable, in the construction of fills, embankments, subgrades, shoulders, bedding (as backfill), and for

similar purposes. No satisfactory excavated material shall be wasted without specific written authorization. Satisfactory material authorized to be wasted shall be disposed of in designated areas approved for surplus material storage or designated waste areas as directed. Newly designated waste areas on Government-controlled land (at the contractor's expense) shall be cleared and grubbed before disposal of waste material thereon. Coarse rock from excavations shall be stockpiled and used for constructing slopes or embankments adjacent to streams, or sides and bottoms of channels and for protecting against erosion. No excavated material shall be disposed of to obstruct the flow of any stream, endanger a partly finished structure, impair the efficiency or appearance of any structure, or be detrimental to the completed work in any way.

PART 2. PRODUCTS (Not Applicable)

PART 3. EXECUTION

3.1. STRIPPING OF TOPSOIL

Topsoil will be separately excavated, stored, and used for surface finish in preparation for seeding, sodding, or other planting, only where topsoil is definitely superior for grass and plant growth as compared with the remainder of the excavated material. Where indicated or directed, topsoil shall be stripped to a depth of 4 inches. Topsoil shall be spread on areas already graded and prepared for topsoil, or transported and deposited in stockpiles convenient to areas that are to receive application of the topsoil later, or at locations indicated or specified. Topsoil shall be kept separate from other excavated materials, brush, litter, objectionable weeds, roots, stones larger than 2 inches in diameter, and other materials that would interfere with planting and maintenance operations. Any surplus of topsoil from excavations and grading shall be stockpiled in locations indicated.

3.2. GENERAL EXCAVATION

The Contractor shall perform excavation of every type of material encountered within the limits of the project to the lines, grades, and elevations indicated and as specified. Grading shall be in conformity with the typical sections shown and the tolerances specified in paragraph FINISHING. Satisfactory excavated materials shall be transported to and placed in fill or embankment within the limits of the work. Unsatisfactory materials encountered within the limits of the work shall be excavated below grade and replaced with satisfactory materials as directed. Such excavated material and the satisfactory material ordered as replacement shall be included in excavation. Surplus satisfactory excavated material not required for fill or embankment shall be disposed of in areas approved for surplus material storage or designated waste areas. Unsatisfactory excavated material shall be disposed of in designated waste or spoil areas. During construction, excavation and fill shall be performed in a manner and sequence that will provide proper drainage at all times. Material required for fill or embankment in excess of that produced by excavation within the grading limits shall be excavated from the borrow areas indicated or from other approved areas selected by the Contractor as specified.

3.2.1. Ditches, Gutters, and Channel Changes

Excavation of ditches, gutters, and channel changes shall be accomplished by cutting accurately to the cross sections, grades, and elevations shown.

Ditches and gutters shall not be excavated below grades shown. Excessive open ditch or gutter excavation shall be backfilled with satisfactory, thoroughly compacted, material or with suitable stone or cobble to grades shown. Material excavated shall be disposed of as shown or as directed, except that in no case shall material be deposited less than 4 feet from the edge of a ditch. The Contractor shall maintain excavations free from detrimental quantities of leaves, brush, sticks, trash, and other debris until final acceptance of the work.

3.2.2. Drainage Structures

Excavations shall be made to the lines, grades, and elevations shown, or as directed. Trenches and foundation pits shall be of sufficient size to permit the placement and removal of forms for the full length and width of structure footings and foundations. Rock or other hard foundation material shall be cleaned of loose debris and cut to a firm, level, stepped, or serrated surface. Loose disintegrated rock and thin strata shall be removed. When concrete or masonry is to be placed in an excavated area, the bottom of the excavation shall not be disturbed. Excavation to the final grade level shall not be made until just before the finish surface material is to be placed.

3.3. SELECTION OF BORROW MATERIAL

Borrow material shall be selected to meet the requirements and conditions of the particular fill or embankment for which it is to be used. Borrow material shall be obtained from the borrow areas, within the limits of the project site. Necessary clearing, grubbing, and satisfactory drainage of borrow pits and the disposal of debris thereon shall be considered related operations to the borrow excavation.

3.4 BACKFILL

Backfill adjacent to any and all types of structures shall be placed and compacted to at least 90 percent laboratory maximum density for cohesive materials or 95 percent laboratory maximum density for cohesionless materials to prevent wedging action or eccentric loading upon or against the structure. Ground surface on which backfill is to be placed shall be prepared as specified in paragraph PREPARATION OF GROUND SURFACE FOR EMBANKMENTS. Compaction requirements for backfill materials shall also conform to the applicable portions of paragraphs PREPARATION OF GROUND SURFACE FOR EMBANKMENTS, EMBANKMENTS, and SUBGRADE PREPARATION. Sheepsfoot rollers shall accomplish compaction, pneumatic-tired rollers, steel-wheeled rollers, vibratory compactors, or other approved equipment.

3.5. PREPARATION OF GROUND SURFACE FOR EMBANKMENTS

3.5.1. General Requirements

Ground surface on which fill is to be placed shall be stripped of live, dead, or decayed vegetation, rubbish, debris, and other unsatisfactory material; plowed, disked, or otherwise broken up to a depth of 6 inches; pulverized, moistened or aerated as necessary; thoroughly mixed; and compacted to at least 90 percent laboratory maximum density for cohesive materials or 95 percent laboratory maximum density for cohesionless materials. Sheepsfoot rollers shall accomplish compaction, pneumatic-tired rollers, steel-wheeled rollers, vibratory compactors, or other approved equipment. The prepared ground surface shall be scarified and moistened or aerated as required just

prior to placement of embankment materials to assure adequate bond between embankment material and the prepared ground surface.

3.5.2. Frozen Material

Embankment shall not be placed on a foundation which contains frozen material, or which has been subjected to freeze-thaw action. This prohibition encompasses all foundation types, including the natural ground, all prepared subgrades (whether in an excavation or on an embankment) and all layers of previously placed and compacted earth fill which become the foundations for successive layers of earth fill. All material that freezes or has been subjected to freeze-thaw action during the construction work, or during periods of temporary shutdowns, such as, but not limited to, nights, holidays, weekends, winter shutdowns, or earthwork operations, shall be removed to a depth that is acceptable to the Contracting Officer and replaced with new material. Alternatively, the material will be thawed, dried, reworked, and recompacted to the specified criteria before additional material is placed. The Contracting Officer will determine when placement of fill shall cease due to cold weather. The Contracting Officer may elect to use average daily air temperatures, and/or physical observation of the soils for his determination. Embankment material shall not contain frozen clumps of soil, snow, or ice.

3.6. EMBANKMENTS

3.6.1. Earth Embankments

Earth embankments shall be constructed from satisfactory materials free of organic or frozen material and rocks with any dimension greater than 3 inches. The material shall be placed in successive horizontal layers of loose material not more than 6 inches in depth. Each layer shall be spread uniformly on a soil surface that has been moistened or aerated as necessary, and scarified or otherwise broken up so that the fill will bond with the surface on which it is placed. After spreading, each layer shall be plowed, disked, or otherwise broken up; moistened or aerated as necessary; thoroughly mixed; and compacted to at least 90 percent laboratory maximum density for cohesive materials or 95 percent laboratory maximum density for cohesionless materials. Compaction requirements for the upper portion of earth embankments forming subgrade for pavements shall be identical with those requirements specified in paragraph SUBGRADE PREPARATION. Sheepsfoot rollers shall accomplish compaction, pneumatic-tired rollers, steel-wheeled rollers, vibratory compactors, or other approved equipment.

3.7. SUBGRADE PREPARATION

3.7.1. Construction

Subgrade shall be shaped to line, grade, and cross section, and compacted as specified. This operation shall include plowing, disking, and any moistening or aerating required obtaining specified compaction. Soft or otherwise unsatisfactory material shall be removed and replaced with satisfactory excavated material or other approved material as directed. Rock encountered in the cut section shall be excavated to a depth of 6 inches below finished grade for the subgrade. Low areas resulting from removal of unsatisfactory material or excavation of rock shall be brought up to required grade with satisfactory materials, and the entire subgrade shall be shaped to line, grade, and cross section and compacted as specified. After rolling, the

surface of the subgrade for roadways shall not show deviations greater than 0.05 inch when tested with a 10 foot straightedge applied both parallel and at right angles to the centerline of the area. The elevation of the finish subgrade shall not vary more than 0.05 foot from the established grade and cross section.

3.7.2. Compaction

Sheepsfoot rollers shall accomplish compaction, pneumatic-tired rollers, steel-wheeled rollers, vibratory compactors, or other approved equipment. Except for paved areas, each layer of the embankment shall be compacted to at least 90 percent of laboratory maximum density.

3.7.2.1. Subgrade for Pavements

Subgrade for pavements shall be compacted to at least 95 percent of laboratory maximum density for the depth below the surface of the pavement shown. When more than one soil classification is present in the subgrade, the top 12 inches of subgrade shall be scarified, windrowed, thoroughly blended, reshaped, and compacted.

3.7.2.2. Subgrade for Shoulders

Subgrade for shoulders shall be compacted to at least 90 percent of laboratory maximum density for the full depth of the shoulder.

3.8. SHOULDER CONSTRUCTION

Shoulders shall be constructed of satisfactory excavated or borrow material or as otherwise shown or specified. Shoulders shall be constructed as soon as possible after adjacent paving is complete, but in the case of rigid pavements, shoulders shall not be constructed until permission of the Contracting Officer has been obtained. The entire shoulder area shall be compacted to at least the percentage of maximum density as specified in paragraph SUBGRADE PREPARATION above, for specific ranges of depth below the surface of the shoulder. Sheepsfoot rollers shall accomplish compaction, pneumatic-tired rollers, steel-wheeled rollers, vibratory compactors, or other approved equipment. Shoulder construction shall be done in proper sequence in such a manner that adjacent ditches will be drained effectively and that no damage of any kind is done to the adjacent completed pavement. The completed shoulders shall be true to alignment and grade and shaped to drain in conformity with the cross section shown.

3.9. FINISHING

The surface of excavations, embankments, and subgrades shall be finished to a smooth and compact surface in accordance with the lines, grades, and cross sections or elevations shown. The degree of finish for graded areas shall be within 0.1 foot of the grades and elevations indicated except that the degree of finish for subgrades shall be specified in paragraph SUBGRADE PREPARATION. Gutters and ditches shall be finished in a manner that will result in effective drainage. The surface of areas to be turfed shall be finished to a smoothness suitable for the application of turfing materials.

3.10. PLACING TOPSOIL

On areas to receive topsoil, the compacted subgrade soil shall be scarified to a 2 inch depth for bonding of topsoil with subsoil. Topsoil then shall be spread evenly to a thickness of 4 inches and graded to the elevations and slopes shown. Topsoil shall not be spread when frozen or excessively wet or dry. Material required for topsoil in excess of that produced by excavation within the grading limits shall be obtained from offsite areas.

3.11. TESTING

The Contractor subject to approval shall perform by an approved commercial testing laboratory or testing. If the Contractor elects to establish testing facilities, no work requiring testing will be permitted until the Contractor's facilities have been inspected and approved by the Contracting Officer. The first inspection will be at the expense of the Government. Cost incurred for any subsequent inspections required because of failure of the first inspection will be charged to the Contractor. Field in-place density shall be determined in accordance with ASTM D 1556. When test results indicate, as determined by the Contracting Officer, that compaction is not as specified, the material shall be removed, replaced and recompacted to meet specification requirements. Tests on recompacted areas shall be performed to determine conformance with specification requirements. A registered professional civil engineer shall certify inspections and test results. These certifications shall state that the tests and observations were performed by or under the direct supervision of the engineer and that the results are representative of the materials or conditions being certified by the tests. The following number of tests, if performed at the appropriate time, will be the minimum acceptable for each type operation.

3.11.1. Fill and Backfill Material Gradation

One test per 1000 cubic yards stockpiled or in-place source material. Gradation of fill and backfill material shall be determined in accordance with ASTM 422 and ASTM C 1140.

3.11.2. In-Place Densities

a. One test per 10,000 square feet, or fraction thereof, of each lift of fill or backfill areas compacted by other than hand-operated machines.
b. One test per 1000 square feet, or fraction thereof, of each lift of fill or backfill areas compacted by hand-operated machines.
c. One test per 5000 linear feet, or fraction thereof, of each lift of embankment or backfill for roads.

3.11.3. Check Tests on In-Place Densities

If ASTM D 2922 is used, in-place densities shall be checked by ASTM D 1556 as follows:

a. One check test per lift for each 50,000 square feet, or fraction thereof, of each lift of fill or backfill compacted by other than hand-operated machines.
b. One check test per lift for each 5000 square feet, of fill or backfill areas compacted by hand-operated machines.
c. One check test per lift for each 25,000 linear feet, or fraction thereof, of embankment or backfill for roads.

3.11.4. Moisture Contents

In the stockpile, excavation, or borrow areas, a minimum of one test per week per type of material or source of material being placed during stable weather conditions shall be performed. During unstable weather, tests shall be made as dictated by local conditions and approved by the Contracting Officer.

3.11.5. Optimum Moisture and Laboratory Maximum Density

Tests shall be made for each type material or source of material including borrow material to determine the optimum moisture and laboratory maximum density values. One representative test per 1000 cubic yards of fill and backfill, or when any change in material occurs which may affect the optimum moisture content or laboratory maximum density.

3.11.6. Tolerance Tests for Subgrades

Continuous checks on the degree of finish specified in paragraph SUBGRADE PREPARATION shall be made during construction of the subgrades.

3.12. SUBGRADE AND EMBANKMENT PROTECTION

During construction, embankments and excavations shall be kept shaped and drained. Ditches and drains along subgrade shall be maintained to drain effectively at all times. The finished subgrade shall not be disturbed by traffic or other operation and shall be protected and maintained by the Contractor in a satisfactory condition until ballast, subbase, base, or pavement is placed. The storage or stockpiling of materials on the finished subgrade will not be permitted. No subbase, base course, ballast, or pavement shall be laid until the subgrade has been checked and approved, and in no case shall subbase, base, surfacing, pavement, or ballast be placed on a muddy, spongy, or frozen subgrade.

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SALVAGING AND PROCESSING EXISTING BITUMINOUS AND GRANULAR BASE MATERIALS

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SECTION 02564

SALVAGING AND PROCESSING EXISTING BITUMINOUS AND GRANULAR BASE MATERIALS

PART 1 GENERAL

1.1 REFERENCES.

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.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

D 75-87	Sampling Aggregates
D 1556-82	Density of Soil in Place by the Sand-Cone Method
D 1557-91	Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft^3 (2,700 kN-m/m^3))
D 2922-81	Density of Soil and Soil-Aggregate in Place by the Nuclear Methods (Shallow Depth)
D 3017-78	Moisture content of Soil and Soil-Aggregate in Place by the Nuclear Methods (Shallow Depth)
D 2487-85	Classification of Soils for Engineering Purposes

1.2 DESCRIPTION

This work consists of salvaging reclaimed asphalt pavement (RAP) material and recombining the RAP material with a portion of the existing granular base courses. The top 8" of existing surface course and granular base course shall be combined and recompacted as described herein. Prior to final compaction of the salvaged RAP and base course material the remaining base material shall be compacted. The salvaged material shall then be spread and recompacted and bituminous hot mix placed on top of the compacted salvaged material.

1.3 DEFINITION

Degree of compaction required is expressed as a percentage of the maximum density obtained by the test procedures presented in ASTM D 1557, "Procedure C". This will be abbreviated hereinafter as percent laboratory maximum density.

1.4 SUBMITTALS

Government approval is required for submittals with a "G-AO" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL DESCRIPTIONS:

Submittals Required	Specification Reference	Action Required
SD-06 Test Reports		
Density Tests	3.6.1	G-AO

1.5 PAYMENT

Payment shall be as one unit price by the square foot for 8” depth of milled and blended bituminous and granular base.

PART 2 PRODUCTS

2.1 MATERIALS

RAP material shall be processed to provide a nominal two-inch maximum size. A tolerance of five percent in material retained on a two-inch sieve will be permitted provided all material passes a 2-1/2 inch sieve. Material not passing the 2-1/2 inch sieve shall be reprocessed. The final gradation after reclaiming shall be uniformly dense with no more then 15% passing the No. 200 sieve.

PART 3 EXECUTION

3.1 EXISTING PAVEMENT PREPARATION

Where pavement is to be removed, the pavement removal limits shall be sawed full depth with an approved concrete saw prior to removal so as to leave a straight, true, edge and be removed in a manner that will not disturb the adjacent in-place material to remain. Material that is to remain but damaged by the Contractor’s removal operations shall be replaced at no additional cost to the Government as described herein.

3.2 CONSTRUCTION REQUIREMENTS

The existing RAP material shall be scarified or milled to a 2" – 3” depth and combined with 5” - 6" of existing granular base course material to obtain a uniform blend (total depth will not exceed or be less than 8”). The processing and blending may be accomplished in place, provided the Contractor's method meets the blending and gradation requirements, as stated herein. Equipment used for mixed-in-place construction shall be designed, coordinated, and maintained to produce a uniform blend. All RAP material shall be reduced in size as defined above and the material shall be windrowed to the adjacent path alongside the roadway to the extent necessary to ensure compaction of the exposed remaining granular base course material as described below. The salvaged material shall be moved in a manner that minimizes segregation, additional particle attrition, and contamination with the subgrade.

3.3 EXISTING ROAD BASE PREPARATION.

Upon completion of the reclaiming and size reduction of existing pavement and prior to the start of placement and compaction of the salvaged material, the material shall then be windrowed to one side of the roadway. The remaining granular material over the entire width of the roadway shall be recompacted. Compaction shall consist of 4 passes of a minimum 10-ton vibratory steel wheel roller. Water shall be added if necessary to facilitate compaction. The blended RAP and granular material shall then spread and reshaped to the lines and grade as previously set and recompacted. The salvaged blended material shall be compacted to 100 percent of the laboratory maximum density at optimum moisture for the full depth. Field density tests of the salvaged blended material shall be performed every 1300 square yards of material placed per lift and not less than one test for each day's placement when tested in accordance to ASTM D 1556. ASTM D 2922 may be used for Contractor Quality Control purposes, although acceptance shall be based on ASTM D 1556. When the material is compacted by hand operated equipment a field density test shall be performed for each 100 square yards, or fraction thereof, on each layer placed.

3.4 YIELDING SUBGRADE OR BASE COURSE

Soft or yielding material encountered within the limits of the work area found to be inadequate to support the Contractor's equipment shall be resolved by one of the following methods as described below. The finished subgrade and/or base course shall meet the density requirements as stated herein, regardless of the method chosen. Any methods used to improve the subgrade and/or base course as described below shall be approved by the Contracting Officer prior to starting work. Excavation and filling shall be performed in a manner and sequence that will utilize all suitable material from the required existing pavement removal operation prior to obtaining material from borrow sources. Excavations shall be kept free from water while construction therein is in progress. Material required for fills in excess of that produced by excavation within the grading limits shall be obtained from borrow areas off Government controlled land.

a) Lime-Stabilized Subgrade or Fly Ash or Cement-Stabilized Base Course. The area shall be aerated by scarifying, and stabilized. Stabilization shall be a minimum of 5 percent by weight (based on oven-dry weight of the soil), uniformly blended for a minimum 8 inches in depth, and compacted. Cement shall be Type I or Type II. Lime shall be a standard form of quicklime or hydrated lime. Should the specified minimum stabilization application rate and stabilization depth be inadequate to provide the specified working platform for the Contractor's equipment, the Contractor shall either change the equipment, increase the stabilization application rate, increase the depth of stabilization, or any combination of these measures as required to provide the specified working platform. Such material excavated and the selected material ordered as replacement will be paid for by an equitable adjustment of the contract price under the clause of the CONTRACT CLAUSES of the contract entitled "Changes." If, during construction of the pavement layers on top of the lime-stabilized subgrade, and /or the cement-stabilized base course fails to provide the specified working platform, the Contractor shall restabilize the layer at no additional cost to the Government.

b) Spot Subgrade Reinforcement. Unsuitable subgrade materials shall be removed, the bottom of the resulting excavation shaped uniformly and compacted firmly to 95% percent of the maximum laboratory compacted density when tested according to ASTM D 1557 and provisions for adequate drainage shall be made. Spot subgrade reinforcement shall include sound, tough, durable crushed stone, slag or gravel, consisting of pieces varying from 1 inch to 3-1/2 inches in diameter, or other approved material, with necessary filler. When a finer material is necessary for filler, broken stone chips, screened gravel, or sand may be used to completely fill all voids. The subgrade reinforcement material shall be placed in the prepared excavation, in layers of not more than 8 inches, which shall be spread and rammed until level with the surrounding subgrade surface. The voids shall then be filled with necessary finer selected material and the area rolled, or tamped if inaccessible to the roller. The filling and rolling or tamping shall be continued until the entire mass is thoroughly compacted to not less than the density of the surrounding or adjacent areas. The surface shall be finished to conform accurately to the grade and cross section shown on the drawings. Spot subgrade reinforcement, if required, will be paid for by an equitable adjustment of the contract price under the clause Entitled "Changes" of the CONTRACT CLAUSES.

3.5 OPERATION OF ROLLERS AND TAMPERS

The speed of the rollers shall be slow enough at all times to avoid displacement of mixture. Displacement of the mixture occurring as the result of reversing the direction of the roller, or from any other cause, shall be corrected by scarifying, blading and recompacting to the lines and grades as shown on the drawings. Alternate trips of the roller shall be of slightly

different lengths. During rolling, wheels of steel-wheeled and rubber-tired rollers shall be moistened, if necessary, to prevent adhesion of the mixture to the wheels, but excessive water will not be permitted. Rolling equipment or techniques shall be changed if the specified density is not obtained. In places not accessible to rollers, the mixture shall be thoroughly compacted with hand tampers.

