

Project Manual

Proposed Watershed Improvements Clear Creek Watershed in Iowa & Johnson Counties Bid Package 5

Iowa County

2021



**CDBG PN 13-NDRI-007
CGA
PN 8725.04**

Project Manual



Proposed Watershed Improvements Clear Creek Watershed in Iowa & Johnson Counties Bid Package 5 Iowa County 2021

I hereby certify that this engineering document was prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.

Mindy M. Bryngelson, P.E.

Iowa License No. 17135

License Renewal Date: 12-31-2021

September 23, 2021

Prepared by
Clapsaddle-Garber Associates, Inc.
Engineers and Land Surveyors

Copyright 2020, Clapsaddle-Garber Associates, Inc.
All Rights Reserved

CGA PN 8725.04

CGA

1523 South Bell Avenue • Suite 101 • Ames, IA 50010
Phone 515-232-1784 • Fax 515-233-5976 • cga@cgaconsultants.com

TABLE OF CONTENTS

Title Page	Page 1
Table of Contents	Page 2

PART I Bid Documents/Contract Forms

Notice of Public Hearing	Page 3
Notice to Bidders	Page 4
Instructions to Bidders	Page 5
Proposal.....	Page 8
Bidder Status Form	Page 13
Bid Bond	Page 14
Contract.....	Page 16
Performance, Payment, and Maintenance Bond	Page 23
Project Insurance Requirements	Page 27

PART II General Provisions and Covenants

SUDAS Division 1 (2020 Edition)	Gray Section
---------------------------------------	--------------

PART III CDBG Provisions

Davis Bacon Wages, Contractor Eligibility, Section 3, Federal Labor Provisions, & Required Contract Provisions.....	Green Section
--	---------------

PART IV Special Provisions

Special Provisions.....	SP-1
-------------------------	------

PART V Supplemental Specifications

Section 1: Earthwork.....	SS-1
Section 2: Piping & Tiling	SS-2
Section 3: Surface Restoration.....	SS-3
Section 4: Description of Bid Items & Basis of Compensation.....	SS-4

PART VI Standard General Specifications

NRCS Construction Specifications	Yellow Section
Check-Out and Certification Forms	Yellow Section

BOUND SEPARATELY Drawings

PART I

Bid Documents / Contract Forms

NOTICE OF PUBLIC HEARING
TO ALL RESIDENTS OF IOWA COUNTY, IOWA, ALL TAXPAYERS OF SAID COUNTY AND ANY INTERESTED PERSONS TO WHOM IT MAY CONCERN:

Notice is hereby given that the Board of Supervisors will conduct a public hearing, in accordance with Section 26.12 of the *Code of Iowa*, in the Johnson County Administration Building Board Room, 913 South Dubuque Street, Iowa City, Johnson County, Iowa **on September 30th, 2021, at 9:00 A.M.**, on the proposed plans, specifications, form of contract, and estimated total cost **for Proposed Watershed Improvements - Clear Creek Watershed (CDBG #13-NDRI-007), located in Iowa Township, Iowa County, Iowa** as per plans and specifications prepared by Clapsaddle-Garber and Associates, Inc., for the Johnson County Board of Supervisors.

Said proposed plans, specifications, form of contract, and estimated total cost for such public improvement, are now on file and may be inspected at the office of the Auditor of said County, which office is in the Johnson County Administration Building, 913 South Dubuque Street, Suite 101, Iowa City, Iowa 52240; at the office of the Clear Creek Watershed Coordinator, at the USDA Iowa City Service Center, 51 Escort Ln. SW, Iowa City, IA 52240; and at the office of the Engineer, at Clapsaddle-Garber Associates, 1523 South Bell Ave., Suite 101, Ames, Iowa 50010. Copies may be downloaded at no charge from www.cgaconsultants.com or a printed copy may be obtained by contacting Beeline + Blue at 2507 Ingersoll Ave., Des Moines, Iowa 50312 or by phone at (515) 244-1611. A \$100 refundable deposit is required for all printed copies. This fee is REFUNDABLE, provided the following conditions are met: 1) The plans and specifications are returned to CGA complete and in good usable condition and 2) they are returned to the above address within fourteen (14) calendar days after the award of the project.

At said hearing any person may appear and make comments about, or present evidence for or against, the said proposed plans, specifications, form of contract for, and estimated total cost of such public improvement. Written comments may also be delivered no later than 24 hours prior to the hearing to the Johnson County Board of Supervisors, 913 South Dubuque St., Suite 201, Iowa City, IA 52240.

Dated at Iowa City, Johnson County, Iowa, this 23rd day of September, 2021.

/s/Travis Weipert
Johnson County Auditor

NOTICE TO BIDDERS

FROM: Clapsaddle-Garber Associates

OWNER: Johnson County, Iowa

**TIME AND PLACE FOR FILING
SEALED PROPOSALS:** October 29, 2021 @ 10:30 AM
Johnson County Administration Building
Auditor's Office
913 South Dubuque Street, Suite 101
Iowa City, IA 52240

**TIME AND PLACE FOR SEALED
PROPOSALS TO BE OPENED
AND READ ALOUD:** October 29, 2021 @ 10:30 AM
Johnson County Administration Building
913 South Dubuque Street
Iowa City, IA 52240

DESCRIPTION OF PROJECT: Proposed Watershed Improvements - Clear Creek Watershed in
Iowa & Johnson Counties – Bid Package 5, Iowa County

Construction of a dry pond, grassed waterway, two rock chutes, and
wetland restoration.

CONTRACT TIME: The work under the contract shall actively commence upon
issuance of the Notice to Proceed and be completed by May 31st,
2022. Absolutely NO EXCEPTIONS to the completion date.

BID SECURITY: Cashier's check, certified check, certified share, or a bid bond
payable to Johnson County, Iowa in the amount of 5% of the total
bid price submitted for one or both divisions.

CONSTRUCTION DOCUMENTS: Plans and Specifications may be downloaded at no charge from
www.cgaconsultants.com or a printed copy may be obtained by
contacting Beeline + Blue at 2507 Ingersoll Ave., Des Moines, Iowa
50312 or by phone at (515) 244-1611. A \$100 refundable deposit is
required for all printed copies.

**ENGINEER'S OPINION OF
PROBABLE CONSTRUCTION
COSTS** Division 20 \$173,520.00

INSTRUCTIONS TO BIDDERS

Project Name: Proposed Watershed Improvements - Clear Creek Watershed in Iowa & Johnson Counties - Bid Package 5, Iowa County

CGA Project No. 8725

The work comprising the above referenced project shall be constructed in accordance with the NRCS Standard Specifications, as further modified by supplemental specifications and special provisions included in the Project Manual. The terms used in the contract revision of the documents are defined in said Standard Specifications. Before submitting your bid, please review the requirements of the General Provisions and Covenants, in particular the sections regarding proposal requirements, bonding, contract execution and insurance requirements. Please be certain that all documents have been completed properly, as failure to complete and sign all documents and to comply with the requirements listed below can cause your bid not to be read. This project must be completed NO LATER than May 31st, 2022.

I. BID SECURITY

The bid security must be in the minimum amount of 5% of the total bid amount including all Divisions bid upon. Bid security shall be in the form of a cashier's check or a certified check, drawn on an FDIC insured bank in Iowa or drawn on an FDIC insured bank chartered under the laws of the United States; or a certified share draft drawn on a credit union in Iowa or chartered under the laws of the United States; or a bid bond executed by a corporation authorized to contract as a surety in Iowa or satisfactory to the County. The bid bond must be submitted on the enclosed Bid Bond form as no other bid bond forms are acceptable. All signatures on the bid bond must be original signatures in ink; facsimile (fax) of any signature on the bid bond is not acceptable. Bid security other than said bid bond shall be made payable to Treasurer, Johnson County, Iowa. "Miscellaneous Bank Checks", and personal checks, as well as "Money Orders" and "Traveler's Checks" issued by persons, firms or corporations licensed under Chapter 533B of the Iowa Code, are not acceptable bid security. One Bid Security shall be submitted that covers all Divisions bid upon. It is not necessary to include a bid security for each division if multiple Divisions are being bid upon.

II. SUBMISSION OF THE PROPOSAL AND IDENTITY OF BIDDER

- A. The proposal shall be sealed in an envelope, properly identified as the Proposal with the project title and the name and address of the bidder, and deposited with the County at or before the time and at the place provided in the Notice to Bidders. It is the sole responsibility of the bidder to see that its proposal is delivered to the County prior to the time for opening bids, along with the appropriate bid security sealed in the separate envelope identified as Bid Security and attached to the outside of the bid proposal envelope. Any proposal received after the scheduled time for the receiving of proposals will be returned to the bidder unopened and will not be considered.

B. The following documents shall be completed, signed and returned in the Proposal envelope. The bid cannot be read if any of these documents are omitted from the Proposal envelope.

1. PROPOSAL – Complete each of the following parts:

- Part B – Acknowledgment of Addenda, if any have been issued;
- Part C – Bid Items, Quantities and Prices
- Part F – Proposal Attachments;

The following documents which are proposal attachments must be completed and attached:

<u>ITEM NO.</u>	<u>DESCRIPTION OF ATTACHMENT</u>
1.	<u>Bidder Status Form</u>
2.	
3.	
4.	
5.	
6.	

- Part G – Identity of Bidder;

Sign the proposal. The signature on the proposal and all proposal attachments must be an original signature in ink signed by the same individual who is the Company Owner or an authorized Officer of the Company; copies or facsimile of any signature will not be accepted. The Bidder Status Form is required by the Iowa Labor Commissioner, pursuant to the Iowa Administrative Code rule 875-156.2(1). The Bidder must complete and submit the Bidder Status Form, signed by an authorized representative of the Bidder, with their bid proposal. Under Iowa Administrative Code rule 875-156.2(1), failure to provide the Bidder Status Form with the bid may result in the bid being deemed non-responsive and may result in the bid being rejected. The Worksheet: Authorized to Transact Business from the Labor Commissioner is including on the following page and can be used to assist Bidders in completing the Bidder Status Form.

This Worksheet is not required to be submitted with the Bid. It is intended to be used to assist the bidder in completing the Bidder Status Form.

Worksheet: Authorization to Transact Business

This worksheet may be used to help complete Part A of the Resident Bidder Status form. If at least one of the following describes your business, you are authorized to transact business in Iowa.

- ☐ Yes ☐ No My business is currently registered as a contractor with the Iowa Division of Labor.
- ☐ Yes ☐ No My business is a sole proprietorship and I am an Iowa resident for Iowa income tax purposes.
- ☐ Yes ☐ No My business is a general partnership or joint venture. More than 50 percent of the general partners or joint venture parties are residents of Iowa for Iowa income tax purposes.
- ☐ Yes ☐ No My business is an active corporation with the Iowa Secretary of State and has paid all fees required by the Secretary of State, has filed its most recent biennial report, and has not filed articles of dissolution.
- ☐ Yes ☐ No My business is a corporation whose articles of incorporation are filed in a state other than Iowa, the corporation has received a certificate of authority from the Iowa Secretary of State, has filed its most recent biennial report with the Secretary of State, and has neither received a certificate of withdrawal from the Secretary of state nor had its authority revoked.
- ☐ Yes ☐ No My business is a limited liability partnership which has filed a statement of qualification in this state and the statement has not been canceled.
- ☐ Yes ☐ No My business is a limited liability partnership which has filed a statement of qualification in a state other than Iowa, has filed a statement of foreign qualification in Iowa and a statement of cancellation has not been filed.
- ☐ Yes ☐ No My business is a limited partnership or limited liability limited partnership which has filed a certificate of limited partnership in this state, and has not filed a statement of termination.
- ☐ Yes ☐ No My business is a limited partnership or a limited liability limited partnership whose certificate of limited partnership is filed in a state other than Iowa, the limited partnership or limited liability limited partnership has received notification from the Iowa Secretary of state that the application for certificate of authority has been approved and no notice of cancellation has been filed by the limited partnership or the limited liability limited partnership.
- ☐ Yes ☐ No My business is a limited liability company whose certificate of organization is filed in Iowa and has not filed a statement of termination.
- ☐ Yes ☐ No My business is a limited liability company whose certificate of organization is filed in a state other than Iowa, has received a certificate of authority to transact business in Iowa and the certificate has not been revoked or canceled.

The following documents must be submitted as printed. No alterations, additions, or deletions are permitted. If the Bidder notes a requirement in the contract documents which the Bidder believes will require a conditioned or unsolicited alternate bid, the Bidder must immediately notify the Engineer in writing. The Engineer will issue any necessary interpretation by an addendum.

TO: Johnson County, Iowa

PROPOSAL

PROPOSAL: PART A – SCOPE

Johnson County, Iowa, hereinafter called the “Jurisdiction”, has need of a qualified contractor to complete the work comprising the below referenced improvement. The undersigned Bidder hereby proposes to complete the work comprising the below referenced improvement as specified in the contract documents, which are officially on file with the Jurisdiction, in the office of the Auditor, Johnson County, Iowa, at the prices hereinafter provided in Part C of the Proposal, for the following described improvements:

PROJECT DESCRIPTION:

**Proposed Watershed Improvements - Clear Creek Watershed in Iowa County
Bid Package 5, Iowa County**

PROPOSAL: PART B – ACKNOWLEDGMENT OF ADDENDA

The Bidder hereby acknowledges that all addenda become a part of the contract documents when issued, and that each such addendum has been received and utilized in the preparation of this bid. The Bidder hereby acknowledges receipt of the following addenda by inserting the number of each addendum in the blanks below:

ADDENDUM NUMBER _____ ADDENDUM NUMBER _____
ADDENDUM NUMBER _____ ADDENDUM NUMBER _____

And certifies that said addenda were utilized in the preparation of this bid.

PROPOSAL: PART C – BID ITEMS, QUANTITIES AND PRICES

Proposed Watershed Improvements - Clear Creek Watershed in Iowa & Johnson Counties Bid Package 5, Iowa County

UNIT BID PRICE CONTRACTS:

The Bidder must provide the Unit Bid Price, the Total Bid Price, and the Total Construction Costs on the Proposal Form. In case of discrepancy, the Unit Bid Price governs. The quantities shown on the Proposal Form are approximate only, but are considered sufficiently adequate for the purpose of comparing bids.

Division 20

CC-113 to CC-114 (Rath), CC-115 (Stramaglia), CC-116 to CC-117 (Boyle), CC-152 (O'Donnell)

Item No.	Description	Units	Estimated Quantity	Unit Price	Total Price
20.01	Clearing and Grubbing	AC	1.30		
20.02	Topsoil Strip, Salvage and Re-Spread	CY	970.00		
20.03	Grassed Waterway, 25' to 40' Wide	LS	515.00		
20.04	Excavation, Class 13	CY	585.00		
20.05	Excavation, Fringe Wetlands	CY	750.00		
20.06	Excavation, Core Trench	CY	200.00		
20.07	Earthfill, Dams/Terraces/Basins	CY	1,565.00		
20.08	Excavation, Hauling	CY	910.00		
20.09	4" Tile Relocation	LF	75.00		
20.10	HDPE Pipe, Dual Wall, 24"	LF	40.00		
20.11	CMP, 12"	LF	100.00		
20.12	CMP, 24"	LF	135.00		
20.13	Revetment Stone, 6+12-	TON	132.00		
20.14	Fertilizing, Seeding, & Mulching, Type I	LS	1.00		
20.15	Temporary Seeding, Type II	Acre	1.00		
20.16	Seeding & Mulching for Wetlands, Type III	LS	1.00		
20.17	Seeding & Mulching, Type IV Stramaglia Upland Mix	LS	1.00		
20.18	Seeding & Mulching, Type V Stramaglia Wetland Mix	LS	1.00		
20.19	Seeding & Mulching, Type VI O'Donnell Native Seed	LS	1.00		
20.20	Fertilizing, Seeding, & Mulching, Type VII Fine Leaf Fescue Mix	LS	1.00		
20.21	Fertilizing, Seeding, & Mulching, Type VIII Boyle	LS	1.00		
20.22	Geotextile Fabric Check (CC-152)	LF	80.00		
20.23	Erosion Control, Silt Fence	LF	730.00		
20.24	Erosion Control, (RECP)	SQ	96.00		
20.25	Mobilization	EA	5.00		
DIVISION 20 PRICE =					

PROPOSAL: PART D – GENERAL

The Bidder hereby acknowledges that the Jurisdiction, in advertising for public bids for this project reserves the right to:

1. Reject any or all bids. Award of the contract, if any, to be to the lowest responsible, responsive bidder; and
2. Reject any or all alternates in determining the items to be included in the contract. Designation of the lowest responsible, responsive bidder to be based on comparison of the total bid; and
3. Make such alterations in the contract documents or in the proposal quantities as it determines necessary in accordance with the contract documents after execution of the contract. Such alterations shall not be considered a waiver of any conditions of the contract documents, and shall not invalidate any of the provisions thereof; and

The Bidder hereby agrees to:

1. Enter into a contract, if this proposal is selected, in the form approved by the Jurisdiction, provide proof of registration with the Iowa Division of Labor in accordance with Chapter 91C of the Iowa Code, and furnish a performance, maintenance, and payment bond; and insurance certificate; and
2. Forfeit bid security, not as a penalty but as liquidated damages, upon failure to enter into such contract and/or to furnish said bond; and
3. Commence the work on this project on or before a date to be specified in a written notice to proceed by the Jurisdiction, and to fully complete the project on or before the date specified in the Notice to Bidders.
4. To pay the Jurisdiction as fixed and liquidated damages One Hundred dollars (\$100) for each and every calendar day elapsing after the specified completion date and before actual completion of the work to a degree acceptable to the Jurisdiction and the Engineer.
5. To reimburse the Jurisdiction, by a reduction of the final payment due the Contractor, an amount equal to the charges made for engineering services incurred because of continuance of the work beyond the specified completion date.

PROPOSAL: PART E – NON-COLLUSION AFFIDAVIT

The Bidder hereby certifies:

1. That this proposal is not affected by, contingent on, or dependent on any other proposal submitted for any improvement with the Jurisdiction; and
2. That no individual employed by the Bidder has employed any person to solicit or procure the work on this project, nor will any employee of the Bidder make any payment or agreement for payment of any compensation in connection with the procurement of this project; and
3. That no part of the bid price received by the Bidder was or will be paid to any person, corporation, firm, association, or other organization for soliciting the bid, other than the payment of their normal compensation to persons regularly employed by the Bidder whose services in connection with the construction of the project were in the regular course of their duties for the Bidder; and

4. That this proposal is genuine and not collusive or sham; that the Bidder has not colluded, conspired, connived or agreed, directly or indirectly, with any bidder or person, to submit a sham bid or to refrain from bidding, and has not in any manner, directly or indirectly, sought, by agreement or collusion, or communication or conference, with any person, to fix the bid price of the Bidder or of any other bidder, and that all statements in this proposal are true; and
5. That the individual(s) executing this proposal have the authority to execute this proposal on behalf of the Bidder.

PROPOSAL: PART F – PROPOSAL ATTACHMENTS

The Bidder shall complete and include the following attachments as part of this proposal:

<u>ITEM NO.</u>	<u>DESCRIPTION OF ATTACHMENT</u>
1.	<u>Bidder Status Form</u>
2.	_____
3.	_____
4.	_____
5.	_____
6.	_____

PROPOSAL: PART G – IDENTITY OF BIDDER

The Bidder shall indicate whether the bid is submitted by a/an:

- ☐ Individual,
Sole Proprietorship
- ☐ Partnership
- ☐ Corporation
- ☐ Limited Liability Company
- ☐ Joint-venture: all parties must join-in and
execute all documents
- ☐ Other

The Bidder shall enter its Public Registration
Number _____ - _____ issued
By the Iowa Commissioner of Labor Pursuant
Section 91C.5 of the Iowa Code.

Failure to provide said Registration Number
shall result in the bid being read under
advisement. A contract will not be executed
until the Contractor is registered.

Bidder

Signature

By _____
Name (Print/Type)

Title

Street Address

City, State, Zip Code

Telephone Number

**Type or print the name and title of the company's
owner, president, CEO, etc. if a different person
than entered above**

Name

Title

**NOTE: The signature on this proposal must be an original signature in ink; copies or facsimile
of any signature will not be accepted.**

All bidders must submit the following completed form to the governmental body requesting bids per 875 Iowa Administrative Code Chapter 156.

BIDDER STATUS FORM

To be completed by all bidders

Part A

Please answer "Yes" or "No" for each of the following:

☐ Yes ☐ No My company is authorized to transact business in Iowa.

(To help you determine if your company is authorized, please review the worksheet on the next page).

☐ Yes ☐ No My company has an office to transact business in Iowa.

☐ Yes ☐ No My company's office in Iowa is suitable for more than receiving mail, telephone calls, and e-mail.

☐ Yes ☐ No My company has been conducting business in Iowa for at least 3 years prior to the first request for bids on this project.

☐ Yes ☐ No My company is not a subsidiary of another business entity or my company is a subsidiary of another business entity that would qualify as a resident bidder in Iowa.

If you answered "Yes" for each question above, your company qualifies as a resident bidder. Please complete Parts B and D of this form.

If you answered "No" to one or more questions above, your company is a non-resident bidder. Please complete Parts C and D of this form.

To be completed by resident bidders

Part B

My company has maintained offices in Iowa during the past 3 years at the following addresses:

Dates: _____ to _____ Address: _____
(mm/dd/yyyy) City, State, Zip: _____

Dates: _____ to _____ Address: _____
(mm/dd/yyyy) City, State, Zip: _____

Dates: _____ to _____ Address: _____
(mm/dd/yyyy) City, State, Zip: _____

You may attach additional sheet(s) if needed.

To be completed by non-resident bidders

Part C

1. Name of home state or foreign country reported to the Iowa Secretary of State:

2. Does your company's home state or foreign country offer preferences to bidders who are residents? ☐ Yes ☐ No

3. If you answered "Yes" to question 2, identify each preference offered by your company's home state or foreign country and the appropriate legal citation.

You may attach additional sheet(s) if needed.

To be completed by all bidders

Part D

I certify that the statements made on this document are true and complete to the best of my knowledge and I know that my failure to provide accurate and truthful information may be a reason to reject my bid.

Firm Name: _____

Signature: _____ Date: _____

BID BOND

KNOW ALL BY THESE PRESENTS:

That we, _____, as Principal, and _____, as Surety, are held and firmly bound unto Johnson County, as Oblige, (hereinafter referred to as “the Jurisdiction”), in the penal sum of _____ dollars (\$ _____), or _____ percent of the amount bid in lawful money of the United States, for which payment said Principal and Surety bind themselves, their heirs, executors, administrators, successors, and assigns jointly and severally, firmly by these presents.

The condition of the above obligation is such that whereas the Principal has submitted to the Jurisdiction a certain proposal, in a separate envelope, and hereby made a part hereof, to enter into a contract in writing, for the following described improvements;

Proposed Watershed Improvements - Clear Creek Watershed in Iowa & Johnson Counties Bid Package 5, Iowa County

The Surety hereby stipulates and agrees that the obligations of said Surety and its bond shall be in no way impaired or affected by any extension of the time within which the Jurisdiction may accept such bid or execute such Contract; and said Surety does hereby waive notice of any such extension.

In the event that any actions or proceedings are initiated with respect to this Bond, the parties agree that the venue thereof shall be Johnson County, State of Iowa. If legal action is required by the Jurisdiction against the Surety or Principal to enforce the provisions of the bond or to collect the monetary obligation incurring to the benefit of the Jurisdiction, the Surety or Principal agrees to pay the Jurisdiction all damages, costs, and attorney fees incurred by enforcing any of the provisions of this Bond. All rights, powers, and remedies of the Jurisdiction hereunder shall be cumulative and not alternative and shall be in addition to all rights, powers and remedies given to the Jurisdiction, by law. The Jurisdiction may proceed against Surety for any amount guaranteed hereunder whether action is brought against Principal or whether Principal is joined in any such action or actions or not.

NOW, THEREFORE, if said proposal by the Principal be accepted, and the Principal shall enter into a contract with Jurisdiction in accordance with the terms of such proposal, including the provision of insurance and of a bond as may be specified in the contract documents, with good and sufficient surety for the faithful performance of such contract, for the prompt payment of labor and material furnished in the prosecution thereof, and for the maintenance of said improvements as may be required therein, then this obligation shall become null and void; otherwise, the Principal shall pay to the Jurisdiction the full amount of the bid bond, together with court costs, attorney’s fees, and any other expense of recovery.

Signed and sealed this _____ day of _____, 20_____.

SURETY:

By _____
Surety Company

Signature Attorney-in-Fact/Officer

Name of Attorney-in-Fact/Officer

Company Name

Company Address

City, State, Zip Code

Company Telephone Number

PRINCIPAL:

By _____
Bidder

Signature

Name (Print/Type)

Title

Address

City, State, Zip Code

Telephone Number

NOTE: All signatures on this bid bond must be original signatures in ink; copies or facsimile of any signature will not be accepted. This bond must be sealed with the Surety's raised, embossing seal. The Certificate or Power of Attorney accompanying this bond must be valid on its face and sealed with the Surety's raised, embossing seal.

CONTRACT

THIS CONTRACT, made and entered into at _____ this day _____ of _____, 2021, by and between Johnson County hereinafter called the "Jurisdiction", and _____, hereinafter called the "Contractor".

WITNESSETH:

The Contractor hereby agrees to complete the work comprising the below referenced improvement as specified in the contract documents, which are officially on file with the Jurisdiction, in the office of the Auditor of Johnson County, Iowa. This contract includes all contract documents. The work under this contract shall be constructed in accordance with the NRCS Standard Construction Specifications and as further modified by the supplemental specifications, special provisions and additional requirements. The Contractor further agrees to complete the work in strict accordance with said contract documents, and to guarantee the work as required by law, for the time required in said contract documents, after its acceptance by the Jurisdiction.

This contract is awarded and executed for completion of the work specified in the contract documents for the bid prices proposed by the Contractor in its proposal form submitted in accordance with the Notice to Bidders and Notice of Public Hearing for the following described improvements:

Proposed Watershed Improvements - Clear Creek Watershed in Iowa & Johnson Counties Bid Package 5, Iowa County

The Contractor agrees to perform said work for and in consideration of the Jurisdiction's payment of the bid amount of _____ dollars (\$_____) which amount shall constitute the required amount of the performance, maintenance, and payment bond. The Contractor hereby agrees to commence work under this contract on or before a date to be specified in a written notice to proceed by the Jurisdiction and to fully complete the project within the time period provided in the Notice to Bidders, subject to the stipulated damages and costs thereafter.

All project contracts shall contain at a minimum the following provisions, as appropriate.

ALL CONTRACTS

1. Access and Maintenance of Records

The contractor must maintain all required records for five years after final payments are made and all other pending matters are closed.

At any time during normal business hours and as frequently as is deemed necessary, the contractor shall make available to the Iowa Economic Development Authority, the State Auditor, the General Accounting Office, and the Department of Housing and Urban Development, for their examination, all of its records pertaining to all matters covered by this contract and permit these agencies to audit, examine, make excerpts or transcripts from such records, contract, invoices, payrolls, personnel records, conditions of employment, and all other matters covered by this contract.

2. Civil Rights

The Contractor must comply with the following laws and regulations:

- Title VI of the Civil Rights Act of 1964 (P.L. 88-352).
States that no person may be excluded from participation in, denied the benefits of, or subjected to discrimination under any program or activity receiving Federal financial assistance on the basis of race, color, or national origin.
- Title VIII of the Civil Rights Act of 1968 (Fair Housing Act), as amended.
- Federal Executive Order 11063, as amended by Executive Order 12259
Equal Opportunity Housing
- Iowa Civil Rights Act of 1965.
This Act mirrors the Federal Civil Rights Act.
- Section 109 of Title I of the Housing and Community Development Act of 1974, as amended (42 U.S.C. 5309).
Provides that no person shall be excluded from participation in, denied the benefits of, or subjected to discrimination on the basis of race, color, national origin, sex, age, or handicap under any program or activity funded in part or in whole under Title I of the Act.
- The Age Discrimination Act of 1975, as amended (42 U.S.C. 1601 et seq.)
Provides that no person on the basis of age, be excluded from participation in, be denied the benefits of or be subjected to discrimination under any program or activity receiving Federal financial assistance.
- Section 504 of the Rehabilitation Act of 1973, as amended (P.L. 93-112, 29 U.S.C. 794).
Provides that no otherwise qualified individual shall solely by reason of his/her handicap be excluded from participation in, be denied the benefits of, or be discriminated against under any program or activity receiving Federal financial assistance.
- Americans with Disabilities Act (P.L. 101-336, 42 U.S.C. 12101-12213)
Provides comprehensive civil rights to individuals with disabilities in the areas of employment, public accommodations, state and local government services, and telecommunications.
- Section 3 of the Housing and Urban Development Act of 1968, as amended (12 U.S.C. 1701u).
The purpose of section 3 of the Housing and Urban Development [Act](#) of 1968 ([12 U.S.C. 1701u](#)) (section 3) is to ensure that employment and other economic opportunities generated by certain HUD financial assistance shall, to the greatest extent feasible, and consistent with existing Federal, [State](#) and local laws and regulations, be directed to low- and very low-income persons, particularly those who are [recipients](#) of government assistance for housing, and to [business concerns](#) which provide economic opportunities to low- and very low-income persons.