3.6 ACCEPTABILITY OF WORK

3.6.1 TESTING

The Contractor shall be responsible for all sampling and testing. The sampling and testing shall be performed by an approved commercial testing laboratory or by facilities furnished by the Contractor. No work requiring testing will be permitted until the sites have been inspected and approved. Costs incurred for subsequent inspection, and, or replacement of materials for nonconformance shall be at the Contractor's expense. No extension of time shall be given to the Contractor for retesting or replacement of materials for nonconformance. The Laboratory maximum density and optimum moisture content shall be determined in accordance ASTM D 1557. Field density tests shall be determined in accordance with ASTM D 1556. Copies of test results shall be furnished to the Contracting Officer within 24 hours of completion of tests. For the method presented in ASTM D 1556, the loose plate as shown shall be used. When ASTM D 2922 is used for Quality Control purposes, the calibration curves shall be checked, and adjusted if necessary, using ASTM D 1556 (as described in paragraph "Calibration" of the ASTM 2922). ASTM D 2922 results in a wet unit weight of soil, and when using this method, ASTM D 3017 shall be used to determine the moisture content of the soil. The calibration curves furnished with the moisture gauges shall be checked along with density calibration checks as described in ASTM D 3017. Calibration curves for the moisture and density gages shall be furnished and checked by the Contractor at the beginning of the job and on each type of material encountered on the job. If nuclear devices are used, not less than 1 of every 10 consecutive field density tests shall be checked using ASTM D 1556 to provide correlation. Calibration curves, calibration tests results and correlation tests shall be furnished within 24 hours of the conclusion of the tests.

3.6.2 GRADE CONFORMANCE

The finished grade shall be determined by running lines of levels at intervals of 25 feet or less longitudinally and transversely to determine the elevation of the completed pavement. The finished surface of the pavement shall not vary more than 0.05 foot from the indicated lines, grades, and cross sections. Grade conformance tests shall be performed in the presence of the Contracting Officer. The locations and deviations from grade of all measurements shall be recorded.

3.6.3 SURFACE SMOOTHNESS

After completion of final rolling, the compacted surface shall be tested with a 12-foot straightedge. Measurements shall be made perpendicular to and across the pavement at distances along the pavement not to exceed 25 feet. When a 12-foot straightedge is laid on the surface parallel with the centerline of the paved area or transverse from crown to pavement edge, the surface shall not vary more than 1/4-inch in any direction. Surface-smoothness tests shall be performed in the presence of the Contracting Officer. The Contractor shall correct all defective areas in the salvaged base course by scarifying, blading, and recompacting to the lines and grades as shown on the drawings at no additional cost to the Government. The

locations and deviations from the straightedge of all measurements shall be recorded.

3.6.4 GRADE CONTROL

Lines and grades, as indicated, will be maintained by means of line and grade stakes placed by the Contractor at the site of work.

3.7 WEATHER LIMITATIONS

The RAP material shall not be constructed in rain or on a layer, which contains free water either within the layer or on its surface. The RAP material shall be constructed only when the atmospheric temperature, in the shade, is 50 degrees F or above.

3.8 PAVEMENT MARKINGS

The Contractor shall place short-term centerline pavement markings on roads. Short-term pavement marking shall be an application of pavement marking paint, pavement marking tape, or raised pavement markers. The surface preparation for application of short-term pavement marking shall be as follows:

> The pavement surface in the area where markings are to be applied shall be clean and dry. Foreign materials, (i.e., dirt, petroleum products, paint, and curing compound) shall be removed from the pavement surface before applying pavement marking. The amount of pavement moisture shall be tested by taping a 12-inch by 12-inch (approximate) sheet of transparent plastic film within 15 minutes; the pavement must be dried before installing pavement markings. The moisture test will not be required when water-based pavement marking paint is used.

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SECTION 02722

BASE COURSE

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.

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO)

AASHTO T 180	Moisture-Density Relations of Soils Using a [4.54-kg] 10-lb. Rammer and an [457 mm] 18-in Drop

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM C 29/C 29M	Bulk Density ("Unit Weight") and Voids in Aggregate
ASTM C 88	Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate
ASTM C 117	Materials Finer Than [75 micrometer] No. 200 Sieve in Mineral Aggregates by Washing
ASTM C 127	Specific Gravity and Absorption of Course Aggregate
ASTM C 128	Specific Gravity and Absorption of Fine Aggregate
ASTM C 131	Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
ASTM C 136	Sieve Analysis of Fine and Coarse Aggregates
ASTM D 75	Sampling Aggregates
ASTM D 422	Particle-Size Analysis of Soils
ASTM D 1556	Density and Unit Weight of Soil in Place by the Sand-Cone Method
ASTM D 1557	Laboratory Compaction Characteristics of Soil Using Modified Effort 56,000 ft-lb./cu. ft. (2,700 kN-m/cu. m.)
ASTM D 2167	(1994) Density and Unit Weight of Soil in Place by the Rubber Balloon Method
ASTM D 2487	Classification of Soils for Engineering Purposes (Unified Soil Classification System)
ASTM D 2922	Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth)
ASTM D 3017	Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth)
ASTM D 4318	Liquid Limit, Plastic Limit, and Plasticity Index of Soils
ASTM E 11	Wire Cloth Sieves for Testing Purposes

NORTH DAKOTA DEPARTMENT OF TRANSPORTATION

Standard Specification for Road and Bridge Construction

1.2 DEFINITIONS

For the purposes of this specification, the following definitions apply.

1.2.1 Base Course

Base course is well-graded, durable aggregate uniformly moistened and mechanically stabilized by compaction.

1.2.2. Degree of Compaction

Degree of compaction shall be expressed as a percentage of the maximum density obtained by the test procedure presented in AASHTO T 180, Method D.

1.3 UNIT PRICES

Payment for stabilized-aggregate base course stockpiled and/or supplied in place and accepted, will be made at the respective contract unit price in the unit price schedule (price shall include hauling). No payment will be made for any material wasted, used for the convenience of the Contractor, unused, or overrun of the ordered quantity.

1.3.1 Measurement

The quantity of base course stockpiled and/or supplied in place and accepted as determined by the Contracting Officer will be measured in 2000 pound tons of aggregate used in the accepted work. Acceptance of the contractor's final invoice is dependent upon the furnishing of certified waybills and/or delivery tickets.

1.3.1.1 Weight

The tonnage of base course material will be the number of tons of aggregate, placed and accepted in the completed course or the amount placed in authorized stockpiles, as determined by the Contracting Officer. Deductions will be made for any material wasted, unused, rejected, or used for convenience of the Contractor, and for water exceeding specified amount at time of weighing.

1.3.2. Payment for Quantities

Quantities of base course, determined as specified above, will be paid for at the respective contract unit prices, which shall constitute full compensation for the construction and completion of the work.

1.3.3. Payment for Stabilization of Underlying Course

Stabilization of cohesionless subgrade or subbase courses, as specified in paragraph PREPARATION OF UNDERLYING COURSE, will be paid for as a supplied-in-place item on a tonnage basis. This tonnage price shall include the price of extra manipulation as required.

1.4. SUBMITTALS

Government approval is required for submittals with a "G-AO" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

Submittals Required	Specification Section	Action Required
SD-06 Test Reports		
Sampling & Testing	1.5.2	G-AO
Field Density Tests	1.5.2.4	G-AO

1.5. SAMPLING AND TESTING

Sampling and testing shall be the responsibility of the Contractor. An approved commercial testing laboratory shall perform sampling and testing or previously approved test results performed within 12 months prior to the date of delivery for material under this contract are acceptable accordance with Section 01451 CONTRACTOR QUALITY CONTROL. The materials shall be tested to establish compliance with the specified requirements; testing shall be performed at the specified frequency. The Contracting Officer may specify the time and location of the tests.

1.5.1. Sampling

Samples for laboratory testing shall be taken in conformance with ASTM D 75. When deemed necessary, the sampling will be observed by the Contracting Officer.

1.5.2. Tests

The following tests shall be performed in conformance with the applicable standards listed.

1.5.2.1. Sieve Analysis

Sieve analysis shall be made in conformance with ASTM C 117 and ASTM C 136. Sieves shall conform to ASTM E 11.

1.5.2.2. Liquid Limit and Plasticity Index

Liquid limit and plasticity index shall be determined in accordance with ASTM D 4318.

1.5.2.3. Moisture-Density Determinations

The maximum density and optimum moisture content shall be determined in accordance with AASHTO T 180, Method D.

1.5.2.4. Field Density Tests

Density shall be field measured in accordance with ASTM D 1556 or ASTM D 2922. Tests performed in accordance with ASTM D 2922 result in a wet unit weight of soil and when using this method, ASTM D 3017 shall be used to determine the moisture content of the soil. The calibration curves furnished with the moisture gauges shall also be checked along with density calibration checks as described in ASTM D 3017. The calibration checks of both the density and moisture gauges shall be made by the prepared containers of material method, as described in paragraph Calibration of ASTM D 2922, on

each different type of material being tested at the beginning of a job and at intervals as directed.

1.5.2.5. Wear Test

Wear tests shall be made on base course material in conformance with ASTM C 131.

1.5.2.6. Soundness

Soundness tests shall be made on base course material in accordance with ASTM C 88.

1.5.3. Testing Frequency

1.5.3.1. Initial Tests

One of each of the following tests shall be performed on the proposed material prior to commencing construction to demonstrate that the proposed material meets all specified requirements when furnished. If materials from more than one source are going to be utilized, this testing shall be completed for each source.

a. Sieve Analysis including No. 635 size material.
b. Liquid limit and plasticity index moisture-density relationship.
c. Moisture-density relationship.
d. Wear.
e. Soundness.

1.5.3.2. In Place Tests

One of each of the following tests shall be performed on samples taken from the placed and compacted base course. Samples shall be taken and tested at the rates indicated.

a. Density tests shall be performed at a frequency of one set of tests for every 6” lift or ½ mile of completed road whichever is greater.
b. Sieve Analysis including No. 635 size material shall be performed for every 1,500 tons, or portion thereof, of material placed.
c. Liquid limit and plasticity index tests shall be performed at the same frequency as the sieve analysis.

1.5.4. Approval of Material

The source of the material shall be selected prior to the time the material will be required in the work. Tentative approval of material will be based on initial test results. Final approval of the materials will be based on sieve analysis, liquid limit, and plasticity index tests performed on samples taken from the completed and fully compacted bae course.

1.6. WEATHER LIMITATIONS

Construction shall be done when the atmospheric temperature is above 35 degrees F. When the temperature falls below 35 degrees F, the Contractor shall protect all completed areas by approved methods against detrimental effects of freezing. Completed areas damaged by freezing, rainfall, or other weather conditions shall be corrected to meet specified requirements.

1.7. PLANT, EQUIPMENT, AND TOOLS

All plant, equipment, and tools used in the performance of the work will be subject to approval before the work is started and shall be maintained in satisfactory working condition at all times. The equipment shall be adequate and shall have the capability of producing the required compaction, meeting grade controls, thickness control, and smoothness requirements as set forth.

PART 2. PRODUCTS

2.1. MATERIALS

2.1.1. Base Course

Aggregates shall consist of crushed stone, gravel, sand, or other sound durable, approved materials processed and blended or naturally combined. Aggregates shall be durable and sound, free from lumps and balls of clay, organic matter, free of foreign material.

2.1.2 Gradation Requirements

The Contractor shall use the gradations for Class 7, Permeable Base Aggregate for the base course, as outlined in the 1997 edition of the North Dakota Department Of Transportation Standard Specifications for Road and Bridge Construction (updated 11/16/01).

Class 7 – Permeable Base Aggregate

Sieve Size	Percent Passing
1”	100
¾”	95-100
½”	85-100
3/8”	60-90
No. 4	15-25
No. 8	2-10
No. 200	0-3
Shale (1)	8%
L.A. Abrasion (1)	40%
Fractured Faces (3)	85%

1 – Maximum Allowable Percentages
3 – Minimum weight percentage allowable for the portion of the aggregate retained on a No. 4 sieve having at least 2 fractured faces.

PART 3. EXECUTION

3.1 GENERAL REQUIREMENTS

When the base course is constructed in more than one layer, the previously constructed layer shall be cleaned of loose and foreign matter by sweeping with power sweepers or power brooms, except that hand brooms may be used in areas where power cleaning is not practicable. Adequate drainage shall be provided during the entire period of construction to prevent water from collecting or standing on the working area. Line and grade stakes shall be provided as necessary for control. Grade stakes shall be in lines parallel to the centerline of the area under construction and suitably spaced for string lining.

3.2 STOCKPILING MATERIAL

Prior to stockpiling of material, storage sites shall be cleared and leveled by the Contractor. All materials, including approved material available from excavation and grading, shall be stockpiled in the manner and at the locations designated. Aggregates shall be stockpiled on the cleared and leveled areas designated by the Contracting Officer to prevent segregation. Materials obtained from different sources shall be stockpiled separately.

3.3 PREPARATION OF UNDERLYING COURSE

Prior to constructing the base course, the underlying subgrade shall be cleaned of all foreign substances. At the time of construction of the base course, the underlying course shall contain no frozen material. The surface of the underlying course or subgrade shall meet specified compaction and surface tolerances. Ruts or soft yielding spots in the underlying courses, areas having inadequate compaction, and deviations of the surface from the requirements set forth herein shall be corrected by loosening and removing soft or unsatisfactory material and by adding approved material, reshaping to line and grade, and recompacting to specified density requirements. For cohesionless underlying courses containing sands or gravels, as defined in ASTM D 2487, the surface shall be stabilized prior to placement of the base course. Stabilization shall be accomplished by mixing base course into the underlying course and compacting by approved methods. The stabilized material shall be considered as part of the underlying course and shall meet all requirements of the underlying course. The finished underlying course shall not be disturbed by traffic or other operations and shall be maintained by the Contractor in a satisfactory condition until the base course is placed.

3.4 INSTALLATION

3.4.1 Grade Control

The finished and completed base course shall conform to the lines, grades, and cross sections shown. The lines, grades and cross sections shown shall be maintained by means of line and grade stakes placed by the Contractor at the work site.

3.4.2 Mixing and Placing Materials

The materials shall be mixed and placed to obtain uniformity of the base course material at the water content specified. The Contractor shall make such adjustments in mixing or placing procedures or in equipment as may be directed to obtain the true grades, to minimize segregation and degradation, to reduce or accelerate loss or increase of water, and to insure a satisfactory base course.

3.4.3 Thickness

The compacted thickness of the completed course shall be as indicated. When a compacted layer of 6 inches is specified, the material may be placed in a single layer; when a compacted thickness of more than 6 inches is required, no layer shall exceed 6 inches nor be less than 3 inches when compacted.

3.4.4 Compaction

Each layer of the base course shall be compacted as specified with approved compaction equipment. Water contents shall be maintained during the compaction procedure to within plus or minus 1 percent of optimum water content, as determined from laboratory tests, as specified in paragraph SAMPLING AND TESTING. In all places not accessible to the rollers, the mixture shall be compacted with hand-operated power tampers. Compactions shall continue until each layer is compacted through the full depth to at least 98 percent of laboratory maximum density. Compact small-unconstrained areas, such as small gravel camp pads, to 95 percent of laboratory maximum density. The Contractor shall make such adjustments in compacting or finishing procedures as may be directed to obtain true grades, to minimize segregation and degradation, to reduce or increase water content, and to ensure a satisfactory base course. Any materials that are found to be unsatisfactory shall be removed and replaced with satisfactory material or reworked, as directed, to meet the requirements of this specification.

3.4.5 Edges of Base Course

Approved material shall be placed along the edges of the base course in such quantity as will compact to the thickness of the course being constructed. When the course is being constructed in two or more layers, at least a 1 foot width of the shoulder shall be rolled and compacted simultaneously with the following and compacting of each layer of the base course, as directed.

3.4.6. Smoothness Test

The surface of each layer shall not show deviations in excess of 3/8 inch when tested with a 12-foot straightedge applied parallel with and at right angles to the centerline of the area to be paved. Removing material, replacing with new material, or reworking existing material and compacting, as directed, shall correct deviations exceeding this amount.

3.4.7 Proof Rolling

Proof rolling of the areas indicated may be in addition to the compaction specified and shall consist of the application of 30 coverage’s with a heavy pneumatic-tired roller having four or more tires, each loaded to a minimum of 30,000 pounds and inflated to a minimum of 150 psi. In areas designated, proof rolling shall be applied to the top of the underlying material on which sub base is laid and to each layer of base course. Water content of the underlying material shall be maintained at optimum or at the percentage directed from start of compaction to completion of proof rolling of that layer. Water content of each layer of the aggregate shall be maintained at the optimum percentage directed from start of compaction to completion of proof rolling. Any aggregate materials or any underlying materials that produce unsatisfactory results by proof rolling shall be removed and replaced with satisfactory materials, recompacted and proof rolled to meet these specifications.

3.4.8 Finishing

The surface of the top layer of aggregate shall be finished after final compaction by cutting any overbuild to grade and rolling with a steel-wheeled roller. Thin layers of material shall not be added to the top layer of base course to meet grade. If the elevation of the top layer of aggregate is ½ inch or more below grade, then the top layer should be scarified to a depth of at least 3 inches and new material shall be blended in and compacted to

grade. Adjustments to rolling and finishing procedures shall be made as directed to minimize segregation and degradation, obtain grades, maintain moisture content, and insure an acceptable base course. Should the surface become rough, corrugated, uneven in texture, or traffic marked prior to completion, the unsatisfactory portion shall be scarified, reworked and recompacted or it shall be replaced as directed.

3.5 TRAFFIC

Completed portions of the base course may be opened to limited traffic, provided there is no marring or distorting of the surface by the traffic. Heavy equipment shall not be permitted except when necessary to construction, and then the area shall be protected against marring or damage to the completed work.

3.6 MAINTENANCE

The base course shall be maintained in a satisfactory condition until the full pavement section is completed and accepted. Any area of base course that is damaged shall be reworked or replaced as necessary to comply with this specification.

3.7 DISPOSAL OF UNSATISFACTORY MATERIALS

Any unsuitable materials that must be removed shall be disposed of as directed. No additional payments will be made for materials that must be replaced.

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(Gravel Surface Pave, Overlay, skin or deep patch)

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SECTION 02741
HOT MIX ASPHALT FOR ROADS
(Overlay, skin or deep patch)

PART 1. GENERAL

1.1 SCOPE

Furnish all plant, labor, equipment, and material and perform all operations associated with asphalt paving and repair of including the application of prime and/or tack coat. A preliminary review of the roadway surface to receive the new mat will be made with the COR prior to start of paving operations. The construction of a hot mix bituminous surface course shall be placed in accordance with the work plans and specifications.

1.1.1 Bituminous Surface Course

Bituminous surface course shall consist of planned thickness bituminous surface course and a prime coat placed on a compacted base course material to the lines and grades of the adjacent pavement, existing surface, or to the sections indicated on drawings/ plans provided by the COR with the work order.

1.1.2 Gravel Surface Pave

Pavement on a gravel surface shall consist of application of prime coat and a minimum of 4” (2 lifts) of bituminous surface, will not exceed 6”. Contractor shall be responsible for shaping current surface to drain and surface shall be compacted. Work shall consist of: parking lots, camper parking area in campgrounds, and roads.

1.1.3 Pavement Overlay

Pavement overlay shall consist of application of bituminous tack coat and a one and one half (1-1/2) inch thick pavement overlay over existing hard surface unless otherwise designated by the COR. This will include a thorough sweeping of the existing surface to remove debris, which may be present.

1.1.4 Skin or Deep Patch of Pothole Repair

Repair of asphalt roads with a thin or deep patch will be performed while equipment and material for this operation is on site in conjunction with other asphalt paving on a work order. No additional mileage or mobilization charges will be paid for road repair.

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 basic designation only.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM C 29/C 29M Bulk Density (Unit Weight) and Voids in Aggregate

ASTM C 88	Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate
ASTM C 117	Materials Finer than [75 micrometer] No. 200 Sieve in Mineral Aggregates by Washing
ASTM C 127	Specific Gravity and Absorption of Coarse Aggregate
ASTM C 128	Specific Gravity and Absorption of Fine Aggregate
ASTM C 131	Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
ASTM C 136	Sieve Analysis of Fine and Coarse Aggregates
ASTM C 183	Sampling and the Amount of Testing of Hydraulic Cement
ASTM D 5	Penetration of Bituminous Materials
ASTM D 75	Sampling Aggregates
ASTM D 140	Sampling Bituminous Materials
ASTM D 242	Mineral Filler for Bituminous Paving Mixtures
ASTM D 422	Particle-Size Analysis of Soils
ASTM D 946	Penetration-Graded Asphalt Cement for Use in Pavement Construction
ASTM D 1250	Petroleum Measurement Tables
ASTM D 1856	Recovery of Asphalt from Solution by Abson Method
ASTM D 2041	Theoretical Maximum Specific Gravity and Density of Bituminous Paving Mixtures
ASTM D 2172	Quantitative Extraction of Bitumen from Bituminous Paving Mixtures
ASTM D 2216	Laboratory Determination of Water (Moisture) Content of Soil and Rock
ASTM D 3381	Viscosity-Graded Asphalt Cement for Use in Pavement Construction
ASTM D 3515	Hot-Mixed, Hot-Laid Bituminous Paving Mixtures
ASTM D 4791	Flat Particles, Elongated Particles, or Flat and Elongated Particles in Coarse Aggregate

NORTH DAKOTA DEPARTMENT OF TRANSPORTATION

Standard Specifications for Roads and Bridges (Current Edition)

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION MATERIALS (AASHTO)

1.3 DEFINITION

Degree of compaction required is expressed as a percentage of the maximum density obtained by the test procedures presented in ASTM D 1557, Method D or AASHTO T180, Method D. This will be abbreviated hereinafter as percent laboratory maximum density.