3. Termination Clause

The Jurisdiction reserves the right to Terminate the Contract at any time for the following conditions:

1. Termination for Cause:
 - a. If, through any cause, the Contractor shall fail to fulfill in a timely and proper manner his obligations under this contract, or if the Contractor shall violate any of the covenants, agreements, or stipulations of this contract, the Jurisdiction shall thereupon have the right to terminate this contract by giving written notice to the Contractor of such termination and specifying the effective date thereof, at least five (5) days before the effective date of such termination. In such event, all finished or unfinished work completed by the Contractor under this contract, including stockpiled materials, shall become the Jurisdiction's property and the Contractor shall be entitled to receive just and equitable compensation for any work satisfactorily completed hereunder measured as described in Parts V and VI of the Project Manual. Notwithstanding the above, the Contractor shall not be relieved of liability to the Jurisdiction for damages sustained by the Jurisdiction or land owner by virtue of any breach of the contract by the Contractor, and the Jurisdiction may withhold any payments to the Contractor for the purpose of set-off until such time as the exact amount of damages due the Jurisdiction from the Contractor is determined.
2. Termination for Convenience:
 - a. The Jurisdiction may terminate this contract at any time by giving at least ten (10) days' notice in writing to the Contractor if funding for this project is terminated and no other funding is available for continuation. If the contract is terminated by the Jurisdiction as provided herein, the Contractor will be paid for all satisfactorily completed work, partially completed work, and, at the option of the Jurisdiction, stockpiled materials measured as described in Parts V and VI of the Project Manual.

4. Certification regarding government-wide restriction on lobbying.

All contracts utilizing CDBG funds must contain the following certification concerning restriction of lobbying:

"The Recipient certifies, to the best of his or her knowledge and belief, that:

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

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

5. Lead-Safe Housing Regulations (As applicable)

24 CFR Part 35 et. al.

Requirements for Notification, Evaluation and Reduction of Lead-Based Paint Hazards in Federally Owned Residential Properties and Housing Receiving Federal Assistance, Final Rule

ALL CONTRACTS IN EXCESS OF \$10,000

1. COMPREHENSIVE PROCUREMENT GUIDELINE: RECOVERED MATERIALS

“The contractor agrees to comply with all the requirements of Section 6002 of the Resource Conservation and Recovery Act (RCRA), as amended (42 U.S.C. 6962), including but not limited to the regulatory provisions of 40 CFR Part 247, and Executive Order 12873, as they apply to the procurement of the items designated in Subpart B of 40 CFR Part 247.”

2. Federal Executive Orders 11246 and 11375:

Provides that no one be discriminated in employment.

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

- (1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.
- (2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.
- (3) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer, advising the labor union or workers' representative of the contractor's commitments under Section 202 of the Executive Order No. 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- (4) The contractor will comply with all provisions of Executive Order No. 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- (5) The contractor will furnish all information and reports required by Executive Order No. 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
- (6) In the event of the contractor's non-compliance with the nondiscrimination clause of this contract or with any of such rules, regulations, or orders, this contract may be canceled, terminated or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order No. 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order No. 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- (7) The contractor will include the provisions of Paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order No. 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such

action with respect to any subcontract or purchase order as the contracting agency may direct as a means of enforcing such provisions including sanctions for noncompliance: Provided, however, that in the event the contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the contracting agency, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

ALL CONTRACTS IN EXCESS OF \$100,000

Clean Air and Water Acts:

- Section 306 of the Clean Air Acts (42 U.S.C. 1857(h)).
- Section 508 of the Clean Water Act (33 U.S.C. 1368).
- Executive Order 11738. *Providing administration of the Clean Air and Water Acts*

Clean Air and Water Acts - required clauses:

This clause is required in all third-party contracts involving projects subject to the Clean Air Act (42 U.S.C. 1857 et seq.), the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.), and the regulations of the Environmental Protection Agency with respect to 40 CFR Part 15, as amended. It should also be mentioned in the bid document.

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

- (1) The CONTRACTOR will certify that any facility to be utilized in the performance of any nonexempt contract or subcontract is not listed on the Excluded Party Listing System pursuant to 40 CFR 32.
- (2) The CONTRACTOR agrees to comply with all the requirements of Section 114 of the Clean Air Act, as amended, (42 U.S.C. 1857c-8) and Section 308 of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1318) relating to inspection, monitoring, entry, reports, and information, as well as all other requirements specified in said Section 114 and Section 308, and all regulations and guidelines issued thereunder.
- (3) The CONTRACTOR agrees that as a condition for the award of the contract, prompt notice will be given of any notification received from the Director, Office of Federal Activities, Environmental Protection Agency, indicating that a facility utilized or to be utilized for the contract is under consideration to be listed on the Excluded Party Listing System.
- (4) The CONTRACTOR agrees that it will include or cause to be included the criteria and requirements in Paragraph (1) through (4) of this section in every nonexempt subcontract and require every subcontractor to take such action as the Government may direct as a means of enforcing such provisions.

ALL CONSTRUCTION CONTRACTS IN EXCESS OF \$2,000

Federal Labor Standards

In addition to the preceding provisions, all construction contracts in excess of \$2,000 must include the Federal Labor Standards Provisions (verbatim) found in Appendix 2 under Required Contract Provisions. (Housing rehabilitation contracts of less than 8 units are excluded from this requirement.)

Federal Labor Standards Provisions (verbatim) found in Appendix 2, including:

- Davis-Bacon and Related Acts
- Contract Work Hours and Safety Standard Act
- Copeland Anti-kickback Act

IN WITNESS WHEREOF, OWNER and CONTRACTOR have executed five (5) copies of this Agreement on the date first shown written.

OWNER

Name: Johnson County
Address: 913 S Dubuque St.
Iowa City, Iowa 52240

CONTRACTOR

Name: _____
Address: _____

By: _____
Signature

Title of Representative

By: _____
Signature

Title of Representative

ATTEST

By: _____
Signature

Title

ATTEST

By: _____
Signature

Title

CONTRACTOR PUBLIC REGISTRATION INFORMATION To Be Provided By:

1. All Contractors: The Contractor shall enter its Public Registration Number ____ - ____ issued by the Iowa Commissioner of Labor pursuant to Section 91C.5 of the Iowa Code.
2. Out-of-State Contractors:
 - A. Pursuant to Section 91C.7 of the Iowa Code, an out-of-state contractor, before commencing a contract in excess of five thousand dollars in value in Iowa, shall file a bond with the division of labor services of the department of workforce development. It is the contractor's responsibility to comply with said Section 91C.7 before commencing this work.
 - B. Prior to entering into contract, the designated low bidder, if it is a corporation organized under the laws of a state other than Iowa, shall file with the Engineer a certificate from the Secretary of the State of Iowa showing that it has complied with all the provisions of Chapter 490 of the Iowa Code, or as amended, governing foreign corporations.

NOTE: All signatures on this contract must be original signatures in ink; copies, facsimile, or electronic signatures will not be accepted.

SURETY BOND NO. _____

PERFORMANCE, PAYMENT, AND MAINTENANCE BOND

KNOW ALL BY THESE PRESENTS:

That we, _____, as Principal (hereinafter the “Contractor” or “Principal”) and _____, as Surety are held and firmly bound unto Johnson County, Iowa, as Oblige (hereinafter referred to as “the Jurisdiction”), and to all persons who may be injured by any breach of any of the conditions of this Bond in the penal sum of _____ DOLLARS (\$ _____), lawful money of the United States, for the payment of which sum, well and truly to be made, we bind ourselves, our heirs, legal representatives and assigns, jointly or severally, firmly by these presents.

The conditions of the above obligations are such that whereas said Contractor entered into a contract with the Jurisdiction, bearing date the _____ day of _____, 20____, (hereinafter the “Contract”) wherein said Contractor undertakes and agrees to construct the following described improvements:

**Proposed Watershed Improvements - Clear Creek Watershed in Iowa & Johnson Counties
Bid Package 5, Iowa County**

And to faithfully perform all the terms and requirements of said Contract within the time therein specified, in a good and workmanlike manner, and in accordance with the Contract Documents. Provided, however, that one year after the date of acceptance as complete of the work under the above referenced Contract, the maintenance portion of this Bond shall continue in force but the penal sum for maintenance shall be reduced to the sum of _____ DOLLARS (\$ _____) which is the cost associated with those items shown on the proposal and in the Contract which require a maintenance bond period in excess of one year.

It is expressly understood and agreed by the Contractor and Surety in this bond that the following provisions are a part of this Bond and are binding upon said Contractor and Surety, to-wit:

1. **PERFORMANCE:** The Contractor shall well and faithfully observe, perform, fulfill and abide by each and every covenant, condition and part of said Contract and Contract Documents, by reference made a part hereof, for the above referenced improvements, and shall indemnify and save harmless the Jurisdiction from all outlay and expense incurred by the Jurisdiction by reason of the Contractor’s default of failure to perform as required. The Contractor shall also be responsible for the default or failure to perform as required under the Contract and Contract Documents by all its subcontractors, suppliers, agents, or employees furnishing materials or providing labor in the performance of the Contract.
2. **PAYMENT:** The Contractor and the Surety on this Bond are hereby agreed to pay all just claims submitted by persons, firms, subcontractors, and corporations furnishing materials for or performing labor in the performance of the Contract on account of which this Bond is given, including but not limited to claims for all amounts due for labor, materials, lubricants, oil, gasoline, repairs on machinery, equipment and tools, consumed or used by the Contractor or any subcontractor, wherein the same are not satisfied out of the portion of the contract price which the Jurisdiction is required to retain until completion of the improvement, but the Contractor and Surety shall not be liable to said persons, firms, or corporations unless the claims of said claimants against said portion of the contract

price shall have been established as provided by law. The Contractor and Surety hereby bind themselves to the obligations and conditions set forth in Chapter 573, Code of Iowa, which by this reference is made a part hereof as though fully set out herein.

3. MAINTENANCE: The Contractor and the Surety on this Bond hereby agree, at their own expense:
- A. To remedy any and all defects that may develop in or result from work to be performed under the Contract within the period of one (1) year from the date of acceptance of the work under the Contract, by reason of defects in workmanship or materials used in construction of said work;
 - B. To keep all work in continuous good repair; and
 - C. To pay the Jurisdiction's reasonable costs of monitoring and inspection to assure that any defects are remedied, and to repay the Jurisdiction all outlay and expense incurred as a result of Contractor's and Surety's failure to remedy any defect as required by this section.

Contractor's and Surety's agreement herein made extends to defects in workmanship or materials not discovered or known to the Jurisdiction at the time such work was accepted.

4. GENERAL: Every Surety on this Bond shall be deemed and held bound, any contract to the contrary notwithstanding, to the following provisions:
- A. To consent without notice to any extension of time to the Contractor in which to perform the Contract;
 - B. To consent without notice to any change in the Contract or Contract Documents, which thereby increases the total contract price and the penal sum of this bond, provided that all such changes do not, in the aggregate, involve an increase of more than twenty percent of the total contract price, and that this bond shall then be released as to such excess increase; and
 - C. To consent without notice that this Bond shall remain in full force and effect until the Contract is completed, whether completed within the specified contract period, within an extension thereof, or within a period of time after the contract period has elapsed and the liquidated damage penalty is being charged against the Contractor.

The Contractor and every Surety on the bond shall be deemed and held bound, any contract to the contrary notwithstanding, to the following provisions:

- D. That no provision of this Bond or of any other contract shall be valid which limits to less than five years after the acceptance of the work under the Contract the right to sue on this Bond.
- E. That as used herein, the phrase "all outlay and expense" is not to be limited in any way, but shall include the actual and reasonable costs and expenses incurred by the Jurisdiction including interest, benefits and overhead where applicable. Accordingly, "all outlay and expense" would include but not be limited to all contract or employee expense, all equipment usage or rental, materials, testing, outside experts, attorneys fees (including overhead expenses of the Jurisdiction's staff attorneys), and all costs and expenses of

litigation as they are incurred by the Jurisdiction. It is intended the Contractor and Surety will defend and indemnify the Jurisdiction on all claims made against the Jurisdiction on account of Contractor's failure to perform as required in the Contract and Contract Documents, that all agreements and promises set forth in the Contract and Contract Documents, in approved change orders, and in this Bond will be fulfilled, and that the Jurisdiction will be fully indemnified so that it will be put into the position it would have been in had the Contract been performed in the first instance as required.

In the event the Jurisdiction incurs any "outlay and expense" in defending itself with respect to any claim as to which the Contractor or Surety should have provided the defense, or in the enforcement of the promises given by the Contractor in the Contract, Contract Documents, or approved change orders, or in the enforcement of the promises given by the Contractor and Surety in this Bond, the Contractor and Surety agree that they will make the Jurisdiction whole for all such outlay and expense, provided that the Surety's obligation under this bond shall not exceed 125% of the penal sum of this bond.

In the event that any actions or proceedings are initiated with respect to this Bond, the parties agree that the venue thereof shall be Johnson County, State of Iowa. If legal action is required by the Jurisdiction to enforce the provisions of this Bond or to collect the monetary obligation incurring to the benefit of the Jurisdiction, the Contractor and the Surety agree, jointly and severally, to pay the Jurisdiction all outlay and expense incurred therefore by the Jurisdiction. All rights, powers, and remedies of the Jurisdiction hereunder shall be cumulative and not alternative and shall be in addition to all rights, powers and remedies given to the Jurisdiction, by law. The Jurisdiction may proceed against surety for any amount guaranteed hereunder whether action is brought against the Contractor or whether Contractor is joined in any such action or actions or not.

NOW THEREFORE, the condition of this obligation is such that if said Principal shall faithfully perform all the promises of the Principal, as set forth and provided in the Contract, in the Contract Documents, and in this Bond, then this obligation shall be null and void, otherwise it shall remain in full force and effect.

When a word, term, or phrase is used in this Bond, it shall be interpreted or construed first as defined in this Bond, the Contract, or the Contract Documents; second, if not defined in the Bond, Contract, or Contract Documents, it shall be interpreted or construed as defined in applicable provisions of the Iowa Code; third, if not defined in the Iowa Code, it shall be interpreted or construed according to its generally accepted meaning in the construction industry; and fourth, if it has no generally accepted meaning in the construction industry, it shall be interpreted or construed according to its common or customary usage.

Failure to specify or particularize shall not exclude terms or provisions not mentioned and shall not limit liability hereunder. The Contract and Contract Documents are hereby made a part of this Bond.

In Witness Whereof, we have hereunto set our hands and seals this _____ day of _____, 2021.

Surety Countersigned By:

Signature of Iowa Resident Commission Agent as
Prescribed by Chapter 515.52-57, Iowa Code.
(Require only if Attorney-in-Fact is not also an Iowa
Resident Commission Agent).

Name of Resident Commission Agent

Company Name

Company Address

City, State, Zip Code

Company Telephone Number

FORM APPROVED BY:

County

PRINCIPAL:

Contractor

By: _____

Signature

Title

SURETY:

Surety Company

By: _____

Signature of Attorney-in-Fact Officer

Name of Attorney-in-Fact Officer

Company Name

Company Address

City, State, Zip Code

Company Telephone Number

NOTE:

1. All signatures on this performance, payment & maintenance bond must be original signatures in ink; copies or facsimile of any signature will not be accepted.
2. This bond must be sealed with the Surety's raised, embossing seal.
3. The Certificate or Power of Attorney accompanying this bond must be valid on its face and sealed with the Surety's raised, embossing seal.
4. The name and signature of the Surety's Attorney-in-Fact/Officer entered on this bond must be exactly as listed on the Certificate or Power of Attorney accompanying this bond.

PROJECT INSURANCE REQUIREMENTS

- A. The Contractor shall provide a Certificate of Liability Insurance (Acord Form 25 or equal) in accordance with “Section 1070, Part 3 - Bonds and Insurance” of the SUDAS Standard Specifications, Current Edition. Johnson County, Clear Creek Watershed, Clapsaddle-Garber Associates, Inc., and the landowner of each site shall be named as additional insured on the Certificate of Liability Insurance for all insurances required by “Section 1070, Part 3 - Bonds and Insurance” of the SUDAS Standard Specifications, Current Edition, except for workers compensation insurance.
- B. All responsibility for maintenance of property and insurance on the work (including but not limited to Builders Risk and Installation Floater) remains solely with the Contractor who may at his option insure against any or all perils, and such responsibility shall remain with the Contractor until such time as the work is complete and accepted in writing by the Owner. It is a condition of the Contract that the Owner and Engineer and all Contractors, subcontractors and sub-subcontractors waive all rights of recovery against each other for damages caused by fire or other perils to the extent covered by any valid and collectible insurance, and further, that any policy not including the standard waiver of subrogation clause be so endorsed as to comply with this paragraph.

PART II

General Provisions and Covenants

Table of Contents

Section 1010 - Definitions	Page No.
1.01 Description	1
1.02 Abbreviations	1
1.03 Definitions and Terms	2
Section 1020 - Proposal Requirements and Conditions	
1.01 Qualification of the Bidders	1
1.02 Contents of the Proposal Forms	1
1.03 Quantities and Unit Prices	1
1.04 Examination of the Contract Documents and Site of Work	2
1.05 Interpretation of the Contract Documents	2
1.06 Addendum	3
1.07 Preference for Labor and Materials	3
1.08 Taxes	3
1.09 Preparation of the Proposal	4
1.10 Bidders Certification	5
1.11 Irregular and Nonresponsive Proposals	5
1.12 Submission of the Proposal, Identity of Bidder, and Bid Security	6
1.13 Withdrawal or Revision of the Proposal Prior to Opening of Proposals	6
1.14 Opening of Proposals	7
1.15 Limitation on Withdrawal of Proposals After Opening of Proposals	7
Section 1030 - Approval for Award and Award of Contract	
1.01 Acceptance or Rejection of Proposals	1
1.02 Release of Bid Security	2
1.03 Award of Contract	2
Section 1040 - Scope of Work	
1.01 Intent of the Contract Documents	1
1.02 Correlation of the Contract Documents	1
1.03 Coordination of Specifications, Plans, and Special Provisions	1
1.04 Conformity with the Contract Documents	2

Section 1040 - Scope of Work (Continued)	Page No.
1.05 Plans	2
1.06 Increase or Decrease of Work	2
1.07 Change Orders	3
1.08 Site Conditions	3
1.09 Changed Site Conditions	3
1.10 Disputed Claims for Extra Compensation	4
1.11 Delays Caused by the Jurisdiction	5
1.12 Oral Agreements, Conversations, and Informal Communications	6
1.13 Errors or Omissions	6
Section 1050 - Control of Work	
1.01 Authority of the Engineer	1
1.02 Authority and Duties of the Engineer's Authorized Representative	1
1.03 Cooperation by the Contractor	2
1.04 Cooperation with Other Contractors	2
1.05 Shop Drawings, Certificates, and Equipment Lists	3
1.06 Conflict Avoidance	3
1.07 Examination of Materials and Work	3
1.08 Removal of Defective Work and Materials	4
1.09 Unauthorized Work	4
1.10 Line and Grade Stakes	4
1.11 Providing Job Site Utilities	5
1.12 Salvage	5
1.13 Protection of Water Quality and Wetlands	5
1.14 Final Inspection and Acceptance	5
1.15 Additional Contractor Responsibilities	6
Section 1060 - Control of Materials	
1.01 Materials Source of Supply and Quality Requirements	1
1.02 Alternate Processes, Equipment, or Materials	1
1.03 Samples and Testing	3
1.04 Storage of Materials	3

Section 1060 - Control of Materials (Continued)	Page No.
1.05 Unacceptable Materials	3
1.06 Materials Supplied by the Jurisdiction	3
1.07 Materials Supplied by the Contractor	3
Section 1070 - Legal Relations and Responsibility to the Public	
Part 1 - Legal Relations	
1.01 Municipal Regulations, State, and Federal Laws and Regulations	1
1.02 Governing Law	2
1.03 Permits and Licenses	2
1.04 Patents and Royalties	2
1.05 Use and Occupancy Prior to Completion of Contract	2
1.06 Contractor's Responsibility for the Work	2
1.07 Responsibility for Damage Claims	3
1.08 Personal Liability of Public Officials	3
1.09 Waiver of Legal Rights	3
1.10 Acceptance by the Jurisdiction - Not a Waiver of Contractor's Obligations or a Waiver of the Jurisdiction's Rights	3
1.11 Business Organization Requirements	4
1.12 Consent to Jurisdiction of Iowa District Court or Federal District Court in Iowa	5
1.13 Severability	5
Part 2 - Responsibilities to the Public	
2.01 Sanitation	6
2.02 Convenience and Safety	6
2.03 Work Area	7
2.04 Project Area for the Work	7
2.05 Explosives	8
2.06 Traffic Control	8
2.07 Protection of Aboveground and Underground Facilities	9
2.08 Protection of Property	9
2.09 Land Monuments	9

Section 1070 - Legal Relations and Responsibility to the Public (Continued)	Page No.
2.10 Dust Control	10
2.11 Environmental and Historic Items	10
2.12 Railroad Crossings	10
2.13 Borrow and Waste Sites	10
2.14 Maintaining Postal Service	10
2.15 Finishing and Cleanup Requirements	11
 Part 3 - Bonds and Insurance	
3.01 Performance, Payment, and Maintenance Bond	12
3.02 Insurance Requirements	12
3.03 Contractor's Indemnity - Contractual Liability Insurance	14
3.04 Contractor's Insurance for Other Losses; Waiver of Subrogation	15
3.05 Property Insurance	16
3.06 Endorsement Naming Jurisdiction as an Additional Insured / Cancellation and Material Change / Governmental Immunities Endorsement	18
3.07 Proof of Insurance	19
3.08 Notification in Event of Liability or Damage	20
3.09 Sample Insurance Forms - See www.iowasudas.org	20
 Section 1080 - Prosecution and Progress	
1.01 Subletting or Assignment of Contract	1
1.02 Contract Time	2
1.03 Work Progress and Schedule	3
1.04 Preconstruction Conference	3
1.05 Notice to Proceed	3
1.06 Weekly Record of Working Days	3
1.07 Work on Sundays or Legal Holidays	4
1.08 Temporary Suspension of Working Days	5
1.09 Extension of Time	5
1.10 Contractor's Employees, Methods, and Equipment	6
1.11 Contractor's Equipment Identification	7

Section 1080 - Prosecution and Progress (Continued)	Page No.
1.12 Liquidated Damages	7
1.13 Breach of Contract	8
1.14 Termination of Contractor's Responsibility	9
Section 1090 - Measurement and Payment	
1.01 Measurement	1
1.02 Scope of Payment	1
1.03 Lump Sum Breakdowns	1
1.04 Payment for Change Orders	1
1.05 Progress Payments	2
1.06 Payment of Retainage	2
1.07 Sales and Use Tax Statement	3
1.08 Acceptance and Final Payment	3

DEFINITIONS**1.01 DESCRIPTION**

Wherever the following definitions, terms, and abbreviations, or pronouns in place of them, are used in the plans, specifications, or other contract documents, the intent and meaning shall be interpreted as specified in this Section.

1.02 ABBREVIATIONS

Wherever in these specifications and contract documents the following abbreviations are used, they shall be understood to mean as follows: The serial designation of each reference shall be the latest year of adoption or revision, unless otherwise specified.

AAN - American Association of Nurserymen
AAR - Association of American Railroads
AASHTO (or AASHO) - American Association of State Highway and Transportation Officials
ACI - American Concrete Institute
AIA - American Institute of Architects
ANSI - American National Standards Institute
APWA - American Public Works Association
ARA - American Railway Association
AREA - American Railway Engineering Association
ASA - America Standards Association
ASCE - American Society of Civil Engineers
ASLA - American Society of Landscape Architects
ASTM - American Society for Testing and Materials
AWPA - American Wood Preservers Association
AWS - American Welding Society
AWWA - American Water Works Association
BSC - Bituminous Seal Coat
CFR - Code of Federal Regulations
CLSM - Controlled Low Strength Material
CPM - Critical Path Method
CRSI - Concrete Reinforcing Steel Institute
DNR - Department of Natural Resources
DOT - Department of Transportation
EEI - Edison Electric Institute
EPA - Environmental Protection Agency
FHWA - Federal Highway Administration
FSS - Federal Specification and Standards
ESAL - Equivalent Single Axle Load
GGBFS - Ground Granulated Blast Furnace Slag
GRI - Geosynthetic Research Institute
HMA - Hot Mix Asphalt
IAC - Iowa Administrative Code
IEEE - Institute of Electrical and Electronics Engineers
IES - Illuminating Engineering Society
ICEA (or IPCEA) - Insulated Cable Engineers Association
IMSA - International Municipal Signal Association, Inc.
ISO - Insurance Services Office
ITE - Institute of Transportation Engineers
MUTCD - Manual on Uniform Traffic Control Devices
NEC - National Electrical Code
NEMA - National Electrical Manufacturers Association
NFPA - National Fire Protection Association
NSF - National Sanitation Foundation
OSHA - Occupational Safety of Health Administration

1.02 ABBREVIATIONS (Continued)

PCC - Portland Cement Concrete
PLS - Pure Live Seed
RAP - Recycled Asphalt Pavement
SAE - Society of Automotive Engineers
SDR - Standard Dimension Ratio
SSPC - Steel Structures Painting Council
SUDAS - Statewide Urban Design and Specifications
UL - Underwriters' Laboratories, Inc.
US - United States
USC - United States Code

1.03 DEFINITIONS AND TERMS

ADDENDUM. A revision to the contract documents written and issued after the notice to bidders, and prior to the time for receipt of proposals. Changes reflected in the Addendum shall govern over all other contract documents.

ALLEY. See Street.

APPROVED EQUAL (EQUIVALENT). A product, process, equipment, or material that, upon approval of the Engineer, is determined to meet or exceed the requirements called for by the specifications. Upon approval, the item will be allowed in lieu of the specified material, process, equipment, or product.

AWARD. The acceptance of the proposal of the lowest responsive, responsible bidder for the work, which shall not be binding upon the Contracting Authority until the contract for the said work has been executed by the bidder and by the Contracting Authority and bond(s) has been provided by the bidder as required by law.

BID. A properly signed and guaranteed written offer of the bidder containing the bid amount to perform the work. Bid is the same as Proposal.

BID AMOUNT. The aggregate sum obtained by totaling the amounts arrived at by multiplying the quantity of each bid item, as shown in the bid or proposal, by the unit price specified in the proposal for that bid item, including lump sum bid items.

BID ITEM. A specifically described unit of work for which a price is provided in the proposal. A bid item may also be referred to as a contract item.

BID SECURITY. The security furnished by the bidder with its bid as guaranty that the bidder will execute the contract and furnish bond for the work if the proposal is accepted. For bids submitted to governmental entities, the bidder shall furnish bid security as defined in Iowa Code Chapter 26.

BIDDER. Any individual, firm, partnership, joint venture, corporation, or association licensed or otherwise authorized by law to do business where the work is located, which has submitted a proposal for the work, acting directly or through a duly authorized representative.

CALENDAR DAY. Every day shown on the calendar.

CHANGE ORDER. A written order to the Contractor signed and approved by the Contracting Authority, ordering a change in the work from that originally shown by the plans and specifications. Change orders duly signed and executed by the Contracting Authority and the Contractor shall constitute authorized modifications of the contract.

1.03 DEFINITIONS AND TERMS (Continued)

COMMENCEMENT OF WORK. Work will be considered commenced when the Contractor's operations are started on items of work covered by the contract documents, or when the Contractor notifies the Engineer, and the Engineer agrees, that the Contractor's equipment and personnel are available to the site but the operations are prevented by conditions outside the Contractor's control.

COMPETITIVE QUOTATION. A properly signed written offer of the Contractor according to Iowa Code Chapter 26.

CONTRACT. The written agreement, between the Contractor and the Contracting Authority, setting forth the terms and conditions under which the work is to be performed. The contract includes all contract documents.

CONTRACT AMOUNT. The bid amount plus approved change orders.

CONTRACT DOCUMENTS. The contract documents consist of the following: The notice to bidders and notice of public hearing; the instructions to bidders; special provisions; standard specifications; general supplemental specifications; supplemental specifications; plans; addenda; proposal; contract; performance, payment, and maintenance bond; insurance certificate(s); Notice to Proceed; and change orders. These documents form the agreement whereby the Contractor will furnish all labor, equipment, tools, and materials, and perform all work necessary to satisfactorily accomplish the proposed improvement. The contract documents are complementary and what is called for by one shall be as binding as if called for by all.