1.4 MODIFICATION TO THE NDDOT.

1.4.1 References to “Engineer” and “Department” in the NDDOT shall mean the Contractoring Officer or Representative.

1.4.2 Sections “Acceptance”, “Method of Measurement” and “Basis of Payment” shall not apply.

1.5 UNIT PRICES

1.5.1 Measurement

1.5.1.1 Tonnage

The amount paid for will be the number of 2,000 pound tons of bituminous mixture used in the accepted work. Bituminous mixture shall be weighed after mixing. No deduction will be made for weight of bituminous materials incorporated herein.

1.5.2 Payment

Quantities of bituminous course mixtures, determined as specified above, will be paid for at respective contract unit prices or in accordance with paragraph ACCEPTABILITY OF WORK. Payment shall constitute full compensation for preparing or reconditioning the base course or existing pavement; for furnishing all materials, equipment, plant, and tools; and for labor and other incidentals necessary to complete work required.

1.6 SUBMITTALS

Government approval is required for submittals with a "G-AO" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

	Submittals Required	**Specification Reference**	**Action Required**
SD-01	Preconstruction Submittal		
	Traffic Control	1.14	G-AO
SD-03	Product Data		
	Bituminous Tack Coat	2.2.2	G-AO
	Bituminous Prime Coat	2.2.2	G-AO
SD-06	Test Reports		
	Sampling & Testing: Aggregates - General Sources	2.1	G-AO
	Bituminous Material		
SD-07	Certificates		
	Waybills and Delivery Tickets	1.13	FIO

1.7 PLANT, EQUIPMENT, MACHINES, AND TOOLS

1.7.1 General

The bituminous plant shall be of such capacity to produce the quantities of bituminous mixtures required. Hauling equipment, paving machines, rollers, miscellaneous equipment, and tools shall be provided in sufficient numbers and capacity and in proper working condition to place the bituminous paving mixtures at a rate equal to the plant output.

1.7.2 Mixing Plants

The mixing plant shall be an automatic or semiautomatic controlled commercially manufactured unit designed and operated to consistently produce a mixture within the job-mix formula (JMF). The plant shall have a minimum capacity of 100 tons per hour. Drum mixers shall be prequalified at the production rate to be used during actual mix production.

1.8 WEATHER LIMITATIONS

Unless otherwise directed, bituminous courses shall not be constructed when temperature of the surface of the existing pavement or base course is below 40 degrees F.

1.9 PROTECTION OF PAVEMENT

After final rolling, no vehicular traffic of any kind shall be permitted on the pavement until the pavement has cooled to 140 degrees F.

1.10 GRADE CONTROL

For new work, lines and grades shall be established and maintained by means of line and grade stakes placed at site of work. Elevations of benchmarks used by the Contractor for controlling pavement operations at the site of work will be determined, established, and maintained by the Government. Rehabilitation of existing or finished pavement shall be established and controlled at the site of work by the Contractor in accordance with benchmark elevations furnished by the Contracting Officer.

1.11 DELIVERY, STORAGE, AND HANDLING OF MATERIALS

1.11.1 Mineral Aggregates

Mineral aggregates shall be delivered to the site of the bituminous mixing plant and stockpiled in such manner as to preclude fracturing of aggregate particles, segregation, contamination, or intermingling of different materials in the stockpiles or cold-feed hoppers. Mineral filler shall be delivered, stored, and introduced into the mixing plant in a manner to preclude exposure to moisture or other detrimental conditions.

1.11.2 Bituminous Materials

Bituminous materials shall be maintained at appropriate temperature during storage but shall not be heated by application of direct flame to walls of storage tanks or transfer lines. Storage tanks, transfer lines, and weigh buckets shall be thoroughly cleaned before a different type or grade of bitumen is introduced into the system. The asphalt cement shall be heated sufficiently to allow satisfactory pumping of the material; however, the storage temperature shall be maintained below 300 degrees F.

1.12 ACCESS TO PLANT AND EQUIPMENT

The Contracting Officer shall have access at all times to all parts of the paving plant for checking adequacy of the equipment in use; inspecting operation of the plant; verifying weights, proportions, and character of

materials; and checking temperatures maintained in preparation of the mixtures.

1.13 WAYBILLS AND DELIVERY TICKETS

Before the final statement is allowed, the Contractor shall file with the Contracting Officer certified waybills and certified delivery tickets for all aggregates and bituminous materials actually used in construction.

1.14 TRAFFIC CONTROL

1.14.1 General

Construction work shall be conducted to minimize obstructions to traffic. The Contractor shall provide for the safety and convenience of the general public and protection of person's and property. A traffic control plan must be provided prior to work for approval.

The roadway shall be kept open to all traffic during progress of the work. The portion of the roadway being used by public traffic shall be kept in a condition that safely and adequately accommodates traffic. The cost of maintaining traffic over the section of road undergoing improvement shall be at the Contractor's expense.

The Contractor shall furnish, erect, and maintain all necessary warning signs, lights, and traffic control devices to protect the work and safety of public and the workers. All traffic control devices and their placement shall meet the standards and the requirements of the "Manual on Uniform Traffic Control Devices for Streets and Highways" (MUTCD) and the "Standard Highway Signs," published by the Federal Highway Administration.

1.14.2 Flagging

Flaggers shall be clean, neat and fully dressed at all times while on duty. For daytime work, the flagger's vest, shirt, or jacket shall be orange, yellow, strong yellow green, or fluorescent versions of these colors. Flaggers shall not be assigned other duties while working as authorized flaggers. The Contractor is responsible for providing trained flaggers, as required by the NDDOT.

1.14.3 Protection of Traffic and Preservation of the Patch Areas

1.14.3.1 Prime Coat & Tack Coat. Traffic shall not be permitted on prime or tack coat until the bitumen has penetrated and dried to the point where it won't be picked up by traffic.

1.14.3.2 Protection Days. The Contractor shall maintain the pavement during the operation, and maintenance shall continue for an additional 5 calendar days after completion of the patch.

PART 2. PRODUCTS

2.1 BITUMINOUS SURFACE COURSE.

Bituminous surface course shall conform to the requirements specified in the NDDOT Section 408, "HOT BITUMINOUS PAVEMENT – QUALITY CONTROL: for materials and construction procedures and Section 152, "HOT BITUMINOUS EQUIPMENT"

except as modified herein. Aggregate shall be "Class 29". Coarse aggregate shall meet the following additional requirements: Percentage of Loss shall not exceed 18 after 5 cycles when performed in accordance with ASTM C 88, using magnesium sulfate. Bituminous surface course mixture shall be designed in accordance with CRD-C 649. The finished mixture shall meet the requirements hereinafter when tested in accordance with CRD-C 649. The absorption value of the entire blend of aggregate shall be determined in accordance with ASTM C 127 and C 128. Aggregate with an absorption value which does not exceed 2.5 percent will be designated as nonabsorptive, and the apparent specific gravity or ASTM D 2401, shall be used in computing the voids total mix and voids filled with bitumen. Aggregate with an absorption value which exceeds 2.5 percent will be designated as absorptive, and ASTM D 2401, shall be used in computer voids total mix and voids filled with bitumen. The bituminous surface course mixture shall meet the following requirements for stability, flow, and voids:

Test Property	CRD Test Method	Nonabsorptive Aggregate	Absorptive Aggregate
Stability, minimum, pounds	649	1000	1000
Flow, maximum, 1/100-inch units	649	20	20
Voids, total mix, percent	650	3-5	2-4
Voids, filled with bitumen, percent	650	70-80	80-90

2.1.1 Reduction in Stability by Immersion

If the index of retained stability of the specimens is less than 75, when tested in accordance with CRD-C 652, the aggregates shall be rejected or the bitumen shall be treated with an approved antistripping agent. The amount of antistripping agent added to the bitumen shall be sufficient, as approved by the Contracting Officer, to produce an index of retained stability of 75 or greater when tested in accordance with CRD-C 652. No additional payment will be made for any addition of antistripping agent that may be required. At the option of the Contractor, NDDOT test procedures may be used in lieu of the CRD requirements and shall be submitted for approval by the Contracting Officer.

2.1.2 Contractor's Option

At the option of the Contractor, in lieu of developing a new job-mix formula for surface course construction, the Contractor may use a job-mix formula for surface course construction which has been used within the last 12 months on another nearby Corps of Engineers project, provided in each instance that the same materials proposed for use on this project are being used, the Job Mix Formula (JMF) meets the previously specified criteria, and the JMF and test results are less than 12 months old. Use of this option will permit no changes to aggregate requirements or to other requirements specified in this section and shall not be the basis for additional cost to the Government or extension of time.

2.2 BITUMINOUS MATERIAL

Approval of bituminous materials shall be based on a certified refinery analysis submitted by the Contractor, showing that the material conforms to the requirements of the NDDOT or as specified herein.

2.2.1 Asphalt Cement

Asphalt cement shall conform to the requirements specified in SECTION 818 "BITUMINOUS MATERIALS," of the NDDOT. Asphalt cement shall be penetration grade 120-150 or viscosity grade AC-5. At the option of the contractor performance graded (PG) asphalt cement may be used and must be approved by the Contracting Officer prior to the development of the JMF.

2.2.2 Bituminous Tack & Prime Coats

Bituminous tack and prime coats shall be placed to the requirements specified in SECTION 401, "PRIME, TACK, OR FOG COAT" and conform to the requirements specified in SECTION 818, "BITUMINOUS MATERIALS," of the NDDOT.

2.3 CRUSHED AGGREGATE BASE COURSE

The aggregate base course shall conform to the NDDOT Standard Specifications for Road and Bridge Construction and be placed in accordance with the requirements specified in Section 302, "AGGREGATE BASE OR SURFACE COURSE", and Section 816.03, "AGGREGATE FOR SURFACING, BASE, ASPHALT MIXES, BLOTTER, AND SEAL COATS". Aggregate shall be Class 5. The percentage passing the No. 200 sieve shall not exceed 8. The portion of any component or of the completed course passing the No. 40 sieve shall be either nonplastic or have a liquid limit not greater than 25.

2.4 SAMPING AND TESTING

All quality control sampling and testing shall be the responsibility of the Contractor and shall be performed at no additional cost to the Government. Sampling and testing shall be performed by an approved testing laboratory at the expense of the Contractor and shall be in accordance as defined herein or in the NDDOT.

2.4.1 Tests Prior to Production

The following tests shall be performed by the Contractor on the proposed material prior to commencing construction to demonstrate that the proposed material will meet all specified requirements when furnished and after placing and compaction.

Sieve Analysis
Wear (L.A> Abrasion)
Soundness
Liquid-Limit and Plasticity-Index
Aggregate Moisture-Density Relationship shall be determined in Accordance with ASTM D 1557

2.4.2 In-Place Tests

One of each of the following tests shall be performed on samples taken from the placed and compacted base course. Samples shall be taken for each 1300 square yards or less of each layer placed.

Sieve Analysis
Field Density and Moisture
Liquid-Limit and Plasticity-Index

2.4.3 Compaction

2.4.3.1 Crushed Aggregate Base Course

Laboratory maximum density of crushed aggregate base course shall be determined in accordance with ASTM D 1557, Procedure C. Density shall be measured in the field in accordance with ASTM D 1556. The crushed aggregate base course shall be compacted to at least 100 percent of laboratory maximum density.

2.4.3.2 Bituminous Surface Course

Density of the compacted mixture of the surface course shall be within the range of 97% and 100% (95%-100% along joints) of the maximum field laboratory compacted density. At the option of the Contractor densities of the compacted mixtures may be determined by the nuclear method in accordance with ASTM D 2950 for contractor quality control purposes. In any event, the basis of acceptance for density shall be determined from the specific gravity method as stated below.

2.4.4 Bituminous Mixtures

Samples of plant mixtures shall be taken before the material is placed in the pavement and shall be tested to determine conformance with the specified test properties of bituminous mixtures and to determine bitumen content and aggregate gradation.

2.4.4.1 Testing Frequency

2.4.4.1.1 Marshall Tests

One set (three specimens) of tests shall be made for each 250 tons or less of bituminous mixture placed each day.

2.4.4.1.2 Extraction Tests

Extraction tests shall be made to determine bitumen content and aggregate gradation at the same frequency specified above for Marshall tests.

2.4.4.1.3 Immersion Compression Tests.

One set of tests shall be made for the first day’s construction and thereafter whenever there is a change in materials or job-mix formula.

2.4.4.2 Sampling Bituminous Pavements

The Contractor shall perform Testing and sampling of the finished pavement. The location of the samples shall be as directed and the cores shall be at least 4 inches in diameter. The Contractor to detrmine conformance shall test the samples to density, voids and thickness. Specimens shall be tested in accordance with the requirements of ASTM D 2726. Three samples shall be taken and tested for each 250 tons or less of bituminous mixture placed each day. At least one sample shall be taken from the longitudinal joint. The grade of the completed surface shall not deviate more than 0.05 feet from the plan grade. The finished surface when tested with a 12-foot straight edge shall not deviate from the surface by more than ¼ inch. The straight edge shall be laid every 25 feet parallel and perpendicular to the paving lane centerline.

PART 3. EXECUTION

3.1 SUBGRADE & BASE COURSE CONDITIONING

3.1.1 Subgrade

Prior to placement of the new crushed aggregate base course, the subgrade shall be reshaped and recompacted to a density of 95% of maximum laboratory density. All failed or yielding areas of the subgrade shall be replaced with spot subgrade reinforcement materials as specified in Section 02564: SALVAGING AND PROCESSING EXISTING BITUMINOUS AND GRANULAR BASE MATERIALS.

3.1.2 Base Course

The surface of the base course will be inspected for adequate compaction to 95% of maximum density at optimum moisture content and grade to meet specified surface tolerances. Unsatisfactory areas shall be corrected.

3.2 EXISTING PAVEMENT CONDITIONING

Existing bituminous pavement shall be conditioned as required prior to applying the bituminous paving surface treatment. Immediately before applying the bituminous material, the pavement surface shall be cleaned of loose or foreign material with power brooms or power blowers and all soft areas compacted. Unsatisfactory areas shall be corrected.

3.3 PREPARATION OF BITUMINOUS MIXTURES

Rates of feed of aggregates shall be regulated so that the moisture content and temperature of aggregates will be within specified tolerances. Aggregates, mineral filler, and bitumen shall be conveyed into the mixer in proportionate quantities required to meet the JMF. Mixing time shall be as required to obtain a uniform coating of the aggregate with the bituminous material. Temperature of bitumen at time of mixing shall not exceed 300 degrees F. Temperature of aggregate and mineral filler in the mixer shall not exceed 325 degrees F when bitumen is added. Overheated and carbonized mixtures or mixtures that foam shall not be used.

3.4 STORAGE OF BITUMINOUS PAVING MIXTURE

Storage shall conform to the applicable requirements of ASTM D 3515; however, in no case shall the mixture be stored for more than 4 hours.

3.5 TRANSPORTATION OF BITUMINOUS MIXTURE

Transportation from paving plant to site shall be in trucks having tight, clean, smooth beds lightly coated with an approved releasing agent to prevent adhesion of the mixture to the truck bodies. Excessive releasing agent shall be drained prior to loading.

Each load shall be covered with canvas or other approved material of ample size to protect mixture from weather and to prevent loss of heat. Loads that have crusts of cold, unworkable material or that have become wet will be rejected. Hauling over freshly placed material will not be permitted.

3.6 SURFACE PREPARATION OF UNDERLYING COURSE

Prior to placing of the intermediate or wearing course, the underlying course shall be cleaned of all foreign or objectionable matter with power brooms and hand brooms.

3.7 PRIME COATING

Surfaces of previously constructed base course shall be sprayed with a coat of bituminous material conforming to Paragraph 2.2.2 BITUMINOUS TACK AND PRIME COATS. Prime shall be applied with a distributor at the rate of 0.25 gallons per square yard. The material shall be applied within a pressure range from 25 to 73 pounds per square inch and with an allowable variation from any specified rate not to exceed 5 percent. After applying a prime coat to the compacted aggregate base, the prime coat shall be curing for at least 48 hours before placing hot bituminous pavement.

3.8 TACK COATING

Contact surfaces of existing or previously constructed pavement, curbs, manholes, and other structures shall be sprayed with a thin coat of bituminous material conforming to Paragraph 2.2.2 BITUMINOUS TACK AND PRIME COATS. Tack materials shall be applied uniformly to the vertical face of the existing pavement adjacent to the area to be patched.

3.9 PLACING

Bituminous courses shall be constructed only when the base course or existing pavement has no free water on the surface. Bituminous mixtures shall not be placed without ample time to complete spreading and rolling during daylight hours, unless approved satisfactory artificial lighting is provided.

3.9.1 Offsetting Joints

The wearing course shall be placed so that longitudinal joints of the wearing course will be offset from joints in the intermediate course by at least 1 foot. Transverse joints in the wearing course shall be offset by at least 2 feet from transverse joints in the intermediate course.

3.9.2 Placing Strips Succeeding Initial Strips

In placing each succeeding strip after initial strip has been spread and compacted as specified below, the screed of the mechanical spreader shall overlap the previously placed strip 2 to 3 inches and be sufficiently high so that compaction produces a smooth dense joint. Mixture placed on the edge of a previously placed strip by the mechanical spreader shall be pushed back to the edge of the strip by use of a lute. Excess mixture shall be removed and wasted.

3.9.3 Hand spreading in Lieu of Machine Spreading

In areas where the use of machine spreading is impractical, the mixture shall be spread by hand. Spreading shall be in a manner to prevent segregation. The mixture shall be spread uniformly with hot rakes in a loose layer of thickness that, when compacted, will conform to required grade, density, and thickness.

3.10 JOINTS

3.10.1. General

Joints between old and new pavements, between successive work days, or joints that have become cold less than 175 degrees F shall be made to ensure continuous bond between the old and new sections of the course. All joints shall have the same texture and smoothness as other sections of the course. Contact surfaces of previously constructed pavements coated by dust, sand, or other objectionable material shall be cleaned by brushing or shall be cut back as directed. When directed by the Contracting Officer, the surface against which new material is placed shall be sprayed with a thin, uniform coat of bituminous material conforming to Paragraph 2.2.2. Material shall be applied far enough in advance of placement of a fresh mixture to ensure adequate curing. Care shall be taken to prevent damage or contamination of the sprayed surface.

3.10.2 Transverse Joints

The roller shall pass over the unprotected end of a strip of freshly placed material only when placing is discontinued or delivery of the mixture is interrupted to the extent that the material in place may become cold. In all cases, prior to continuing placement, the edge of previously placed pavement shall be cut back to expose an even vertical surface for full thickness of the course. In continuing placement of a strip, the mechanical spreader shall be positioned on the transverse joint so that sufficient hot mixture will be spread to obtain a joint after rolling that conforms to the required density and smoothness specified herein.

3.10.3 Longitudinal Joints

Edges of a previously placed strip shall be prepared such that the pavement in and immediately adjacent to the joint between this strip and the succeeding strip meets the requirements for grade, smoothness, and density specified in paragraph ACCEPTABILITY OF WORK.

3.11 POTHOLE PREPARATION

Clean areas with power or hand brooms as conditions permit or compressed air.

3.11.1 Skin Patch

This is a 1" - 2" layer of hot asphalt mix over a properly prepared surface. Clean the area and tack coat. Spread hot mix, rake edges out and compact.

3.11.2 Deep Patch

Mark out a rectangular area 1 foot outside of the area to be repaired. Saw cut asphalt so all edges are square. Remove material to a minimum depth of 4 inches or until firm support is reached and recompact the area. Bituminous tack vertical faces and bituminous prime any granular base material that is part of the pavement structure. Place hot mix asphalt mix in layers of not more than 4 inches and compact with vibratory plate or roller. Placing the surface layer and compacting it flush with the surrounding pavement surface will complete the repair.

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SECTION 02763

PAVEMENT MARKINGS

PART 1 GENERAL

1.0 SCOPE

Furnish all labor, equipment, and material associated with the marking of and the painting of project roads in accordance with the standards set by the Uniform Traffic Control Devices, U.S. Department of Transportation, and Federal Highway Administration. The contractor is responsible for locating where centerline striping, No-Pass striping, and shoulder striping are to be placed and system layout per drawings for the striping of roads and parking areas.

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.

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO)

AASHTO M 247 (1981) Glass Beads Used in Traffic Paint

NORTH DAKOTA DEPARTMENT OF TRANSPORTATION – STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION

1.2 UNIT PRICES

1.2.1 Measurement

1.2.1.1 Pavement Striping and Markings

Pavement Marking – Painted Line. This item will be measured by the Linear Foot of the various widths of painted line, complete, in place, and accepted. Only the painted portion of broken lines will be measured.

Pavement Marking – Handicap & Misc. symbols will be paid by each symbol painted.