CONTRACTING AUTHORITY. The body, entity, board, commission, officer, or governmental entity having authority to award a contract.

CONTRACTOR. The individual, firm, partnership or corporation, and the heirs, executors, administrators, successors and assigns thereof, or the lawful agent of any such individual, firm, partnership, or corporation, or the surety thereof under the contract bond, constituting one of the principals to the contract and undertaking to perform the work herein specified. Where the pronoun "it" is used as referring to the word "Contractor" it shall mean the Contractor as defined above.

CONTROLLING ITEM OF WORK. The unique activity of a contract that will determine the duration of the construction period or if a working day is charged. The character of this work may change during the project. It is the work that could be in progress at any time that would have the greatest influence on the duration of the project.

DEPARTMENT OF TRANSPORTATION, (THE DEPARTMENT). The Department of Transportation, as defined in Iowa Code Chapter 307.

EMPLOYEE. Any person working on the project mentioned in the contract of which these specifications are a part, and who is under the direction or control, or receives compensation from, the Contractor or subcontractor.

ENGINEER. For publicly owned projects, the Engineer is a Professional Engineer licensed in the State of Iowa and is the authorized representative of the Contracting Authority. For privately contracted projects, with improvements that are to become publicly owned, the Engineer is the Professional Engineer licensed in the State of Iowa and is the authorized representative of the Jurisdiction ultimately accepting ownership of the improvement. For all other projects, the Engineer is the Professional Engineer licensed in the State of Iowa and is the owner's authorized representative. The Engineer may act directly or through duly authorized representatives.

1.03 DEFINITIONS AND TERMS (Continued)

EQUIPMENT. All machinery and equipment, together with the necessary supplies for upkeep and maintenance, and also tools and apparatus necessary for the proper construction and acceptable completion of the work.

EXTRA WORK. Work not provided for in the contract, as awarded, but deemed essential to the satisfactory completion of the contract and authorized by the Engineer. Extra work shall not include additional materials, equipment, and labor used due to natural variations in surface and subsurface conditions, except as specifically provided for elsewhere in the contract documents.

GENERAL SUPPLEMENTAL SPECIFICATIONS. Specifications approved by the Board of Directors for the Iowa SUDAS Corporation subsequent to publication of the latest edition of the SUDAS Standard Specifications. They involve changes in the SUDAS Standard Specifications and apply only when specified in the contract documents.

GOVERNMENTAL ENTITY. As defined in Iowa Code Chapter 26.

IMPROVEMENT. Shall mean any public improvements as defined in Iowa Code Chapter 26 and shall also include highway, bridge, or culvert projects.

INCIDENTAL ITEMS. Materials, equipment, or labor essential for the proper completion of the work that are not specified as bid items in the contract documents and the cost of which shall be included in other bid items.

IOWA DEPARTMENT OF TRANSPORTATION (DOT) STANDARD SPECIFICATIONS. The Iowa Department of Transportation Standard Specifications for Highway and Bridge Construction and the General Supplemental Specifications effective at the date of publication of the Notice to Bidders unless a different effective date is identified in the contract documents.

JOINT VENTURE. The joining of two or more contractors for the purpose of combining equipment, personnel, and finances in order to submit a bid on a single project.

JURISDICTION. A governmental entity or the Iowa Department of Transportation, acting through its governing body, or through the authorized representatives of such governing body when so authorized.

JURISDICTIONAL ENGINEER. See Engineer.

LABORATORY. The testing laboratory of the Jurisdiction, or any other testing laboratory which may be designated by the Engineer.

LIQUIDATED DAMAGES. The dollar amount established by the Contracting Authority and set forth in the contract documents as compensation for the damage to the Contracting Authority, or public, for delay in completion of the work, to be paid to the Contracting Authority, or to be deducted from any payments due or to become due the Contractor.

LUMP SUM. Unit of measurement for a bid item where no direct measurement will be made. The bid item amount is complete payment for all work described in the contract documents and necessary to complete the work for that item. The estimated quantities of lump sum work shown in the contract documents are approximate.

MATERIALS. Any substances specified for the use in the construction of the project and its appurtenances.

1.03 DEFINITIONS AND TERMS (Continued)

MATERIALS INSTRUCTIONAL MEMORANDUM (MATERIALS I.M.). This is an instruction prepared by the Iowa DOT's Office of Materials. These may identify approved sources of various qualities or types of materials, sampling, testing, and approval procedures, and conditions for acceptance and use.

MOBILIZATION. Mobilization shall consist of preparatory work and operations for all items under the contract, including, but not limited to, those necessary for the movement of personnel, equipment, supplies, and incidentals to the project site, and for the establishment of all offices, buildings, and other facilities, which must be performed or costs incurred prior to beginning work on the various items on the project site.

NOTICE OF PUBLIC HEARING. The public announcement or publication by the governmental entity, as required under Iowa Code Chapter 26, notifying the public of the time and place where any interested person may appear and file objections to the proposed plans, specifications, contract, or estimated cost of the improvement.

NOTICE TO BIDDERS. The public announcement, publication, or solicitation by the Contracting Authority, inviting bids for work to be performed or materials to be furnished as required by Iowa Code Chapter 26.

NOTICE TO PROCEED. A written notice to the Contractor issued by the Engineer stating the date, on or before which, the Contractor is to begin the work. The date set forth in this notice shall be considered as the official starting date.

PERFORMANCE, PAYMENT, AND MAINTENANCE BOND. The bond submitted by the designated low bidder, in the amount specified in the contract documents, for the faithful performance of the contract and the terms and conditions therein contained, for payment for all labor and materials provided, and for maintenance of improvements in good repair for the specified number of years from the time of acceptance of the improvements by the Jurisdiction.

PLANS. Plans are the official drawings, standard plans, profiles, typical cross-sections, and supplemental drawings or reproductions thereof, approved and furnished by the Jurisdiction, which show the location, character, dimensions, and details of the work. All such documents are to be considered as a part of the plans whether attached to the plans or separate.

PROJECT AREA. The area of the specified project limits shown on the plans, and any additional area which is necessary for the Contractor to place traffic control devices required by the contract documents or necessary to protect the work.

PROPOSAL. The proposal is a properly signed and guaranteed written offer of the bidder containing the bid amount to perform the work. Proposal is the same as Bid.

PROPOSAL FORM. A form provided by the Jurisdiction, to the bidder, containing a listing of the bid items and quantities, and locations to enter unit prices and the bid amount.

RESIDENT BIDDER. A person or entity authorized to transact business in this state and having a place of business for transacting business within the state at which it is conducting and has conducted business for at least three years prior to the date of the first advertisement for the public improvement. If another state or foreign country has a more stringent definition of a resident bidder, the more stringent definition is applicable as to bidders from that state or foreign country.

1.03 DEFINITIONS AND TERMS (Continued)

RESPONSIVE, RESPONSIBLE BID. A bid submitted in accordance with the Notice to Bidders by a bidder that acknowledged all addenda, that responded to all proposal requirements, and that agreed to do everything required by the plans and specifications and other bid documents without any conditions, qualifications, or exclusions.

A bid submitted by a bidder that is capable of performing the work, possess the necessary financial and technical capability to perform the work, as well as the ability to complete the work in a timely and acceptable manner as demonstrated by past performance or other appropriate considerations, including but not limited to the ability to obtain and maintain insurance and bonding requirements.

RESPONSIVE, RESPONSIBLE BIDDER. A bidder that has submitted a bid that has been determined by the governmental entity to be both responsive and responsible.

RIGHT-OF-WAY. The land area of which the right to possession is secured or reserved by the Jurisdiction for the project, including permanent roadway easements.

ROAD. See Street.

ROADWAY. The portion of the right-of-way designated or ordinarily used for vehicular travel.

SHOP DRAWINGS. Information and details for materials, products, or equipment to be supplied for the project, which are typically delivered to the project in an assembled or ready-to-use condition.

SIDEWALK. That portion of the street primarily constructed for the use of pedestrians.

SPECIAL PROVISIONS. Additions and revisions to the SUDAS Standard, General, and Supplemental Specifications covering conditions peculiar to an individual project. They only apply to a project when specified in the contract documents.

SPECIALTY ITEMS. Portions of work designated in the contract documents requiring equipment, skills, or crafts not ordinarily associated with the expertise of the Contractor or the major types of work covered by the contract; typically including, but not limited to, earthwork for building construction, electrical, mechanical, masonry, roofing, drywalling, floor covering, glass and glazing, painting, conveying systems, etc.

SPECIFICATIONS. The general term comprising all the written directions, provisions, and requirements including the SUDAS Standard Specifications and those added or adopted as Supplemental Specifications or Special Provisions all of which are necessary for the proper performance of the contract.

STANDARD ROAD PLAN. The Iowa Department of Transportation's manual of detailed drawings showing standardized design features, construction methods, and approved materials.

STATE. The State of Iowa acting through its authorized representatives.

STREET. A general term denoting public way for vehicular travel, including the entire area within the right-of-way.

SUBCONTRACTOR. The subcontractor is any individual, firm, partnership, joint venture, corporation, or association to whom the Contractor, with the written consent of the Jurisdiction, sublets a part of the work.

1.03 DEFINITIONS AND TERMS (Continued)

SUDAS STANDARD SPECIFICATIONS. The requirements contained herein applying to the contract, and pertaining to the method and manner of performing the work, or to the quantity and quality of the materials to be furnished under the contract. Previously referred to as the Iowa Statewide Urban Standard Specifications for Public Improvements.

SUPERINTENDENT. The Contractor's authorized representative in responsible charge of the work.

SUPPLEMENTAL CONTRACT (AGREEMENT). Written agreement between the Contractor and Contracting Authority modifying the original contract pursuant to the Iowa Code.

SUPPLEMENTAL SPECIFICATIONS. Specifications adopted by a Jurisdiction that involve changes to the SUDAS Standard Specifications. They only apply to a project when specified in the contract documents.

SURETY. The corporation, partnership, or individual, other than the Contractor, executing a bond furnished by the Contractor.

TARGET VALUE. When a target or target value is specified, a continuous and determined effort is expected to reach and maintain that value, as a goal.

UNAUTHORIZED WORK. Unauthorized work is work done contrary to, in addition to, or regardless of, the contract documents, or the instruction of the Engineer; work done without lines, grade, and/or cross-section stakes and grades shown on the plans or as given by the Engineer; or work done in deviation from the contract documents without written authority.

UTILITY. Includes all privately, publicly, municipally, or co-operatively owned structures and systems for supplying water, sewer, electric lights, street lights and traffic lights, gas, power, telegraph, telephone, communications, transit, pipelines, and the like.

UTILITY AGENCY. Means and includes (1) all franchised utilities having utility system facilities within the Jurisdiction, including but not limited to gas, electric, telephone, cable television, and communications; (2) communications systems licensed by the Jurisdiction; and (3) all governmental agencies owning or operating governmental utility systems, including but not limited to water, sewer, traffic control, and communications.

WORK. The work shall mean the furnishing of all labor, materials, equipment, and other incidentals necessary for construction of the improvement, successful completion of the contract, and the carrying out of all duties and obligations imposed by the Contract, including the submission of all necessary paperwork relating to payrolls, sales tax, warranties, owner's manuals, maintenance manuals, and the like.

WORKING DAY. Any calendar day, exclusive of Saturdays, Sundays, or a recognized legal holiday, on which weather or other conditions (not under control of the Contractor) will permit construction operations to proceed for not less than 3/4 of a normal work day in the performance of a controlling item of work.

END OF SECTION

PROPOSAL REQUIREMENTS AND CONDITIONS**1.01 QUALIFICATION OF THE BIDDERS**

- A. The Jurisdiction reserves the right to reject any bid that is not responsive to the proposal form or contract documents, or not submitted by a responsive, responsible bidder.
- B. Upon request of the Engineer, the apparent lowest responsive bidder, whose bid is under consideration for award of a contract, shall submit evidence of its financial resources, construction experience, and organization available for performance of the proposed work. A bidder's ability to promptly secure the required bonds and insurance coverages for the proposed work, as well as the bidder's demonstrated ability to continuously maintain insurance coverages on past projects, may be considered an indication of financial responsibility and the bidder's qualification as a responsive, responsible bidder.

1.02 CONTENTS OF THE PROPOSAL FORMS

- A. Each prospective bidder will be furnished with a proposal form showing the location and description of the proposed work, the approximate quantities of work to be performed for which bid prices are requested, and the completion provisions. The contract documents will contain any special provisions that shall apply to the work to be performed.
- B. The purpose of the contract documents is to require the furnishing of highest quality equipment, material, and workmanship, and best accepted construction practice. The Bidder is expected to base its bid on materials and equipment complying fully with the contract documents. Each bidder, in submitting its bid, acknowledges its willingness to comply with the terms of these contract documents.

1.03 QUANTITIES AND UNIT PRICES

- A. Bidders shall submit a lump sum bid or unit bid price, as required by the proposal for the work covered by the contract documents. Prices shall cover complete work and include all costs incidental thereto.
- B. When unit prices are requested in the proposal form, the quantities indicated on the proposal form are approximate only, and do not constitute a warranty or guarantee by the Jurisdiction as to the actual quantities involved in the work. Such quantities are to be used for the purpose of comparison of bids and determining the amount of bid security, contract, and performance, payment, and maintenance bond. In the event of discrepancies between unit prices and unit price extensions listed in a bidder's proposal, unit prices shall govern and unit price extensions shall be corrected, as necessary, for agreement with unit prices. The Jurisdiction expressly reserves the right to increase or decrease the quantities during construction as outlined in Section 1040, 1.06 - Increase or Decrease of Work, and to make reasonable changes in design, provided such changes do not materially change the intent of the contract. The amount of work to be paid for shall be based upon the actual quantities performed.
- C. The proposal may have a lump sum item for mobilization. The bidder will indicate its bid price in dollars, and this will be the contract price for mobilization.
- D. Materials, equipment, or labor essential for the proper completion of the work that are not specified as bid items in the contract documents and are incidental, and the cost of which shall be included in other bid items.

1.04 EXAMINATION OF THE CONTRACT DOCUMENTS AND SITE OF WORK

- A. By submission of a proposal on the work, the bidder represents that it has carefully examined the site of the proposed work; the plans, specifications, and all other contract documents; and that the bidder is fully informed concerning the requirements of the contract, the physical conditions to be encountered in the work, and the character, quality, and the quantity of work to be performed, as well as materials to be furnished. The Contractor will not be entitled to additional compensation if it subsequently finds that conditions require methods or equipment other than that anticipated by the Contractor in making its proposal, except as provided in Section 1040, 1.09 - Changed Site Conditions.
- B. The attention of the bidder is directed to the fact that contracts for work, other than the proposed work, may have been awarded or may be awarded in the future. Completion of the proposed work may be contingent upon certain work by others or covered by other contracts being performed on the project in advance of this work; likewise, completion of work by others or covered by other contracts may be dependent upon completion of the proposed work. The bidder is expected to become familiar with work already in progress or previously let on this project, the contract periods, the progress being made, and any other conditions regarding work that may affect the bid or the bidder's performance under this contract.
- C. The bidder on this work acknowledges the facts set out in the proceeding paragraph and agrees it is in the public interest to have the work of other contracts and agencies performed concurrently rather than consecutively. The bidder further agrees to cooperate and coordinate the work with other contractors or agencies to the mutual interest of all parties doing work on the project.
- D. By the submission of a bid on this work, the bidder acknowledges and agrees investigation and inquiry has been made regarding the contracts for work with which this work must be coordinated. In the event disputes arise between contractors or other agencies doing work on the project as to their mutual rights or obligations, the Engineer will define the rights of all interested parties regarding the work.
- E. The Jurisdiction does not warrant, impliedly or explicitly, the nature of the work, the conditions that will be encountered by the bidder, the adequacy of the contract documents for the Contractor to perform the work, or the conditions or structures to be encountered under any surface. Any such data supplied on the plans or other contract documents, or interpretation thereof by the Engineer, are merely for the convenience of the prospective bidders, who are to rely upon their own explorations of latent or subsurface site conditions, before completing and filing their proposal, except as provided in Section 1040, 1.09 - Changed Site Conditions.

1.05 INTERPRETATION OF THE CONTRACT DOCUMENTS

If any prospective bidder is in doubt as to the true meaning of any parts of the contract documents, the bidder may request an interpretation from the Engineer. Any interpretation of the contract documents will be made only by an addendum duly mailed or delivered to each prospective bidder who received, or in the future requests, contract documents from the Jurisdiction.

1.06 ADDENDUM

Each bidder will receive a notice of addendum for any changes in the contract documents made prior to the time established for the receipt of bids. The notice will be delivered in the manner chosen by the Jurisdiction to the bidder's business address with an acknowledgement of receipt required. Acknowledgement of the receipt of the addendum will be as provided in the proposal form.

1.07 PREFERENCE FOR LABOR AND MATERIALS

- A. By virtue of statutory authority, preference will be given to products and provisions grown and coal produced within the State of Iowa, and to Iowa domestic labor, to the extent lawfully required under Iowa Code Chapter 73.
- B. Such preferences will not be given where funding requirements, federal or otherwise, prohibit the giving of such preferences.

1.08 TAXES

A. Sales Tax Exemption Certificate: The Jurisdiction, as a designated exempt entity awarding construction contracts, will issue Sales Tax Exemption Certificates to contractors and subcontractors allowing them to purchase, or withdraw from inventory, materials for the contract free from sales tax pursuant to Iowa Code Sections 423.2 and 423.45 and Iowa Administrative Code rule 701-219(423). This Sales Tax Exemption Certificate may also allow a manufacturer of building materials to consume materials in the performance of a construction contract without owing tax on the fabricated cost of those materials.

- 1. Upon award of contract, the Jurisdiction will register the contract, Contractor, and each subcontractor with the Iowa Department of Revenue and Finance; and distribute Sales Tax Exemption Certificates and authorization letters to the Contractor and each subcontractor duly approved by the Jurisdiction according to Section 1080, 1.01 - Subletting or Assignment of Contract. These documents allow the Contractor and subcontractors to purchase materials for the contract free from sales tax. The Contractor and subcontractors may make copies of the Sales Tax Exemption Certificate and provide a copy to each supplier providing construction material. These Sales Tax Exemption Certificates and authorization letters are applicable only for the work under the contract.
- 2. At the time the Contractor requests permission to sublet according to Section 1080, 1.01 - Subletting or Assignment of Contract, the Contractor shall provide a listing to the Jurisdiction identifying all subcontractors. For each subcontractor, include the Federal Employee Identification Number (FEIN), contact information, the name of a representative for the organization, a description of the work to be sublet, and the associated cost.
- 3. The Contractor and each subcontractor shall comply with said Iowa Code sales tax requirements, shall keep records identifying the materials and supplies purchased and verify they were used on the contract, and shall pay tax on any materials purchased tax-free and not used on the contract.

B. Alternate Sales and Use Tax: If the Jurisdiction, at its option, decides to utilize the sales and use tax option, it will so state by special provision and publication in the Notice of Hearing and Letting.

- 1. The bidders shall include in their proposals all amounts payable by the Contractor for taxes imposed by any taxing authority on the sale, purchase, or use of materials and equipment covered by the contract documents. All taxes of the foregoing description shall be paid by the Contractor.

1.08 TAXES (Continued)

2. After delivery of materials and equipment, the Contractor shall submit to the Jurisdiction a statement (on a current Iowa Department of Revenue form) of all taxes of the foregoing description paid on materials and equipment incorporated in the complete construction. If a Sales Tax Exemption Certificate is issued by the Jurisdiction according to Section 1020, 1.08, A, no statement is required.
- C. Income Tax:** The bidder who is awarded the contract will be subject to payment of Iowa income tax on income from this work in amounts prescribed by law. If such bidder is a non-Iowa partnership, individual, or association, it shall furnish evidence, prior to execution of contract, that bond or securities have been posted with the State of Iowa Department of Revenue in the amount required by law and shall file a certificate issued by the Department, as provided in Iowa Code Section 422.17, releasing the Jurisdiction from withholding any and all sums required by the provision of Iowa Code Section 422.17.

1.09 PREPARATION OF THE PROPOSAL

- A. Proposal:** Proposals shall be legibly written in ink or typed on the forms provided by the Jurisdiction and shall be completely executed by the bidder with the requisite full signatures. The bidder must indicate in the proposal whether the proposal is submitted by an individual, partnership, joint venture, limited liability company, or a corporation. If the proposal is submitted by an artificial entity, it must be executed by an officer of such entity with authority to bind such bidder to perform the contract upon award. The business address of the bidder shall be typed or printed on the proposal. The Bidder Status Form is required by the Iowa Labor Commissioner, pursuant to Iowa Administrative Code rule 875-156.2(1). The bidder must complete the form and submit it with the proposal. Failure to provide the Bidder Status Form with the bid may result in the bid being deemed non-responsive and may result in the bid being rejected. If the bidder does not qualify as a resident bidder, the non-resident bidder shall specify on the Bidder Status Form whether any preference to resident bidders, including but not limited to any preference to bidders, the imposition of any type of labor force preference, or any other form of preferential treatment to bidders or laborers from that state or foreign country is in effect in the non-resident bidder's state or country of domicile at the time of a bid submittal.
- B. Unit Price Attachment:** The Engineer, at its option, may allow the bidder to submit a computer-generated attachment, hereinafter referred to as unit price attachment, in lieu of completing that portion of the proposal identifying the bid items, description, unit, quantity, and unit prices. If the Jurisdiction decides to allow this unit price attachment option, it will so state by special provision.
1. If a unit price attachment is submitted, it shall be attached to the proposal and shall include the following minimum information at the top of each page: project title, letting date, bidder's company name.
 2. The unit price attachment shall have the same columns as the proposal; e.g. item number, description, unit, quantity, unit price, bid amount, etc. for each item. The bid item numbers and order on the unit price attachment shall follow that of the proposal.
 3. The total amount bid shall be entered below the last bid item on the unit price attachment.
 4. The unit price attachment page and print size shall be approximately the same as the proposal. Solid lines for separating the columns and lines need not be printed. Pages should be numbered by page number of the total pages (e.g. Page 1 of 4).
 5. The bidder's company name, as well as the authorized person signature, name, and title, shall be in ink and shall follow the total amount bid; and shall be the same person that signs the proposal.

1.09 PREPARATION OF THE PROPOSAL (Continued)

6. In case of discrepancy in the item number, description, unit, or quantity between the unit price attachment and the proposal, the proposal shall govern. The unit price shown on the unit price attachment shall govern.
 7. The bidder is solely responsible for the content, completeness, and accuracy of all the information contained in the unit price attachment. If the information in the unit price attachment is incomplete, the bid must be considered incomplete and be rejected.
 8. When evaluating and tabulating the bids, the Jurisdiction shall utilize only the unit price as shown on the unit price attachment, and the item number, description, unit, and quantity as shown on the proposal.
- C. The bidder, as a business organization, shall comply with the requirements of Section 1070, 1.11 - Business Organization Requirements.
- D. When unit prices are requested, they shall be submitted on each and every item of work included for which bids are requested. The format for unit prices will be in dollars and whole cents only. In case of discrepancy, the unit price figures shall govern.

1.10 BIDDERS CERTIFICATION

By the submission of its proposal, the bidder certifies its bid is genuine and is not made in the interest of, or on behalf of, any undisclosed person, firm, or corporation; the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid; the bidder has not solicited or induced any person, firm, or corporation to refrain from bidding; and the bidder has not sought, by collusion or otherwise, to obtain for itself any advantage over any other bidder or over the Jurisdiction.

1.11 IRREGULAR AND NONRESPONSIVE PROPOSALS

- A. Proposals will be considered irregular and may be rejected for any unauthorized changes in the proposal form or for any of the following reasons:
1. If submitted on a form other than that furnished by the Jurisdiction, or if the form is altered or any part thereof is detached or missing;
 2. If the bidder submits an obviously unbalanced bid. An unbalanced bid shall be defined as a bid containing lump sum prices or unit bid prices that do not reflect reasonable actual costs plus a reasonable proportionate share of the bidder's anticipated profit, overhead costs, and other indirect costs to complete that item;
 3. If the proposal does not contain a unit price for each pay item listed, except in the case of authorized alternate pay items; or
 4. If the bidder submits more than one proposal for the same work under the same or different names.
- B. Proposals will be considered nonresponsive and shall be rejected for any of the following reasons:
1. If there are unauthorized additions, conditional or alternate bids, or irregularities of any kind that may tend to make the proposal incomplete, indefinite, or ambiguous as to its meaning;
 2. If the bidder adds any provisions reserving the right to accept or reject an award or to enter into contract pursuant to an award;

1.11 IRREGULAR AND NONRESPONSIVE PROPOSALS (Continued)

3. If a bid on one project is tied to a bid on any other project, except as specifically authorized on the proposal form by the Jurisdiction;
 4. If the bidder makes corrections or alterations to the unit prices it submits and such corrections or alterations are not initialed by the bidder. The Jurisdiction may require the bidder to identify any corrections or alteration so initialed;
 5. If the bidder makes any omission of prices on items shown on the proposal forms, or any addition in writing to the form of the bid, or any condition or limitation on its proposal.
- C. If the bidder notes a requirement in the contract documents it believes will require a conditioned or unsolicited alternate bid, it shall immediately notify the Engineer in writing identifying such requirement. If the Engineer finds that such a requirement does exist in the contract documents, the Jurisdiction will make corrections thereto by an addendum.
- D. Proposals will be evaluated by the Jurisdiction pursuant to the provisions of Section 1030, 1.01 - Acceptance or Rejection of Proposals.

1.12 SUBMISSION OF THE PROPOSAL, IDENTITY OF BIDDER, AND BID SECURITY

- A. The proposal shall be sealed in an envelope, properly identified as the proposal with the project title and the name and address of the bidder, and deposited with the Jurisdiction at or before the time and at the place provided in the Notice to Bidders. It is the sole responsibility of the bidder to see its proposal is delivered to the Jurisdiction prior to the time for opening bids, along with the appropriate bid security sealed in the separate envelope identified as bid security and attached to the outside of the bid proposal envelope. Any proposal received after the scheduled time for the receiving of proposals will be returned to the bidder unopened and will not be considered. If the Jurisdiction provides envelopes for proposals and bid security, bidders shall be required to utilize such envelopes in the submission of their bids.
- B. A corporation, limited liability company, or limited partnership shall bid in the name under which it is registered with the Iowa Secretary of State. A partnership shall bid in the name under which it is registered with the County recorder. An individual operating under a trade name shall bid using the trade name registered with the County recorder if such registration is required. The bidder's exact name as registered, if required, shall appear as the "principal" on any bid bond and shall appear on any cashier's check or share draft submitted to fulfill the bid security requirement. A bidder's failure to satisfy these requirements may be grounds for rejection of the bidder's proposal.

1.13 WITHDRAWAL OR REVISION OF THE PROPOSAL PRIOR TO OPENING OF PROPOSALS

- A. A bidder may request, without prejudice, to withdraw its proposal after it has been deposited with the Jurisdiction, provided such request is made in writing to the Jurisdiction prior to the time set for receiving proposals.
- B. Modifications or corrections to proposals may be made on the withdrawn proposal, provided such modifications or corrections are initialed by the Bidder and are received by the Jurisdiction prior to the time set for receiving proposals. Modifications or corrections to a proposal will not be accepted if the modifications or corrections render the bid security inadequate or if not accompanied by sufficient additional bid security.
- C. If a bidder has requested in writing to withdraw its proposal, said bidder may submit a different proposal and bid security at that time or any time prior to the time set for receiving proposals.

1.14 OPENING OF PROPOSALS

At the time and place set forth in the notice to bidders, proposals will be opened and read aloud. Proposals will be rejected if not accompanied by a bid security submitted in a separate, marked envelope. Submittals that do not include acknowledgement of each addendum to the contract documents will be rejected, except in those instances, in the opinion of the Engineer, where the addendum not acknowledged by a bidder will have no effect on the bid amount. Bid openings will be open to the public.

1.15 LIMITATION ON WITHDRAWAL OF PROPOSALS AFTER OPENING OF PROPOSALS

- A. A bidder shall not withdraw its proposal for period of 60 calendar days after the date designated for opening of proposals, or such other period of time specified in the Notice. However, in those projects involving special assessments, and confirmation by the District Court, no bidder shall withdraw its proposal for a period of 30 calendar days after the confirmation of the assessments by the Court.
- B. In the event a bidder desires to withdraw its proposal, it shall make request therefore in writing to the Engineer stating the reasons for such withdrawal.

END OF SECTION

APPROVAL FOR AWARD AND AWARD OF CONTRACT**1.01 ACCEPTANCE OR REJECTION OF PROPOSALS**

- A. The Jurisdiction reserves the right to accept the proposal that, in its judgment, is the lowest responsive, responsible bid; to award the contract by sections, if so specified in special provisions; to reject any or all proposals; to reject irregular or nonresponsive proposals as defined in Section 1020, 1.11 - Irregular and Nonresponsive Proposals; and to waive irregularities and/or technical deficiencies in the proposals to the extent allowed by law.
- B. An individual, firm, partnership, corporation, or any association under the same or different names shall not submit more than one proposal. When reasonable evidence exists that a bidder has submitted more than one proposal at any letting for the same work under the same or different names, said proposals may be rejected.
- C. Any or all proposals may be rejected if there is reason to believe collusion exists among bidders. Proposals received from participants in such collusion may not be considered for the same work if re-advertised.
- D. Proposals may be rejected if the apparent lowest responsive bidder has failed to promptly meet financial obligations undertaken in connection with other work under contract, or is in default on a previous contract, or has an unsatisfactory record of performance and cooperation on any such previous contract, or has failed to maintain satisfactory progress on work already under contract.
- E. In the event the bid specifies the use of materials, workmanship, methods, or equipment not in conformance with the contract documents, the bid will be rejected. In the event the bid was based on, but did not specify, the use of materials, workmanship, methods, or equipment not in conformance with the contract documents, the bidder will be held responsible for furnishing or using materials, workmanship, methods, and equipment in conformance with the contract documents at no change in the bid price.
- F. When a contract for a public improvement is to be awarded to the lowest responsible bidder, a resident bidder shall be allowed a preference as against a non-resident bidder from a state or foreign country if that state or foreign country gives or requires any preference to bidders from that state or foreign country, including but not limited to any preference to bidders, the imposition of any type of labor force preference, or any other form of preferential treatment to bidders or laborers from that state or foreign country. The preference allowed shall be equal to the preference given or required by the state or foreign country in which the non-resident bidder is a resident. In the instance of a resident labor force preference, a non-resident bidder shall apply the same resident labor force preference to a public improvement in this state as would be required in the construction of a public improvement by the state or foreign country in which the non-resident bidder is a resident. Application of the preference against a non-resident bidder shall be in accordance with the information filed with the proposal on the Bidder Status Form.
- G. Promptly after the proposals are opened and evaluated, the Jurisdiction shall give careful consideration to its needs, available funding, and other project considerations; and shall either designate the lowest responsive, responsible bidder and proceed with award of contract, or reject all bids and reconsider the project.

1.02 RELEASE OF BID SECURITY

- A. After the proposals are opened, verified, and duly considered, the Jurisdiction will promptly release the bid security of all except the lowest two bidders after the Jurisdiction's designation of the lowest responsive, responsible bidder. The bid security of the lowest two bidders will be promptly released after the Jurisdiction's approval of the contract executed by the lowest bidder. If all bids are rejected, all bid security will be promptly released.
- B. Bid security shall be released to bidders, either by making such bid security available for retrieval by bidders, or, if requested by a bidder, by mailing the bid security to the bidder.

1.03 AWARD OF CONTRACT

- A. **Contract Document Submittal:** Within 10 calendar days after notification by the Engineer, unless otherwise provided in the contract documents, the Contractor shall present the signed and executed contract documents, including contract, performance, payment, and maintenance bond; certificate of insurance; and all other items required by the contract documents. The performance, payment, and maintenance bond and insurance certificate shall meet the requirements of Section 1070, Part 3 - Bonds and Insurance as required by the Jurisdiction. The Jurisdiction will thereupon receive and file such documents and award the contract.
- B. **Deferred Award:** The Jurisdiction reserves the right to defer award of any contract for a period not to exceed 60 calendar days from the date of opening of proposals. No claims for compensable delay shall arise as the result of delay in the approval of award.
- C. **Failure to Execute the Contract:** It is agreed by the bidder that upon its failure to enter into the contract and furnish the necessary insurance certificate and performance, payment and maintenance bond within 10 calendar days after notification by the Jurisdiction, the amount of the bidder's bid security may at the Jurisdiction's option be forfeited and shall become the property of the Jurisdiction, to be retained not as a penalty, but as liquidated damages. The award of the contract may then, at the discretion of the Jurisdiction, be made to the next lowest responsive, responsible bidder, or the work may be re-advertised or may be constructed by the Jurisdiction in any legal manner.
- D. **Disclosure of Subcontractors:**
 - 1. The lowest responsive, responsible bidder shall be required to file a list of the names and subcontract amounts of all subcontractors who are expected to work on the project according to Section 1080, 1.01 - Subletting or Assignment of Contract.
 - 2. If after award of the contract a subcontractor is replaced, or the subcontract price or the work under the subcontract is changed, the bidder shall disclose the name of the new subcontractor, the revised subcontract price, or the change in the scope of subcontract work.

If a new subcontractor is added after award of the contract, the Contractor shall disclose the name of the new subcontractor.

END OF SECTION

SCOPE OF WORK

1.01 INTENT OF THE CONTRACT DOCUMENTS

- A. These SUDAS Standard Specifications have been prepared to provide construction utilizing the best general practices and construction methods, utilizing first quality materials and work. The Contractor shall be responsible for providing or undertaking all work, labor, materials, equipment, tools, transportation, supplies, and activities included in these specifications, unless the responsibility for undertaking or providing same is specifically assigned to an identified party other than the Contractor.
- B. The intent of the contract documents is to provide for the construction and completion in every detail of the work described or as may be amended. The Contractor shall furnish all labor, materials, equipment, tools, transportation, and supplies required to complete the work according to the plans, specifications, and terms of the contract documents. The apparent silence or omission of the contract documents as to any detail shall be regarded as meaning only the best general practice is to prevail and only first quality materials and work are to be used.
- C. To prepare the plans, specifications, and contract documents, the Engineer may have performed exploratory work to gain information relative to surface and subsurface conditions. This information, when shown in the contract documents, represents a summary of conditions as of the date the survey was made; it is only an approximate estimation of the site conditions made for the Jurisdiction to identify construction conditions and quantities and classes of work. The appearance of this information in the contract documents will not constitute a guarantee conditions other than those indicated will not be encountered at the time of construction. The Contractor's bid shall be prepared based upon its examination of the site and its exploratory work.
- D. Before making whatever additional investigations it feels are advisable, a bidder should contact the Engineer to determine available project area. If the Jurisdiction has not obtained right-of-entry for such investigation, the bidder shall be responsible to secure right-of-entry to any parcels where the Jurisdiction has not previously obtained right-of-entry before doing any investigation work. The bidder shall also be responsible for any traffic control necessary for any investigation work. The bidder shall further be responsible to obtain prior utility locates necessary to conduct such investigations.

1.02 CORRELATION OF THE CONTRACT DOCUMENTS

The plans and specifications are intended to supplement each other so any work shown on the plans and not mentioned in the specifications, or vice versa, shall be as binding and shall be completed the same as if that work was mentioned or shown on both and to the true intent and meaning of said plans and specifications.

1.03 COORDINATION OF SPECIFICATIONS, PLANS, AND SPECIAL PROVISIONS

- A. In case of any discrepancy between the various items included in the contract documents, the items shall prevail, or govern, in the following descending order:
 - 1. Change Orders
 - 2. Addenda
 - 3. Proposal and Contract
 - 4. Special Provisions
 - 5. Plans, including plan notes

1.03 COORDINATION OF SPECIFICATIONS, PLANS, AND SPECIAL PROVISIONS (Continued)

6. Supplemental Specifications (Jurisdictional document)
7. General Supplemental Specifications (SUDAS)
8. SUDAS Standard Specifications

In case of a discrepancy within any contract document, the following shall prevail, or govern, in descending order: written text, numerals, drawings.

- B. The Contractor shall not take advantage of any apparent error or omission in the plans or specifications or of any discrepancy between the plans or specifications.

1.04 CONFORMITY WITH THE CONTRACT DOCUMENTS

- A. **Reasonably Close Conformity:** All work performed and all materials furnished shall comply with the lines, grades, cross sections, dimensions, and material requirements, including tolerances, shown in the contract documents. Where tolerances are not specified, work shall comply with reasonable and customary manufacturing and industry standards. The Engineer may, in the Engineer's sole discretion, accept variations beyond such requirements or tolerances where they will not materially affect the value or utility of the work and interests of the Jurisdiction.
- B. **Defective Work:** Work not in reasonably close conformity with the contract documents, or requirements thereof that, in the sole discretion of the Engineer, has resulted in inferior or unsatisfactory work. Defective work shall be removed and replaced or otherwise corrected by and at the expense of the Contractor.
- C. **Deficient Work:** Work not in reasonably close conformity with the contract requirements but that, in the sole discretion of the Engineer, may be accepted and allowed to remain in place with a price adjustment and/or extended warranty period. In the event the Engineer agrees to accept deficient work with a price adjustment/extended warranty, the Engineer will document the basis of acceptance by contract modification making appropriate adjustments in the contract price for such work or materials.

1.05 PLANS

The final plans on file in the Jurisdiction show the location, typical construction details, and dimensions of the work contemplated. The work shall be performed in conformity therewith, except in case of error or unforeseen contingency.

Electronic support files, if available, will be provided prior to letting and are for information only. Should there be a discrepancy between an electronic support file and a contract document, the contract documents shall govern. No guarantee is made that the data systems used by the Engineer will be directly compatible with the systems the Contractor uses.

Electronic information shall not be considered a representation of actual conditions to be encountered during construction. Providing the Contractor this information does not relieve the Contractor from the responsibility of making an investigation of conditions to be encountered, including, but not limited to, site visits and basing the bid on information obtained from these investigations and professional interpretations and judgment. The Contractor assumes the risk of error if the information is used for any purposes for which the information was not intended. Assumptions the Contractor makes from this electronic information or manipulation of the electronic information is at their risk.

If changes are made during construction, regardless if the change is initiated by the Contracting Authority or Contractor, it shall be the Contractor's sole responsibility to update electronic files that they will use.

1.06 INCREASE OR DECREASE OF WORK

- A. The Jurisdiction reserves the right to make such alterations in the plans or in the quantities of work as may be considered necessary. Such alterations shall be in writing by the Engineer and shall not be considered as a waiver of any conditions of the contract documents or to invalidate any of the provisions thereof.
- B. Unless such alterations, increases, or decreases materially change the character of the work to be performed or the cost thereof, the altered work shall be paid for at the same unit prices as other parts of the work. Quantity changes amounting to 20% or less of the total bid for an item shall not affect the unit price of that item. If, however, the character of the work or the unit costs thereof are materially changed, due to unforeseen events, an allowance shall be made on such basis as may have been agreed to in advance of the performance of the work.

1.07 CHANGE ORDERS

- A. **Oral Orders:** The Engineer shall have authority to give oral orders for minor or incidental changes in the work not involving extra cost and not inconsistent with the proposed purpose of the work.
- B. **Written Orders:** The Engineer may in his/her discretion, and subject to formal approval by the Jurisdiction, if required, issue written change orders changing the scope of the work and/or adjusting the amount to be paid to the Contractor for performing such work; however, the Engineer may, in case of emergency of endangering life or property, orally authorize such a change order without formal approval by the Jurisdiction. Each written change order for extra work shall be explicit in its instruction and shall be duly executed by the Jurisdiction. One copy of said change order shall be filed with the Contractor. Each change order shall stipulate the amount and method of payment.

1.08 SITE CONDITIONS

- A. The Contractor is required by Section 1020, 1.04 - Examination of the Contract Documents and Site of Work to make reasonable investigation and examination to determine latent and subsurface conditions at the site of the work prior to preparing its proposal. The Jurisdiction makes no guarantee of any conditions, latent or subsurface, at the site of the work. The Jurisdiction shall not be obligated to make any payments to the Contractor by reason of any latent or subsurface conditions.
- B. Failure of the Contractor in determining adverse site conditions prior to filing its proposal, or in any phase of its performance of the work, shall be grounds for refusal by the Jurisdiction to agree to pay for additional work by the contractor necessitated by such site conditions.

1.09 CHANGED SITE CONDITIONS**A. Latent or Subsurface Conditions:**

- 1. If the Contractor encounters latent or subsurface conditions differing materially from those indicated in the contract documents or from those ordinarily encountered in performing work of the character involved, and which the Contractor could not have discovered by a reasonable site investigation and examination of the type customarily undertaken by prudent and competent contractors, and if these unusual or changed conditions are considered by the Contractor as a basis for compensation in addition to the contract price, the Contractor shall promptly after discovery thereof notify the Engineer of its claim in writing. Before disturbing the site at which the latent or subsurface condition is alleged to exist, the Contractor shall give the Engineer the opportunity to inspect the same.

1.09 CHANGED SITE CONDITIONS (Continued)

2. After inspection by the Engineer, the Jurisdiction may, in its discretion, authorize the Contractor to proceed with or abandon the work. The Contractor shall resume construction operations pending a decision regarding its claim by the Jurisdiction. Failure of the Contractor to give prompt written notice and to give the Engineer full opportunity to inspect the condition before disturbing the site shall be deemed a waiver by the Contractor of all claims for extra compensation arising out of the alleged condition.

B. Compensation:

1. If the Engineer determines the condition could not reasonably have been discovered, the Contractor is entitled to additional compensation by reason of increased expense caused by the condition, and said condition requires work not contemplated by the contract, a change order will be executed by the parties providing for additional compensation for such amount as the parties may agree upon.
2. If the Engineer determines the condition to be such as to justify an extension in contract time, such additional time will be granted according to Section 1040, 1.11 - Delays Caused by the Jurisdiction and Section 1080, 1.09 - Extension of Time.

1.10 DISPUTED CLAIMS FOR EXTRA COMPENSATION**A. Basis of Claim for Extra Compensation:**

1. In any case where the Contractor believes extra compensation is due for work or material beyond the scope of the work under the contract and not ordered by the Engineer as extra work as defined herein, the Contractor shall notify the Engineer in writing of its intention to make claim for such extra compensation before beginning the work on which the claim is based. The Contractor shall not proceed with that work until the Contractor and the Jurisdiction have executed a change order with respect to extra compensation.
2. The Jurisdiction shall be responsible for damages attributable to the performance, nonperformance, or delay, of any other contractor, governmental agency, utility agency, firm, corporation, or individual authorized to do work on the project, only when such damages result from negligence on the part of the Jurisdiction, its Engineer, or any of its officers or employees.
3. In any case where the Contractor deems that extra compensation is due from the contracting authority as damages resulting from such performances, nonperformances, or delays, the Contractor shall notify the Engineer in writing at the time the delay occurs.
4. In either case, if such notification is not given, or if after such notification is given, the Engineer is not allowed facilities for keeping strict account of actual costs as defined for force-account construction, the Contractor thereby agrees to waive the claim for extra compensation for such work. Such notice by the Contractor, and the fact the Engineer has kept account of the cost as aforesaid, shall not be construed as establishing the validity of the claim.
5. The claim, when filed, shall be in writing and in sufficient detail to permit auditing and an evaluation by the Jurisdiction. The claim shall be supported by such documentary evidence as the claimant has available and shall be verified by affidavit of the claimant or other person having knowledge of the facts.

1.10 DISPUTED CLAIMS FOR EXTRA COMPENSATION (Continued)

- B. Presentation and Consideration of Claim:** If the claimant wishes an opportunity to present its claim in person, the claim shall be accompanied by a written request to do so. Where the claimant asks an opportunity to present its claim in person, the Jurisdiction, within 30 calendar days of the filing of the claim, shall fix a time and place for a meeting between the claimant and the Jurisdiction or its designated representatives or representative. The Jurisdiction shall, within a reasonable time after the filing of the claim or the meeting above referred to, whichever is later, rule upon the validity of the claim and notify the claimant, in writing, of its ruling together with the reasons therefore. In case the claim is found to be just, in whole or in part, it shall be allowed and paid to the extent so found.
- C. Request for Arbitration:** In the event a Contractor's claim as outlined in the above procedure has been disallowed, in whole or in part, the Contractor may, within 30 calendar days from the date the ruling of the Jurisdiction is mailed, make a written request to the Jurisdiction that its claim or claims be submitted to a board of arbitration. The Jurisdiction shall decide if the matter is subject to arbitration and shall, within 30 calendar days of the receipt of the request for arbitration, grant or deny the request for arbitration. The Jurisdiction's decision shall be final.
- D. Board of Arbitration:**
1. The board of arbitration shall consist of three persons - one to be appointed by the Jurisdiction, one to be appointed by the Contractor, and the third to be appointed by the two arbitrators thus chosen.
 2. The arbitrators selected shall be persons experienced and familiar with construction or engineering practices in the general type of work involved in the contract, but shall not have been a regular employee or an individual retained by either party at the time the claim arose, or at the time of arbitration.
- E. Arbitration Proceedings:** The board of arbitration shall make its own rules of procedure and shall have authority to examine records kept by the Jurisdiction and the Contractor. If the desired records are not produced within 10 calendar days after they are requested, the board of arbitration shall proceed without them as best it may. Notification of arbitration proceedings shall be made by the arbitration board to both the Jurisdiction and the Contractor, and each shall have the opportunity to attend all sessions of the arbitration board. In determining the findings or award or both, a majority vote of the board shall govern. Copies of the findings or award or both, signed by the arbitrators, shall be filed with the Jurisdiction and the Contractor. A unanimous report or majority report may be used. The board of arbitration shall fix the cost of the proceedings, including a reasonable compensation to the arbitrators, and shall determine how the total cost shall be borne by the parties.
- F. Jurisdiction of Board of Arbitration:** The board of arbitration shall have jurisdiction to pass upon questions involving compensation to the Contractor for work actually performed or materials furnished and upon claims for extra compensation that have not been allowed by the Jurisdiction. The board's jurisdiction shall not extend to a determination of quality of workmanship or materials furnished, or to an interpretation of the intent of the plans and specifications except as to matters of compensation. Jurisdiction of the board shall not extend to setting aside or modifying the terms or requirements of the contract.

1.10 DISPUTED CLAIMS FOR EXTRA COMPENSATION (Continued)

G. Determination of Board of Arbitration Final: The findings or award, or both, of the arbitration board, if acceptable to both parties to the contract, may become a basis for final payment. If the findings of the arbitration board are unacceptable to either party to the contract, said findings may become the basis for further negotiation between the parties. In the event a solution agreeable to both parties has not been reached through the filing of a claim, through arbitration, or if arbitration has been denied, either party may resort to whatever other methods for resolving the claim are available to it. The Contractor shall not initiate any suit against the Jurisdiction for the adjudication of any claim until said claim has been first presented to the Jurisdiction, pursuant to this article, and either submitted to arbitration or a request for arbitration is denied.

1.11 DELAYS CAUSED BY THE JURISDICTION

If the Jurisdiction or its agents should cause a delay in any part of the work or in the final completion of the job, this fact shall not make void the provisions of the contract as to liquidated damages; but the Contractor will promptly be given such extension of time for the final completion of the job as the Jurisdiction may deem proper to compensate the Contractor for such delay.

1.12 ORAL AGREEMENTS, CONVERSATIONS, AND INFORMAL COMMUNICATIONS

No oral agreement or conversation made or had with any officer, agent, or employee of the Jurisdiction, and no informal written communication from any officer, agent, or employee of the Jurisdiction, occurring either before or after execution of the contract, shall affect or modify any of the terms or obligations contained in any of the contract documents. Such oral contact and such informal writings shall be considered as unofficial information and in no way binding upon the Jurisdiction.

1.13 ERRORS OR OMISSIONS

The Contractor shall examine the plans before beginning construction work. If errors or omissions are discovered in the plans, the Contractor shall call them to the attention of the Engineer before proceeding with the work. In no case shall the Contractor make the corrections therefore without written permission from the Jurisdiction. In case revised plans of a supplementary or explanatory nature are necessary or desirable for clarification, or to correct any errors or omissions, they will be furnished by the Jurisdiction from time to time as the work progresses.

END OF SECTION

CONTROL OF WORK**1.01 AUTHORITY OF THE ENGINEER**

- A. The work included in the contract is to be done to the complete satisfaction of the Engineer, and the decision of the Engineer as to the true construction and meaning of the contract documents, plans, specifications, estimates, and as to all questions arising as to proper performance of the work, shall be final, except as provided in Section 1040, 1.10 - Disputed Claims for Extra Compensation.
- B. The Engineer shall determine the unit quantities and the classification of all work done and materials furnished under the provisions of the contract documents, and the Engineer's determination thereof shall be final except as provided in Section 1040, 1.10 - Disputed Claims for Extra Compensation.
- C. The Engineer shall decide any and all questions that may arise regarding the quality or acceptability of materials furnished and work performed, the rate of progress of the work, including cleanup and restoration, acceptable fulfillment and performance of the contract on the part of the Contractor, and compensation. The decision of the Engineer in such matters shall be final except as provided in Section 1040, 1.10 - Disputed Claims for Extra Compensation.
- D. Nothing contained in this section or in the contract documents shall be construed as requiring or permitting the Engineer to direct the means, methods, sequences, or procedures, including safety measures, of performing any work under the contract or contract documents, except to ensure the quality of work conforms to these specifications and other provisions of the contract documents and the contract will be completed as scheduled.

1.02 AUTHORITY AND DUTIES OF THE ENGINEER'S AUTHORIZED REPRESENTATIVE

- A. The Engineer may appoint a representative to monitor any or all materials used and work done. Such observation may extend to any or all parts of the work and to the preparation or manufacture of the materials to be used. The Engineer's authorized representative will not be authorized to revoke, alter, enlarge, or relax the provisions of these specifications. When placed on the work, the Engineer's authorized representative will keep the Engineer informed as to the progress and quality of the work and the manner in which it is being done.
- B. Results of tests and examinations may be available to the Contractor on an informational basis. Absence or presence of representative test data does not alter the Contractor's responsibility for compliance with the contract documents. The Engineer's authorized representative will call to the attention of the Contractor any lack of compliance with the contract documents. However, failure of the Engineer's authorized representative or the Engineer to call the attention of the Contractor to faulty work or to lack of compliance with the contract documents shall not constitute acceptance of such work.
- C. The Engineer's authorized representative will not be authorized to approve or accept any portion of the work or to issue instructions contrary to the contract documents. The Engineer's authorized representative will act under the authority of the Engineer to reject defective work or material, and to suspend any work that is not being properly performed, subject to the final decision of the Engineer.
- D. The Engineer's authorized representative will not act as supervisor or perform other duties for the Contractor, nor improperly interfere with management of the work. The Engineer's authorized representative will exercise such additional authority as may, from time to time, be delegated by the Engineer.

1.03 COOPERATION BY THE CONTRACTOR

- A. A set of approved plans, specifications, contract documents, and any special provisions and authorized alterations will be supplied to the Contractor, and the Contractor shall have them available on the job site at all times.
- B. A competent, authorized representative of the Contractor shall be present on the site of the work continually during its progress. This representative must be capable of reading and thoroughly understanding the contract documents and experienced in the type of work being performed. This representative shall supervise, direct, and control the Contractor's operations, personnel, and work, and oversee the Subcontractor's operations.
- C. The Contractor shall give the Engineer written notification of the name of the Superintendent. The Contractor or its Superintendent shall receive from the Engineer all explanations and directions necessary for the satisfactory prosecution and completion of the work.
- D. The Contractor shall not cause any unnecessary delay or hindrance to other contractors on the work and shall be required to cooperate with other contractors to the fullest extent.

1.04 COOPERATION WITH OTHER CONTRACTORS

- A. The Jurisdiction reserves the right to award other contracts in connection with this work and the total improvement. The Contractor is required to become fully informed of the conditions relating to construction and labor under which the work will be or is now being performed, and the Contractor shall employ, as far as possible, such methods and means in the carrying out of its work as will not cause any interruption or interference with any other contractor or agency. The Contractor shall give other contractors reasonable opportunity for the introduction and storage of their materials and the execution of their work, and shall properly integrate, incorporate, and/or coordinate its work with theirs.
- B. If any part of the Contractor's work depends for proper execution or results on the work of any other contractor, the Contractor shall inspect and promptly report to the Engineer any defect in such work by another contractor that renders it unsuitable for such proper execution and results. The Contractor's failure to inspect and report such defects shall constitute an acceptance of the other contractor's work as fit and proper for the integration or incorporation of its work, except as to defects that may develop in the other contractor's work after the execution of the Contractor's work.
- C. Wherever work being done by the Jurisdiction's forces or by other contractors is contiguous to work covered by the contract, the respective rights of the various interests involved shall be established by the Engineer, in order to secure the completion of the various portions of the work in general harmony.
- D. Unless otherwise specified in the contract documents, the Contractor shall give notice, as hereafter provided, to all utilities, public and private agencies, abutting property owners, and all others affected by its operations as to time for starting and for completion of its work, names of streets or locations of alleys closed, schedule of operations, and routes of detours where possible. Notification shall be made sufficiently ahead of time to provide proper re-routing of traffic and erecting of signs before the work is to begin.
- E. The Contractor shall properly coordinate and expedite its work in such a manner as to cause the least amount of conflict and interference between its operation and those of all others affected by its operations. Any or all damages or claims resulting from the improper or insufficient notification of all others affected by its operations shall be the responsibility of the Contractor.

1.05 SHOP DRAWINGS, CERTIFICATES, AND EQUIPMENT LISTS**A. Submission of Drawings:**

1. The Contractor shall submit to the Engineer all shop drawings and equipment drawings or lists as called for in the contract documents or as requested by the Engineer. Drawings and listings shall be complete and shall contain all required detail information conveyed according to the latest recommended standards for detailing.
2. The Contractor shall make any corrections required by the Engineer and submit the revised shop or equipment drawings or listings for review. After review by the Engineer, the shop or equipment drawings or listings will be so marked, dated, signed by the Engineer, and forwarded to the Contractor for reproduction and distribution.

B. Submission of Equipment Lists:

1. If requested in the contract documents, as soon as practicable after award of contract and before any items of material or equipment are purchased, the Contractor shall submit to the Engineer for review a complete list of the principal fixtures and equipment to be incorporated into the work.
2. The Contractor shall also submit applicable brochures, technical data, catalogs, cuts, diagrams, manufacturer's drawings and installation instructions, samples if required, and other descriptive data including the complete description, trade name, model number, type, size, and rating.

C. Engineer's Review:

1. Review by the Engineer shall not be construed as a complete check but will indicate only that the general method of construction and detail is satisfactory. The Engineer assumes no responsibility for errors in dimensions in the shop drawings and assumes the Contractor will use material complying with requirements of the contract documents or, where not specified, those of sound and reasonable quality, and will erect the subjects of such shop drawings according to recognized standards of first quality work or, when specified, according to standards of the contract documents.
2. Any work done or material ordered by the Contractor prior to review by the Engineer shall be at the Contractor's risk.

1.06 CONFLICT AVOIDANCE

- A. Expose possible conflicts, such as utility lines and drainage structures. Verify elevations of each and verify clearances for proposed construction.
- B. Complete elements of the work that can affect line and grade in advance of other open cut construction unless noted on the plans.
- C. See Section 1040, 1.09 - Changed Site Conditions if unknown or changed conditions are encountered.

1.07 EXAMINATION OF MATERIALS AND WORK

- A. The Contractor shall furnish the Engineer and its agents every reasonable opportunity to ascertain whether the work and materials are in reasonably close conformity with the contract documents. At any time before final acceptance of the work, at the request of the Engineer, the Contractor shall remove or uncover portions of the work for examination. After examination, the Contractor shall restore such portions of the work to the standards required by the contract documents.

1.07 EXAMINATION OF MATERIALS AND WORK (Continued)

- B. Should the work thus exposed and examined prove acceptable, the uncovering, removing, and replacing of such work shall be paid for as specified in Section 1090, 1.04 - Payment for Change Orders. Should the work thus exposed and examined prove unacceptable, the uncovering, removing, and replacing of such work shall be at the Contractor's expense.

1.08 REMOVAL OF DEFECTIVE WORK AND MATERIALS

- A. Defective work or materials may be condemned by the Engineer any time before the final acceptance of the work. Notice of such condemnation shall be given in writing by the Engineer. Such condemned work shall be immediately corrected to the satisfaction of the Engineer. Failure or neglect on the part of the Engineer to condemn unsatisfactory material or reject inferior workmanship shall not release the Contractor, nor shall it be construed as an acceptance of such work, nor shall the final acceptance of such work bar the Jurisdiction from recovering damages on account thereof.
- B. Any defective work shall be removed and replaced at the Contractor's expense. Should the Contractor fail or refuse to remove defective work when so ordered by the Engineer, the Engineer shall have authority to order the Contractor to suspend further operations, and may withhold payment on estimates until such defective work has been removed and replaced according to the contract documents.
- C. Continued failure or refusal on the part of the Contractor to correct defective work promptly shall be sufficient cause for the Jurisdiction to declare the contract in default. No compensation will be paid to Contractor for defective work or materials, or for the satisfactory removal, correction, or disposal thereof.

1.09 UNAUTHORIZED WORK

- A. Unauthorized work is work done contrary to the work shown in the contract documents. The Jurisdiction will not pay for unauthorized work.
- B. Unauthorized work may be ordered to be removed and replaced immediately at the Contractor's expense.