1.2.2 Payment

The quantities of surface preparation and pavement striping or markings determined as specified in paragraph Measurement, will be paid for at the contract unit prices. The payment will be full compensation for furnishing all labor, materials, equipment, and doing all work involved in marking pavements. Any striping or markings, which are placed without reflective media, when reflective media is required, shall be removed and replaced at no cost to the Government. Striping or markings, which do not conform to the alignment and/or location, required shall be removed and replaced at no cost to the Government. Bids items are as follows:

	Pay Unit
Shoulder Striping (White)	Linear Foot
Centerline Striping (Yellow)	Linear Foot

Centerline Striping Solid (Yellow)	Foot
Parking Area Striping	Linear Foot
Stop Line Striping - 12″	Linear Foot
Handicap & Misc. Symbols	Each

1.3 SUBMITTALS

Government approval is required for submittals with a "G-RE" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

Submittals Required	Specification Reference	Action Required
SD-08 Manufacturers Instructions		
Paint Application Equipment	1.5.1	G-AO
Glass Bead Dispenser	1.5.2	G-AO
Blasting Equipment	1.5.3.1	FIO
Broom and Blower Equipment	1.5.3.2	FIO
SD-01 Preconstruction Submittal		
Traffic Controls	1.5.4	G-AO
SD-03 Product Data		
Paint	2.1	G-AO
Glass Beads	2.2	G-AO

1.4 DELIVERY AND STORAGE

All materials shall be delivered and stored in sealed containers that plainly show the designated name, formula or specification number, batch number, color, date of manufacture, manufacturer's name, and directions, all of which shall be plainly legible at time of use.

1.5 EQUIPMENT

All machines, tools and equipment used in the performance of the work shall be approved and maintained in satisfactory operating condition. Equipment operating on roads shall display low speed traffic markings and traffic warning lights.

1.5.1 Paint Application Equipment

The equipment to apply paint to pavements shall be a self-propelled or mobile-drawn pneumatic spraying machine with suitable arrangements of atomizing nozzles and controls to obtain the specified results. The machine shall have a speed during application not less than 5 mph, and shall be capable of applying the stripe widths indicated, at the paint coverage rate

specified in paragraph APPLICATION, and with a uniform thickness with clear-cut edges.

1.5.2 Glass Beads Dispenser

The dispenser for applying the reflective media shall be attached to the paint dispenser and shall operate automatically and simultaneously with the applicator through the same control mechanism. The dispenser shall be capable of adjustment and designed to provide uniform flow of reflective media over the full length and width of the stripe at the rate of coverage specified in paragraph APPLICATION, at all operating speeds.

1.5.3 Surface Preparation Equipment

1.5.3.1 Blasting Equipment

Blasting equipment shall include an air compressor, hoses, and nozzles of proper size and capacity as required for cleaning surfaces to be painted. The compressor shall be capable of furnishing not less than 150 cfm of air at a pressure of not less than 90 psi at each nozzle used, and shall be equipped with traps that will maintain the compressed air free of oil and water.

1.5.3.2 Broom and Blower Equipment

The power broom or blower shall have sufficient power to adequately clean the surfaces to be marked.

1.5.4 Traffic Controls

Suitable warning signs shall be placed near the beginning of the worksite and well ahead of the worksite for alerting approaching traffic from both directions. Small markers shall be placed along newly painted lines to control traffic and prevent damage to newly painted surfaces. Painting equipment shall be marked with warning signs indicating slow-moving painting equipment in operation.

1.6 HAND-OPERATED, PUSH-TYPE MACHINES

All machines, tools, and equipment used in performance of the work shall be approved and maintained in satisfactory operating condition. Hand-operated push-type machines of a type commonly used for application of paint to pavement surfaces will be acceptable for marking small streets and parking areas. Applicator machine shall be equipped with the necessary paint tanks and spraying nozzles, and shall be capable of applying paint uniformly at coverage specified. Surface preparation equipment shall be provided as required for cleaning surfaces to be painted. Hand-operated spray guns shall be provided for use in areas where push-type machines cannot be used.

1.7 MAINTENANCE OF TRAFFIC

1.7.1 Roads, Streets, and Parking Areas

When traffic must be rerouted or controlled to accomplish the work, the necessary warning signs, flag persons, and related equipment for the safe passage of vehicles shall be provided.

1.8 WEATHER LIMITATIONS FOR PAINTING

Pavement surface shall be free of snow, ice, or slush. Surface temperature shall be at least 40 degrees F and rising at the beginning of operations. Operations shall cease during thunderstorms.

PART 2 PRODUCTS

2.1 PAINT

The paint shall be formulated from first grade materials and shall be suitable in all respects for application at elevated spray temperatures with drop-on beads using conventional traffic striping equipment. The finished paint shall be smooth and homogeneous, free of coarse particles, skins or any other foreign materials that are detrimental to its use or appearance. Paints shall meet the current requirements set forth in Section 880.01 of the ND DOT Standard Specifications for Road & Bridge Construction.

Paints for specialized signing (handicap - blue, etc) will be standard traffic pavement paint - no glass beads required.

Paints for parking lot stripping (yellow) will be standard paint as required in the specifications - no glass beads required.

2.2 GLASS BEADS

Reflective media for roads and streets shall meet AASHTO M 247, Type I. Beads shall meet the current requirements set forth in Section 880.02 of the ND DOT Standard Specifications for Road & Bridge Construction.

PART 3 EXECUTION

3.1 SURFACE PREPARATION

Surfaces to be marked shall be thoroughly cleaned before application of the pavement marking material. Dust, dirt, and other granular surface deposits shall be removed by sweeping, blowing with compressed air, rinsing with water or a combination of these methods as required. Pavement surfaces shall be allowed to dry, when water is used for cleaning, prior to striping or marking. Surfaces shall be recleaned, when work has been stopped due to rain.

3.1.1 Cleaning Existing Pavement Markings

Existing pavement markings, which are in good condition but interfere or conflict with the newly applied marking patterns, shall be removed. Deteriorated or obscured markings that are not misleading or confusing or interfere with the adhesion of the new marking material do not require removal.

3.1.2 Cleaning Concrete Curing Compounds

On new Portland cement concrete pavements, cleaning operations shall not begin until a minimum of 30 days after the placement of concrete. All new concrete pavements shall be cleaned by either blasting or water. The extent of the blasting work shall be to clean and prepare the concrete surface as follows:

a. All curing compound is intact; all loose and flaking material is removed.

b. The surface to be marked is dry.

3.2 APPLICATION

All pavement markings and patterns shall be placed as shown on the plans.

3.2.1 Paint

Paint shall be applied to clean, dry surfaces, and only when air and pavement temperatures are above 40 degrees F and less than 95 degrees F. Paint temperature shall be maintained within these same limits. New asphalt pavement surfaces and new Portland concrete cement shall be allowed to cure for a period of not less than 30 days or per manufacturer requirements before applications of paint. Paint shall be applied pneumatically with approved equipment at rate of coverage specified. The Contractor shall provide guide lines and templates as necessary to control paint application. Special precautions shall be taken in marking numbers, letters, and symbols. Edges of markings shall be sharply outlined.

3.2.1.1 Rate of Application

One gallon of paint shall cover a 4-inch wide stripe for a length of 280 to 320 feet, depending upon pavement surface texture. The paint shall not be diluted, but a small amount of naphtha thinner may be used to flush out paint containers. Glass beads shall be evenly distributed over the wet paint stripe at a rate of at least 6 pounds per gallon of paint. Beads shall be applied using an automatic pressure dispenser. If the application rates are not within the requirements, the marking application shall be stopped until corrections are made.

3.2.1.2 Drying

The maximum drying time requirements of the paint specifications will be strictly enforced to prevent undue softening of bitumen, and pickup, displacement, or discoloration by tires of traffic. If there is a delay in drying of the markings, painting operations shall be discontinued until cause of the slow drying is determined and corrected.

3.2.2 Glass Beads

Application of reflective media shall immediately follow application of pigmented binder. Drop-on application of glass spheres shall be accomplished to insure that reflective media is evenly distributed at the specified rate of coverage. Should there be malfunction of either paint applicator or reflective media dispenser, operations shall be discontinued immediately until deficiency is corrected.

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CONCRETE PAVEMENTS, SIDEWALKS,
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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.

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO)

AASHTO M 182 (1991) Burlap Cloth Made from Jute or Kenaf

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM A 185	(1997) Steel Welded Wire Fabric, Plain, for Concrete Reinforcement
ASTM C 31/C 31M	(1996) Making and Curing Concrete Test Specimens in the Field
ASTM C 143	(1990a) Slump of Hydraulic Cement Concrete
ASTM C 171	(1997) Sheet Materials for Curing Concrete
ASTM C 172	(1997) Sampling Freshly Mixed Concrete
ASTM C 173	(1996) Air Content of Freshly Mixed Concrete by the Volumetric Method
ASTM C 231	(1997) Air Content of Freshly Mixed Concrete by the Pressure Method
ASTM C 309	(1997) Liquid Membrane-Forming Compounds for Curing Concrete
ASTM A 615/A 615M	(1996a) Deformed and Plain Billet-Steel Bars for Concrete Reinforcement
ASTM A 616/A 616M	(1996a) Rail-Steel Deformed and Plain Bars for Concrete Reinforcement
ASTM A 617/A 617M	(1996a) Axle-Steel Deformed and Plain Bars for Concrete Reinforcement
ASTM C 920	(1995) Elastomeric Joint Sealants
ASTM D 1751	(1983; R 1991) Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types)
ASTM D 1752	(1984; R 1996) Preformed Sponge Rubber and Cork Expansion Joint Fillers for Concrete Paving and Structural Construction
ASTM D 3405	(1996) Joint Sealants, Hot-Applied, for Concrete and Asphalt Pavements

1.2 MEASUREMENT FOR PAYMENT

1.2.1 Pavement and Sidewalks

The quantities of pavement and sidewalks to be paid for will be the number of cubic yards of concrete surfacing constructed as indicated.

1.2.2 Curbs and Gutters

The quantities of curbs and gutters to be paid for will be the number of cubic yards of curbs and gutters placed.

1.3 BASIS FOR PAYMENT

1.3.1 Pavement and Sidewalks

Payment of the quantities measured as specified will be at the contract unit price per cubic yard.

1.3.2 Curbs and Gutters

Payment of the quantities of curbs and gutters measured as specified will be at the contract unit price per cubic yard.

1.4 SUBMITTALS

Government approval is required for submittals with a "G-RE" designation; submittals not having a "G-RE" designation are for information only. When used, a designation following the "G-RE" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

Submittals Required	Specification Reference	Action Required
SD-06 Test Reports		
Concrete Testing Strength Testing	3.8.2.1	G-AO
Air Content	3.8.2.2	G-AO
Slump Test	3.8.2.3	G-AO

1.5 WEATHER LIMITATIONS

1.5.1 Placing During Cold Weather

Concrete placement shall not take place when the air temperature reaches 40 degrees F and is falling, or is already below that point. Placement may begin when the air temperature reaches 35 degrees F and is rising, or is already above 40 degrees F. Provisions shall be made to protect the concrete from freezing during the specified curing period. If it is necessary to place concrete when the temperature of the air, aggregates, or water is below 35 degrees F, placement and protection shall be approved in writing by the Government. Approval will be contingent upon full conformance with the following provisions. The underlying material shall be prepared and protected so that it is entirely free of frost when the concrete is deposited. Mixing water shall be heated as necessary to result in the temperature of the in-place concrete being between 50 and 85 degrees F. Methods and equipment for heating shall be approved. The aggregates shall be free of ice, snow, and frozen lumps before entering the mixer. Covering and other means shall be provided for maintaining the concrete at a temperature of at least 50 degrees F for not less than 72 hours after placing, and at a temperature above freezing for the remainder of the curing period.

1.5.2 Placing During Warm Weather

The temperature of the concrete as placed shall not exceed 85 degrees F except where an approved retarder is used. The mixing water and/or aggregates shall be cooled, if necessary, to maintain a satisfactory placing temperature. The placing temperature shall not exceed 95 degrees F at any time.

1.6 PLANT, EQUIPMENT, MACHINES, AND TOOLS

1.6.1 General Requirements

Plant, equipment, machines, and tools used in the work shall be subject to approval and shall be maintained in a satisfactory working condition at all times. The equipment shall have the capability of producing the required product, meeting grade controls, thickness control and smoothness requirements as specified. Use of the equipment shall be discontinued if it produces unsatisfactory results. The Contracting Officer shall have access at all times to the plant and equipment to ensure proper operation and compliance with specifications.

1.6.2 Slip Form Equipment

Slip form paver or curb forming machine, will be approved based on trial use on the job and shall be self-propelled, automatically controlled, crawler mounted, and capable of spreading, consolidating, and shaping the plastic concrete to the desired cross section in 1 pass. The paver shall be capable of finishing the surface and edges so that a minimum amount of hand finishing is required, and shall have sufficient weight and power to handle the amount of concrete required for the full specified section width. The mechanisms for forming the concrete shall be easily adjustable in width and thickness. Horizontal alignment shall be referenced to a taut wire or string line. Vertical alignment shall be referenced to a taut wire or string line, to the surface of the underlying material, or to the surface of the previously constructed pavement. The vibrators or tamping elements shall be automatically controlled so that they will stop when forward motion ceases.

1.6.3 Straightedge

The Contractor shall furnish and maintain at the jobsite, in good condition, one 10-foot straightedge for testing the concrete surface. The straightedge shall be made available for Government use. The straightedge shall be constructed of aluminum or magnesium alloy and shall have blades of box or box-girder cross section with flat bottom, reinforced to insure rigidity and accuracy. Straightedge shall have handles to facilitate movements on the concrete surfaces.

PART 2 PRODUCTS

2.1 CONCRETE

Concrete shall conform to the applicable requirements of this specification except as otherwise specified. Concrete shall have a minimum compressive strength of 3500 psi at 28 days. Maximum size of aggregate shall be 1-1/2 inches.

2.1.1 Air Content

Mixtures shall have air content by volume of concrete of 5 to 7 percent, based on measurements made immediately after discharge from the mixer.

2.1.2 Slump

The concrete slump shall be 4 inches plus or minus 1 inch where determined in accordance with ASTM C 143.

2.1.3 Reinforcement Steel

Reinforcement bars shall conform to ASTM A 615/A 615M, ASTM A 616/A 616M, or ASTM A 617/A 617M. Wire mesh reinforcement shall conform to ASTM A 185.

2.2 CONCRETE CURING MATERIALS

2.2.1 Impervious Sheet Materials

Impervious sheet materials shall conform to ASTM C 171, type optional, except that polyethylene film, if used, shall be white opaque.

2.2.2 Burlap

Burlap shall conform to AASHTO M 182.

2.2.3 White Pigmented Membrane-Forming Curing Compound

White pigmented membrane-forming curing compound shall conform to ASTM C 309, Type 2.

2.3 CONCRETE PROTECTION MATERIALS

Concrete protection materials shall be a linseed oil mixture of equal parts, by volume, of linseed oil and either mineral spirits, naphtha, or turpentine. At the option of the contractor, commercially prepared linseed oil mixtures, formulated specifically for application to concrete to provide protection against the action of deicing chemicals may be used, except that emulsified mixtures are not acceptable.

2.4 JOINT FILLER STRIPS

2.4.1 Contraction Joint Filler for Curb and Gutter

Contraction joint filler for curb and gutter shall consist of hard-pressed fiberboard.

2.4.2 Expansion Joint Filler, Premolded

Expansion joint filler, premolded, shall conform to ASTM D 1751 or ASTM D 1752, 3/8 inch thick, unless otherwise indicated.

2.5 JOINT SEALANTS

2.5.1 Joint Sealant, Cold Applied

Joint sealant, cold applied shall conform to ASTM C 920.

2.5.2 Joint Sealant, Hot-Poured

Joint sealant, hot-poured shall conform to ASTM D 3405.

2.6 FORM WORK

Formwork shall be designed and constructed to ensure that the finished concrete will conform accurately to the indicated dimensions, lines, and elevations, and within the tolerances specified. Forms shall be of wood or steel, straight, of sufficient strength to resist springing during depositing and consolidating concrete. Wood forms shall be surfaced plank, 2 inches nominal thickness, and straight and free from warp, twist, loose knots, splits or other defects. Wood forms shall have a nominal length of 10 feet. Radius bends may be formed with 3/4-inch boards, laminated to the required thickness. Steel forms shall be channel-formed sections with a flat top surface and with welded braces at each end and at not less than two intermediate points. Ends of steel forms shall be interlocking and self-aligning. Steel forms shall include flexible forms for radius forming, corner forms, form spreaders, and fillers. Steel forms shall have a nominal length of 10 feet with a minimum of 3 welded stake pockets per form. Stake pins shall be solid steel rods with chamfered heads and pointed tips designed for use with steel forms.

2.6.1 Pavement and Sidewalk Forms

Forms shall be of a height equal to the full depth of the finished concrete surface.

2.6.2 Curb and Gutter Forms

Curb and gutter outside forms shall have a height equal to the full depth of the curb or gutter. The inside form of curb shall have batter as indicated and shall be securely fastened to and supported by the outside form. Rigid forms shall be provided for curb returns, except that benders or thin plank forms may be used for curb or curb returns with a radius of 10 feet or more, where grade changes occur in the return, or where the central angle is such that a rigid form with a central angle of 90 degrees cannot be used. Back forms for curb returns may be made of 1-1/2 inch benders, for the full height of the curb, cleated together. In lieu of inside forms for curbs, a curb "mule" may be used for forming and finishing this surface, provided the results are approved.

PART 3 EXECUTION

3.1 SUBGRADE PREPARATION

The subgrade shall be constructed to the specified grade and cross section prior to concrete placement. Subgrade shall be placed and compacted to 95% of maximum optimum density or as directed.

3.1.1 Pavement and Sidewalk Subgrade

The subgrade shall be tested for grade and cross section with a template extending the full width of the surface and supported between side forms.

3.1.2 Curb and Gutter Subgrade

The subgrade shall be tested for grade and cross section by means of a template extending the full width of the curb and gutter. The subgrade shall be of materials equal in bearing quality to the subgrade under the adjacent pavement.

3.1.3 Maintenance of Subgrade

The subgrade shall be maintained in a smooth, compacted condition in conformity with the required section and established grade until the concrete is placed. The subgrade shall be in a moist condition when concrete is placed. The subgrade shall be prepared and protected to produce a subgrade free from frost when the concrete is deposited.

3.2 FORM SETTING

Forms shall be set to the indicated alignment, grade and dimensions. Forms shall be held rigidly in place by a minimum of 3 stakes per form placed at intervals not to exceed 4 feet. Corners, deep sections, and radius bends shall have additional stakes and braces, as required. Clamps, spreaders, and braces shall be used where required to ensure rigidity in the forms. Forms shall be removed without injuring the concrete. Bars or heavy tools shall not be used against the concrete in removing the forms. Any concrete found defective after form removal shall be promptly and satisfactorily repaired. Forms shall be cleaned and coated with form oil each time before concrete is placed. Wood forms may, instead, be thoroughly wetted with water before concrete is placed, except that with probable freezing temperatures, oiling is mandatory.

3.2.1 Pavement and Sidewalks

Forms shall be set with the upper edge true to line and grade with an allowable tolerance of 1/8 inch in any 10-foot long section. After forms are set, grade and alignment shall be checked with a 10-foot straightedge. Forms shall have a transverse slope of 1/4 inch per foot unless otherwise indicate with the low side adjacent to the roadway. Side forms shall not be removed for 12 hours after finishing has been completed.

3.2.2 Curbs and Gutters

The forms of the front of the curb shall be removed not less than 2 hours nor more than 6 hours after the concrete has been placed. Forms back of curb shall remain in place until the face and top of the curb have been finished, as specified for concrete finishing. Gutter forms shall not be removed while the concrete is sufficiently plastic to slump in any direction.

3.3 PAVEMENT AND SIDEWALK CONCRETE PLACEMENT AND FINISHING

3.3.1 Formed Pavement and Sidewalks

Concrete shall be placed in the forms in one layer. When consolidated and finished, the concrete shall be of the thickness indicated. After concrete has been placed in the forms, a strike-off guided by side forms shall be used to bring the surface to proper section to be compacted. The concrete shall be consolidated with an approved vibrator, and the surface shall be finished to grade with a strike off.

3.3.2 Concrete Finishing

After straight edging, when most of the water sheen has disappeared, and just before the concrete hardens, the surface shall be finished with a wood float or darby to a smooth and uniformly fine granular or sandy texture free of waves, irregularities, or tool marks. Brooming with a fiber-bristle brush in a direction transverse to that of the traffic, followed by edging shall produce a scored surface.

3.3.3 Slip-formed Pavement

Concrete shall be placed to the desired section in a single pass. When the paver approaches a header at the end of a paving lane, a sufficient amount of concrete shall be maintained ahead of the paver to allow a roll of concrete to spill over the headers. The amount of extra concrete shall be sufficient to prevent the slurry that is formed and carried along ahead of the paver from being deposited adjacent to the header. The spud vibrators on the front of the paver should be brought as close to the header as possible before they are lifted. Additional consolidation shall be provided adjacent to the headers by hand-manipulated vibrators. When the slip form paver is operated between or adjacent to previously constructed slabs, provisions shall be made to prevent damage to the previous construction. Transversely oscillating screeds shall be electronically controlled from the previously placed slab to prevent the screed from applying pressure to the existing concrete. When the paver travels on existing pavement, provisions shall be made to prevent damage to the existing pavement. Finished surface at the edges shall not produce an edge slump exceeding 0.25 inch over 85 percent of the finished work, and 100 percent of the work shall not have an edge slump exceeding 0.75 inch.

3.3.4 Edge and Joint Finishing

All slab edges, including those at formed joints, shall be finished with an edger having a radius of 1/8 inch. Transverse joint shall be edged before brooming, and the brooming shall eliminate the flat surface left by the surface face of the edger. Corners and edges which have crumbled and areas which lack sufficient mortar for proper finishing shall be cleaned and filled solidly with a properly proportioned mortar mixture and then finished.

3.3.5 Surface and Thickness Tolerances

Finished surfaces shall not vary more than 5/16 inch from the testing edge of a 10-foot straightedge. Permissible deficiency in section thickness will be up to 1/4 inch.

3.4 CURB AND GUTTER CONCRETE PLACEMENT AND FINISHING

3.4.1 Formed Curb and Gutter

Concrete shall be placed to the section required in a single lift. Consolidation shall be achieved by using approved mechanical vibrators. Curve shaped gutters shall be finished with a standard curb "mule".

3.4.2 Curb and Gutter Finishing

Approved slip formed curb and gutter machines may be used in lieu of hand placement.

3.4.3 Concrete Finishing

Exposed surfaces shall be floated and finished with a smooth wood float until true to grade and section and uniform in texture. Floated surfaces shall then be brushed with a fine-hair brush with longitudinal strokes. The edges of the gutter and top of the curb shall be rounded with an edging tool to a radius of 1/2 inch. Immediately after removing the front curb form, the face of the curb shall be rubbed with a wood or concrete rubbing block and water until blemishes, form marks, and tool marks have been removed. The front curb surface, while still wet, shall be brushed in the same manner as the gutter and curb top. The top surface of gutter and entrance shall be finished to grade with a wood float.

3.4.4 Joint Finishing

Curb edges at formed joints shall be finished as indicated.

3.4.5 Curb Forming Machine

Concrete shall be placed to desired section in a single pass. When the paver approaches a header at the end of a paving segment, a sufficient amount of concrete shall be maintained ahead of the paver to allow a roll of concrete to spill over the header. The amount of extra concrete shall be sufficient to prevent the slurry that is formed and carried along ahead of the paver from being deposited adjacent to the header. The paver vibrators should be brought as close to the header as possible before they are lifted. Hand-manipulated vibrators when required shall provide additional consolidation. When the curb-forming machine is operated between or adjacent to previously constructed curbs, provisions shall be made to prevent damage to the previous construction and machine. Finished surface at the edges shall not produce an edge slump exceeding 0.25 inch over 85 percent of the finished work and 100 percent of the work shall not have an edge slump exceeding 0.75 inch.

3.4.6 Surface and Thickness Tolerances

Finished surfaces shall not vary more than 1/4 inch from the testing edge of a 10-foot straightedge. Permissible deficiency in section thickness will be up to 1/4 inch.

3.5 PAVEMENT AND SIDEWALK JOINTS

Pavement and sidewalk joints shall be constructed to divide the surface into rectangular areas. Transverse contraction joints shall be spaced at a distance equal to the width or 5 feet on centers, whichever is less, and shall be continuous across the slab. Longitudinal contraction joints shall be constructed along the centerline of all pavements 10 feet or more in width. Transverse expansion joints shall be installed at pavement returns and opposite expansion joints in adjoining curbs. Where the sidewalk is not in contact with the curb, transverse expansion joints shall be installed as indicated. Expansion joints shall be formed about structures and features, which project through or into the pavement, using joint filler of the type, thickness, and width indicated.

3.5.1 Pavement and Sidewalk Contraction Joints

The contraction joints shall be formed in the fresh concrete by cutting a groove in the top portion of the slab to a depth of at least one-fourth of

the slab thickness, using a jointer to cut the groove, or by sawing a groove in the hardened concrete with a power-driven saw, unless otherwise approved. Sawed joints shall be constructed by sawing a groove in the concrete with a 1/8-inch blade to the depth indicated. An ample supply of saw blades shall be available on the job before concrete placement is started, and at least one standby sawing unit in good working order shall be available at all times during the sawing operations.

3.5.2 Pavement and Sidewalk Expansion Joints

Expansion joints shall be formed with 1/2-inch joint filler strips. Joint filler shall be placed with top edge 1/4 inch below the surface and shall be held in place with steel pins or other devices to prevent warping of the filler during floating and finishing. Immediately after finishing operations are completed, joint edges shall be rounded with an edging tool having a radius of 1/8 inch, and concrete over the joint filler shall be removed. At the end of the curing period, expansion joints shall be cleaned and filled with joint sealant. The joint opening shall be thoroughly cleaned before the sealing material is placed. Sealing material shall not be spilled on exposed surfaces of the concrete. Concrete at the joint shall be surface dry and atmospheric and concrete temperatures shall be above 50 degrees F at the time of application of joint sealing material. Excess material on exposed surfaces of the concrete shall be removed immediately and concrete surfaces cleaned.

3.5.3 Reinforcement Steel Placement

Reinforcement steel shall be accurately and securely fastened in place with suitable supports and ties before the concrete is placed.

3.6 CURB AND GUTTER JOINTS

Curb and gutter joints shall be constructed at right angles to the line of curb and gutter.

3.6.1 Contraction Joints

Contraction joints shall be constructed directly opposite contraction joints in abutting portland cement concrete pavements and spaced so that monolithic sections between curb returns will not be less than 5 feet nor greater than 15 feet in length. Contraction joints shall be constructed by means of 1/8-inch thick separators and of a section conforming to the cross section of the curb and gutter. Separators shall be removed as soon as practicable after concrete has set sufficiently to preserve the width and shape of the joint and prior to finishing.

3.6.2 Expansion Joints

Expansion joints shall be formed by means of preformed expansion joint filler material cut and shaped to the cross section of curb and gutter. Expansion joints shall be provided in curb and gutter directly opposite expansion joints of abutting portland cement concrete pavement, and shall be of the same type and thickness as joints in the pavement. Where curb and gutter do not abut portland cement concrete pavement, expansion joints at least 1/2 inch in width shall be provided at intervals not exceeding 120 feet. Expansion joints shall be provided in nonreinforced concrete gutter at locations indicated. Expansion joints shall be sealed immediately following curing of the concrete or as soon thereafter as weather conditions permit.

Expansion joints and the top 1-inch depth of curb and gutter contraction-joints shall be sealed with joint sealant. The joint opening shall be thoroughly cleaned before the sealing material is placed. Sealing material shall not be spilled on exposed surfaces of the concrete. Concrete at the joint shall be surface dry and atmospheric and concrete temperatures shall be above 50 degrees F at the time of application of joint sealing material. Excess material on exposed surfaces of the concrete shall be removed immediately and concrete surfaces cleaned.

3.7 CURING AND PROTECTION

3.7.1 General Requirements

Concrete shall be protected against loss of moisture and rapid temperature changes for at least 7 days from the beginning of the curing operation. Unhardened concrete shall be protected from rain and flowing water. All equipment needed for adequate curing and protection of the concrete shall be on hand and ready for use before actual concrete placement begins. Protection shall be provided as necessary to prevent cracking of the pavement due to temperature changes during the curing period.

3.7.1.1 Mat Method

The entire exposed surface shall be covered with 2 or more layers of burlap. Mats shall overlap each other at least 6 inches. The mat shall be thoroughly wetted with water prior to placing on concrete surface and shall be kept continuously in a saturated condition and in intimate contact with concrete for not less than 7 days.

3.7.1.2 Impervious Sheeting Method

The entire exposed surface shall be wetted with a fine spray of water and then covered with impervious sheeting material. Sheets shall be laid directly on the concrete surface with the light-colored side up and overlapped 12 inches when a continuous sheet is not used. The curing medium shall not be less than 18-inches wider than the concrete surface to be cured, and shall be securely weighted down by heavy wood planks, or a bank of moist earth placed along edges and laps in the sheets. Sheets shall be satisfactorily repaired or replaced if torn or otherwise damaged during curing. The curing medium shall remain on the concrete surface to be cured for not less than 7 days.

3.7.1.3 Membrane Curing Method

A uniform coating of white-pigmented membrane-curing compound shall be applied to the entire exposed surface of the concrete as soon after finishing as the free water has disappeared from the finished surface. Formed surfaces shall be coated immediately after the forms are removed and in no case longer than 1 hour after the removal of forms. Concrete shall not be allowed to dry before the application of the membrane. If any drying has occurred, the surface of the concrete shall be moistened with a fine spray of water and the curing compound applied as soon as the free water disappears. Hand-operated pressure sprayers at coverage of approximately 200 square feet per gallon for the total of both coats shall apply curing compound in two coats. The second coat shall be applied in a direction approximately at right angles to the direction of application of the first coat. The compound shall form a uniform, continuous, coherent film that will not check, crack, or peel and shall be free from pinholes or other imperfections. If pinholes, abrasion, or

other discontinuities exist, an additional coat shall be applied to the affected areas within 30 minutes. Concrete surfaces that are subjected to heavy rainfall within 3 hours after the curing compound has been applied shall be resprayed by the method and at the coverage specified above. Areas where the curing compound is damaged by subsequent construction operations within the curing period shall be resprayed. Necessary precautions shall be taken to insure that the concrete is properly cured at sawed joints, and that no curing compound enters the joints. The top of the joint opening and the joint groove at exposed edges shall be tightly sealed before the concrete in the region of the joint is resprayed with curing compound. The method used for sealing the joint groove shall prevent loss of moisture from the joint during the entire specified curing period. Approved standby facilities for curing concrete pavement shall be provided at a location accessible to the jobsite for use in the event of mechanical failure of the spraying equipment or other conditions that might prevent correct application of the membrane-curing compound at the proper time. Concrete surfaces to which membrane-curing compounds have been applied shall be adequately protected during the entire curing period from pedestrian and vehicular traffic, except as required for joint-sawing operations and surface tests, and from any other possible damage to the continuity of the membrane.

3.7.2 Backfilling

After curing, debris shall be removed and the area adjoining the concrete shall be backfilled, graded, and compacted to conform to the surrounding area in accordance with lines and grades indicated.

3.7.3 Protection

Completed concrete shall be protected from damage until accepted. The Contractor shall repair damaged concrete and clean concrete discolored during construction. Concrete that is damaged shall be removed and reconstructed for the entire length between regularly scheduled joints. Refinishing the damaged portion will not be acceptable. Removed damaged portions shall be disposed of as directed.

3.7.4 Protective Coating

Protective coating of linseed oil mixture shall be applied to the exposed-to-view concrete surface.

3.7.4.1 Application

Curing and backfilling operation shall be completed prior to applying two coats of protective coating. Concrete shall be surface dry and clean before each application. Coverage shall be by spray application at not more than 50 square yards per gallon for first application and not more than 70 square yards per gallon for second application, except that the number of applications and coverage for each application for commercially prepared mixture shall be in accordance with the manufacturer's instructions. Coated surfaces shall be protected from vehicular and pedestrian traffic until dry.

3.7.4.2 Precautions

Protective coating shall not be heated by direct application of flame or electrical heaters and shall be protected from exposure to open flame,

sparks, and fire adjacent to open containers or applicators. Material shall not be applied at ambient or material temperatures lower than 50 degrees F.

3.8 FIELD QUALITY CONTROL

3.8.1 General Requirements

The Contractor shall perform the inspection and tests described and meet the specified requirements for inspection details and frequency of testing. Based upon the results of these inspections and tests, the Contractor shall take the action and submit reports as required below, and any additional tests to insure that the requirements of these specifications are met.

3.8.2 Concrete Testing

3.8.2.1 Strength Testing

The Contractor shall provide molded concrete specimens for strength tests. Samples of concrete placed each day shall be taken once for every 50 cubic yards of concrete. The samples for strength tests shall be taken in accordance with ASTM C 172. Cylinders for acceptance shall be molded in conformance with ASTM C 31/C 31M by an approved testing laboratory. Each strength test result shall be the average of 2 test cylinders from the same concrete sample tested at 28 days, unless otherwise specified or approved. Concrete specified on the basis of compressive strength will be considered satisfactory if the averages of all sets of three consecutive strength test results equal or exceed the specified strength, and no individual strength test result falls below the specified strength by more than 500 psi.

3.8.2.2 Air Content

Air content shall be determined in accordance with ASTM C 173 or ASTM C 231. ASTM C 231 shall be used with concretes and mortars made with relatively dense natural aggregates. Two tests for air content shall be made on randomly selected batches of each class of concrete placed during each shift. Additional tests shall be made when the placing foreman or the Government inspector reports excessive variation in concrete workability. If results are out of tolerance, the placing foreman shall be notified and he shall take appropriate action to have the air content corrected at the plant. Additional tests for air content will be performed on each truckload of material until such time as the air content is within the tolerance specified.

3.8.2.3 Slump Test

Two slump tests shall be made on randomly selected batches of each class of concrete for every 50 cubic yards, or fraction thereof, of concrete placed during each shift. Additional tests shall be performed when excessive variation in the workability of the concrete is noted or when excessive crumbling or slumping is noted along the edges of slip-formed concrete.

3.8.3 Thickness Evaluation

The anticipated thickness of the concrete shall be determined prior to placement by passing a template through the formed section or by measuring the depth of opening of the extrusion template of the curb-forming machine. If a slip form paver is used for sidewalk placement, the subgrade shall be

true to grade prior to concrete placement and the thickness will be determined by measuring each edge of the completed slab.

3.8.4 Surface Evaluation

The finished surface of each category of the completed work shall be uniform in color and free of blemishes and form or tool marks.

3.9 SURFACE DEFICIENCIES AND CORRECTIONS

3.9.1 Thickness Deficiency

When measurements indicate that the completed concrete section is deficient in thickness by more than 1/2 inch the deficient section will be removed, between regularly scheduled joints, and replaced.

3.9.2 High Areas

In areas not meeting surface smoothness and plan grade requirements, high areas shall be reduced either by rubbing the freshly finished concrete with carborundum brick and water when the concrete is less than 36 hours old or by grinding the hardened concrete with an approved surface grinding machine after the concrete is 36 hours old or more. The area corrected by grinding the surface of the hardened concrete shall not exceed 5 percent of the area of any integral slab, and the depth of grinding shall not exceed ¼ inch. Pavement areas requiring grade or surface smoothness corrections in excess of the limits specified above shall be removed and replaced.

3.9.3 Appearance

The Government will inspect exposed surfaces of the finished work and any deficiencies in appearance will be identified. Areas which exhibit excessive cracking, discoloration, form marks, or tool marks or which are otherwise inconsistent with the overall appearances of the work shall be removed and replaced.

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SECTION 02771

BOAT RAMPS
(Work includes – excavation, backfill, rock, & concrete)

PART 1. GENERAL

1.1 REFERENCES

The references & publications listed below form a part of this specification to the extent referenced.

Earthwork – See Section 02300, paragraph 1.1
Base Course – See Section 02241, paragraph 1.1
Concrete Pavements, Sidewalks, Curbs and Gutters – See Section 02770, paragraph 1.1

North Dakota Department of Transportation – Standard Specification for Road and Bridge Construction.

1.2 MEASUREMENT & PAYMENT

1.2.1 Excavation

The unit of measurement for excavation will be the cubic yard, computed by the average end area method from cross sections taken before and after the excavation. The contractor shall be responsible for all surveys needed to show quantities of material moved. The volume to be paid will be the number of cubic yards of material measured in its original position and removed from the excavation area. The measurements will include authorized excavation of rock, authorized excavation of unsatisfactory subgrade soil, and the volume of loose, scattered rocks and boulders collected within the limits of the work.The measurement will not include the volume of any excavation performed prior to the taking of elevations and measurements of the undisturbed grade.

In lieu of surveys, the contractor and COR by agreement may determine quantities of material used by utilizing full loaded truck capacities minus a 20% shrinkage factor for lossage and compaction of hauled borrow or excavated material.

1.2.2 Fill (Spalls & Borrow)

Fill shall be rock and/or borrow materials as indicated on delivery order. Borrow material will be paid for at the contract unit price per cubic yard for borrow material placed. Rock fill material shall be paid for at the contract unit price per cubic yard of rock placed.

1.2.3 Base Course Material

Payment shall be made for the base course material and placing of the material shall be paid per cubic yard placed.

1.2.4 Concrete

The quantities of concrete to be paid for will be the number of cubic yards of concrete surfacing constructed as indicated on delivery order.

1.2.5 Finish Backfill

Will not be paid as a separate line item. Work will be considered clean up.

1.2.6 Rock Protection

The quantity of rock protection material delivered and placed will be measured in cubic yards placed.

1.2.7 Payment

Payment will constitute full compensation for all labor, equipment, tools, supplies, and incidentals necessary to complete the work.

1.3 SUBMITTALS

Government approval is required for submittals with a "G-RE" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

	Submittals Required	**Specification Reference**	**Action Required**
SD-06	Test Reports		
	Class 5:		
	Test Results	1.2.4	G-AO
	Concrete:		
	Testing	2.3.1	G-AO
SD-03	Product Data		
	Reinforcement bars	2.3.2	FIO

1.4 CONCRETE

1.4.1 Weather Limitations

1.4.1.1 Placing During Cold Weather

Concrete placement shall not take place when the air temperature reaches 40 degrees F and is falling, or is already below that point. Placement may begin when the air temperature reaches 35 degrees F and is rising, or is already above 40 degrees F. Provisions shall be made to protect the concrete from freezing during the specified curing period. If it is necessary to place concrete when the temperature of the air, aggregates, or water is below 35 degrees F, placement and protection shall be approved in writing by the Government. Approval will be contingent upon full conformance with the following provisions. The underlying material shall be prepared and protected so that it is entirely free of frost when the concrete is deposited. Mixing water shall be heated as necessary to result in the temperature of the in-place concrete being between 50 and 85 degrees F. Methods and equipment for heating shall be approved. The aggregates shall be free of ice, snow, and frozen lumps before entering the mixer. Covering and other means shall be provided for maintaining the concrete at a temperature of at least 50 degrees

F for not less than 72 hours after placing, and at a temperature above freezing for the remainder of the curing period.

1.4.1.2 Placing During Warm Weather

The temperature of the concrete as placed shall not exceed 85 degrees F except where an approved retarder is used. The mixing water and/or aggregates shall be cooled, if necessary, to maintain a satisfactory placing temperature. The placing temperature shall not exceed 95 degrees F at any time.

1.4.2 Plant, Equipment, Machines, and Tools

Plant, equipment, machines, and tools used in the work shall be subject to approval and shall be maintained in a satisfactory working condition at all times. The equipment shall have the capability of producing the required product, meeting grade controls, thickness control and smoothness requirements as specified. Use of the equipment shall be discontinued if it produces unsatisfactory results. The Contracting Officer shall have access at all times to the plant and equipment to ensure proper operation and compliance with specifications.

PART 2. PRODUCTS

2.1 FILL MATERIAL (Spalls & Borrow)

Rock material shall be Spalls. Specifications for this material is as stated below:

Spalls - See Section 02246, paragraph 2.3.5 entitled Riprap (Type V – Spalls)

Borrow material may be used as directed by the delivery order.

2.2 BASE COURSE MATERIAL

Aggregate– See Section 02241, paragraph 2.2, entitled Aggregate – Class 5

2.3 CONCRETE

2.3.1 General

Concrete shall be as required in Section 02770, paragraphs: 2.1, 2.1.1 & 2.1.2.
Testing shall be as required in Section 02770, paragraphs 3.8.2, 2.8.2.2 & 2.8.2.3.

2.3.2 Reinforcement Steel

Reinforcement bars shall conform to ASTM A 615/A 615M, grade 60.

2.3.3 Concrete Curing Materials

Compound shall meet the North Dakota Department of Transportation, Specifications for Road and Bridge Construction, Section 810 entitled "Concrete Curing Materials". Utilize the Liquid-Membrane – Forming Compounds, White Pigmented, Type 2.

2.4 FORM WORK

Formwork shall be designed and constructed to ensure that the finished concrete will conform accurately to the indicated dimensions, lines, and elevations, and within the tolerances specified. Forms shall be of wood or steel, straight, of sufficient strength to resist springing during depositing and consolidating concrete. Forms shall be of a height equal to the full depth of the finished concrete surface. Wood forms shall be surfaced plank, 2 inches nominal thickness, and straight and free from warp, twist, loose knots, splits or other defects. Wood forms shall have a nominal length of 10 feet. Radius bends may be formed with 3/4-inch boards, laminated to the required thickness. Steel forms shall be channel-formed sections with a flat top surface and with welded braces at each end and at not less than two intermediate points. Ends of steel forms shall be interlocking and self-aligning. Steel forms shall include flexible forms for radius forming, corner forms, form spreaders, and fillers. Steel forms shall have a nominal length of 10 feet with a minimum of 3 welded stake pockets per form. Stake pins shall be solid steel rods with chamfered heads and pointed tips designed for use with steel forms.

2.5 ROCK PROTECTION

Rock protection shall be Riprap (Type IV), found in Section 02246, paragraph 2.3.4.

PART 3. EXECUTION

3.1. GENERAL EXCAVATION (Boat Ramps)

The Contractor shall perform excavation of every type of material encountered within the limits of the project to the lines, grades, and elevations indicated on the delivery order. Loose disintegrated rock and thin strata shall be removed. Excavated material shall be disposed of in areas approved for surplus material storage provided by the government and within a 5 miles radius of the project. During construction, excavation shall be performed in a manner and sequence that will provide proper drainage at all times.

The Contractor, at all times, shall protect the existing poured-in-place concrete from chipping, scraping, etc.

No consideration will be given to the nature of the materials, and all excavation will be designated as unclassified excavation.

3.2 FILL (Spalls & Borrow)

Fill for boat ramp shall be constructed to the lines and grades shown on the delivery order.