1.10 LINE AND GRADE STAKES

- A. Minimum standards for construction survey provided by the Jurisdiction will meet the requirements of Section 11,010. The Engineer will set the necessary stakes promptly upon notification by the Contractor that stakes are needed.
- B. The work shall be performed in strict conformity with the contract documents and to the lines and grades as fixed by the Engineer, and shall be according to such instructions as may be given by the Engineer. When such stakes or lines are given by the Engineer, the Jurisdiction will be responsible for the correctness thereof, and the Contractor will be responsible for their proper use, interpretation, and preservation.
- C. The Contractor shall protect and preserve in their original position all stakes, points, or marks set for the work by the Engineer. Where the Engineer shall consider such stakes, points, or marks to have been unnecessarily altered or destroyed, the Engineer may cause the expense of correcting or replacing them to be charged to the Contractor and the amount of such costs deducted from any monies due or which may become due to the Contractor under the contract.

1.11 PROVIDING JOB SITE UTILITIES

- A. The Contractor shall make all necessary arrangements for the provision to the job site of all required utilities for the project. The Contractor shall arrange its work so it will not be delayed because such regulations or requirements relating to the use of utilities. All costs for the provision of utilities to the job site shall be borne by the Contractor.
- B. Fire hydrants shall not be used by the Contractor or its subcontractors unless authorization for such use has been obtained from the appropriate water utility agency.

1.12 SALVAGE

- A. When the contract documents specify salvage of materials for the Jurisdiction as part of the work, the material to be salvaged shall be carefully salvaged and delivered to the designated location in the best condition and ready for storage. When the contract documents provide for salvage of such materials by the Contractor, the Contractor shall salvage such materials and promptly remove them from the site.
- B. The Contractor shall not allow inspection or sale of salvage materials to third parties at the site without written approval of the Jurisdiction.

1.13 PROTECTION OF WATER QUALITY AND WETLANDS

- A. The Contractor shall comply with the requirements of the Clean Water Act (33 U.S.C. 1344 and 33 CFR 323) and Executive Order 11990. When it becomes necessary for the Contractor to work in waters of the United States, the Contractor shall be aware that a Section 404 permit may be required.
- B. When required, the Contracting Authority will obtain a Section 404 permit for essential work on the right-of-way prior to the award of the contract. The Contractor shall adhere to the requirements of the permit. Activities occurring in or across waters of the United States not specifically reviewed and approved in the permit are not authorized. If the Contractor desires to use construction methods that are not specifically approved by the permit, the Contractor shall be responsible for obtaining approval in the form of a new Section 404 permit from the U.S. Army Corps of Engineers and possibly Iowa DNR. The Contractor shall not use construction methods that require additional mitigation by the Contracting Authority. The Contractor will not be granted additional compensation or contract time due to their request for a new permit. If, however, due to no fault of the Contractor, a Section 404 permit modification involving activities within the right-of-way is deemed necessary by the Engineer, additional contract time and/or compensation may be considered.

1.14 FINAL INSPECTION AND ACCEPTANCE

- A. As soon as practicable after the completion of the work, it will be inspected thoroughly by the Engineer. The Contractor will be notified when the inspection is to be made so it or its representative may be present.
- B. If the inspection reveals any defects in the work as contemplated by the specifications, such defects shall be repaired or unsatisfactory work shall be replaced, as the Engineer may direct, before final acceptance. The cost of all such repairs and replacement shall be borne by the Contractor, and no extension of the contract time shall be granted because of the time required to remedy such defects.
- C. When the work is found to be satisfactory, it will be accepted as provided in Section 1090, 1.08 - Acceptance and Final Payment. Such final acceptance will not be reopened after having once been made, except on evidence of collusion, fraud, or obvious error.

1.15 ADDITIONAL CONTRACTOR RESPONSIBILITIES

If a form of automated machine guidance (AMG) is used for grading or paving operations, the following is required:

- A. At least one week prior to the preconstruction meeting, submit to the Engineer for review a written AMG work plan which indicates the following:
 - Equipment type
 - Control software manufacturer and version
 - Proposed location of GPS base station for broadcasting differential correction data to rover units
 - Proposed locations where AMG will be utilized
- B. Provide Engineer with up to 8 hours of formal training on Contractor's AMG systems.
- C. For grading contracts, provide a rover for use by the Engineer.
- D. Check and recalibrate, if necessary, the AMG system at the beginning of each work day.
- E. Contractor will bear all costs associated with use of the AMG system, including but not limited to reconstruction of work that may be incurred due to errors in application of the AMG system. Correction of grade elevation errors and any associated quantity adjustments resulting from the Contractor's activities are to be done at no cost to the Contracting Authority.

END OF SECTION

CONTROL OF MATERIALS**1.01 MATERIALS SOURCE OF SUPPLY AND QUALITY REQUIREMENTS**

- A. Materials used in the work shall meet all quality requirements of the contract documents. In order to expedite inspection and testing of materials, the Contractor shall notify the Engineer in writing of the proposed sources of those materials requested by the Engineer promptly after being awarded the contract. Any material shall be produced with a reasonably uniform quality and within requirements specified; the producer shall perform quality control tests and evaluations the producer believes necessary to control the product adequately. All materials for use in the project are subject to inspection and tests at any time prior to being incorporated into the work.
- B. For the convenience of the Contractor, and when convenient to the Engineer, materials may be inspected at the site of production. Materials tested and found in compliance at the site of production may be later inspected for reasonably close conformity and normally will not be rejected except for obvious mistakes, contamination, quality change, or mishandling. To avoid later rejection, materials that usually show an extreme change in character or quality prior to or during the process of incorporation into the work should be produced to more rigid limits than those required by the specifications.
- C. At the option of the Engineer, approval of the source, or approval of materials at the source prior to delivery, may be required. If it is found after trial that sources of supply for previously approved materials do not produce specified products or when conditions are such that use of unfit materials can not be prevented except by extraordinary inspection methods, the Contractor shall furnish materials from other sources. Before delivery, and at any time during the process of preparation and use, materials shall be subject to the approval of the Engineer.
- D. Materials not previously inspected will be inspected at the project site. Acceptance at that time will be based on sampling and testing, producer's certifications, visual inspection, or any combination of these at the discretion of the Engineer.
- E. Use of materials on the basis of the producer's certification, quality control tests, and evaluations may be permitted or required. The Engineer may require specific data obtained by qualified persons and procedures be provided with the material, when delivered. Certified gradation testing by a certified aggregate technician will be required for all aggregates to be furnished by the Contractor, and shall be done according to the current Iowa DOT Materials I.M. 209.

1.02 ALTERNATE PROCESSES, EQUIPMENT, OR MATERIALS

- A. **General:** In order to establish a basis of quality for the work, performance, or economy of operation, certain processes, types of machinery and equipment, or kind of material may be referenced in the contract documents by designating a manufacturer by name and referring to its brand or model numbers. Such reference is not intended to foreclose other processes, equipment or materials that will in the sole discretion of the Engineer meet, or exceed, the designated standards. There may be instances where the Engineer will not consider alternate processes, equipment, or materials.
- B. **Consideration:**
 - 1. The Jurisdiction may consider alternate processes, equipment, or materials for those specified in the contract documents; however, it is only an indication that the Jurisdiction will not foreclose consideration of the bidder's/contractor's request, and is not an approval. Following are the steps for consideration of alternate processes, equipment, or materials:

1.02 ALTERNATE PROCESSES, EQUIPMENT, OR MATERIALS (Continued)

- a. If a bidder/contractor desires to use alternate processes, equipment, or materials, the bidder/contractor shall contact the Engineer to confirm the Jurisdiction would consider alternate processes, equipment, or materials for those as specified in the contract documents.
 - b. Support/requirements for submissions of alternatives:
 - 1) The Engineer will consider and evaluate other products, equipment, methods, and systems only when such items are accompanied by full and complete technical data, test data, code compliance, and other relevant information, including samples and finishes where appropriate.
 - 2) The bidder/contractor shall submit design information, material compatibility, performance, durability, laboratory tests, chemical analysis, color, manufacturer's specifications, and other relevant information as proof of quality and integrity when presenting proposed alternatives to the Engineer for consideration. The bidder/contractor must include the kind, quality, design, and performance of the proposed materials and equipment.
 - 3) If alternate methods are proposed, the contractor shall furnish complete engineering plans covering the proposed change.
 - 4) It is the sole responsibility of the proposer of any alternative product to have pre-qualified the product proposed for its intended use for compliance with all applicable codes within the Jurisdiction prior to submittal to the Engineer for consideration.
 - c. In making an alternative request, the contractor shall be responsible for all costs including reimbursing the Engineer for services furnished and any time required to review the proposed change.
 - d. If the bidder/contractor desires to use alternate processes, equipment, or materials for those as specified in the contract documents, the bidder/contractor shall secure the written approval of the Engineer before entering an order therefore.
 - e. Proposed alternative processes, equipment, or materials that will in the sole discretion of the Engineer meet, or exceed, the designated standards will be given written approval to be used on the project as an "Approved Equal" or "Equivalent" to the specified item.
 - f. If approval as an "Approved Equal" or "Equivalent" is given by the Engineer, such approval will be on the condition that the bidder/contractor shall be fully responsible for producing construction work in reasonably close conformity with contract requirements.
 - g. In order to ensure fair competitive bidding, it is critical that all bidders base their bids on providing the material, equipment or process (including those trade named) fully complying with the contract documents.
 - h. The contractor shall not be entitled to any additional compensation if the Engineer does not approve the contractor's request for alternate processes, equipment, or materials after the contract is awarded. The bidder/contractor is solely at risk until the Engineer issues written notification of "Approved Equal" or "Equivalent."
 - i. The Jurisdiction reserves the right to adjust the contract price when the cost of an "Approved Equal" or "Equivalent" is less than the cost of the specified item. The contractor shall estimate the net savings of the proposed alternate and if the Engineer approves the proposal, a change order may be processed to reduce the contract amount by up to 50% of the estimated net savings of the "Approved Equal" or "Equivalent."
2. If the contract documents state that the Jurisdiction will not consider alternate processes, equipment, or materials, the bidder/contractor shall not propose any alternates to those specified in the contract documents.

1.03 SAMPLES AND TESTING

- A. Each consignment of material shall be tested or inspected before being incorporated into the work and shall be approved by the Engineer in charge of the work before it is used. The Contractor shall allow such facilities for collecting and forwarding samples and subsequent testing as the Engineer may require.
- B. Samples shall be supplied to allow ample time for testing without delaying the work. No material for which samples are requested shall be used until the samples have been approved. If necessary, work will be delayed or suspended, at no cost to the Jurisdiction, to permit the completion of all specified tests and examinations. Tests made on the samples of materials utilized for improvements constructed under these specifications will be made by the Jurisdiction at no cost to the Contractor.
- C. All tests shall be made by the Jurisdiction testing laboratory, or at such independent testing laboratories as the Engineer shall approve. Except as otherwise specified, the testing of materials furnished for use under these specifications shall be done according to the methods described in the specific ASTM, AASHTO, AWWA, or other authorized specifications for each material. Results of all tests shall be submitted to the Engineer.

1.04 STORAGE OF MATERIALS

The Contractor shall be responsible for care and storage of materials delivered to the work site or purchased for use. Material delivered to the work site and damaged before actual incorporation in the work may be rejected by the Engineer even though it may have been previously acceptable. Stored materials shall be located to facilitate thorough inspections, to minimize environmental damage, and not interfere with operations.

1.05 UNACCEPTABLE MATERIALS

All materials not conforming to the requirements of the specifications at the time they are to be used shall be considered unacceptable, and all such materials will be rejected and shall be removed immediately from the work site unless otherwise instructed by the Engineer. No rejected material, the defects of which have been corrected, shall be used until approval has been given by the Engineer.

1.06 MATERIALS SUPPLIED BY THE JURISDICTION

When any materials are to be furnished by the Jurisdiction, the designation of such materials and the time of availability will be included in the contract documents.

1.07 MATERIALS SUPPLIED BY THE CONTRACTOR

- A. Unless otherwise stated in the contract documents, all materials and equipment needed for, or to become a part of, the work shall be furnished by the Contractor. The Contractor shall assume full responsibility for ordering materials and equipment of the quality specified and of the quantity necessary, and shall be responsible for payment of the purchase and/or delivery cost of such materials and equipment.
- B. All materials and equipment that become the property of the Jurisdiction as a part of the project shall be unused and newly produced or manufactured with original materials (as opposed to recycled or used materials), shall be state of the art for that material or equipment, and shall be properly stored to protect the integrity of the material and equipment. The Engineer may waive this provision and accept used or recycled material or equipment prior to submission of the bid. Such waiver must be in the form of an addendum.

END OF SECTION

LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC**PART 1 - LEGAL RELATIONS****1.01 MUNICIPAL REGULATIONS, STATE, AND FEDERAL LAWS AND REGULATIONS**

- A. The Contractor shall at all times observe and comply with all applicable Federal, State, County, or City laws, ordinances, orders, and regulations.
- B. References in these specifications to particular chapters or sections of the Iowa Code shall be to those chapters or sections as they appear in the current version of the Iowa Code. In the event such chapters or sections of the Iowa Code are subsequently amended, the specifications shall be deemed to refer to those chapters or sections as amended.
- C. During the performance of this contract, the contractor (for itself), its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:
 - 1. Compliance with Regulations: The contractor shall comply with the Regulations relative to non-discrimination in Federally assisted programs of the DOT Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time, (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this contract.
 - 2. Nondiscrimination: The contractor, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, color, national origin, sex, age, or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall not participate either directly or indirectly in the discrimination prohibited by section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations.
 - 3. Solicitations for Subcontracts, Including Procurement of Materials and Equipment: In all solicitations either by competitive bidding or negotiation made by the contractor for work to be performed under a subcontract, including procurement of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the contractor of the contractor's obligations under this contract and the Regulations relative to non-discrimination on the grounds of race, color, national origin, sex, age, or disability.
 - 4. Information and Reports: The contractor shall provide all information and reports required by the Regulations or directives issued pursuant there to, and shall allow access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Contracting Authority, the Iowa DOT, or FHWA to be pertinent to ascertain compliance with such Regulations, orders and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information the contractor shall so certify to the Contracting Authority, the Iowa DOT, or the FHWA as appropriate, and shall set forth what efforts it has made to obtain the information.
 - 5. Sanctions for Noncompliance: In the event of the contractor's noncompliance with the nondiscrimination provisions of this contract, the Contracting Authority, the Iowa DOT, or the FHWA shall impose such contract sanctions as they may determine to be appropriate, including, but not limited to:
 - a. Withholding of payments to the contractor under the contract until the contractor complies, and/or
 - b. Cancellation, termination, or suspension of the contract, in whole or in part.

**1.01 MUNICIPAL REGULATIONS, STATE, AND FEDERAL LAWS AND REGULATIONS
(Continued)**

6. Incorporation of Provisions: The contractor shall include the provisions of paragraphs (1) through (6) in every subcontract, including procurement of materials and leases of equipment, unless exempt by the Regulations, or directives issued pursuant thereto. The contractor shall take such action with respect to any subcontract or procurement as the Contracting Authority, the Iowa DOT, or the FHWA may direct as a means of enforcing such provisions including sanctions for non-compliance: Provided, however, that, in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the contractor may request the Contracting Authority or the Iowa DOT to enter into such litigation to protect the interests of the Contracting Authority or the Iowa DOT; and, in addition, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

1.02 GOVERNING LAW

The law of the State of Iowa shall govern this contract and all subcontracts for materials and services entered into by the Contractor.

1.03 PERMITS AND LICENSES

The Contractor shall procure all necessary permits for the construction of the work and for temporary excavations, obstructions, enclosures, and street openings arising from the construction and completion of the work described in the contract documents. The cost for all required Jurisdictional permits and licenses will be waived by the Jurisdiction. The Contractor shall be responsible for all violations of the law for any cause in connection with the construction of the work or caused by the obstruction of roads, streets, highways, or sidewalks, and shall give all requisite notices to the Jurisdiction or other public authorities in connection therewith.

1.04 PATENTS AND ROYALTIES

The Contractor shall defend, indemnify, and save the Jurisdiction harmless against all claims arising from alleged infringements of patents and royalties covering tools, machinery, processes, appliances, devices, or materials used in connection with the work. Unit prices provided in the proposal shall include payment of all necessary royalties or licenses.

1.05 USE AND OCCUPANCY PRIOR TO COMPLETION OF CONTRACT

The Contractor shall complete any portion or portions of the work in such order and at such time as the Engineer may require. The Jurisdiction shall have the right to use any completed or partially completed portions of the work at any time, but such possession and use shall not be deemed an acceptance of the work so used or any part thereof. If such prior use increases the cost of or delays the work, the Contractor shall be entitled to such extra compensation or extension of time, or both, as the Engineer may determine appropriate. When improvements are released to the Jurisdiction for public use prior to final approval and acceptance, the Contractor will be relieved of the responsibility for damages due to the elements or due to ordinary public use, but only the released and used portion of the improvements. Such release by the Contractor to the Jurisdiction for public use shall be directed in writing by the Engineer.

1.06 CONTRACTOR'S RESPONSIBILITY FOR THE WORK

- A. Until the work is accepted by the Jurisdiction, it shall be in the custody of and under the charge, care, and control of the Contractor, who shall take every precaution against damage to the work by action of the elements or any other cause. The Contractor shall rebuild, repair, restore, and make good at its own expense, all damages to any portion of the work before acceptance thereof by the Jurisdiction. Issuance of any estimate or partial payment for work done will not be considered as final acceptance of any work completed.

1.06 CONTRACTOR'S RESPONSIBILITY FOR THE WORK (Continued)

- B. If the Contractor completes a unit or portion of the work, the Jurisdiction may at its discretion accept such work and the Contractor may be relieved of further responsibility for such unit or portion of the work. Such partial acceptance shall not void or alter any of the terms of the contract, nor shall it constitute final acceptance of the work as provided in Section 1090, 1.08 - Acceptance and Final Payment.

1.07 RESPONSIBILITY FOR DAMAGE CLAIMS

The parties agree that it is their intent that there be no third-party beneficiaries to this contract. No provision of this contract or of any addendum, materials instructional memorandums, plans, proposal, special provision, developmental specification, supplemental specification, or general supplemental specification shall be construed as creating any third-party beneficiaries.

1.08 PERSONAL LIABILITY OF PUBLIC OFFICIALS

Neither the Engineer nor the Engineer's authorized representatives, agents, or assistants shall have any liability, either personally or as officials of the Jurisdiction, in carrying out any of the provisions of the Contract or in exercising any power or authority granted to them thereby. It being understood that in such matters they will act as the agents and representatives of the Jurisdiction.

1.09 WAIVER OF LEGAL RIGHTS

- A. The Jurisdiction shall not be precluded or estopped by any measurement, estimate, or certificate made either before or after the completion and acceptance of the work and payment therefore, from showing the true amount and character of the work performed and the materials furnished by the Contractor, or from showing that any such measurement, estimate, or certificate is untrue or incorrectly made, or from showing that the work or materials do not in fact conform to the contract documents.
- B. The Jurisdiction shall not be precluded or estopped, notwithstanding any such measurement, estimate, or certificate and payment in accordance therewith, from recovering from the Contractor and its surety such damages as it may sustain, and all outlay and expense it incurs, by reason of the Contractor's failure to comply with the terms of the Contract. Neither the acceptance by the Jurisdiction nor any of its representatives, nor any payment for acceptance of the whole or any part of the work, nor any extension of time, nor any possession taken by the Jurisdiction, shall operate as a waiver of any portion of the contract, or any powers herein reserved, or any right to damages herein provided. A waiver of any breach of the contract shall not be held to be a waiver of any other subsequent breach.
- C. The Contractor hereby waives any claims it may hereafter be entitled to assert against the Jurisdiction, its officers, agents, employees, or consultants, on its behalf or on behalf of its employees, agents, subcontractors, sub-subcontractors, and suppliers, for loss of or damage to personal property, tools, or equipment owned by it or its employees, agents, subcontractors, sub-subcontractors, and suppliers, which loss or damage is sustained on the Jurisdiction's project property, or which occurs during work on the project, and the Contractor agrees to assume liability or responsibility for such claims and to procure insurance to cover its exposure in that regard.

1.10 ACCEPTANCE BY THE JURISDICTION - NOT A WAIVER OF CONTRACTOR'S OBLIGATIONS OR A WAIVER OF THE JURISDICTION'S RIGHTS

- A. In various provisions of the contract documents, including these specifications, the Jurisdiction has reserved to itself or the Engineer the authority to test or inspect materials, equipment, or manufactured assemblies and to accept or reject those and other elements of the work.

1.10 ACCEPTANCE BY THE JURISDICTION - NOT A WAIVER OF CONTRACTOR'S OBLIGATIONS OR A WAIVER OF THE JURISDICTION'S RIGHTS (Continued)

- B. In various provisions of the contract documents, including these specifications, the Jurisdiction has reserved to itself or the Engineer the authority to require the Contractor's preparation of shop drawings for review and to accept or reject same. If unanticipated and either unusual or complex construction procedures or site conditions occur, the Engineer may require the Contractor to submit such shop drawings as, in the judgment of the Engineer, are necessary to satisfactorily complete the proposed construction.
- C. Acceptance or approval by the Engineer as therein provided shall not operate to relieve the Contractor of its obligation (1) to perform the work as required by the contract documents in a workmanlike manner and according to the standards for construction applicable to the type of work covered by this contract generally observed by contractors in this locale and (2) to provide materials and equipment meeting the quality requirements as provided in the contract documents. The Jurisdiction assumes no responsibility for errors in shop drawings and assumes the Contractor will use material complying with requirements of the contract documents or, where not specified, those of sound and reasonable quality, and will erect the subjects of such shop drawings according to recognized standards of first quality work or, when specified, according to standards of the contract documents.
- D. No such acceptance by the Jurisdiction shall constitute a waiver by the Jurisdiction of its right to subsequently reject defective work, materials, or equipment. Further, no such acceptance by the Jurisdiction or the Engineer shall be deemed a waiver by the Jurisdiction of its right to recover from the Contractor all losses, damages, outlay, or expense it incurs, which is attributable to such defective work, materials or equipment, or manufactured assemblies, nor shall such acceptance or approval be deemed a waiver of the Jurisdiction's right to indemnity from the Contractor for damage or injury to third parties occasioned by such defective work, materials, or equipment.

1.11 BUSINESS ORGANIZATION REQUIREMENTS

The bidder, or contractor, as a business organization shall comply with the following:

- A. A corporation, limited liability company, limited partnership, or other type of business organization governed under Iowa statutes must be registered with the Iowa Secretary of State, must use the name under which it is registered with the Iowa Secretary of State, must be authorized to do business in Iowa, and must be registered as a contractor with the Iowa Department of Labor.
- B. A partnership, sole proprietorship, company operating under a trade name, or other type of business organization not governed under Iowa statutes should be registered in the Office of the County Recorder where it is located or where the work is to be performed, must use the name under which it is registered, and must be registered as a contractor with the Iowa Department of Labor. Prior to entering into contract, the designated low bidder, if it is not required to be registered with the Iowa Secretary of State, shall provide to the Jurisdiction the name and address of its registered agent or lawful representative upon whom legal notices and processes may be served. The registered agent or lawful representative must be an Iowa resident, an Iowa profit or nonprofit corporation, or a foreign profit or nonprofit corporation qualified to do business in Iowa.
- C. A foreign business organization, organized under the laws of a state other than Iowa, shall file with the Engineer's documentation that it has complied with all the provisions of this section prior to entering into a contract.

1.11 BUSINESS ORGANIZATION REQUIREMENTS (Continued)

- D. If a bid is proposed to be submitted by two persons or entities as a joint venture, the names of the two persons or entities appearing on the documents must be followed by the notation – “a joint venture.” In that instance, the bid must also be signed by authorized agents of both entities, and the bid security must indicate that it “applies to and covers the proposal for construction of (Project Name) submitted by the (principal on bond) and (name of other company), submitted as a joint venture proposal.” A bid submitted by two persons or entities without any indication they are submitting it as a joint venture, without being signed by authorized representatives of both entities, and without bid security covering both entities as a joint venture, will be rejected.

1.12 CONSENT TO JURISDICTION OF IOWA DISTRICT COURT OR FEDERAL DISTRICT COURT IN IOWA

The Contractor agrees that any causes of action that accrue to it, or which by subrogation or assignment accrue to its sureties or insurers, arising out of or connected with this contract shall be brought in the Iowa District Court in and for the County where the Jurisdiction is located or in the United States District Court in and for the District where the Jurisdiction is located. Contractor further consents, on behalf of itself and its subrogees and assigns, to the jurisdiction of either the Iowa District Court in and for the County where the Jurisdiction is located or the United States District Court in and for the District where the Jurisdiction is located, as to any causes of action brought against it arising out of this contract or any work performed under it by Contractor or its subcontractors, and further agrees, on behalf of itself, its subrogees and assigns, to waive any and all objections to the jurisdiction of said court as to any such cause of action.

1.13 SEVERABILITY

It is the intent of the Jurisdiction and the Contractor that the lawful provisions of this contract shall be severable from any provisions of this contract that are hereafter declared to be illegal or void by a court of competent jurisdiction.

PART 2 - RESPONSIBILITIES TO THE PUBLIC**2.01 SANITATION**

The Contractor shall arrange for the necessary sanitary conveniences, properly secluded, for the workers on the project. These shall be maintained in a manner inoffensive to the public and in compliance with the local health regulations.

2.02 CONVENIENCE AND SAFETY

A. Use of Streets: The Contractor is granted the privilege of using Jurisdictional roads, streets, or highways, as shown on the plans, for the purpose of doing work specified in the contract, but is not granted exclusive use of such roads, streets, or highways.

B. Protection of Workers and the Public: The Contractor shall erect and maintain good and sufficient guards, barricades, and signals at or near the work according to the MUTCD and all applicable laws, regulations, and specifications. The Contractor shall, in all cases, maintain safe passageways at all road crossings, crosswalks, and street intersections and shall do all other things necessary to prevent an accident or loss of any kind.

After November 24, 2008, all personnel shall wear ANSI 107 Class 2 apparel at all times when exposed to traffic or construction equipment in the right-of-way.

C. Convenience and Access: The Contractor shall handle the work in a manner that will cause the least inconvenience and annoyance to the general public and to the property owners abutting the work area. The Contractor shall also provide access to the abutting property to the greatest extent practicable.

D. Worker Safety: The Contractor shall comply with all current and future federal and state OSHA requirements. Nothing in this contract or any action by the Jurisdiction shall be interpreted or construed as a waiver of OSHA requirements. It is the Contractor's obligation to follow OSHA requirements and standards at all times.

E. Project Area or Work Site Safety:

1. In accordance with Section 1070, 1.06, until the work is accepted by the Jurisdiction, the work shall be in the custody of and under the charge, care, and control of the Contractor. The Contractor is also responsible for the project area or work site. The Contractor is solely responsible for the safety of everyone on its work site.
2. The Contractor should have a safety program; however, the Contractor need not submit a safety program to the Jurisdiction, and the Jurisdiction will not review or approve the Contractor's safety program. The Jurisdiction assumes that the Contractor will maintain a safe worksite; however, the Jurisdiction's staff will not intrude in the Contractor's responsibility for safety issues.
3. The Engineer may assign some or all of the duties and responsibilities of the Engineer to an authorized representative for a given project. Nothing contained in this section or in the contract documents shall be construed as requiring or permitting the Engineer to direct the means, methods, sequences, or procedures, including safety measures, of performing any work under the contract or contract documents, except to assure that the quality of work conforms to these specifications and other provisions of the contract documents and that the contract will be completed as scheduled.

2.02 CONVENIENCE AND SAFETY (Continued)

4. The Engineer may appoint an authorized representative on the work site to monitor the materials used and the work done by the Contractor. The Engineer's authorized representative is not a safety inspector and is not responsible for monitoring, directing, or otherwise ensuring the safety of the Contractor, its subcontractors, its suppliers, or any others that may be on the work site.
5. Construction of the work included in the contract is by its nature dangerous work; and the Contractor is hereby notified that it is the Contractor's sole responsibility to provide as safe a working site as possible given the nature of the work. It is the Contractor's responsibility to notify and advise its employees, subcontractors, suppliers, and everyone on the worksite of the dangers associated with the work, and provide them with appropriate safety information to protect them from those dangers.

2.03 WORK AREA

- A. The Contractor shall confine its work to the Jurisdiction's premises, including construction easements and construction limit lines as shown in the contract documents and verified by the Engineer. The Contractor shall not enter upon or place materials on any private property for which the Jurisdiction has not obtained an easement for such use. The Contractor agrees to defend, indemnify, and hold the Jurisdiction harmless from all suits and actions of every kind and description resulting from the Contractor's use of private property. Before beginning construction, the Contractor shall check with the Engineer for any special instructions concerning easements.
- B. Temporary buildings, storage sheds, shops and office, etc., may be erected by the Contractor only with the prior approval of the Engineer and shall be built with labor and materials furnished by the Contractor without expense to the Jurisdiction. Such temporary buildings and utilities shall remain the property of the Contractor and shall be removed by the Contractor, at its expense, after the completion of the work.