3.3 BASE COURSE

Placement and Compaction of Base Course (Fill) Material: Base course material placed under water shall require no compaction. Care will be taken to place base course material to the thickness and grades shown on the delivery order. The base course material placed above water shall be placed in 6-inch lifts. The lift of base course material shall then be compacted by two passes of loaded hauling equipment such that all points of the fill are traversed by

the tread track of the loaded equipment, parallel to the centerline of the fill.

3.4 CONCRETE

3.4.1 Form Setting

Forms shall be set to the indicated alignment, grade and dimensions. Forms shall be held rigidly in place by a minimum of 3 stakes per form placed at intervals not to exceed 4 feet. Corners, deep sections, and radius bends shall have additional stakes and braces, as required. Clamps, spreaders, and braces shall be used where required to ensure rigidity in the forms. Forms shall be removed without injuring the concrete. Bars or heavy tools shall not be used against the concrete in removing the forms. Any concrete found defective after form removal shall be promptly and satisfactorily repaired. Forms shall be cleaned and coated with form oil each time before concrete is placed. Wood forms may, instead, be thoroughly wetted with water before concrete is placed, except that with probable freezing temperatures, oiling is mandatory. Forms shall be set with the upper edge true to line and grade with an allowable tolerance of 1/8 inch in any 10-foot long section. After forms are set, grade and alignment shall be checked with a 10-foot straightedge. Forms shall have a transverse slope of 1/4 inch per foot unless otherwise indicate with the low side adjacent to the roadway. Side forms shall not be removed for 12 hours after finishing has been completed.

3.4.2 Concrete Placement and Finishing

When concrete is mixed and/or transported by a truck mixer, the concrete shall be delivered to the site of the work and discharge shall be completed within 1-1/2 hours. Concrete shall be conveyed from the mixer to the forms as rapidly as practicable by methods, which prevent segregation or loss of ingredients. Concrete shall be in place and consolidated within 15 minutes after discharge from the mixer. Concrete shall be placed in the forms in one layer. When consolidated and finished, the concrete shall be of the thickness indicated. After concrete has been placed in the forms, a strike-off guided by side forms shall be used to bring the surface to proper section to be compacted. The concrete shall be consolidated with an approved vibrator, and the surface shall be finished to grade with a strike off.

Surface texture shall be applied using a mechanical stiff bristle broom drag of a type that will uniformly score the surface transverse to the centerline. The broom shall be capable of traversing the full width of the pavement in a single pass at a uniform speed and with a uniform pressure. Successive passes of the broom shall be overlapped the minimum necessary to obtain a uniformly textured surface. The scores should be uniform in appearance and approximately 1/8 to ¼ inch in depth.

3.4.2.1 Edge and Joint Finishing

All slab edges, including those at formed joints, shall be finished with an edger having a radius of 3/8 inch. Transverse joint shall be edged before brooming, and the brooming shall eliminate the flat surface left by the surface face of the edger. Corners and edges which have crumbled and areas which lack sufficient mortar for proper finishing shall be cleaned and filled solidly with a properly proportioned mortar mixture and then finished.

3.4.2.2 Surface and Thickness Tolerances

Finished surfaces shall not vary more than 5/16 inch from the testing edge of a 10-foot straightedge. Permissible deficiency in section thickness will be up to 1/4 inch.

3.4.2.3 Contraction Joints

The contraction joints shall be provided at a maximum spacing of 15 linear feet, unless otherwise indicated. Contraction joints shall be cut at a minimum of 1 ¼" inches deep with a concrete saw after the surface has been finished. Equipment for awing joints and for other similar sawing of concrete shall be standard diamond-tip-bladed concrete saws mounted on a wheeled chassis.

3.4.3 Embedded Items

Reinforcement steel shall be secured in place with rebar chairs designed for that purpose. Embedded items shall be free of oil and other foreign matters such as loose coatings or rust, paint, and scale. Reinforcing steel bar #4 shall conform to the requirements of ASTM A615/A 615M, Grade 60. Steel bar shall be placed 1' on center in the forms.

3.4.4 Curing and Protection

3.4.4.1 General Requirements

Concrete shall be protected against loss of moisture and rapid temperature changes for at least 7 days from the beginning of the curing operation. Unhardened concrete shall be protected from rain and flowing water. All equipment needed for adequate curing and protection of the concrete shall be on hand and ready for use before actual concrete placement begins. Protection shall be provided as necessary to prevent cracking of the pavement due to temperature changes during the curing period.

3.4.4.2 Curing Compound Method

The liquid curing compound required shall be applied as per manufacturers specifications.

3.5 FINISH BACKFILL

After curing, debris shall be removed and the area adjoining the concrete shall be backfilled, graded, and compacted to conform to the surrounding area in accordance with lines and grades indicated on the delivery order.

3.6 ROCK PROTECTION

Class IV rock protection shall be placed in such manner as to produce a reasonably well-graded mass of rock with the minimum practicable percentage of voids. Rock shall be placed to its full course thickness and in such a manner as to avoid damage to the bedding material and to minimize segregation of the rock. The larger stones shall be well distributed and the entire mass of stones in their final position shall be roughly graded to conform to the gradation specified. The finished protection shall be free from objectionable pockets of small stones and clusters of larger stones. The desired distribution of the various sizes of stones throughout the mass shall be obtained by selective loading of the material at the quarry or other

source and by controlled dumping of successive loads during final placement operations. All stone shall be placed by zero drop height means with a clam, orange peel, skip box, grapple, excavator thumb or other accepted means. Zero drop height placement procedures are to be utilized for stone to avoid displacing or damaging the underlying bedding. Dumping of stone at the top of slopes and rolling or pushing into place will not be permitted. Manipulating or moving stone at any time prior to placement by means of dozers or other blade equipment will not be permitted. Rearranging of individual stones by mechanical equipment or by hand will be required to the extent necessary to obtain a reasonably well-graded distribution of stone sizes as specified above.

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SECTION 02785

BITUMINOUS SEAL COAT, SPRAY APPLICATION (CHIP SEAL)

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.

NORTH DAKOTA DEPARTMENT OF HIGHWAYS STANDARD SPECIFICATIONS FOR ROADS AND BRIDGE CONSTRUCTION

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO)

AASHTO T-2	Sampling
AASHTO T-248	Reducing Sample to Test Size
AASHTO T-89	Liquid Limit
AASHTO T-90	Plastic Limit and Plasticity Index
AASHTO T-96	Los Angeles Abrasion
AASHTO T-113*	Lightweight pieces of aggregate
AASHTO T-27	Sieve Analysis
AASHTO T-11**	Amount of Material Finer than No. 200 Sieve in Aggregate
	NDDOT Method Fractured Faces

1.2 MEASUREMENT

The bituminous material and aggregate to be paid for shall be the measured number of square yards in the accepted work.

1.3 PAYMENT

The quantities of aggregate and bituminous material, determined as specified in paragraph above, will be paid for at the contract unit price. Payment shall constitute full compensation for all operations necessary to complete the work as specified herein.

1.4 SUBMITTALS

Government approval is required for submittals with a "G-RE" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with the Section 01330 SUBMITTAL PROCEDURES:

Submittals Required	Specification	Action Required
SD-07 Certificates		
Waybills & Delivery Tickets	1.7	FIO
SD-03 Product Data		

Rapid Curing Cutback	2.1.1	G-AO
Anionic Emulsified Asphalt	2.1.2	G-AO

SD-04 Samples

Samples – Aggregate – AASHTO T-2	3.5.2	G-AO
Bituminous – AASHTO M-81 Or AASHTO M-140	3.5.2	G-AO

1.5 EQUIPMENT

1.5.1 General Requirements

Equipment, plant and tools used in the work shall be subject to approval and shall be maintained in a satisfactory working condition at all times. The equipment shall be adequate and shall have the capability of producing the results specified.

1.5.2 Bituminous Distributors

The distributor shall have pneumatic tires of sufficient size and number to prevent rutting, shoving, or otherwise damaging any part of the pavement structure. The distributor shall be designed and equipped to distribute the bituminous material in a uniform double or triple lap at the specified temperature, at readily determined and controlled rates with an allowable variation from the specified rate of not more than plus or minus 5 percent, and at variable widths. Distributor equipment shall include a separate power unit for the bitumen pump, full-circulation spray bars, tachometer, pressure gauges, volume-measuring devices, adequate heaters for heating of materials to the proper application temperature, a thermometer for reading the temperature of tank contents, and a hand-held hose attachment suitable for applying bituminous material manually to areas inaccessible to the distributor. The distributor shall be equipped to circulate and agitate the bituminous material during the heating process.

1.5.3 Aggregate Spreader

The aggregate-spreading equipment shall be adjustable and capable of uniformly spreading aggregate at the specified rate in a single-pass operation over the surface to be sealed.

1.5.4 Pneumatic-Tire Roller

The pneumatic-tired roller shall be of sufficient size to seat the cover aggregate into the bituminous material without fracturing the aggregate particles.

1.5.5 Power Brooms and Power Blowers

Power brooms and power blowers shall be suitable for cleaning surfaces to which the seal coat is to be applied.

1.5.6 Scales

The scales shall be of sufficient size and capacity to accommodate all trucks used in hauling aggregates. All scales shall be tested and approved by an inspector of the state inspection bureau charged with scales inspection within the state in which the project is located. If an official of the inspection bureau if not available, the scales shall be tested in accordance with the state specifications by the Contractor in the presence of the Contracting Officer. The Contractor shall have the necessary number of standard weights on hand at all times for testing the scales.

1.5.7 Storage Tanks

Tanks shall be capable of heating the bituminous material, under effective and positive control at all times, to the required temperature. Heating shall be accomplished by steam coils, hot oil, or electricity. An armored thermometer shall be affixed to the tank so that the temperature of the bituminous material may be read at all times.

1.6 WEATHER LIMITATIONS

The seal coat shall be applied when the existing surface is dry, and when the weather if not foggy or rainy. The seal coat shall not be applied when the atmospheric temperature is below 60 degrees F in the shade, when the pavement surface temperature is below 50 degrees F, or when the wind velocity will prevent the uniform application of the bitumen or aggregates.

1.7 WAYBILLS AND DELIVERY TICKETS

Copies of waybills and delivery tickets shall be submitted during the progress of the work. A copy of all waybills and delivery tickets shall be delivered to a Representative of the Contracting Officer at the end of each day. Before the final statement is allowed, the Contractor shall file with the Contracting Officer certified waybills and delivery tickets for aggregate and bituminous material used in the bituminous surface treatment. The Contractor shall not remove bituminous material from the tank or storage tank until measurements of the remaining quantity have been taken.

PART 2 PRODUCTS

2.1 BITUMINOUS MATERIAL REQUIREMENTS

Bituminous material shall conform to one of the following:

2.1.1 RAPID CURING CUTBACK ASPHALT - AASHTO M-81

Shall conform to the requirements of ND Standard Specifications for Road and Bridge Construction and AASHTO M-81. The Contractor shall furnish a certified statement from the manufacturer giving an analysis of the materials.

2.1.2 ANIONIC EMULSIFIED ASPHALT - AASHTO M-140

Shall conform to the requirements of ND Standard Specifications for Road and Bridge Construction and AASHTO M-140. The Contractor shall furnish a certified statement from the manufacturer giving an analysis of the materials.

2.2 MINERAL AGGREGATE

Aggregate shall conform to ND Standard Specifications for Road and Bridge Construction, Section 816.03, Class 43.

PART 3 EXECUTION

3.1 PREPARATION OF SURFACE

Immediately before applying the seal coat, all loose material, dirt, clay, or other objectionable material shall be removed from the surface to be sealed. Material removed from the surface shall not be mixed with the cover aggregate.

3.2 BITUMINOUS MATERIAL APPLICATION

3.2.1 Rate & Application of Bitumen

Bitumen shall be applied with a pressure distributor in a uniform, continuous spread. The quantity of bitumen to be used per square yard shall be 0.38 gallons per square yard. Any skipped areas or deficiencies shall be corrected. Junctions of spreads shall be carefully made to assure a smooth riding surface and complete cover.

Streaking of the bitumen on the road surface will not be allowed. Streaking is the non-uniform application of bitumen leaving alternating lead and heavy narrow bands of bitumen. If the Engineer determines that streaking is occurring, the Contractor shall cease operations until the Engineer is satisfied that streaking has been eliminated.

The surface of all structures and other appurtenances shall be protected against splattering. If splattering occurs, it shall be removed to the satisfaction of the Engineer at the Contractor’s expense.

When traffic is maintained, the bitumen shall be applied in passes of approximately ½ the width of the completed surface. If the width of the surface make such application impracticable, the bitumen may be applied in more than 2 passes.

The bitumen shall be applied so that when covered the overlaps caused by successive applications will not result in ridges or depressions at the transverse or longitudinal joints. The joints shall be smooth and consistent with the adjacent completed surface treatment.

To prevent lapping at transverse junctions, the bitumen spray shall be promptly shut off at the end of the application. Before continuing the application, building paper or metal sheets shall be spread a sufficient distance back from the joint on the cover aggregate so the sprayers are opening at the full force when the distributor has attained the predetermined speed upon reaching the uncovered surface. All paper or metal sheets used shall be removed.

3.3 AGGREGATE

3.3.1 Rate and Application of Aggregate Material

The cover coat material shall be spread uniformly over the bituminous material with an aggregate spreader. Small areas inaccessible to the aggregate spreader may be covered by hand or other approved methods.

The approximate amount of aggregate material per square yard shall be applied at a rate of 25.0 lbs per square yard.

Immediately after the cover coat material is spread, any deficient areas shall be covered by additional cover coat material or blotter material as directed by the Engineer.

Rolling shall begin immediately behind the spreader and shall continue until a minimum of four complete coverage's are obtained. The speed of the roller shall not exceed 7 MPH on the initial coverage.

The loose cover coat material shall be lightly broomed off during the cool period of early morning with in 36 to 48 hours from the time of application. The broom shall have a positive means of controlling the vertical pressure on the broom head. Care shall be taken to avoid dislodging embedded aggregate. A final brooming shall be accomplished at the end of the maintenance period.

Excess material in curb and gutter sections shall be broomed toward the gutter and shall be picked up and disposed of by the Contractor.

3.4 BROOMING AND ROLLING

The surface shall be rolled with a pneumatic-tired and a steel-wheeled roller after sufficient aggregate is spread. Rolling shall continue until no more aggregate can be worked into the treated surface. The use of the steel-wheeled roller will be discontinued, or a lighter weight steel roller substituted, as directed, if the roller being used cases excessive crushing and shattering of the aggregate. Brooming, rolling and supplemental spreading of aggregate shall continue until the surface is cured and rolled sufficiently to key and set the aggregate. In places not accessible to rollers, the aggregate shall be compacted with pneumatic tampers. Aggregate that become contaminated with foreign matter shall be removed, replaced with clean aggregate, and rerolled as directed. The Contractor shall maintain and protect the treated areas by use of barricades, until the surface is cured and rolled sufficiently to key and set the aggregate. Loose material left on the surface shall be lightly broomed off during the cool period of early morning after a waiting period of 34 hours from the time of application.

Excess material in parking lots and along roadsides will need to be picked up by the Contractor and disposed of off site.

3.5 SAMPLING AND TESTING

3.5.1 General Requirements

Sampling and testing shall be performed by an approved commercial testing laboratory or by facilities furnished by the Contractor. No work requiring testing will be permitted until the facilities have been inspected and approved. The first inspection shall be at the expense of the Government. Costs incurred for any subsequent inspection will be charged to the Contractor. Tests shall be performed in sufficient numbers and at the location and times directed to ensure that the materials meet specified requirements.

3.5.2 Samples

Aggregate samples shall be taken in accordance with AASHTO T-2. Samples of bituminous material shall be taken in accordance with AASHTO M-81 and AASHTO M-140.

3.5.3 Initial Sampling and Testing

3.5.3.1 Bituminous Material Source

Sources from which bituminous materials are to be obtained shall be selected and notification thereof furnished the Contracting Officer within 15 days after the award of the contract.

3.6 TRAFFIC CONTROL

The Contractor shall furnish flag persons, pilot cars, signs, and lights.

On two-lane, two-way traffic roads, the Contractor shall provide additional flaggers and signs at each end of the seal operation and at major intersections within the seal operation area, to alert the traveling public to the hazards of flying chips.

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SECTION 02921
SEEDING

PART 1 GENERAL

1.1. MEASUREMENT AND PAYMENT

The actual application rate will be determined by the Contracting Officer and applied to the number of square feet/acres of seeding. The quantity of seeding to be paid for will be the number of square feet/acres completed and accepted as determined by the Contracting Officer.

1.2 SUBMITTALS

Government approval is required for submittals with a "G-RE" designation; submittals not having a "G-RE" designation are for information only. When used, a designation following the "G-RE" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

Submittals Required	Specification Section	Action Required
SD-06 Test Reports		
Seed Tests	1.3.1	G-AO

1.3 INSPECTION, STORAGE, AND HANDLING

1.3.1 Seed 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 nine months or older, shall be rejected. Other materials shall be inspected for compliance with specified requirements.
A certified test report shall be furnished to the Contracting Officer before seeding operations start.

1.3.2 Storage

Seed shall be stored in cool, dry locations away from contaminants.

1.3.3 Handling

Except for bulk deliveries, materials shall not be dropped or dumped from vehicles.

1.3.4 Time Limitation

Hydro seeding time limitation for holding seed in the slurry shall be a maximum 24 hours.

PART 2 PRODUCTS

2.1 SEED

2.1.1 Seed Classification & Permanent Seed Species and Mixtures

Permanent seed species and mixtures shall be proportioned by weight as follows:

LAWN SEED – shall be a mix known as Supreme Lawn Mix

FIELD SEED – shall be the following:

Mixture Common Name	(Variety)	Percent by Weight
Slender Wheatgrass	Revenue or Primar	20
Western Wheatgrass	Rodann or Rosanna	20
Side-Oats Gramma	Killdeer or Pierre	10
Green Needlegrass	Lodorm	20
Canada Wildrye		20
Seed Oats (cover)		10
		100

2.1.2 Quality

Weed seed shall be a maximum 1 percent by weight of the total mixture.

2.1.3 Seed Mixing

The mixing of seed may be done by the seed supplier prior to delivery, or on site as directed.

2.1.4 Substitutions

Substitutions will not be allowed without written request and approval from the Contracting Officer.

2.2 WATER

Water shall be the responsibility of the Contractor. Water shall not contain elements toxic to plant life.

2.3 TOPSOIL

If additional topsoil is required beyond that available from grading operations, the Contractor at a separate unit price per ton delivered and placed shall furnish it. The topsoil shall be a natural, friable soil representative of productive soils in the vicinity, and approved by the Contracting Officer. It shall be obtained from well-drained areas and shall be free of any admixture of subsoil, foreign matter, objects larger than 1 inch in any dimension, toxic substances, and any material or substance that may be harmful to plant growth.

PART 3 EXECUTION

3.1 INSTALLING SEED TIME AND CONDITIONS

3.1.1 Seeding Time

Seed shall be sown before June 15 and after September 1.

3.1.2 Seeding Equipment Requirements

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. Equipment to be used when Hydro-Seeding is required shall be hydraulic equipment capable of uniformly mixing the specified seed in water for uniform distribution.

3.2 SITE PREPARATION

3.2.1 Finished Grade and Topsoil

Areas to be seeded shall be cleared of all material that is detrimental to seedbed preparation. The cleared areas shall be shaped to a cross section that best fits existing conditions.

(1) No seed shall be sown when the wind velocity exceeds 15 miles per hour.

(2) No seed shall be sown in standing water or frozen ground

(3) All slopes will be worked on the contour.

3.2.2 Tillage

Soil on slopes up to a maximum 3-horizontal to 1-vertical shall be tilled to a minimum 4-inch depth. On slopes between 3-horizontal to 1-vertical and 1-horizontal to 1-vertical, the soil shall be tilled to a minimum 2-inch depth by scarifying with heavy rakes, or other method. Rototillers shall be used where soil conditions and length of slope permit. On slopes 1-horizontal to 1-vertical and steeper, no tillage is required. Drainage patterns shall be maintained as indicated on drawings. Areas compacted by construction operations shall be completely pulverized by tillage. Soil used for repair of surface erosion or grade deficiencies shall conform to topsoil requirements. The fertilizer and soil conditioner may be applied during this procedure.

3.2.3 Prepared Surface

3.2.3.1 Preparation

The prepared surface shall be a maximum 1-inch below the adjoining grade of any surfaced area. New surfaces shall be blended to existing areas. The prepared surface shall be completed with a light raking to remove debris.

3.2.3.2 Lawn Area Debris

Debris and stones over a minimum 5/8-inch in any dimension shall be removed from the surface.

3.2.3.3 Field Area Debris

Debris and stones over a minimum 3-inch in any dimension shall be removed from the surface.

3.2.3.4 Protection

Areas with the prepared surface shall be protected from compaction or damage by vehicular or pedestrian traffic and surface erosion.

3.3 INSTALLATION

Prior to installing seed, any previously prepared surface compacted or damaged shall be reworked. Seeding operations shall not take place when the wind velocity will prevent uniform seed distribution.

3.3.1 Installing Seed

Seeding method may be Broadcast Seeding, Drill Seeding, or Hydro seeding. Seeding procedure shall ensure even coverage. Gravity feed applicators, which drop seed directly from a hopper onto the prepared soil, shall not be used because of the difficulty in achieving even coverage, unless otherwise approved.

3.3.1.1 Broadcast Seeding

Seed may be uniformly broadcast at the rate specified using broadcast seeders. 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 disk harrow, steel mat drag, cultipacker, or other approved device.