2.04 PROJECT AREA FOR THE WORK

- A. **Acquisition:** Existing and proposed additional right-of-way or easements shown on the plans and/or in the contract documents will provide, without cost to the Contractor, adequate space for the performance of the work. If the contract documents do not contain a notice to the Contractor of non-acquired additional right of way or easements, as shown on the plans, and the Contractor provides documentation acceptable to the Engineer, compensation will be allowed for loss or damage occasioned by delays in securing said right-of-way or easements; and, if the need to acquire such additional right-of-way or easements is the sole and only cause of the impossibility of completing the work within the specified time, the Jurisdiction may grant an extension of time if requested by the Contractor. Before beginning construction, the Contractor shall obtain from the Engineer a list of any easements or right-of-way not acquired and any special instructions pertaining to properties affected by the work.
- B. **Location:** Property lines, limits of easements, and limits of construction permits are indicated on the plans, and it shall be the Contractor's responsibility to confine its construction activities within those limits.
- C. **Use:** The Contractor shall confine its equipment, storage of materials, and operation of work to the limits indicated by laws, ordinances, permits, or direction of the Engineer and shall not unreasonably encumber the premises with its materials. The Contractor shall comply with the Engineer's instructions regarding signs and advertisements.
- D. **Encroachments:** Any damage resulting to persons or property from the Contractor's encroachment beyond the specified limits shall be the sole responsibility of the Contractor.

2.05 EXPLOSIVES

- A. Use:** The Contractor shall not blast any rock or other materials or allow the same to be done in prosecution of the work, unless it secures the Engineer's approval, proper insurance coverages, and a blasting permit when required.
- B. Safety:** The Contractor is solely responsible for all damage resulting from blasting operations performed by the Contractor or its agents. The Contractor shall use the utmost care to not endanger life or damage property; and whenever ordered by the Engineer, the number and size of the charges shall be reduced. Suitable coverages or mats shall be provided to confine all materials lifted by blasting within the limits of the excavation or trench. All explosives shall be stored in a secure manner and clearly marked according to all applicable laws and regulations.
- C. Regulations:** The Contractor shall abide by all existing Federal, State, and Local regulations regarding the use of explosives, including, but not limited to, Uniform Fire Code, Article 77, and National Fire Protection Association 495, Explosive Materials Code of the National Fire Codes.

2.06 TRAFFIC CONTROL**A. General:**

1. The Contractor shall maintain traffic and shall provide and maintain traffic control devices according to the contract documents. If there is no specific traffic control plan, then the Contractor's traffic control devices shall meet the requirements of and be placed according to the current edition of MUTCD.
2. During construction, areas to be maintained for traffic shall be kept clear of all hazardous materials, including but not limited to construction debris, dust, and mud.

B. Closing Streets to Traffic:

1. Upon the Engineer's approval, the Contractor may close streets or parts of streets to vehicular traffic as soon as the construction work is started; such streets or parts of streets shall remain closed as long as construction work or condition of the finished work requires. The Engineer will determine how many streets or parts of streets may be closed by the Contractor at one time, and may refuse to allow the closing of additional streets until some of the improvement is finished and opened to traffic.
2. The Contractor shall notify the Engineer 48 hours in advance (excluding weekends) of closing any roads, streets, or public thoroughfares. No road or street shall be closed without prior approval from the Engineer.
3. The Contractor shall not remove, relocate, or reset any permanent Jurisdictional traffic control devices unless authorized to do so by the Engineer or contract documents. If a sign must be removed or relocated for any phase of construction, the Contractor shall notify the Engineer of the necessity for removal. The Engineer shall arrange for the removal, relocation, or resetting of permanent traffic control devices by Jurisdictional personnel as needed to allow the work to proceed. If Jurisdictional personnel are not available, the authorized Jurisdictional representative may give authorization to the Contractor to remove, relocate, or reset the permanent traffic control devices.
4. In the event the Contractor removes or relocates a traffic control sign without prior notice to or authorization from the Engineer, the Contractor shall bear all responsibility and liability to any person sustaining bodily injury or property damage on account thereof.

2.07 PROTECTION OF ABOVEGROUND AND UNDERGROUND FACILITIES

- A. The Engineer has attempted to show on the plans all aboveground and underground facilities, including public and private utilities, which may be affected by the work. The location, depth, and size of each such facility shown on the plans is approximate only and is not guaranteed. Other underground facilities may exist and their location may not be presently known or identified. It is the Contractor's responsibility to determine the existence and exact location of all such facilities located within the construction area to avoid damage.
- B. Where existing facilities are shown in the contract documents or encountered within the construction area, it shall be the responsibility of the Contractor to notify the operators of those facilities prior to beginning any construction activities. The Contractor shall allow access to those facilities for necessary modification of services. The Contractor shall support, sustain, and protect existing pipes, conduits, poles, wires, and other apparatus located under, over, along, across, or adjacent to the work site. If such utilities are damaged through Contractor's negligence, they will be repaired by the agencies having control of same, but the cost of such repairs shall be paid by the Contractor.
- C. The Contractor shall, prior to commencing any excavation or other operation that may affect underground facilities, notify the "Iowa One Call" underground facility locate system, established pursuant to Iowa Code Chapter 480. The Contractor shall, if requested by the operator of an underground facility, assist in the location of its facilities; provided, however, the Jurisdiction shall not be responsible to the Contractor or to any operator of an underground facility for the cost of locating such facility, or for any damage to such facility that occurs in attempting to locate it, or for any damage to the facility occasioned by the Contractor's performance of work under the contract.
- D. Claims for additional compensation will not be allowed to the Contractor for any interference, delay, or additional work occasioned by the location or adjustment of aboveground or underground facilities, or connections thereto.

2.08 PROTECTION OF PROPERTY

- A. The Contractor shall continuously maintain adequate protection of all its work from damage and shall protect the Jurisdiction's property and adjacent private property from injury or loss arising in connection with the work. The Contractor shall repair or restore any such damage, injury, or loss to Jurisdiction property or adjacent private property.
- B. Protect existing facilities, trees, and shrubs to remain in place. Any damage to existing trees or shrubs, branches, and root systems to remain and to be protected shall be repaired and/or pruned by an experienced tree surgeon or arborist. Do not disturb soil within 10 feet of the drip line of trees without notifying the Engineer. The Contractor shall mark the 10 foot limit from the drip line.

2.09 LAND MONUMENTS

- A. The Contractor will be required to preserve all center stones, land monuments, or other property marks the Contractor may find in prosecuting the work. The Contractor shall notify the Engineer of the finding of any land monuments and shall not remove or disturb same until permission is given to do so, at which time the Contractor shall properly remove said landmarks under the direction of the Engineer.
- B. For every land monument lost or destroyed by the Contractor, the Contractor may be charged, and such amount shall be deducted from any monies due or may become due to the Contractor under the contract.

2.10 DUST CONTROL

During construction operations, the Contractor shall be responsible for the control of dust to a degree compatible with the area in which the construction is being performed and with existing environmental regulations. In the event the Contractor does not control dust as specified, the Jurisdiction reserves the right to order dust control to be performed by other forces and withhold the cost thereof from any monies due or may become due to the Contractor under the contract.

2.11 ENVIRONMENTAL AND HISTORIC ITEMS

If contaminated soils, historical artifacts, or other environmental or historic items are encountered, stop work and notify the Engineer.

2.12 RAILROAD CROSSINGS

The authority for performing work beneath, at grade, or over railroad tracks will have been previously secured by the Jurisdiction. It shall be the Contractor's responsibility to contact the railroad company officials prior to beginning the work on railroad property or easements. The Contractor shall perform the work without damage to the facilities and property of the railroad or its lessees, and in strict observance of requirements for the safety of the railroad property and operations. All such work will be subject to the inspection of the railroad's representative. The Contractor shall protect, indemnify, and hold the Jurisdiction harmless from any and all damages resulting from its operations on railroad property or easements or in the construction of railroad crossings according to Section 1070, Part 3 - Bonds and Insurance.

2.13 BORROW AND WASTE SITES

- A. Unless borrow or waste sites are designated on the plans or specified in the special provisions, the Contractor shall secure and operate such sites at its own expense.
- B. In all cases, borrow and waste sites shall be operated in such a manner as to meet Federal, State, and local safety, environmental, and health requirements. Site operations, or the result of such operation, that create a definite nuisance or result in damage to public or private property will not be permitted. In all cases, sites shall be approved by the Engineer before use.

2.14 MAINTAINING POSTAL SERVICE

- A. It shall be the Contractor's responsibility to contact the U.S. Postal Service to ascertain its requirements for the maintenance of postal service to residents or businesses in the vicinity of the work site according to the instructions of the Postal Service. The Contractor shall be responsible for mailboxes at temporary locations designated by the Postal Service, and at the completion of the work, the Contractor shall replace all mailboxes in locations and conditions satisfactory to the Postal Service.
- B. Not less than 24 hours prior to removing any mailbox, the Contractor shall notify each affected resident or business addressee in writing advising them of the move and the location of their temporary mailbox during construction.
- C. For each residential or business address affected by the work, the Contractor shall place a temporary mailbox at a location approved by the Postal Service. Temporary mailboxes shall be in place so postal service is maintained at all times. Any permanent mailbox that must be removed shall be stored on the property from which it is removed and at a sufficient distance from the work area to ensure it will not be damaged by construction activities.

2.15 FINISHING AND CLEANUP REQUIREMENTS

From time to time, as may be ordered by the Engineer, and immediately after completion of the improvement, the Contractor shall, at its expense, cleanup and remove all refuse and unused materials of any kind resulting from the work. Upon failure to do so within three working days after such request by the Engineer, the work may be done by the Jurisdiction and the cost thereof charged to the Contractor and deducted from its final payment. Upon completion of the work, the Contractor shall remove all its equipment and put the area of the work in a neat and clean condition and do all other cleaning necessary to complete the work in a workmanlike manner satisfactory to the Engineer.

PART 3 - BONDS AND INSURANCE**3.01 PERFORMANCE, PAYMENT, AND MAINTENANCE BOND**

- A. The lowest responsive, responsible bidder shall be required to file, before the contract is awarded, a surety bond for performance, payment, and/or maintenance on a form provided by the Jurisdiction and in penal sum equal to the total bid amount. Said bond shall be executed by a corporation authorized to contract as a surety in the state of Iowa. Said bond shall be filed in the specified number of copies as a part of the executed contract documents for the Jurisdiction's approval and award.
- B. Said bond shall provide that the Contractor shall well and satisfactorily perform and execute the work in all respects, according to the contract documents therefore, and according to the time and conditions of the contract documents, and also that the Contractor shall pay all debts incurred by it in the prosecution of such work, including those for labor and materials furnished. Said bond may also provide for the maintenance of the improvement for the number of years stipulated in the contract documents, and shall remain in full force for the entire maintenance period. Said bond shall in all cases comply with the laws of the State of Iowa and shall be subject to the approval of the Jurisdiction.
- C. Within the time period specified in the maintenance portion of the bond, the Contractor shall, as and when ordered by the Engineer, repair, replace, or rebuild such portions of the work found to be faulty because of materials or workmanship. After being notified of the need for repairs, the Contractor shall submit, within seven calendar days, a written report stating its intentions and schedule for completing the repairs for approval by the Engineer. If the Contractor fails to submit such written report or to make the repairs as approved by the Engineer, the Jurisdiction shall have the right to make such repairs and to collect from the Contractor or its surety all outlay and expense the Jurisdiction incurs in making the repair, and in attempting to enforce the terms of the contract and the bond against the Contractor and its surety.

3.02 INSURANCE REQUIREMENTS

- A. The Contractor shall purchase and maintain insurance to protect the Contractor and the Jurisdiction against all hazards herein enumerated throughout the duration of the contract. Said insurance shall be provided by an insurance company or companies, "admitted" or "non-admitted" to do business in the State of Iowa, having an A.M. Best rating of no less than "B+."
- B. "Insurance," "insurance policy," or "insurance contract" when used in these specifications shall have the same meaning as "insurance policy" and "insurance contract" under Iowa Code Section 507B.2. All insurance required by this section shall provide coverage on an occurrence basis, not on a claims-made basis, and the person or other entity shall provide evidence of such coverage through an "insurance policy," "contract of insurance," or "certificate of insurance" that clearly discloses on its face coverage on an occurrence basis. Insurance coverage required for hazardous materials abatement including removal of lead, asbestos, PCB's, or the like may be provided on a claims-made basis when it is demonstrated to the satisfaction of the Jurisdiction that occurrence coverage is not reasonably available.
- C. Except for workers compensation insurance, the Contractor shall purchase and maintain such insurance as will protect the Contractor and the Jurisdiction as set forth below, which may arise out of or result from the Contractor's operations under the contract, whether such operations be by the Contractor, its subcontractors or consultants, suppliers, third parties, or the agents, officers, or employees of any of them. In addition, the Contractor shall purchase and maintain workers compensation insurance to cover its employees.

3.02 INSURANCE REQUIREMENTS (Continued)

1. Workers Compensation: A standard Workers Compensation policy approved for use in the State of Iowa shall be issued with the following coverages.
 - a. Statutory Benefits covering all employees injured on the job by accident or disease as prescribed by Iowa Code Chapter 85.
 - b. Employers Liability insurance with the following limits:

Bodily injury by accident	\$500,000 each accident
Bodily injury by disease	\$500,000 each accident
Bodily injury by disease	\$500,000 policy limit

2. Commercial General Liability Insurance: No less comprehensive and no more restrictive than the coverage provided by a standard form Commercial General Liability Policy (ISO CG 0001 or its equivalent) with all standard exclusions with minimum limits shown below covering claims for damages because of bodily injury, personal injury, or damage to property that occur on the premises under contract or arise out of the operations in performance of the contract. Any additional exclusions shall be identified on the Certificate of Insurance and shall be subject to the review and approval of the Jurisdiction.

General Aggregate Limit	\$2,000,000
Products' Completed Operations Aggregate Limit	\$2,000,000
Personal and Advertising Injury Limit	\$1,000,000
Each Occurrence Limit	\$1,000,000
Fire Damage Limit (any one fire)	\$50,000
Medical Damage Limit (any one person)	\$5,000

This insurance must include the following features:

- a. Coverage for all premises and operations. The policy shall be endorsed to provide the Designated Construction Project(s) General Aggregate Limit Endorsement (ISO CG 2503 or its equivalent).
- b. Personal and advertising injury.
- c. Operations by independent contractors.
- d. Contractual liability coverage. If work to be performed by Contractor includes construction or demolition operations within 50 feet of any railroad property and affecting any railroad bridge or trestle, tracks, roadbeds, tunnel, underpass, or crossing, then such policy will include a Railroad's Contractual Liability Endorsement (ISO CG 2417 or its equivalent).
- e. Coverage for demolition of any building or structure, collapse, explosion, blasting, excavation, and damage to property below the surface of the ground (XCU coverage).
- f. Any fellow employee exclusions shall be deleted as it applies to managerial and supervisory employees.
- g. The policy shall not contain a total or absolute pollution exclusion. Coverage shall be provided for pollution exposures arising from products and completed operations.
- h. Products and completed operations shall be maintained for the duration of the work; and shall be further maintained for a minimum period of time after final acceptance and payment if required in the Special Provisions.
- i. Contractual liability coverage will also include contractually assumed defense costs in addition to policy limits.
- j. In lieu of including the Jurisdiction as an additional insured on the Contractor's Commercial General Liability Insurance, the Jurisdiction, at its option, may require the Contractor to provide an Owner's Protective Liability Policy by Special Provision, or may allow the Contractor to provide an Owner's Protective Liability Policy by Change Order. If an Owner's Protective Liability Policy is provided, the minimum coverage, limits, and exclusions shall be as shown above; and the Contractor's premium cost of obtaining such insurance shall be considered incidental to the work and shall not be subject to reimbursement by the Jurisdiction.

3.02 INSURANCE REQUIREMENTS (Continued)

3. Automobile Liability Insurance: Covers all owned, non-owned, hired, and leased vehicles with a minimum combined single limit of \$1,000,000 per accident covering claims for damages because of bodily injury, personal injury, or damage to property that arise out of operations in performance of the contract. The insurance must include contractual liability coverage. Any fellow employee exclusion shall be deleted. The policy shall provide Auto Cargo Pollution Endorsement (ISO CA 99 48 or its equivalent), if required in the special provisions.
4. Railroad Protective Liability: If required by the Jurisdiction by special provision, or by an affected railroad, the Contractor shall procure and maintain Railroad Protective Liability Insurance naming the railroad as the insured with minimum limit for bodily injury and property damage liability of \$2,000,000 per occurrence, \$6,000,000 aggregate, or with such other limits as the railroad shall require. The original of said policy shall be furnished to the railroad and a certified copy of said policy shall be furnished to the Jurisdiction prior to any construction or entry upon the railroad easement premises by the Contractor.
5. Umbrella/Excess Insurance: At the Contractor's option, the limits specified in Section 1070, 3.02, C, 1, 2, 3 may be satisfied with a combination of primary and Umbrella/Excess Insurance. At the Jurisdiction's option, the minimum insurance limits specified above may be increased by special provision. This increase may be satisfied with a combination of primary and Umbrella/Excess Insurance.
6. Additional Insured Endorsements: Except for Workers Compensation, the insurance specified shall:
 - a. Include the Jurisdiction as an additional insured, per Section 1070, 3.06, B; and
 - b. Be primary to and not in excess of or contributory with any other insurance available to the Jurisdiction.
7. Reference to ISO: Wherever the term "ISO" appears in these specifications, any subsequent equivalent ISO form or non-ISO equivalent form may be used.

3.03 CONTRACTOR'S INDEMNITY - CONTRACTUAL LIABILITY INSURANCE

- A. To the extent covered by the standard insurance forms listed in Section 1070, 3.02, the insurance shall include contractual liability insurance to cover all indemnification and hold harmless agreements and provisions in the contract documents, including the following provision.
- B. To the fullest extent permitted by law, the Contractor shall defend, indemnify, and hold harmless the Jurisdiction and its officers, agents, employees, and consultants from and against all claims, damages, losses, and expenses, including but not limited to, attorney's fees, arising out of or resulting from the performance or prosecution of the work by the Contractor, its subcontractors, agents, or employees; or arising from any neglect, default, or mismanagement or omissions by the Contractor, its subcontractors or consultants, suppliers, third parties, or the agents, officers, or employees of any of them in the performance of any duties imposed by the contract or by law; provided any such claim, damage, loss, or expense:
 1. is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the work itself) including economic damages and the loss of use resulting therefrom, and

3.03 CONTRACTOR'S INDEMNITY - CONTRACTUAL LIABILITY INSURANCE (Continued)

2. is caused in whole or in part by any act or omission of the Contractor, its subcontractors or consultants, suppliers, third parties, or the agents, officers, or employees of any of them, or anyone for whose acts any of them may be liable, regardless whether or not it is caused in part by a party indemnified hereunder.

Such obligation shall not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity that would otherwise exist as to any party or person described in this subsection.

- C. In any and all claims against the Jurisdiction or the Engineer or any of their agents, officers, employees, or consultants by any employee of the Contractor, its subcontractors or consultants, suppliers, third parties, or the agents, officers, or employees of any of them, or anyone for whose acts any of them may be liable, the indemnification obligation under this subsection shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for the Contractor or any subcontractor under workers' compensation acts, disability benefit acts, or other employee benefit acts.
- D. The obligations of the Contractor under this subsection shall not extend to the liability of the Engineer, the Engineer's agents, employees, or consultants, arising out of:
 1. the preparation or approval of maps, drawings, opinions, reports, surveys, change orders, design standards, or specifications; or
 2. the giving of or the failure to give directions or instructions by the Engineer, the Engineer's agents, employees, or consultants.

provided the preparation or the giving or failure to give directions or instructions is the sole proximate cause of the injury or damage.

- E. If any litigation on account of such claims shall be commenced against the Jurisdiction, the Contractor, upon notice thereof from the Jurisdiction, shall defend the same at its sole cost and expense; and the record of any judgment rendered against the Jurisdiction on account of such claims for damages shall be conclusive as against said Contractor and entitle the Jurisdiction to recover the full amount thereof, with interest and cost, and attorney's fees incurred by said Jurisdiction, whether the Jurisdiction paid such amounts or not.

3.04 CONTRACTOR'S INSURANCE FOR OTHER LOSSES; WAIVER OF SUBROGATION

- A. The Contractor shall assume full responsibility for all loss or damage from any cause whatsoever to any tools owned by the mechanics; or any tools, machinery, equipment, or motor vehicles owned or rented by the Contractor, its subcontractors or consultants, suppliers, third parties, or the agents, officers, or employees of any of them; or to any shed or other temporary structures, scaffolding and stagings, protective fences, and bridges belonging to the contractor, its subcontractors or consultants, suppliers, third parties, or the agents, officers, or employees of any of them, not covered by the Jurisdiction's Builders Risk Insurance.
- B. Contractor shall cause each of its subcontractors, consultants, suppliers, third parties, or the agents of any of them, to carry insurance sufficient to cover all loss to such materials, tools, motor vehicles, and equipment. All insurance carried by the Contractor, or its subcontractors, consultants, suppliers, third parties or the agents of any of them, covering risk of loss or damage to materials, tools, motor vehicles, and equipment used in the performance of the Work, shall provide a waiver of subrogation against the Jurisdiction. To the extent that any subcontractors, consultants, suppliers, third parties or the agents of any of them, do not provide such coverages, any uninsured loss shall be the sole responsibility of the Contractor.

3.05 PROPERTY INSURANCE

- A. When stated in the special provisions, the Jurisdiction shall purchase and maintain property insurance, a.k.a. Builder's Risk Insurance, in the amount of the initial bid amount, or in an amount equal to the estimated value of actual building construction, whichever is less, as well as applicable modifications thereto for the entire work at the site on a replacement cost basis. Such property insurance shall be maintained, unless otherwise provided in the contract documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until final acceptance of the work by the Jurisdiction. The insurance shall include interests of the Jurisdiction, the Contractor, subcontractors, and sub-subcontractors in the work. This property insurance covering the work will have a deductible of \$5,000 for each occurrence, or as stated in the special provisions, which will be the responsibility of the Contractor.
- B. Property insurance shall be on an all-risk policy form and shall insure against the perils of fire and extended coverage and physical loss or damage including, without duplication of coverage, flood and earthquake, theft, vandalism, malicious mischief, collapse, falsework, temporary buildings and debris removal, including demolition occasioned by enforcement of any applicable legal requirements, and shall cover reasonable compensation for the Jurisdiction's services and expenses required as a result of such insured loss. Coverage for other perils shall not be required unless otherwise provided in the contract documents.
- C. Unless otherwise provided in the contract documents, this property insurance shall cover portions of the work stored off the site, after written approval of the Jurisdiction, at the value established in the approval, and portions of the work in transit. Coverage for work stored off the site and in transit will be not less than 10% of the policy amount.
- D. Boiler and Machinery Insurance: The Jurisdiction, at the Jurisdiction's option, may purchase and maintain Boiler and Machinery Insurance required by the contract documents or by law, which shall specifically cover such insured objects during installation and until final acceptance by the Jurisdiction; this insurance shall include interest of the Jurisdiction, Contractor, subcontractors, and sub-subcontractors in the work, and the Jurisdiction and Contractor shall be named insureds.
- E. Loss of Use Insurance: The Jurisdiction, at the Jurisdiction's option, may purchase and maintain insurance to insure the Jurisdiction against loss of use of the Jurisdiction's property due to fire or other hazards, however caused. In the event the Jurisdiction purchases such insurance, the Jurisdiction shall waive all rights of action against the Contractor for loss of use of the Jurisdiction's property, including consequential losses due to fire or other hazards, however caused.
- F. If the Contractor requests in writing that insurance for risks other than those described herein or for other special hazards be included in the property insurance policy, the Jurisdiction shall, if possible, include such insurance, and the cost thereof shall be charged to the Contractor by appropriate change order.
- G. If during the project construction period, the Jurisdiction insures properties, real or personal or both, adjoining or adjacent to the site by property insurance under policies separate from those insuring the project or if after final acceptance, property insurance is to be provided on the completed project through a policy or policies other than those insuring the project during the construction period, the Jurisdiction shall waive all rights according to the terms of Section 1070, 3.05, I, for damages caused by fire or other perils covered by this separate property insurance. All separate policies shall provide this waiver of subrogation by endorsement or otherwise.

3.05 PROPERTY INSURANCE (Continued)

- H. Before an exposure to loss may occur, the Jurisdiction shall file with the Contractor a copy of each policy that includes insurance coverages required by this section. Each policy shall contain all generally applicable conditions, definitions, exclusions, and endorsements related to this project. Each policy shall contain a provision that the policy will not be cancelled or allowed to expire until at least 30 calendar days prior written notice has been given to the Contractor.
- I. Waivers of Subrogation: The Jurisdiction and Contractor waive all rights against (1) each other and any of their subcontractors, sub-subcontractors, agents, and employees, each of the other, and (2) the Jurisdiction's consultants, separate contractors, if any, and any of their subcontractors, sub-subcontractors, agents, and employees, for damages caused by fire or other perils to the extent covered by property insurance obtained pursuant to this section or other property insurance applicable to the work, except such rights as they have to proceeds of such insurance held by the Jurisdiction as fiduciary. The Jurisdiction or Contractor, as appropriate, shall require of the Jurisdiction's consultants, separate contractors, if any, and the subcontractors, sub-subcontractors, agents, and employees of any of them, by appropriate agreements, written where legally required for validity, similar waivers each in favor of other parties enumerated herein. The policies shall provide such waivers of subrogation by endorsement or otherwise. A waiver of subrogation shall be effective as to a person or entity even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, did not pay the insurance premium directly or indirectly, and whether or not the person or entity had an insurable interest in the property damaged.
- J. A loss insured under the Jurisdiction's property insurance shall be adjusted by the Jurisdiction as fiduciary and made payable to the Jurisdiction as fiduciary for the insureds, as their interest may appear, subject to requirements of any applicable mortgagee clause and of Section 1070, 3.05, K. The Contractor shall pay subcontractors their shares of insurance proceeds received by the Contractor, and by appropriate agreements, written where legally required for validity, shall require subcontractors to make payments to their sub-subcontractors in a similar manner.
- K. The Jurisdiction as fiduciary shall have power to adjust and settle a loss with insurers unless one of the parties in interest shall object in writing within five calendar days after occurrence of loss to the Jurisdiction's exercise of this power; if such objection be made, arbitrators shall be chosen according to Section 1040, 1.10, D, provided one arbitrator shall be appointed by the Jurisdiction, one by the party in interest making objection, and the third to be appointed by the two arbitrators thus chosen. Arbitration shall thereafter proceed as provided in Section 1040, 1.10, E through G. The Jurisdiction as fiduciary shall, in that case, make settlement with insurers according to the direction of such arbitrators. If distribution of insurance proceeds by arbitration is required, the arbitrators will direct such distribution.
- L. Partial occupancy or use of the work shall not commence until the insurance company or companies provided property insurance have consented to such partial occupancy or use by endorsement or otherwise. The Jurisdiction and the Contractor shall take reasonable steps to obtain consent of the insurance company or companies and shall, without mutual written consent, take no action with respect to partial occupancy or use that would cause cancellation, lapse, or reduction of insurance.
- M. Installation Floater: Under contracts where the Jurisdiction does not provide Builders Risk Insurance, the Jurisdiction may by special provision require the Contractor to provide coverage under an "Installation Floater" covering all materials, fixtures, equipment, and supplies provided for the job. Such insurance shall be on an "*all risk*" form in an amount equal to the maximum value of such materials, equipment, or supplies covered on the job site, off-premises at any temporary storage location, or in transit. The Installation Floater covering the equipment shall have a maximum deductible no greater than \$5,000 for each occurrence, which will be the responsibility of the Contractor.

3.06 ENDORSEMENT NAMING JURISDICTION AS AN ADDITIONAL INSURED / CANCELLATION AND MATERIAL CHANGE / GOVERNMENTAL IMMUNITIES ENDORSEMENT

- A. All liability insurance policies the Contractor is required to provide pursuant to this Section 1070, Part 3 - Bonds and Insurance shall be by endorsement name and designate the Jurisdiction as an additional insured.

- B. The Additional Insured Endorsement shall include the following provisions:

The Jurisdiction, including all its elected and appointed officials, all its employees and volunteers, all its boards, commissions and/or authorities and their board members, employees, and volunteers, and all its officers, agents, and consultants, are named as Additional Insureds with respect to liability arising out of the Contractor's work and services performed for the Jurisdiction. This coverage shall be primary to the Additional Insureds, and not contributing with any other insurance or similar protection available to the Additional Insureds, whether other available coverage by primary, contributing, or excess.