3.3.1.2 Drill Seeding

Seed shall be uniformly drilled to a maximum 1/2-inch depth and at the rate specified, using equipment having drills a maximum 7 inches distance apart. Row markers shall be used with the drill seeder. Half the total rate of seed application shall be drilled in 1 direction, with the remainder of the seed rate drilled at 90 degrees from the first direction. The drilling equipment shall be maintained with half full seed boxes during the seeding operations.

3.3.1.3 Rolling

The entire area shall be firmed with a roller not exceeding 90 pounds per foot roller width. Slopes over a maximum 3-horizontal to 1-vertical shall not be rolled. Areas seeded with seed drills equipped with rollers shall not be rolled.

3.3.2 Hydro seeding

Seed shall be mixed to ensure broadcast at the rate specified. Seed and fertilizer shall be added to water and thoroughly mixed to meet the rates specified. The time period for the seed to be held in the slurry shall be a maximum 24 hours. Wood cellulose fiber mulch and tackifier shall be added at the rates recommended by the manufacturer after the seed, fertilizer, and water have been thoroughly mixed to produce homogeneous slurry. Slurry shall be uniformly applied under pressure over the entire area. The hydro seeded area shall not be rolled.

3.4 RESTORATION AND CLEAN UP

3.4.1 Restoration

Existing turf areas, pavements, and facilities that have been damaged from the seeding operation shall be restored to original condition at Contractor's expense.

3.4.2 Clean Up

Excess and waste material shall be removed from the seeded areas and shall be disposed offsite. Adjacent paved areas shall be cleaned.

3.5 PROTECTION OF INSTALLED AREAS

Immediately upon completion of the seeding operation in an area, the area shall be protected against traffic or other use by erecting barricades and providing signage as required, or as directed.

3.6 SEED ESTABLISHMENT PERIOD

3.6.1 Lawn Hydro-Seeding/Watering

Areas to be seeded by the Hydroseeding method shall be wetted by daily sprinkler for the first 5 days, and then periodically for the next 10 days to keep the soil moist for a depth of 3 inches.

3.6.2 Commencement

The seed establishment period to obtain a healthy stand of grass plants shall begin on the first day of work under this contract and shall end 1 month after the last day of the seeding operation. Written calendar time period shall be furnished for the seed establishment period. When there is more than 1 seed establishment period, the boundaries of the seeded area covered for each period shall be described. The seed establishment period shall be modified for inclement weather, shut down periods, or for separate completion dates of areas.

3.6.3 Satisfactory Stand of Grass Plants

Grass plants shall be evaluated for species and health when the grass plants are a minimum 1-inch high.

3.6.4 Lawn Area

A satisfactory stand of grass plants from the seeding operation for a lawn area shall be a minimum 180 grass plants per square yard. Bare spots shall be a maximum 6 inches square. The total bare spots shall be a maximum 2 percent of the total seeded area.

3.6.5 Repair or Reinstall

Unsatisfactory stand of grass plants and mulch shall be repaired or reinstalled, and eroded areas shall be repaired.

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SECTION 02964

COLD MILLING OF BITUMINOUS PAVEMENTS

PART 1. GENERAL

1.1. UNIT PRICES

1.1.1. Measurement for Milling

The quantity of milled pavement shall be the number of square yards completed and accepted as determined by the Contracting Officer. The number of square yards of milled pavement shall be determined by measuring the length and width of the milled surface within the specified work area. Measurement to determine the area shall be to the closest inch for width and the closest foot for length.

1.1.2. Payment

Payment for items will be to the nearest square yard. Payment noted above includes hauling and stockpiling of material at stockpile location. No payment will be made for milling outside the specified area of work.

1.2. EQUIPMENT, TOOLS, AND MACHINES

Equipment, tools, and machines used in the performance of the work shall be maintained in a satisfactory working condition.

1.2.1. Cold Milling Machine

The milling machine shall be a self-propelled machine specifically designed to mill and remove existing asphalt pavement to a specified depth, profile, cross slope, and surface texture. The machine shall be of a size, shape, and dimensions, which do not interfere with safe traffic passage adjacent to the work.

The machine shall have a control system to automatically control the elevation and transverse slope of the milling head. A 15-foot minimum length skid, rolling straightedge or other approved device shall be used to establish the grade reference for control of the milling head. The system shall permit the grade reference device to operate on either side of the milling machine, and shall maintain the desired transverse slope regardless of changes in the elevation of the milling head. Conveyors capable of side, rear. Or front loading shall be provided with the necessary equipment to transfer the milled material from the roadway to a truck.

1.2.2. Cleaning Equipment

Cleaning equipment shall be suitable for removing and cleaning loose material from the pavement surface.

1.2.3. Straightedge

The Contractor shall furnish and maintain at the site, in good condition, one 10-foot straightedge or other suitable device for each milling machine, for

testing the finished surface. Straightedge shall be made available for Government use. Straightedges shall be constructed of aluminum or other lightweight metal, and shall have blades of box or box-girder cross section with flat bottom reinforced to insure rigidity and accuracy. Straightedges shall have handles to facilitate movement on the pavement.

1.3. WEATHER LIMITATIONS

Milling shall not be performed when there is accumulation of snow or ice on the pavement surface.

1.4. GRADE AND SURFACE SMOOTHNESS REQUIREMENTS

1.4.1. Grade

The finished milled surfaces shall conform to the lines, grades, and cross sections indicated. The finished milled-pavement surfaces shall vary not more than 0.06 foot from the established plan grade line and elevation. Finished surfaces at a juncture with other pavements shall coincide with the finished surfaces of the abutting pavements. The deviations from the plan grade line and elevation will not be permitted in areas of pavements where closer conformance with planned grade and elevation is required for the proper functioning of appurtenant structures.

1.4.2. Surface Smoothness

Finished surfaces shall not deviate from the testing edge of a straightedge more than 1/4 inch in the transverse or longitudinal direction.

PART 2. PRODUCTS (Not Applicable)

PART 3. EXECUTION

3.1. PREPARATION OF SURFACE

The pavement surface shall be cleaned of excessive dirt, clay, or other foreign material immediately prior to milling the pavement.

3.2. MILLING OPERATION

The existing pavement surface shall be cleaned of deleterious material before the milling operation.

The milling shall be started at the centerline of the pavement and proceed on a longitudinal line parallel to the centerline. Succeeding passes shall progress toward the outer edge of the pavement unless the Contracting Officer permits a different sequence of operations. Milling shall progress in a manner that a single lane is not more than one days' run in advance of the adjacent lane. The Contractor may be required to alter the milling operation to best suit construction conditions. When the milling is stopped, the milled depth shall be gradually tapered to the original pavement surface.

The Contractor shall dispose of all materials off site.

The Contractor shall clean the milled surface by brooming before opening to traffic.

3.3. GRADE AND SURFACE SMOOTHNESS TESTING

3.3.1. Grade Conformance Tests

The finished milled surface of the pavement shall be tested for conformance with the plan grade requirements and will be tested for acceptance by the Contracting Officer by running lines of levels at intervals of 50 feet longitudinally and 12 feet transversely to determine the elevation of the completed pavement. The Contractor shall correct variations from the designated grade line and elevation in excess of the plan grade requirements as directed. Skin patching for correcting low areas will not be permitted. The Contractor shall remove and replace the deficient low area. Sufficient material shall be removed to allow at least 1-1/2 inch of asphalt concrete to be placed.

3.3.2. Surface Smoothness Tests

After completion of the final milling, the Government with a straightedge will test the finished milled surface. Other approved devices may be used, provided that when satisfactorily and properly operated, such devices reveal all surface irregularities exceeding the tolerances specified. Surface irregularities that depart from the testing edge by more than 1/4 inch shall be corrected.

3.4 REMOVAL OF MILLED MATERIAL

Material that is removed shall be stockpiled within 10 miles of the removal site and in such a manner to prevent segregation or contamination.

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SECTION 02975

SEALING OF CRACKS IN PAVEMENTS

PART 1 GENERAL

1.1 SCOPE

The work covered by this section consists of furnishing all labor, equipment, and materials, and performing all operations in connection with crack routing and sealing of transverse and longitudinal cracks in the road travel surface with hot-poured elastic joint sealer.

1.2 REFERENCES

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

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM C 509 (1994) Elastomeric Cellular Preformed Gasket and Sealing Material

ASTM D 789 (1994) Determination of Relative Viscosity, Melting Point, and Moisture Content of Polyamide (PA)

ASTM D 3405 (1994) Joint Sealants, Hot-Applied, for Concrete and Asphalt Pavements

1.3 UNIT PRICES

1.3.1 Measurement

The quantity of each sealing item to be paid for shall be determined by actual measurement of the number of linear feet of in-place material that has been approved.

1.3.2 Payment

Payment shall be made at the contract unit bid price per linear foot for the sealing items scheduled. The unit bid prices shall include the cost of all labor, materials, and the use of all equipment and tools required to complete the work.

1.4 SYSTEM DESCRIPTION

Machines, tools, and equipment used in the performance of the work required by this section shall be approved before the work is started and shall be maintained in satisfactory condition at all times.

1.5 SUBMITTALS

Government approval is required for submittals with a "G-AO" designation; submittals having an "FIO" designation are for information only. The

following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

Submittals Required	Submittal Reference	Action Required
SD-06 Test Reports		
Test Requirement	1.5	G-AO
SD-03 Product Data		
Sealants	2.1	G-AO
Backup Materials	2.2	G-AO

1.6 TEST REQUIREMENTS

The crack sealant and backup material, when required, shall be tested for conformance with the referenced applicable material specification. Samples of materials shall be furnished, in sufficient quantity to be tested, upon request. Conformance with the requirements of the laboratory tests specified will not constitute final acceptance of the materials. Final acceptance will be based on the performance of the in-place materials.

1.7 EQUIPMENT

Machines, tools, and equipment used in the performance of the work required by this section shall be approved before the work is started and shall be maintained in satisfactory condition at all times.

1.7.1 Crack Cleaning Equipment

1.7.1.1 Routing Equipment

The routing equipment shall be a self-powered machine operating a power driven tool or bit specifically designed for routing bituminous pavements. The bit shall rotate about a vertical axis at sufficient speed to cut a smooth vertical-walled reservoir in the pavement surface and shall maintain accurate cutting without damaging the sides or top edges of the reservoir. The router shall be capable of following the trace of the crack without deviation. The use of rotary impact routing devices will not be permitted for cleaning cracks.

1.7.1.2 Concrete Saw

A self-propelled power saw with small diameter 6 inches or less water-cooled diamond or abrasive saw blades shall be provided for cutting cracks in concrete to the depths and widths specified and for removing filler that is embedded in the cracks or adhered to the crack faces. The diameter of the saw blade shall be small enough to allow the saw to closely follow the trace of the crack.

1.7.1.3 Air Blasting Equipment

Air blasting equipment shall include an air compressor, hose, and long-wearing venturi-type nozzle of proper size, shape and opening. The maximum nozzle opening shall not exceed 1/4 inch. The air compressor shall be portable; and shall be capable of furnishing not less than 150 cfm and maintaining a line pressure of not less than 90 psi at the nozzle while in use. The compressor shall be equipped with traps that will maintain the compressed air free of oil and water. The nozzle shall have an adjustable guide that will hold the nozzle aligned with the crack about 1 inch above the pavement surface. The height, angle of inclination and the size of the nozzle shall be adjusted as necessary to secure satisfactory results.

1.7.1.4 Hand Tools

Hand tools may be used, when approved, for removing defective sealant from cracks and repairing or cleaning the crack faces.

1.7.2 Crack Sealing Equipment

The unit applicators used for heating and installing the hot-poured crack sealant materials shall be mobile and shall be equipped with a double-boiler, agitator-type kettle with an oil medium in the outer space for heat transfer; a direct-connected pressure-type extruding device with a nozzle shaped for inserting in the crack to be filled; positive temperature devices for controlling the temperature of the transfer oil and sealant; and a thermometer for indicating the temperature of the sealant. The applicator unit design shall allow the sealant to circulate through the delivery hose and return to the inner kettle when not in use.

1.8 DELIVERY AND STORAGE

Materials delivered to the job site shall be inspected for defects, unloaded, and stored with a minimum of handling to avoid damage. The Contractor shall provide storage facilities at the job site to protect materials from weather and to maintain them at the temperatures recommended by the manufacturer.

1.9 ENVIRONMENTAL CONDITIONS

The ambient air temperature and the pavement temperature within the joint wall shall be a minimum of 50 degrees F and rising at the time of application of the materials. Sealant shall not be applied if moisture is observed in the crack.

PART 2 PRODUCTS

2.1 SEALANTS

Sealants shall conform to ASTM D 3405.

Penetration at 77 degrees F	Max. 90
Resilience	Min. 60%
Flow @ 140 Degree F	Max. 3 mm
Asphalt Compatibility	Complete

The sealant material shall weigh not less than 9.0 nor more than 9.35 lbs/gal.

2.2 BACKUP MATERIALS

Backup material shall be a compressible, nonshrinking, nonstaining, nonabsorptive material and shall be non-reactive with the crack sealant. The melting point of the backing material shall be at least 5 degrees F greater than the maximum pouring temperature of the sealant being used, when tested in accordance with ASTM D 789. The material shall have water absorption of not more than 5 percent by weight when tested in accordance with ASTM C 509. The backup material shall be 25 percent (plus or minus 5 percent) larger in diameter than the nominal width of the crack.

PART 3 EXECUTION

3.1 PREPARATION OF CRACKS

Immediately before the installation of the crack sealant, the cracks shall be thoroughly cleaned to remove oxidized pavement, loose aggregate and foreign debris with compressed air immediately before application of the sealant. The preparation shall be as follows:

3.1.1 Cracks

3.1.1.1 Hairline Cracks

Cracks that are less than 1/4 inch wide do not need to be sealed.

3.1.1.2 Small Cracks

Cracks that are 1/4 to 3/4 inch wide shall be routed to a nominal width 1/8 inch greater than the existing nominal width and to a depth not less than 3/4 inch, and cleaned using compressed air.

3.1.1.3 Medium Cracks

Cracks that are 3/4 to 2 inches wide will not require routing, but shall be cleaned of foreign material to a depth equal to the width of the crack. A compressible backup material shall be inserted along the bottom of cracks exceeding 1" deep; to provide a nominal sealant depth equal to the width of the crack.

3.1.1.4 Large Cracks

Cracks that are greater than 2 inches wide shall be repaired using pothole repair techniques instead of sealing.

3.1.2 Existing Sealant Removal

The in-place sealant shall be cut loose from both crack faces and to a depth of ¾", using a concrete saw or hand tools. Depth shall be sufficient to accommodate any backup material that is required to maintain the depth of new sealant to be installed. Prior to further cleaning operations, all old loose sealant remaining in the crack opening shall be removed by blowing with compressed air.

3.1.3 Routing

Routing of the cracks shall be accomplished using a rotary router with a bit that is at least 1/8 inch wider than the nominal width of the crack to remove

all residual old sealant (resealing), oxidized pavement and any loose aggregate in the crack wall.

3.1.4 Sawing

Sawing of the cracks in concrete shall be accomplished using a power driven concrete saw as specified in paragraph EQUIPMENT. The blade shall be stiffened as necessary with suitable dummy (or used) blades or washers. Immediately following the sawing operation, the crack opening shall be cleaned using a water jet to remove all saw cuttings and debris.

3.1.5 Air Blasting

The crack faces and the pavement surfaces extending a minimum of 1/2 inch from the crack edges shall be sandblasted clean. A multiple-pass technique shall be used until the surfaces are free of dust, dirt, old sealant residue, or foreign debris that might prevent the sealant material from bonding to the asphalt pavement. After final cleaning and immediately prior to sealing, the cracks shall be blown out with compressed air and left completely free of debris and water. The Contractor shall ensure that air blasting does not damage the pavement.

3.1.6 Backup Material

Backup material shall be used on all cracks that have a depth greater than 3/4 inch. The backup material shall be inserted into the lower portion of the crack as shown on the drawings. The Contractor shall ensure that the backup material is placed at the specified depth and is not stretched or twisted during installation.

3.1.7 Rate of Progress of Crack Preparation

The stages of crack preparation which include routing, air blasting of the crack faces, air pressure cleaning and placing of the backup material shall be limited to only that linear footage that can be sealed during the same day.

3.2 PREPARATION OF SEALANT

Hot-poured sealants shall not be heated in excess of the safe heating temperature recommended by the manufacturer as shown on the sealant containers. Sealant that has been overheated or subjected to application temperatures for over 4 hours or that has remained in the applicator at the end of the day's operation shall be withdrawn and wasted.

3.3 INSTALLATION OF SEALANT

3.3.1 Time of Application

Crack sealing material shall be placed within 2 or 3 days of routing. Not more than two miles of roadway (right or left of centerline) shall be closed to traffic in each work repair zone. Only half of the roadway shall be worked on at a time. Cracks shall be sealed immediately following final cleaning of the crack walls and following the placement of the backup material (when required). Cracks that cannot be sealed under the conditions specified, or when rain interrupts sealing operations, shall be recleaned and allowed to dry prior to installing the sealant.

3.3.2 Sealing the Crack

Immediately proceeding, but not more than 50 feet ahead of the crack sealing operations, a final cleaning with compressed air shall be performed. The cracks shall be overfilled with sealant and shall be squeegeed level with the road surface 1" to 3" on each side of the crack vessel, working from the shoulder to the center of the roadway. The squeegee shall be a "U" shaped device with a wiping surface fabricated from neoprene rubber. Other type devices will require prior approval.

Gravity methods or pouring pots shall not be used to install the sealant material.

3.4 CLEANUP

Upon completion of the project, unused materials shall be removed from the site and the pavement shall be left in a clean condition.

3.5 QUALITY CONTROL PROVISIONS

3.5.1 Crack Cleaning

Quality control provisions shall be provided during the crack cleaning process to correct improper equipment and cleaning techniques that damage the bituminous pavement in any manner. Cleaned cracks shall be approved prior to installation of the crack sealant.

3.5.2 Crack Seal Application Equipment

The application equipment shall be inspected to ensure conformance to temperature requirements and proper installation. Evidences of bubbling, improper installing, and failing to cure or set shall be cause to suspend operations until causes of the deficiencies are determined and corrected.

3.5.3 Crack Sealant

The crack sealant shall be inspected for proper cure and set rating, bonding to the bituminous pavement, cohesive separation within the sealant, reversion to liquid, and entrapped air and voids. Sealants exhibiting any of these deficiencies at any time prior to the final acceptance of the project shall be removed from the crack, wasted, and replaced as specified at no additional cost to the Government.

3.6 TRAFFIC CONTROL

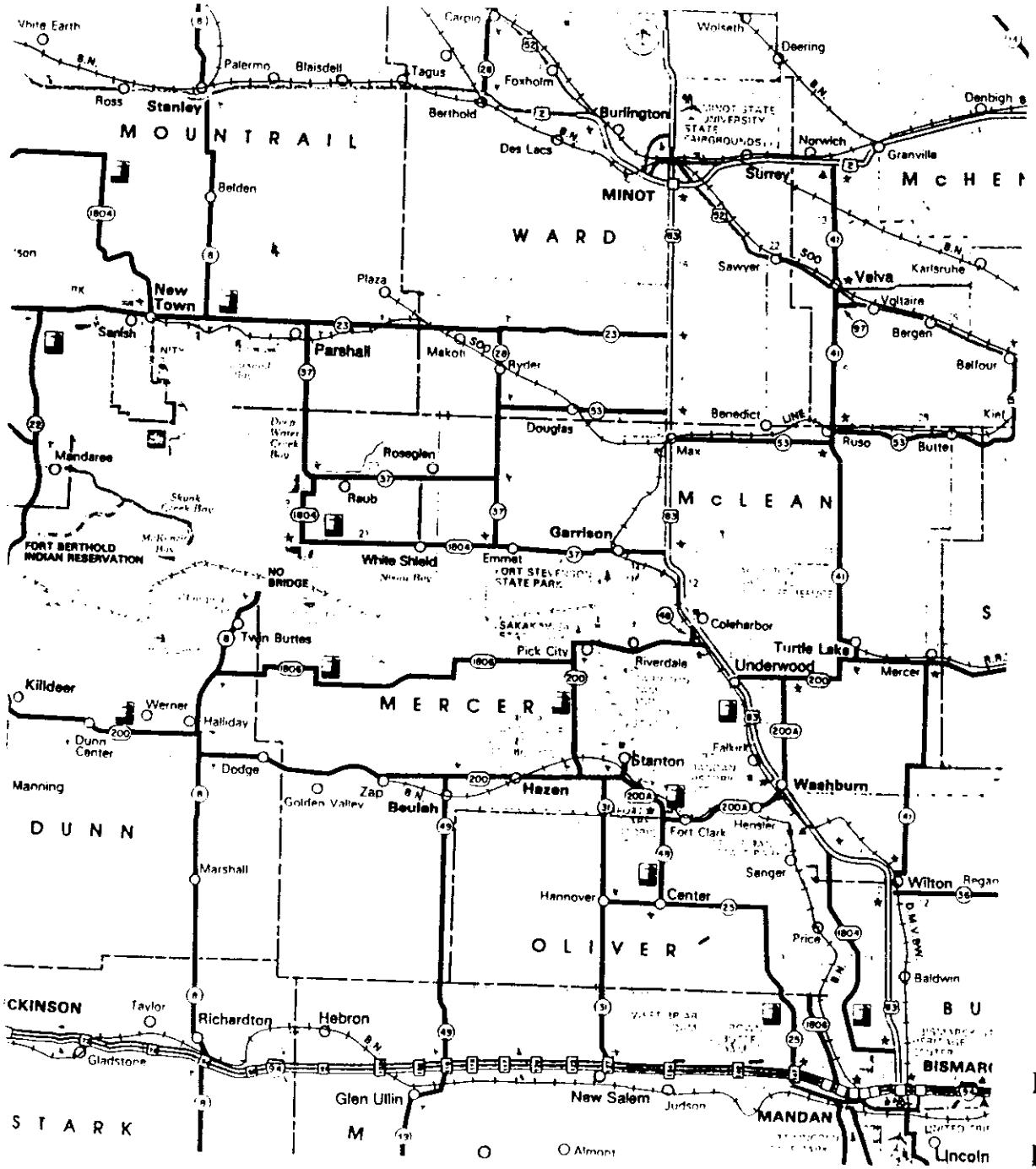
Prior to opening an area to traffic, routed asphalt, concrete, and foreign material resulting from crack preparation shall be removed from the sealant reservoir and the road surface by brooming, compressed air, or other satisfactory methods.