The Additional Insured Endorsement shall be included on all Commercial General Liability, Automobile Liability, and Umbrella/Excess Insurance policies.

- C. The Cancellation and Material Change Endorsement shall include the following provisions:

Thirty calendar days advance written Notice of Cancellation, Non-Renewal or Reduction in Insurance coverage and/or Limits, and 10 calendar days written Notice of Non-payment of Premium, shall be sent to the Jurisdiction at the office and attention of the Certificate Holder. This endorsement supersedes the standard cancellation statement on the Certificate of Insurance to which this endorsement is attached.

This Cancellation and Material Change Endorsement shall be included on insurance policies required by the SUDAS Standard Specifications.

- D. All liability policies that include the Jurisdiction as an additional insured shall include a Governmental Immunities Endorsement, pursuant to Iowa Code Section 670.4, which endorsement shall include the following provisions:

1. Nonwaiver of Government Immunity: The insurance carrier expressly agrees and states the purchase of this policy and including the Jurisdiction as an Additional Insured does not waive any of the defenses of governmental immunity available to the Jurisdiction under Iowa Code Section 670.4 as it now exists and as it may be amended from time to time.
2. Claims Coverage: The insurance carrier further agrees this policy of insurance shall cover only those claims not subject to the defense of governmental immunity under Iowa Code Section 670.4 as it now exists and as it may be amended from time to time.
3. Assertion of Government Immunity: The Jurisdiction shall be responsible for asserting any defense of governmental immunity, and may do so at any time and shall do so upon the timely written request of the insurance carrier. Nothing contained in this endorsement shall prevent the carrier from asserting the defense of governmental immunity on behalf of the Jurisdiction.
4. Non-Denial of Coverage: The insurance carrier shall not deny coverage or deny any of the rights and benefits accruing to the Jurisdiction under this policy for reasons of governmental immunity unless and until a court of competent jurisdiction has ruled in favor of the defense(s) of governmental immunity asserted by the Jurisdiction.

3.06 ENDORSEMENT NAMING JURISDICTION AS AN ADDITIONAL INSURED / CANCELLATION AND MATERIAL CHANGE / GOVERNMENTAL IMMUNITIES ENDORSEMENT (Continued)

5. No Other Change in Policy: The insurance carrier and the Jurisdiction agree the above preservation of governmental immunities shall not otherwise change or alter the coverage available under the policy.

This Government Immunities Endorsement shall be included on all insurance policies that include the Jurisdiction as Additional Insured.

- E. All liability policies purchased in the Jurisdiction's name shall include a Governmental Immunities Endorsement, pursuant to Iowa Code Section 670.4, which endorsement shall include the following provisions:
 1. Nonwaiver of Government Immunity: The insurance carrier expressly agrees and states the purchase of this policy does not waive any of the defenses of governmental immunity available to the Jurisdiction under Iowa Code Section 670.4 as it now exists and as it may be amended from time to time.
 2. Claims Coverage: The insurance carrier further agrees this policy of insurance shall cover only those claims not subject to the defense of governmental immunity under Iowa Code Section 670.4 as it now exists and as it may be amended from time to time.
 3. Assertion of Government Immunity: The Jurisdiction shall be responsible for asserting any defense of governmental immunity, and may do so at any time and shall do so upon the timely written request of the insurance carrier. Nothing contained in this endorsement shall prevent the carrier from asserting the defense of governmental immunity on behalf of the Jurisdiction.
 4. Non-Denial of Coverage: The insurance carrier shall not deny coverage or deny any of the rights and benefits accruing to the Jurisdiction under this policy for reasons of governmental immunity unless and until a court of competent jurisdiction has ruled in favor of the defense(s) of governmental immunity asserted by the Jurisdiction.
 5. No Other Change in Policy: The insurance carrier and the Jurisdiction agrees that the above preservation of governmental immunities shall not otherwise change or alter the coverage available under this policy.

This Government Immunities Endorsement shall be included in all Insurance Policies in the Jurisdiction's name.

3.07 PROOF OF INSURANCE

- A. The Contractor shall, prior to the Jurisdiction's approval and execution of the Contract, provide to the Jurisdiction a certificate or certificates of insurance evidencing all required insurance coverages as required in this Section 1070, Part 3 – Bonds and Insurance, utilizing the ACORD certificate form, or equivalent, required by the Jurisdiction. The Certificate of Insurance requirement may be satisfied with a blanket certificate.
- B. The Description of Operations on the Certificate of Insurance for the work must state either:
 - 1) Blanket certificate of coverage of all work, services, or projects with the Jurisdiction, or 2) Identify the specific project by name and project number. The Contract will not be submitted for approval execution by the Jurisdiction until all certificates of insurance are correct and have received staff approval.
- C. The Cancellation statement on the Certificate of Insurance shall be superseded by the Cancellation and Material Changes Endorsement, which shall be attached to the certificate.

3.07 PROOF OF INSURANCE (Continued)

- D. All endorsements required for the work shall be attached to the appropriate Certificate or Certificates of Insurance and shall be, on the face thereof, listed by name.
- E. If an Owner's Protective Policy is provided, the policy with appropriate endorsements shall be submitted to the Jurisdiction. The Contract will not be submitted for approval and execution by the Jurisdiction until the Owner's Protective Policy and all certificates of insurance are correct and have received staff approval.

3.08 NOTIFICATION IN EVENT OF LIABILITY OR DAMAGE

- A. Upon the occurrence of any event, the liability for which is herein assumed by the Contractor, the Contractor agrees to forthwith notify the Jurisdiction in writing of such happening, which notice shall give the details as to the happening, the cause as far as can be ascertained, the estimate of loss or damage done, the names of witnesses, if any, and stating the amount of any claim.
- B. In the event the Jurisdiction has or obtains actual knowledge of any event that may result in a claim, the liability for which is herein assumed by the Contractor, the Jurisdiction agrees to notify the Contractor of such event within a reasonable period of time after acquiring knowledge thereof; provided however, the Jurisdiction shall have no duty to inspect the project to obtain knowledge of such events; and provided further the Jurisdiction's failure to so notify the Contractor shall not relieve the Contractor of any liability or obligation herein assumed by the Contractor.

3.09 SAMPLE INSURANCE FORMS

See the SUDAS website (www.iowasudas.org) for examples of standard insurance forms.

END OF SECTION

PROSECUTION AND PROGRESS**1.01 SUBLETTING OR ASSIGNMENT OF CONTRACT****A. Work by Contractor:**

1. The Contractor shall perform, with its own organization and forces, work amounting to no less than 30% of the total contract cost, except any items designated in the contract documents as "specialty items" may be performed by subcontract, and the cost of any such "specialty items" may be deducted from the total contract cost before computing the amount of work required to be performed by the Contractor with its own organization. Any items that have been selected as "specialty items" for the contract will be listed as such in the contract documents.
2. In order to meet this 30% requirement, the Contractor shall not purchase any materials for a subcontracted item, nor shall it place other contractor's employees on its payroll.
3. The Contractor shall not assign this Contract to another person, firm, or corporation without the prior consent of the Jurisdiction. The Jurisdiction may refuse to approve a proposed assignment of contract if such assignment would not be in the best interests of the Jurisdiction, or if such assignment would be contrary to law or public policy. An assignment of contract and all subcontracts shall be in writing.

B. Permission to Sublet:

1. The Contractor shall not sublet, assign, or otherwise dispose of any portion of the contract, except for the furnishing and transportation of materials, without a written "permission to sublet" order duly approved by the Jurisdiction.
2. Requests for permission to sublet, assign, or otherwise dispose of any portion of the contract shall be in writing and shall provide the name, address, telephone number, and representative of the organization that will perform the work, a description of the work is to be sublet, and the associated cost. When requested by the Engineer, the Contractor shall provide a written report showing the organization that will perform the work is particularly experienced and equipped for such work.
3. Consent to sublet, assign, or otherwise dispose of any portion of the contract shall not be construed to relieve the Contractor of any responsibility for the fulfillment of the contract or in any way create any contractual relationship between the subcontractor and the Jurisdiction.

C. Subcontracts:

1. Upon request of the Engineer, the Contractor shall submit a copy of each subcontract agreement within 10 calendar days.
2. The Contractor shall be responsible to include all conditions and requirements of the contract documents in all its subcontracts and enforce said requirements with its subcontractors.

1.02 CONTRACT TIME

A. When a completion date is specified in the contract documents, the contract time shall be the time from the starting date stated in the Notice to Proceed to the date specified for completion as shown in the contract, both dates inclusive. When working days or calendar days are specified in the contract documents, the contract time shall be the time as calculated with the number of working days or calendar days as specified in the contract and the starting date in the Notice to Proceed. The contract time may be extended by the Jurisdiction as provided in these specifications, in which event the contract time includes the new extension of time. The Contractor acknowledges that if it fails to complete the contract in said time, liquidated damages will be assessed against it as specified in Section 1080, 1.12 - Liquidated Damages.

1. Completion Date Contracts: The Contractor shall complete the contract on or before the completion date. Unless otherwise noted in the proposal form, the Contractor may commence work any time after receipt of the signed contract, specifications permitting and issuance of the Notice to Proceed. Section 1080, 1.06 will not apply. Liquidated damages will be assessed according to Section 1080, 1.12 for each calendar day beyond the completion date that the contract remains uncompleted.
2. Calendar Day Contracts: The Contractor shall complete the contract within the number of consecutive calendar days specified. The calendar day count will commence on the date specified by the Notice to Proceed. Section 1080, 1.06 will not apply. Liquidated damages will be assessed according to Section 1080, 1.12 for each calendar day beyond the specified number of calendar days that the contract remains uncompleted.
3. Working Day Contracts: The three types of start dates are as follows:
 - a. Specified Start Date: Working days will be charged to the Contractor starting on the specified start date, the date noted in the Notice to Proceed, or 14 calendar days after execution of the contract, whichever is later. Starting work prior to the specified start date will be considered upon request, and working days will be charged when work starts.
 - b. Approximate Start Date: It is expected the site will be available by the approximate start date. If it appears the site will not be available by the approximate start date, the Engineer will inform the Contractor of the delay and if possible the duration of the delay. The Contractor may commence work, weather and specifications permitting, any time after execution of the contract, after receipt of the Notice to Proceed, and on or after the approximate start date provided the site has become available. If work is started under these conditions, working days will be charged. Starting work before the approximate start date and before the site is available, will be considered only after the Contractor has submitted a signed waiver of any right to claim extra compensation for damages due to delays from any cause related to early commencement. If approved, working days will not be charged when working prior to the date of site availability. If the Contractor is working on the project when the site becomes available, working days will be first charged on the following day.
 - c. Late Start Date: Unless otherwise noted in the proposal form, the Contractor may commence work any time after receipt of the signed contract, receipt of the Notice to Proceed, and weather and specifications permitting. Working days will begin to be charged whenever the Contractor starts work. Charging of working days will begin on the late start date if the Contractor has not started work prior to this date.

If the Contractor wishes to start preliminary work prior to the late start date and move out intending to return at a later date to complete the project, the Contractor shall request approval from the Engineer for temporary suspension of work according to Section 1080, 1.08. Approval of suspension of work in this circumstance will be based on if the project area is in a condition that is at least as safe as it was before the start of the work. The Engineer will submit in writing to the Contractor approval for suspension of work and a computed revised late start date. The revised late start date will be computed by adding the working days used for the preliminary work to the late start date listed on the proposal form. The charging of the remainder of the working days will resume on the revised late start date or when the Contractor recommences work if prior to the revised late start date.

1.02 CONTRACT TIME (Continued)

- B. Intermediate contract periods may be designated for completion of a specific item or certain portions of the contract. The contract period and the liquidated damages, if any, for each portion will be listed in the contract documents.

1.03 WORK PROGRESS AND SCHEDULE

- A. The progress of the work shall be at a rate sufficient to complete the contract within the time allowed. The Contractor's sequence of operations shall be such as to cause as little inconvenience to the general public as possible.
- B. After being awarded the contract, and if requested by the Engineer, the Contractor shall immediately prepare and submit to the Engineer for approval a progress schedule that will ensure the completion of the project within the time specified. Adequate equipment and forces shall be made available by the Contractor to start work immediately upon Notice to Proceed by the Engineer and to prosecute the work to completion according to schedule and within the time specified.
- C. If it appears the rate of progress is such that the contract will not be completed within the time allowed, or if the work is not being executed in a satisfactory and workmanlike manner, the Engineer may order the Contractor to take such steps as necessary to complete the contract within the period of time specified or to prosecute the work in a satisfactory manner. If the Contractor fails to comply with such order within two weeks after receipt of the order, the Jurisdiction will have the right to declare the contract in default.

1.04 PRECONSTRUCTION CONFERENCE

The Engineer may schedule and conduct a preconstruction conference. The Contractor and the intended subcontractors, if known, shall participate in this conference. The Engineer will invite representatives of railroads and utilities and others having responsibilities or interest in the work.

1.05 NOTICE TO PROCEED

- A. The return of the signed and executed contract to the Contractor shall serve as notice the contract bond is acceptable, the contract is in force, and the Contractor may complete arrangements for materials and other work according to the contract documents.
- B. The Contractor shall begin work as specified in the Notice to Proceed issued by the Engineer and shall prosecute the work vigorously and continuously to completion, except when it is physically impossible to do so due to weather conditions or other unavoidable handicaps. The necessity of discontinuing and resuming work on any portion of the contract shall be determined by the Engineer.
- C. The Jurisdiction may, if provided for in the contract documents, give a limited Notice to Proceed as to any portion of the work under the contract.

1.06 WEEKLY RECORD OF WORKING DAYS

- A. On contracts with completion provisions based upon working days, the Engineer will furnish the Contractor a weekly statement showing the number of working days charged to the Contractor for the preceding week, the number of working days specified for completion of the project, the number of working days remaining to complete the contract, and the revised date for completion.

1.06 WEEKLY RECORD OF WORKING DAYS (Continued)

B. Working days will be charged under the following circumstances:

1. Prior to Commencement of Work: Beginning on the date designated in the Notice to Proceed, or beginning on the specified starting date or as soon thereafter as provided in the specifications, a working day will be charged for every calendar day other than Saturday, Sunday, or a recognized legal holiday. Working days will be charged for Saturdays if a mandatory six-day work week is specified in the contract documents.
2. After Commencement of Work: One full working day will be charged for any weekday, exclusive of Saturdays, Sundays, or a recognized legal holiday, when weather or other conditions (not under control of the Contractor) will permit construction operations to proceed for not less than 3/4 of a normal workday in the performance of a controlling item of work as determined by the Engineer. If such conditions allow operations to proceed for at least 1/2 but less than 3/4 of the normal working hours, one-half working day will be charged.

Working days will not be charged for Saturdays (unless a mandatory six-day work week is specified in the contract documents), Sundays, and recognized legal holidays the Contractor does not work. Working days will be charged for Sundays and recognized legal holidays the contractor does work.

As an incentive to the Contractor to expedite the work, working days will not be charged for Saturdays that the Contractor does work, unless a mandatory six-day work week is specified in the contract documents.

Upon written notice to the Contractor, the Engineer may suspend charging of working days on substantially completed contracts for up to 30 calendar days when only cleanup of the project site or minor work items remain. If the designated time has expired and the remaining work items and site cleanup remain uncompleted, the Engineer may restart charging of working days effective at the end of the designated period by providing written notice to the Contractor.

- C. Any objection by the Contractor to such weekly determinations shall be deemed waived and shall not thereafter be made the basis of any claim, unless the Contractor shall, within seven calendar days after receipt of a weekly statement, file with the Engineer its written protest setting forth its objections and reasons. If the Contractor's objection to the working day count is made on the grounds it was unable to work due to causes beyond its control, the Contractor shall state its reasons in writing, furnish proof to establish its claim, and state the approximate number of calendar days it estimates it was delayed. The Engineer shall then determine the appropriate number of working days to be charged under the contract.

1.07 WORK ON SUNDAYS OR LEGAL HOLIDAYS

- A. Except when an accelerated work schedule is required in the contract documents, no work requiring inspection will be allowed on Sundays or holidays observed by the Jurisdiction except with permission of the Engineer. The Contractor should request a determination of the holidays observed by the Jurisdiction.
- B. Such work as may be required to properly maintain or protect completed or partially completed construction, or to maintain lights and barricades, will be permitted on Sundays or holidays without specific permission of the Engineer.

1.08 TEMPORARY SUSPENSION OF WORKING DAYS

When, in the judgment of the Engineer, unfavorable weather makes it impractical to secure acceptable results or other conditions warrant an order to suspend working days, the Engineer shall issue to the Contractor a written order to suspend working days wholly or on any part of the contract. When conditions are again favorable for prosecution of the working days, the Engineer shall issue to the Contractor a written order to resume the suspended working days. Orders to suspend working days will not be written for short intermittent shutdowns due to weather conditions. The Contractor shall take every precaution to prevent any damage or unreasonable deterioration of the work during the time of suspended operations.

1.09 EXTENSION OF TIME

- A. Allowances for Delays:** The Contractor expressly covenants and agrees that in undertaking to complete the work within the contract time, it has taken into consideration and made allowance for all delays and hindrances that would ordinarily be anticipated in performing such work.
- B. Request for Extension of Time:** Whenever the Contractor becomes aware of its inability to complete the work under the contract within the contract period, it shall request an extension in writing. Such request shall be submitted to the Engineer at least two weeks prior to the expiration of the contract time to allow for the Jurisdiction's action before termination. The submission or acceptance of a request for extension of time shall not guarantee such extension will be granted. The following items may be justification for extension of time:
- 1. Weather:** Extension of time due to adverse weather conditions at the site, so unusual or severe as not to be reasonably anticipated, as determined by the Engineer, may be requested. An average or usual number of inclement working days when work cannot proceed are to be anticipated during the construction period and are not to be considered as warranting extension of time.
 - 2. Other Contractors:** An extension of time may be requested for delays caused by the noncompletion of essential work of other contractors, provided such noncompletion is the sole and only cause of delay, and where the Contractor has available on the site of the work all equipment, material, and labor necessary to proceed with the work.
 - 3. Change Orders:** An extension of time may be requested for delays caused by the issuance of a change order, where the work occasioned by the change order is the sole and only cause of the impossibility to complete the work within the specified time.
 - 4. Work Stoppage:** An extension of time may be requested for delays caused by a general work stoppage in the area or a work stoppage affecting this project that is beyond the control of the Contractor, or where the Contractor has taken in good faith all steps made available to it by law to resolve the causes thereof and to terminate such work stoppage.
 - 5. Acts by U.S. Government:** An extension of time may be requested for delays caused by any act taken by the United States government that would affect fabrication or delivery of materials or equipment to the work site.
 - 6. Court Proceedings:** An extension of time may be requested for delays caused by any court proceedings.
 - 7. Other Delays:** An extension of time may be requested for other delays encountered by the Contractor beyond its control and impossible for the Contractor to complete the contract within the specified time.

1.09 EXTENSION OF TIME (Continued)

- C. Claims for Damages:** The Contractor shall have no claim for damages for any extensions or delays provided or mentioned in the preceding portions of this section; but the Contractor shall, in such cases, be allowed to petition for such extension of time as the Jurisdiction may grant in writing on account of such delay, provided, however, the claim for such extension of time is made by the Contractor in writing to the Jurisdiction immediately after any such delay occurs.
- D. Extension of Time Granted:** No extension of time shall be granted or recognized except as specifically approved by the Jurisdiction in writing to the Contractor. Oral representations or agreements by Jurisdiction agents or employees regarding time extension shall not be binding on the Jurisdiction.

1.10 CONTRACTOR'S EMPLOYEES, METHODS, AND EQUIPMENT**A. Superintendent:**

1. All work under the contract shall be performed under the continuous supervision of competent personnel, thoroughly experienced in the class of work specified.
2. Prior to beginning work, the Contractor shall give the Engineer, in writing, the name of the Contractor's official representative or superintendent for the project. The superintendent shall be capable of providing adequate supervision of the project and shall be responsible for receiving instructions, notices, and written orders from the Engineer. A change of the superintendent shall be reported to the Engineer in writing. Failure to provide adequate supervision of the project shall be grounds for the Engineer to require a change in supervision before allowing the work to proceed. The superintendent shall be responsible for reporting to the Engineer any inconsistencies, omissions, or lack of definite detail in the plans, special provisions, or contract documents that may be discovered.
3. The lack of proper supervision by the Contractor or by its supervisory personnel shall be just cause for termination of the contract.

B. Workers:

1. The Contractor shall employ competent and efficient workers for every kind of work. The Jurisdiction reserves the right to direct the suspension or discharge from the work any worker, employee, agent, overseer, foreman, or superintendent in the employ of the Contractor, who, in the opinion of the Engineer, shall be incompetent, negligent, unfaithful, insubordinate, or disorderly, and any such person shall immediately be suspended or discharged by the Contractor whenever so directed by the Engineer.
2. The Contractor shall not employ or hire any of the employees of the Jurisdiction without permission of the Engineer.

C. Methods and Equipment:

1. The methods and equipment used by the Contractor shall produce a satisfactory quality of work and shall be adequate to maintain the schedule of progress specified. Equipment used on any portion of the project shall be such, and its use so regulated, that no serious or irreparable damage to the roadway, adjacent property, or other streets or highways will result from its use. If damage does occur to the street or highway, suitable repairs shall be made at the Contractor's expense.

1.10 CONTRACTOR'S EMPLOYEES, METHODS, AND EQUIPMENT (Continued)

2. When the methods and equipment to be used by the Contractor in accomplishing the construction are not prescribed in the contract documents, the Contractor is free to use any methods or equipment that will accomplish the contract work in conformity with the requirements of the contract documents, as demonstrated to the satisfaction of the Engineer.
3. When the contract documents specify that the construction be performed by use of certain methods and equipment, such methods and equipment shall be used unless others are authorized by the Engineer.
4. If the Contractor desires to use a method or type of equipment other than specified in the contract documents, the Contractor may request authority from the Engineer to do so. The request shall be in writing and shall include a full description of the method and equipment proposed to be used and an explanation of the reasons for desiring to make the change. If approval is given, it will be on the condition that the Contractor shall be fully responsible for producing construction work in conformity with contract requirements.
5. If after trial use of the substituted methods or equipment, the Engineer determines the work produced does not meet the requirements of the contract documents, the Contractor shall discontinue use of the substitute method or equipment and shall complete the remaining construction with the specified methods and equipment. The Contractor shall remove the defective work and replace it with work of specified quality, or take such other corrective action as the Engineer may direct. No change will be made in basis of payment for the construction items involved, or in contract time, as a result of authorizing a change in methods or equipment under these provisions.

1.11 CONTRACTOR'S EQUIPMENT IDENTIFICATION

All vehicles and major construction equipment utilized on Jurisdiction's projects, with the exception of vehicles used for personal purposes and rented equipment bearing the name, address, and telephone number of the rental company, shall exhibit the Contractor's name in at least two locations on each piece of equipment. This identification can be either a decal or painted lettering of a type and size, and with a contrasting color, rendering it legible from a distance of no less than 50 feet.

1.12 LIQUIDATED DAMAGES

- A. Time is of the essence of the contract. As delay in the diligent prosecution of the work may inconvenience the public, obstruct traffic, interfere with business, and/or increase costs to the Jurisdiction such as engineering, administration, and inspection, it is important the work be prosecuted vigorously to completion. Should the Contractor, or in case of default the surety, fail to complete the work within the contract time plus such extensions of time as may be allowed by the Jurisdiction, a deduction at the liquidated damages rate specified in the contract will be made for each and every calendar day or working day, whichever is specified, that such contract remains uncompleted after expiration of the contract time. In either event, the Contractor or the Contractor's surety shall be responsible for all costs incident to the completion of the work, and shall be required to pay to the Jurisdiction the liquidated damages stipulated in the proposal form.
- B. The liquidated damages rate specified in the contract documents is hereby agreed upon as the true and actual damages due the Jurisdiction for loss to the Jurisdiction and to the public due to obstruction of traffic, interference with business, and/or increased costs to the Jurisdiction such as engineering, administration, and inspection after the expiration of the contract time, or extension thereof. Such liquidated damages may be deducted from any money due or to become due the Contractor under the contract, and the Contractor and its surety shall be liable for any liquidated damages in excess of the amount due the Contractor.

1.12 LIQUIDATED DAMAGES (Continued)

- C. Allowing the Contractor to continue and finish the work, or any part of it, after the expiration of the contract time or extension thereof shall in no way operate as a waiver on the part of the Jurisdiction of any of its rights or remedies under the contract, including its right to liquidated damages pursuant to this provision.

1.13 BREACH OF CONTRACT

- A. The Contractor's failure to perform in any of the following particulars shall constitute a breach of contract:
1. Failure by the Contractor to begin work at the time specified;
 2. Failure by the Contractor to complete the work within the contract period or any extension thereof;
 3. Failure or refusal by the Contractor to comply with an order of the Engineer within a reasonable time;
 4. Contractor's persistent disregard of laws, ordinances, or instructions of the Engineer;
 5. Contractor's repeated failure to provide sufficient workers, equipment, or materials to ensure the proper and timely completion of the work;
 6. Failure or refusal by the Contractor to remove rejected materials;
 7. Failure or refusal by the Contractor to replace, perform anew, or correct any defective or unacceptable work;
 8. Contractor's discontinuance of the work without authorization by the Jurisdiction;
 9. Bankruptcy or insolvency of the Contractor, or the making of an assignment for the benefit of creditors by the Contractor; or
 10. Failure by the Contractor to carry on the work in an acceptable manner.

Upon Contractor's breach of the contract in any particular above, the Jurisdiction shall be entitled to give notice of default to the Contractor. The notice of default shall indicate how the contract has been breached and shall indicate what action the Contractor must take to cure such breach.

- B. If the Contractor or its surety does not, within the time for cure provided in the notice of default, take action to cure such breach, the Contractor shall, at the direction of the Engineer, relinquish possession and control of the work, and the Jurisdiction shall thereupon have full power and authority, without violating the contract or bond, to take over the completion of the work, to appropriate or use any or all materials and equipment at the site that may be suitable and acceptable, to enter into agreements with others for the completion of said contract according to the terms and provisions thereof, or to use such other methods as in the Jurisdiction's opinion may be required for the completion of said contract in an acceptable manner.

1.13 BREACH OF CONTRACT (Continued)

- C. The Contractor and its surety shall be liable for all outlay and expense incurred by the Jurisdiction, together with the costs of completing the work, and such costs may be deducted from any monies due or which may become due to the Contractor. In case the outlay and expense incurred by the Jurisdiction in completing the work is less than the sum that would have been payable under the contract if it had been completed by the Contractor, then the Contractor will be entitled to receive the difference. In case such outlay and expense exceeds the sum that would have been payable under the contract, then the Contractor and its surety shall be liable for and shall pay to the Jurisdiction the amount of said excess.
- D. Neither the Jurisdiction, nor any officer, agent, or employee thereof, shall be in any way liable or accountable to the Contractor or the Contractor's surety for the method by which the completion of said work, or any portion thereof, may be accomplished, or for the price paid therefore. Neither by taking over the work nor by declaring the contract in default shall the Jurisdiction forfeit the right to recover damages from the Contractor or the Contractor's surety for failure to complete the entire contract.
- E. The Contractor shall be liable for the Jurisdiction's attorney fees incurred as a result of the Contractor's breach of contract.

1.14 TERMINATION OF CONTRACTOR'S RESPONSIBILITY

The contract will be considered completed when the work has been accepted in writing by the Jurisdiction as provided in Section 1090, 1.08 - Acceptance and Final Payment hereof. Such final acceptance shall release the Contractor from all further obligation with respect thereto, except as to conditions and requirements as set forth in the bond and Jurisdiction's specifications regarding insurance.

END OF SECTION

MEASUREMENT AND PAYMENT**1.01 MEASUREMENT**

The determination of quantities of work performed under the contract will be made by the Engineer, based upon the lines and grades as shown on the plans and as given during the progress of the work or as evidenced by approved tickets for weight or liquid measure or by measurements made by the Engineer. All items will be computed in the units shown in the contract.

1.02 SCOPE OF PAYMENT

- A. The Contractor shall receive and accept the compensation provided in the contract at unit prices, if it be a unit price contract; or at the lump sum price, if it be a lump sum price contract, except as may be modified by change orders. The compensation provided for in the contract shall constitute full payment for furnishing all labor, equipment, tools, and materials and for performing all work contemplated and embraced under the contract; for all loss or damage arising out of the nature of the work or from the action of the elements; for all expenses incurred by, or in consequence of, the suspension or discontinuance of the said prosecution of the work or from any unforeseen difficulties or obstructions that may arise or be encountered during the prosecution of the work; and for all risks of every description connected with the prosecution of the work until the final acceptance of the work by the Jurisdiction.
- B. Neither the payment of any progress payment nor of any retained percentage shall relieve the Contractor of any obligation to make good any defective work or material. Payment will be made only for materials actually incorporated in the work, except as provided in Section 1090, 1.05 - Progress Payments.
- C. The contract price for any item shall be full compensation for all labor, materials, supplies, equipment, tools, and all things of whatsoever nature required for the complete incorporation of the item into the work the same as though the item were to read "in place," unless the contract documents shall provide otherwise.