3.6.1 Protection of Work

Traffic shall not be allowed on newly placed sealant until it will no longer track or pick up.

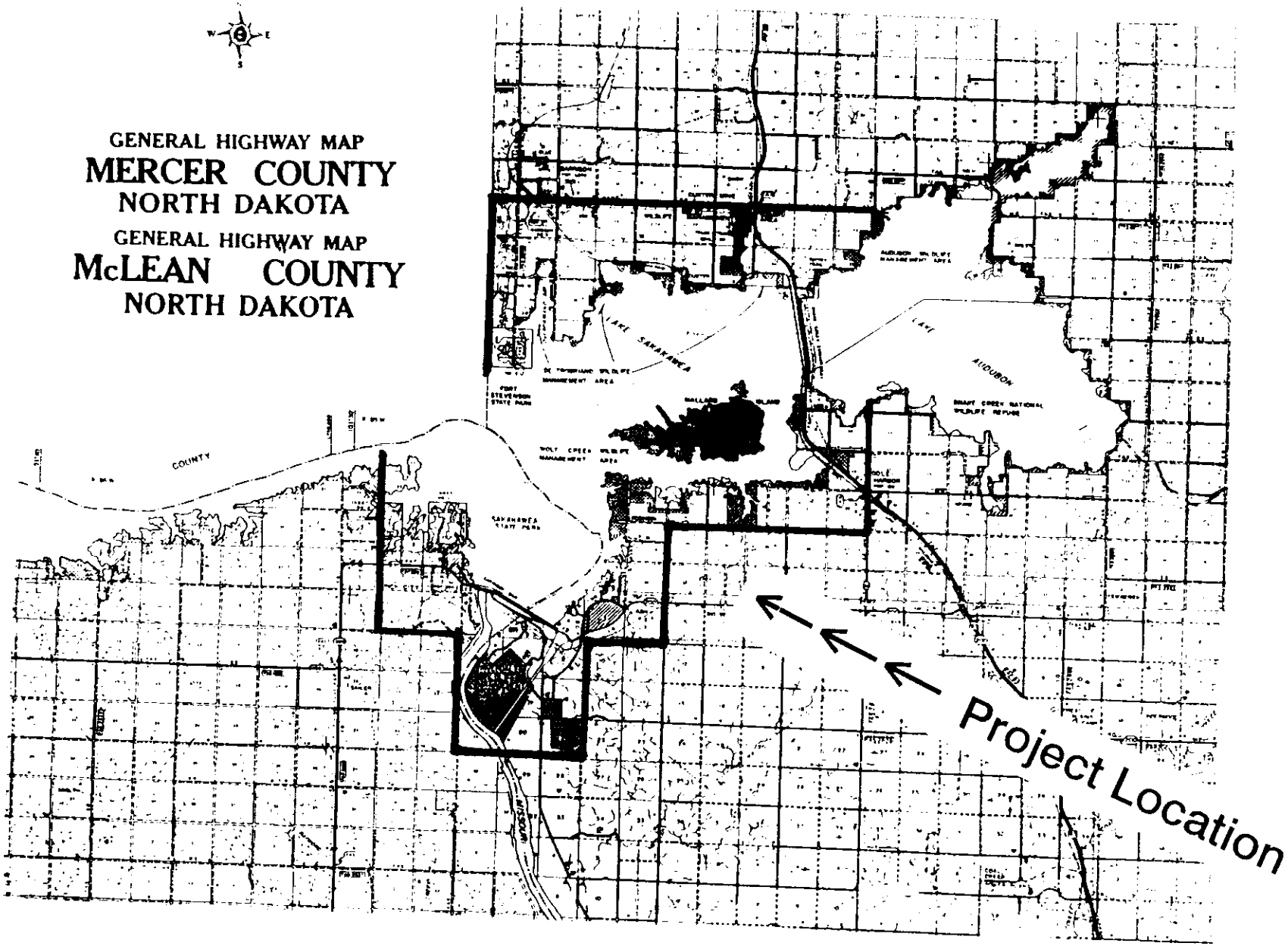
3.6.2 Work Limits

Routing and crack sealing shall be considered as one repair zone. Channelizing devices shall be placed continuously along centerline in the zone to prevent the encroachment of traffic into the closed lane.



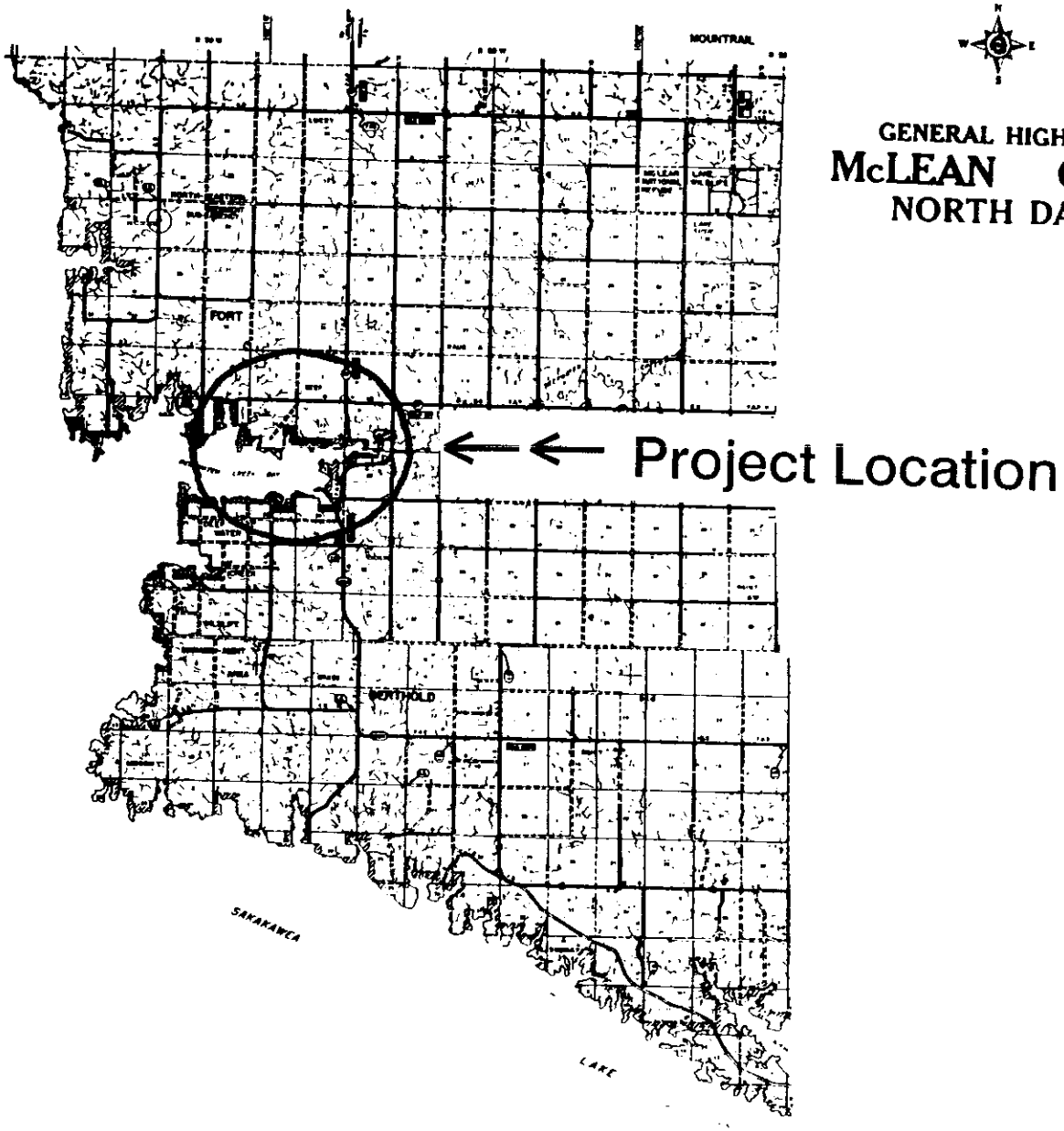
Map 1 of 6

Indefinite Delivery Construction Contract
Garrison Project, US Army Corps of Engineers
Riverdale, ND
Overall Project Locations



Map 2 of 6

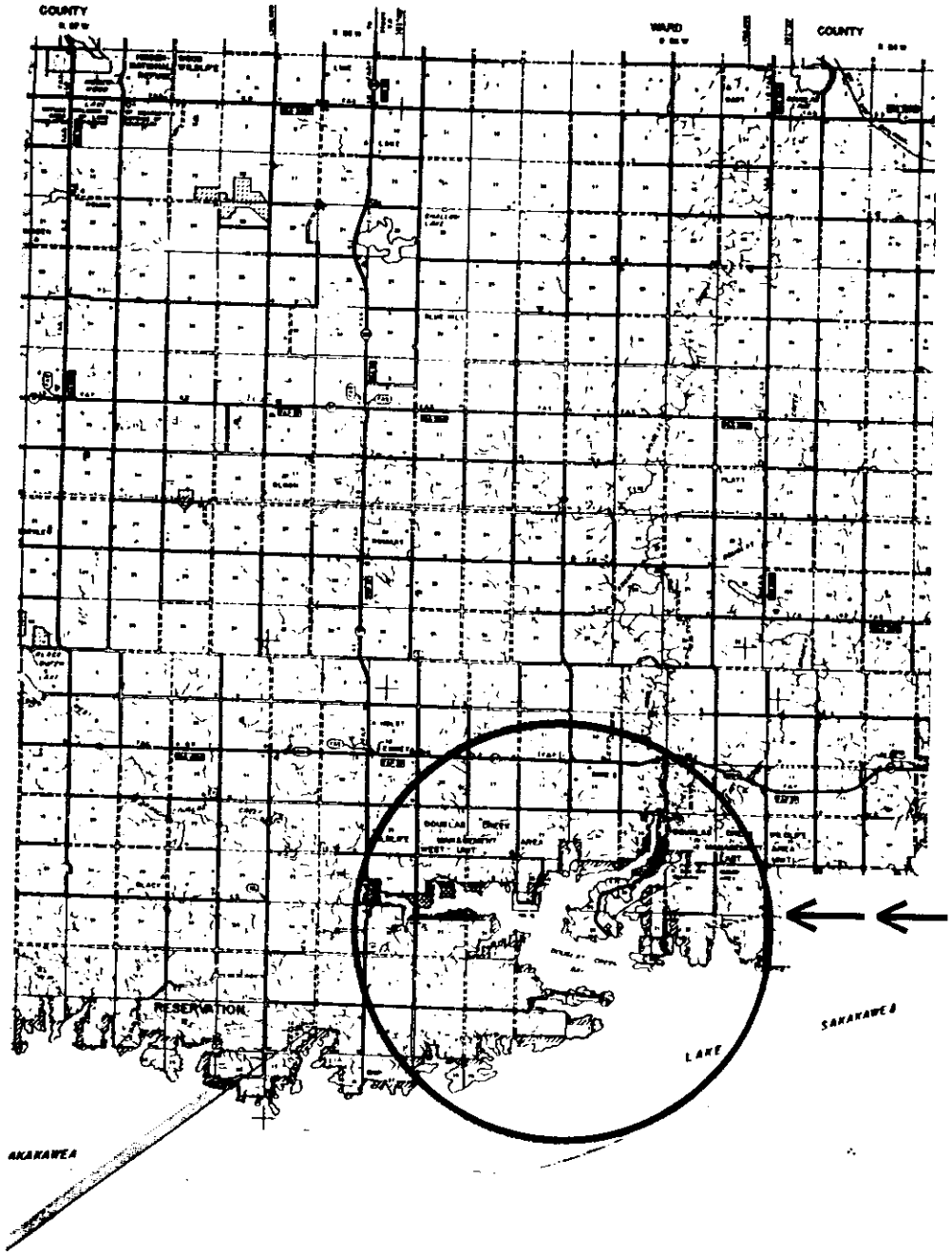
Indefinite Delivery Construction Contract
Garrison Project, US Army Corps of Engineers
Riverdale, ND
Work within a 20 mile radius of Garrison Project,
Garrison Project is located at Riverdale, ND



GENERAL HIGHWAY MAP
McLEAN COUNTY
NORTH DAKOTA

Map 3 of 6

Indefinite Delivery Construction Contract
Garrison Project, US Army Corps of Engineers
Riverdale, ND
Work within a 5 mile radius of Deepwater Recreation Area



GENERAL HIGHWAY MAP

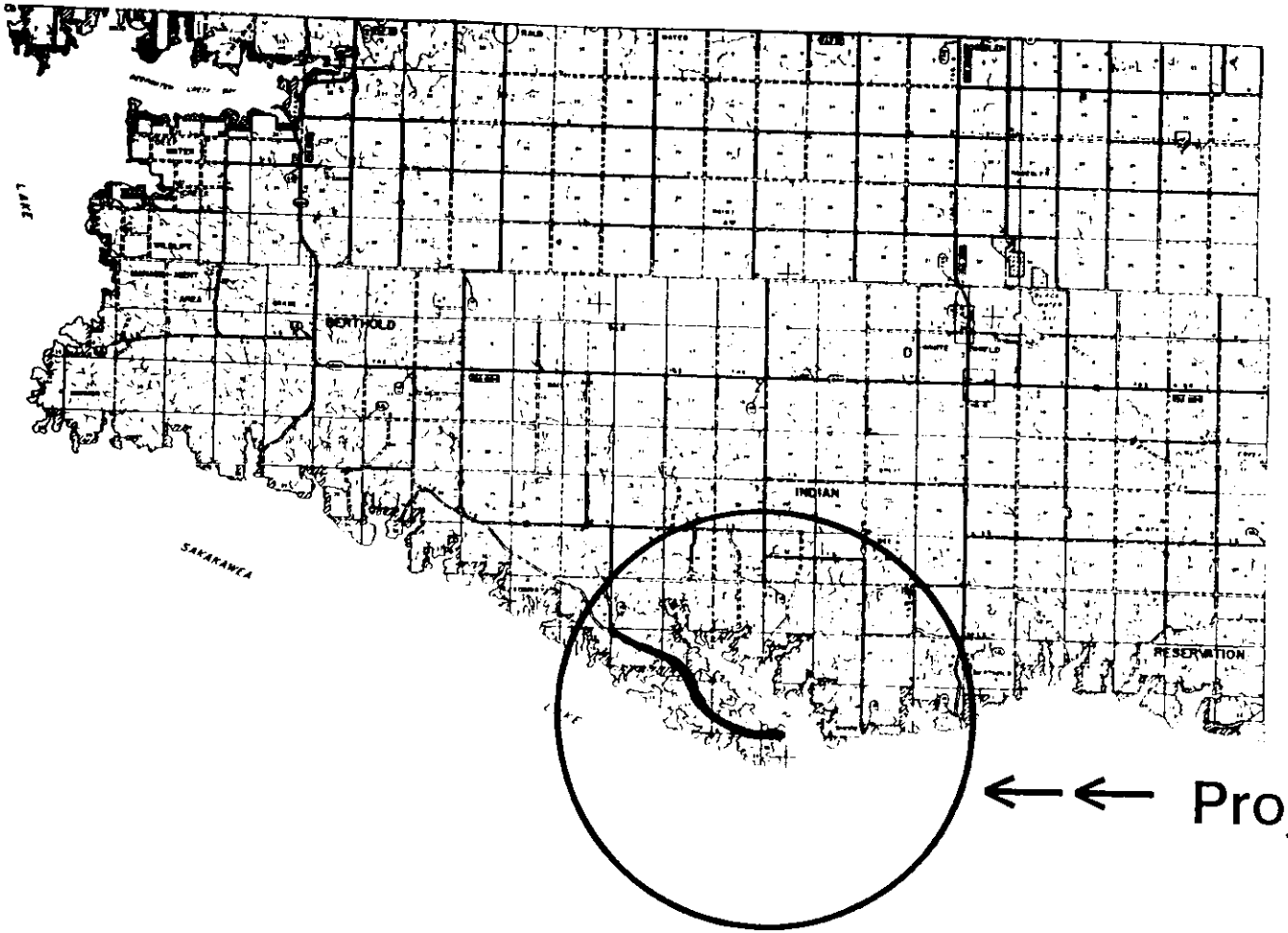
McLEAN COUNTY

NORTH DAKOTA

Project Location

Map 4 of 6

Indefinite Delivery Construction Contract
Garrison Project, US Army Corps of Engineers
Riverdale, ND
Work within a 5 mile radius of Douglas Bay Recreation Area

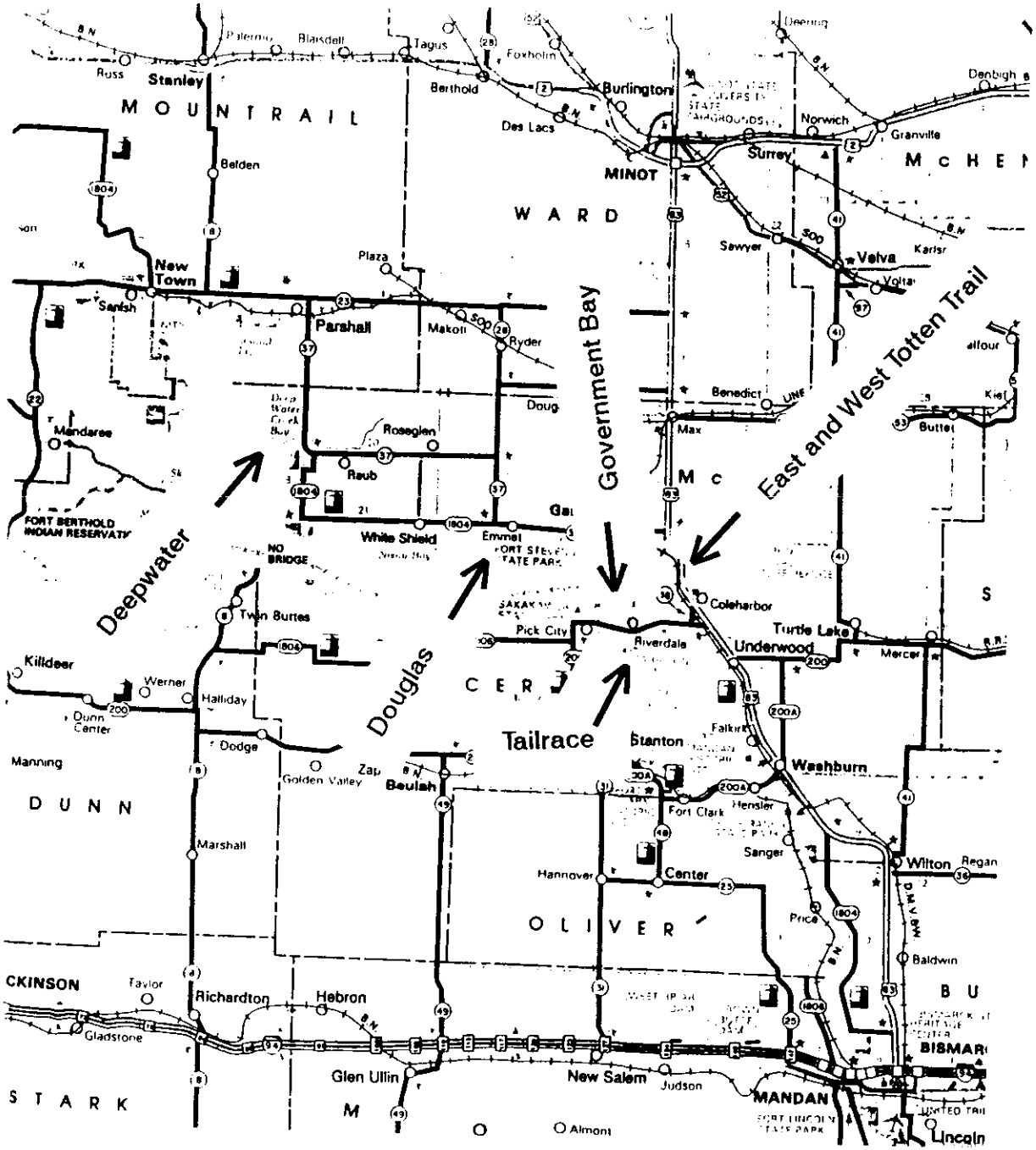


GENERAL HIGHWAY MAP
McLEAN COUNTY
NORTH DAKOTA

Project Location

Map 5 of 6

Indefinite Delivery Construction Contract
Garrison Project, US Army Corps of Engineers
Riverdale, ND
Work within a 5 mile radius of Nishua Bay



Map 6 of 6

Indefinite Delivery Construction Contract
Garrison Project, US Army Corps of Engineers
Riverdale, ND
Various Boat Ramps