1.03 LUMP SUM BREAKDOWNS

- A. If the contract is based on a lump sum bid price, or contains one or more lump sum items for which progress payments are to be made, the Contractor shall prepare and submit a breakdown estimate covering each lump sum item to the Engineer for approval. The breakdown estimate shall show the estimated value of each kind or item of work. The sum of the lump sum items listed in the breakdown estimates shall equal the contract lump sum. Overhead and profit shall not be listed as separate items.
- B. The breakdown estimate shall be approved by the Engineer before any progress payments are prepared. An unbalanced breakdown estimate providing for overpayment to the Contractor for items of work to be performed first will not be approved but shall be revised by the Contractor and resubmitted until acceptable to the Engineer.

1.04 PAYMENT FOR CHANGE ORDERS

- A. The Contractor's claims for extra work will not be paid unless the extra work covered by such claims was authorized by a change order as specified in Section 1040, 1.07 - Change Orders.
- B. Payment for extra work shall be made in one or more of the following ways as determined by the agreement between the parties to the contract prior to the starting of the work.

1.04 PAYMENT FOR CHANGE ORDERS (Continued)

1. Unit Prices: By unit prices contained in the Contractor's original proposal and incorporated in the construction contract, so far as the same may apply.
2. Supplemental Schedule: By supplemental schedule of prices to include costs of all equipment, material, labor, supervision, management, insurance, overhead, and incidentals, said schedule to be submitted by the Contractor upon request of the Engineer and to be accepted by the Jurisdiction.
3. Lump Sum: By an acceptable lump sum proposal from the Contractor.

1.05 PROGRESS PAYMENTS

- A. Limits:** Progress payments made under the contract, unless provided otherwise by law, shall be made according to Iowa Code Chapter 573, and shall be made on the basis of monthly estimates of labor performed and material delivered and incorporated in to the work, as determined by the Engineer. Payment may be made for materials not incorporated into the project if they can be specifically identified and cost verified by invoice. Progress payment requests shall be accompanied by the documentation required in Section 1090, 1.07, B - Sales Tax and Use Tax.
- B. Retainage:** The Jurisdiction shall retain from each monthly progress payment 5% of the amount determined to be due according to the estimate of the Engineer. Early release of retained funds may be requested by the Contractor according to Iowa Code Section 26.13.
- C. Quantities:** Quantities used for progress payments shall be considered as only approximate and provisional and shall be subject to recalculation, adjustment, and correction by the Engineer in subsequent partial payments and in the final payment. Inclusion of any quantities in a progress payment, or failure to disapprove the work at the time of any progress payment, shall not be construed as acceptance of the corresponding work or materials.

1.06 PAYMENT OF RETAINAGE

- A.** Retained funds shall be retained by the Jurisdiction for a period of 30 calendar days after the completion and final acceptance of the improvement by the Jurisdiction. If at the end of the 30 calendar day period claims are on file as provided, the Jurisdiction shall continue to retain from the unpaid funds, a sum equal to double the total amount of all claims on file. The remaining balance of the unpaid fund, or if no claims are on file, the entire unpaid fund, shall be released and paid to the Contractor.
- B.** The Jurisdiction, the Contractor, any claimant for labor or material who has filed a claim, or the surety on any bond given for the performance of the contract, may, at any time after the expiration of 30 calendar days, and not later than 60 calendar days, following the completion and final acceptance of said improvement, bring action in equity in the county where the improvement is located to adjudicate all rights to said fund, or to enforce liability on said bond, pursuant to Iowa Code Chapter 573. Upon written demand of the Contractor, served in the manner prescribed for original notices, on the person filing a claim, requiring the claimant to commence action in court to enforce the claim, an action shall be commenced with 30 calendar days, otherwise the retained and unpaid funds due the Contractor shall be released to the Contractor.

1.07 SALES AND USE TAX STATEMENT

- A. At the completion of the contract and before final payment can be made thereon, the Contractor and all subcontractors shall file with the Engineer in triplicate, with original signatures on all three sets, a statement under oath on forms provided by the Iowa Department of Revenue and Finance showing the data with reference to sales, use, and service taxes required by Iowa Code Section 423.4, as amended. On projects with a total contract cost greater than \$1 million or with supplies and materials in excess of 50% of the contract price and when directed by the Engineer, the Contractor shall submit with each progress pay estimate completed sales and use tax forms from the Iowa Department of Revenue listing all supplies and materials purchased since the previous progress payment.
- B. If a Sales Tax Exemption Certificate(s) is issued by the Jurisdiction according to Section 1020, 1.08, no sales, use, or service statement is required.

1.08 ACCEPTANCE AND FINAL PAYMENT

- A. Final payment will be based on the actual final total amount of the work accomplished and finally accepted by the Jurisdiction under the contract. Under no circumstances or conditions will the Contractor be paid anything for anticipated profits for the work, nor will it be paid for any work not actually included in the improvement. The Jurisdiction will not give final acceptance of the work until the Contractor has submitted all documentation required by the contract documents.
- B. The Engineer shall, after determining the work has been finally and fully completed according to the contract documents, make a final estimate of the amount of work done and the value thereof.
- C. Final acceptance of construction shall be defined as final approval of the project only in the sense that it has been constructed, cleaned up, and completed in apparent substantial compliance with the contract documents. Said final acceptance is stipulated to mean a written acceptance by the Jurisdiction.
- D. It is mutually agreed between the parties to the contract that a certificate of completion of the project, submitted by the Engineer and approved by the Jurisdiction, shall constitute final acceptance of the work and materials included in the contract on the date of such approval, subject to the provision any such approval, acceptance, or payment as herein provided shall not constitute an acceptance of any unauthorized or defective work, or of any improper material.

END OF SECTION

PART III

CDBG Provisions

CDBG PROVISIONS

The following documents are included as provisions of this project manual.

1. Frequently Asked Question Summary Concerning “Davis-Bacon” Prevailing Wages
2. Davis Bacon Wage – General Decision Number: IA20200028
3. Contractor Eligibility Date Form
 - a. In lieu of submitting this form with the Bid Proposal, the awarded Contractor(s) may submit this with the Contracts.
4. Intent to Comply with Section 3 Requirements & Certification
 - a. In lieu of submitting this form with the Bid Proposal, the awarded Contractor(s) may submit this with the Contracts.
5. Federal Labor Provisions & Required Contract Provisions

FREQUENTLY ASKED QUESTION SUMMARY CONCERNING “DAVIS-BACON” PREVAILING WAGES

Payments for Regular / Standard Time: For “regular” (sometimes also referenced as “standard”) time, at 40 hours or less per week, the contractor can pay any combination of wage and fringe benefit to an employee as long as it equals or exceeds the prevailing minimum total cited by Davis-Bacon as a sum of that individually stipulated for wage and fringe. For example, if “Davis-Bacon” stipulates \$10 per hour for wages and \$5 per hour for fringes, the employee can be paid any combination of wage / fringe as long as the total equals or exceeds \$15 per hour.

Payments for Overtime: “Overtime” is not provided in the same manner as regular time. For project time over 40 hours per week, employees are to be paid 1.5 times the stipulated Davis-Bacon wage, to be in the form of cash to the employee, plus amount stipulated for fringe; either as benefit provided to plan/program or additional cash (if needed to compensate any fringe short-fall). From example above, an employee who earns overtime is to be paid cash at the rate of \$15 per hour (i.e., \$10 times 1.5). In addition, the employee is also to be provided \$5 per hour for the “Davis-Bacon” stipulated fringe rate. For example, if the contractor provides fringes equal to or more than \$5 per hour, no other fringe compensation is needed. However, if the contractor provides only \$3 per hour in fringe benefits, they will also have to pay \$2 per hour as additional cash in order to satisfy the fringe short-fall; if excess cash is not already provided (for example, nothing additional would be required if overtime was paid at \$17 or more per hour vs. \$15).

Eligible Fringe Benefits: U.S. Labor stipulates that fringe benefits comprise only the following, as employer paid contributions on behalf of an employee: life and/or health insurance; retirement (i.e., such as pension fund); vacation; holiday; and sick leave (as well as possibly contributions to some training programs).

In-Eligible Fringe Benefits: Fringe benefits do not include employer payments mandated by Federal, State or local laws, such as an employer’s contribution to taxes, Social Security, etc. Other in-eligible payments / contributions (considered the cost of doing business) include: per diem travel expenses; personal use of vehicles; clothing allowances; etc.

Foremen / Supervisors: Foremen or supervisors who spend more than 20% of their time performing construction work are covered workers for time spent performing construction work, to be compensated according to respective labor classifications, and reported on payroll certification. If less than 20% of time is incurred by work, they should be omitted from the payroll certification.

Apprentices and Trainees: The only workers who can be paid less than the wage rate on the wage rate decision for their work classification are “apprentices” and “trainees” who are registered in approved programs, such as those registered with the Department of Labor or “DOL” recognized State Apprentice Council. In such cases, documentation of certification is needed with compensation paid in accordance with that stipulated by the approved program.

Piece-work: “Piece-work”, such as an employee being paid “\$-x-“ per sq. ft. according to performance, (such as being paid for the actual amount of drywall an employee installs), is allowed. However, payment for the amount of piece-work performed must be converted into a daily per hour basis; with accurate time records to be recorded and maintained.

"General Decision Number: IA20200028 06/12/2020

State: Iowa

Construction Types: Heavy and Highway

Counties: Adair, Adams, Allamakee, Appanoose, Audubon, Benton, Black Hawk, Boone, Bremer, Buchanan, Buena Vista, Butler, Calhoun, Carroll, Cass, Cedar, Cerro Gordo, Cherokee, Chickasaw, Clarke, Clay, Clayton, Clinton, Crawford, Dallas, Davis, Decatur, Delaware, Des Moines, Dickinson, Dubuque, Emmet, Fayette, Floyd, Franklin, Fremont, Greene, Grundy, Guthrie, Hamilton, Hancock, Hardin, Harrison, Henry, Howard, Humboldt, Ida, Iowa, Jackson, Jasper, Jefferson, Johnson, Jones, Keokuk, Kossuth, Lee, Linn, Louisa, Lucas, Lyon, Madison, Mahaska, Marion, Marshall, Mills, Mitchell, Monona, Monroe, Montgomery, Muscatine, O'Brien, Osceola, Page, Palo Alto, Plymouth, Pocahontas, Polk, Pottawattamie, Poweshiek, Ringgold, Sac, Shelby, Sioux, Story, Tama, Taylor, Union, Van Buren, Wapello, Warren, Washington, Wayne, Webster, Winnebago, Winneshiek, Woodbury, Worth and Wright Counties in Iowa.

EXCLUDES SCOTT COUNTY

HEAVY AND HIGHWAY CONSTRUCTION PROJECTS

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.80 for calendar year 2020 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.80 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2020. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	06/12/2020

SUIA2020-001 10/18/2017

	Rates	Fringes
Carpenter & Piledrivermen		
ZONE 1.....	\$ 28.52	14.08
ZONE 2.....	\$ 26.73	14.08
ZONE 3.....	\$ 26.73	14.08

ZONE 4.....	\$ 26.25	11.50
ZONE 5**.....	\$ 25.15	9.90
CONCRETE FINISHER		
ZONE 1.....	\$ 28.10	7.40
ZONE 2.....	\$ 28.10	7.40
ZONE 3.....	\$ 28.10	7.40
ZONE 4.....	\$ 25.45	6.40
ZONE 5.....	\$ 24.40	6.40
ELECTRICIAN (STREET AND HIGHWAY LIGHTING AND TRAFFIC SIGNALS)		
ZONE 1, 2, AND 3.....	\$ 25.05	6.80
ZONE 4.....	\$ 23.75	6.80
ZONE 5.....	\$ 21.60	6.80
IRONWORKER (SETTING OF STRUCTURAL STEEL)		
ZONE 1.....	\$ 31.50	10.90
ZONE 2.....	\$ 29.41	10.90
ZONE 3.....	\$ 29.41	11.20
ZONE 4.....	\$ 27.35	9.90
ZONE 5**.....	\$ 25.50	9.45
LABORER		
ZONE 1, 2 AND 3		
GROUP A.....	\$ 23.75	9.68
GROUP AA.....	\$ 26.13	9.68
GROUP B.....	\$ 21.90	9.68
GROUP C.....	\$ 18.82	9.68
ZONE 4		
GROUP A.....	\$ 21.27	9.08
GROUP B.....	\$ 19.95	9.08
GROUP C.....	\$ 17.07	9.08
ZONE 5		
GROUP A.....	\$ 21.77	7.63
GROUP B.....	\$ 19.27	7.63
GROUP C.....	\$ 18.42	7.63
POWER EQUIPMENT OPERATOR		
ZONE 1		
GROUP A.....	\$ 32.55	14.90
GROUP B.....	\$ 31.00	14.90
GROUP C.....	\$ 28.50	14.90
GROUP D.....	\$ 28.50	14.90
ZONE 2		
GROUP A.....	\$ 31.85	14.90
GROUP B.....	\$ 30.25	14.90
GROUP C.....	\$ 27.70	14.90
GROUP D.....	\$ 27.70	14.90
ZONE 3		
GROUP A.....	\$ 29.70	24.65
GROUP B.....	\$ 27.90	24.65
GROUP C.....	\$ 26.90	24.65
GROUP D.....	\$ 26.90	24.65
ZONE 4		
GROUP A.....	\$ 31.05	12.50
GROUP B.....	\$ 29.91	12.50
GROUP C.....	\$ 27.83	12.50
GROUP D.....	\$ 27.83	12.50
ZONE 5		
GROUP A.....	\$ 28.02	10.70
GROUP B.....	\$ 26.98	10.70
GROUP C.....	\$ 25.25	10.70

GROUP D.....	\$ 24.25	10.70
--------------	----------	-------

TRUCK DRIVER (AND PAVEMENT
MARKING DRIVER/SWITCHPERSON)

ZONE 1.....	\$ 24.45	11.15
ZONE 2		
.....	\$ 24.45	11.15
ZONE 3.....	\$ 24.45	11.15
ZONE 4.....	\$ 24.45	6.95
ZONE 5		
.....	\$ 22.50	6.95

ZONE DEFINITIONS

ZONE 1 The Counties of Polk, Warren, and Dallas for all Crafts, and Linn County Carpenters only.

ZONE 2 The Counties of Dubuque for all Crafts and Linn County for all Crafts except Carpenters.

ZONE 3 The Cities of Burlington, Clinton, Fort Madison, Keokuk, and Muscatine (and abutting municipalities of any such cities).

ZONE 4 Story, Black Hawk, Cedar, Jasper, Jones, Jackson, Louisa, Madison, and Marion Counties; Clinton County (except the City of Clinton), Johnson County, Muscatine County (except the City of Muscatine), the City of Council Bluffs, Lee County and Des Moines County.

ZONE 5 All areas of the state not listed above.

LABORER CLASSIFICATIONS - ALL ZONES

GROUP AA - {Skilled pipelayer (sewer, water and conduits) and tunnel laborers; asbestos abatement worker} (Zones 1, 2 and 3).

GROUP A - Carpenter tender on bridges and box culverts; curb machine (without a seat); deck hand; diamond & core drills; drill operator on air tracs, wagon drills and similar drills; form setter/stringman on paving work; gunnite nozzleman; joint sealer kettleman; laser operator; powderman tender; powderman/blaster; saw operator; {pipelayer (sewer, water, and conduits); sign erector*; tunnel laborer; asbestos abatement worker (Zones 4 and 5)}, sign erector.

GROUP B - Air, gas, electric tool operator; barco hammer; carpenter tender; caulker; chain sawman; compressor (under 400 cfm); concrete finisher tender; concrete processing materials and monitors; cutting torch on demolition; drill tender; dumpmen; electric drills; fence erectors; form line expansion joint assembler; form tamper; general laborer; grade checker; handling and placing metal mesh, dowel bars, reinforcing bars and chairs; hot asphalt laborer; installing temporary traffic control devices; jackhammerman; mechanical grouter; painter (all except stripers); paving breaker; planting trees, shrubs and flowers; power broom (not self-propelled); power buggyman; rakers; rodman (tying reinforcing steel); sandblaster; seeding and mulching; sewer utility topman/bottom man; spaders; stressor or stretcherman on pre or post tensioned concrete; stringman on re/surfacing/no grade control; swinging stage, tagline, or block and tackle; tampers; timberman; tool room men and checkers; tree climber; tree groundman; underpinning and shoring caissons over twelve feet deep; vibrators; walk behind trencher; walk behind paint stripers; walk behind vibrating compactor; water pumps (under three inch); work from bosun chair.

GROUP C - Scale weigh person; traffic control/flagger, surveillance or monitor; water carrier.

POWER EQUIPMENT OPERATOR CLASSIFICATIONS - ALL ZONES

GROUP A - All terrain (off road) forklift; asphalt breakdown roller (vibratory); asphalt laydown machine; asphalt plant; asphalt screed; bulldozer (finish); central mix plant; concrete pump; crane; crawler tractor pulling scraper; directional drill (60,000 (lbs) pullback and above); dragline and power shovel; dredge engine; excavator (over 1 cu. yd.); front end loader (4 cy and over); horizontal boring machine; master mechanic; milling machine (over 350 hp); motor grader (finish); push cat; rubber tired backhoe (over 1 cu. yd.); scraper (12 cu. yd. and over or finish); Self-propelled rotary mixer/road reclaimer; sidebroom tractor; slipform portland concrete paver; tow or push boat; trenching machine (Cleveland 80 or similar)

GROUP B - Articulated off road hauler, asphalt heater/planer; asphalt material transfer vehicle; asphalt roller; belt loader or similar loader; bulldozer (rough); churn or rotary drill; concrete curb machine; crawler tractor pulling ripper, disk or roller; deck hand/oiler; directional drill (less than 60,000 (lbs) pullback); distributor; excavator (1/2 cu. yd. and under); form riding concrete paver; front end loader (2 to less than 4 cu. yd.); group equipment greaser; mechanic; milling machine (350 hp. and less); paving breaker; portland concrete dry batch plant; rubber tired backhoe (1/2 cu. yd. and under); scraper (under 12 cu. yd.); screening, washing and crushing plant (mobile, portable or stationary); shoulder machine; skid loader (1 cu. yd. and over); subgrader or trimmer; trenching machine; water wagon on compaction.

GROUP C - Boom & winch truck; concrete spreader/belt placer; deep wells for dewatering; farm type tractor (over 75 hp.) pulling disc or roller; forklift; front end loader (under 2 cu. yd.); motor grader (rough); pile hammer power unit; pump (greater than three inch diameter); pumps on well points; safety boat; self-propelled roller (other than asphalt); self-propelled sand blaster or shot blaster, water blaster or striping grinder/remover; skid loader (under 1 cu. yd.); truck mounted post driver.

GROUP D - Boiler; compressor; cure and texture machine; dow box; farm type or utility tractor (under 75 hp.) pulling disk, roller or other attachments; group greaser tender; light plants; mechanic tender; mechanical broom; mechanical heaters; oiler; pumps (under three inch diameter); tree chipping machine; truck crane driver/oiler.

** CARPENTERS AND PILEDRIVERMEN, or IRONWORKERS (ZONE 5)

Setting of structural steel; any welding incidental to bridge or culvert construction; setting concrete beams.

* ADDED CRAFT - SIGN ERECTOR

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave

for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

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 (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average

calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

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, DC 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, DC 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, DC 20210

4.) All decisions by the Administrative Review Board are final.

=====

END OF GENERAL DECISION"



MEMORANDUM

TO: Contractors, Consultants, and/or Vendors
FROM: Tom Gruis – ECICOG Planner

Subject: **Verification of Eligibility to Participate in a Federally Assisted Project**

Project Name: Johnson County Watershed Approach / 13-NDRI-007

Due to federal funding that is assisting the herein named project, it is required that contractors, consultants, and/or vendors (as applicable) be verified as eligible through the Iowa Economic Development Authority (IEDA) to perform work or provide product. More specifically, that they have not been placed on the “debarred” list maintained by the U.S. Department of Labor.

As such, contractors, consultants, and/or vendors must be verified as eligible prior to award of a funding agreement. In the case of contractors to perform construction or architect/engineer to perform professional service prior to entering into contract with city or county. In the case of construction sub-contractor, prior to performing work with the general contractor. In the case of vendor, prior to the provision of product with purchaser.

General contractors are to submit the attached form with their construction bid.
Others are otherwise to submit when appropriate to person named below.

*Note: All construction contractors (general & subs) must be registered with the State of Iowa.
This requirement does not pertain to professional service consultants or product vendors.*

If not submitted with construction bid, the attached form must be returned directly to:

Tom Gruis, Planner
East Central Iowa Council of Governments
700 16th Street NE – Ste. 301
Cedar Rapids, IA 52402
319-365-9941 ext. 130
tom.gruis@ecicog.org

Project Name: Johnson County Watershed Approach

Please Write with Clarity

Check, as Applicable: ___ General Contractor ___ Sub-contractor ___ Consultant ___ Vendor

If Sub-contractor or Consultant ,Type of Work: _____

Contract or Product Value: \$ _____

Business Name: _____

Business Officer's Name: _____

BusinessAddress:_____

Business Tax ID Number: _____

DUNS Number: _____

Information regarding the DUNS number is available here: <http://fedgov.dnb.com/webform/>

State of Iowa Registration Number: _____

Note: Insert Not Applicable if Consultant or Vendor

“Section 3” Business (i.e., for low income business qualified business): _____ yes *or* _____ no

Minority Business Enterprise: _____ yes *or* _____ no

If yes, (i.e., not White), check appropriate line:

- _____ Black / African American
- _____ Asian
- _____ American Indian / Alaskan Native
- _____ Native Hawaiian / Other Pacific Islander
- _____ White & American Indian / Alaskan Native
- _____ White & Asian
- _____ White & Black
- _____ American Indian / Alaskan Native & Black
- _____ Other Multi-Racial

Women's Business Enterprise: _____ yes *or* _____ no

Hispanic Business: _____ yes *or* _____ no

Number of Current Employees to Work on Project: _____

Number of New Employees to be Hired to Work on the Project: _____

If not Submitted with Bid, Complete and Return To:

Tom Gruis, Planner
East Central Iowa Council of Governments
700 16th Street NE – Ste. 301
Cedar Rapids, IA 52402
319-365-9941 ext. 130
tom.gruis@ecicog.org

Return conveyance of scanned copy to person above via e-mail is preferred.

INTENT TO COMPLY WITH SECTION 3 REQUIREMENTS

(To be provided with procurement documents and returned with all submitted bids)

Section 3 of the Housing and Urban Development Act of 1968 [12 U.S.C. 1701u and 24 CFR Part 135] is HUD's legislative directive for providing preference to low-income residents of the local community (regardless of race or gender), and the businesses that substantially employ these persons, for new employment, training and contracting opportunities resulting from HUD-funded projects. The regulations seek to ensure that low- and very low-income persons, and the businesses that employ these individuals, are notified about the expenditure of HUD funds in their community and encouraged to seek opportunities, if created.

A Section 3 resident is defined as a public housing resident or someone with a household income that is less than 80% of the area median income.

A Section 3 business is defined as a business that is:

51% owned by Section 3 residents

Whose permanent, full-time staff is comprised of at least 30% Section 3 residents**

Has committed 25% of the dollar amount of its subcontracts to Section 3 businesses

Note: If your business meets the definition of a Section 3 business, you may register as a Section 3 Business through HUD's website here:

<https://portalapps.hud.gov/Sec3BusReg/BRegistry/RegisterBusiness>

Businesses who self-certify that they meet one of the regulatory definitions of a Section 3 business will be included in a searchable online database. The database can be used by agencies that receive HUD funds, developers, contractors, and others to facilitate the award of covered construction and non-construction contracts to Section 3 businesses.

Please complete the following:

1. If awarded a contract for this CDBG funded project, do you anticipate hiring new employees to complete the project? (Hiring would be specific to this project)

☐ Yes ☐ No If yes, please estimate the number of employees to be hired: _____
2. Is your business a Section 3 Business? ☐ Yes ☐ No
3. Is the bidder willing to consider hiring Section 3 residents for future employment opportunities that are a direct result of this CDBG funded project?

☐ Yes ☐ No
4. Is the bidder willing to consider subcontracting with Section 3 Businesses for this project?

☐ Yes ☐ No

I understand that this contracting opportunity is subject to HUD Section 3 requirements (24 CFR Part 135). I have read and understand the Section 3 requirements as generally described above and presented in the Section 3 contract language included in the procurement documents for this project. If awarded a contract, the business commits to following Section 3 requirements, as they apply to this project. If awarded a contract for this project, the business agrees to provide reports to (insert City/County) on Section 3 efforts and accomplishments.

Name of Contractor/Subcontractor

Address

Print Name

Title

Signature

Date

Section 3 Business Certification

- To be completed by the business claiming Section 3 business status.

All contract and subcontracts awarded on Section 3 covered projects must be reported in aggregate on the Section 3 Summary Report. For all businesses reported as being Section 3 businesses, documentation of their status must be retained in the project files. IEDA considers this form adequate documentation of Section 3 status.

HUD contracts awarded to the State of Iowa and/or a recipient (City/County) with more than \$200,000 in HUD funds are "Section 3 covered projects". Any contractors, with which they contract for more than \$100,000 on these projects, are required to report on all contracts they make both with Section 3 business concerns and with businesses that are not Section 3 business concerns.

This form is a tool to determine and document the Section 3 business status. Documentation of the status of Section 3 Businesses should be retained in the project files.

Business being certified:

Company: _____

Address: _____

Project information:

Project Name: _____

Project Address: _____

Section 3 determination

1. Is your business owned (51% or more) by individuals whose household incomes are NO GREATER THAN 80% of Area Median Income (AMI)* OR by individuals that are public housing residents?

*Please reference <http://iowaeconomicdevelopment/community/community/default.aspx> (under recipient income and census information) to determine if employee is less than 80% of the current area median income.

() Yes () No

2. Do 30% (or more) of your full time, permanent employees have household incomes that are NO GREATER THAN 80% of Area Median Income (AMI), or within three years of the date of first employment with the business concern were Section 3 residents?

() Yes () No

3. Will you subcontract more than 25% of this contract with a qualified business that is either 51% owned by Section 3 residents or 30% or more of its employees are Section 3 residents?

()Yes ()No

If any of the questions above are marked "yes", the business qualifies as a Section 3 business.

I certify that the above statements are true, complete, and correct to the best of my knowledge and belief.

Signature: _____

Print Name: _____ Date: _____

Applicability

The Project or Program to which the construction work covered by this contract pertains is being assisted by the United States of America and the following Federal Labor Standards Provisions are included in this Contract pursuant to the provisions applicable to such Federal assistance.

A. 1. (i) Minimum Wages. 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 29 CFR 5.5(a)(1)(iv); also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under 29 CFR 5.5(a)(1)(ii) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible, place where it can be easily seen by the workers.

(ii) (a) 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. HUD shall approve an additional classification and wage rate and fringe benefits therefor only when the following criteria have been met:

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

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

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

(b) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and HUD or its designee 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 HUD or its designee to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, D.C. 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB control number 1215-0140.)

(c) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and HUD or its designee do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), HUD or its designee shall refer the questions, including the views of all interested parties and the recommendation of HUD or its designee, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

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

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

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part

of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

2. Withholding. HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee or helper, employed or working on the site of the work, all or part of the wages required by the contract, HUD or its designee may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased. HUD or its designee may, after written notice to the contractor, disburse such amounts withheld for and on account of the contractor or subcontractor to the respective employees to whom they are due. The Comptroller General shall make such disbursements in the case of direct Davis-Bacon Act contracts.

3. (i) Payrolls and basic records. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in Section 1(b)(2)(B) of the Davis-bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5 (a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been

communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs. (Approved by the Office of Management and Budget under OMB Control Numbers 1215-0140 and 1215-0017.)

(ii) (a) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to HUD or its designee if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant sponsor, or owner, as the case may be, for transmission to HUD or its designee. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i) except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to HUD or its designee if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant sponsor, or owner, as the case may be, for transmission to HUD or its designee, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this subparagraph for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to HUD or its designee. (Approved by the Office of Management and Budget under OMB Control Number 1215-0149.)

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

(1) That the payroll for the payroll period contains the information required to be provided under 29 CFR 5.5 (a)(3)(ii), the appropriate information is being maintained under 29 CFR 5.5(a)(3)(i), and that such information is correct and complete;

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

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

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

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

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

4. Apprentices and Trainees.

(i) **Apprentices.** Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, 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 Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who

is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

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

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

(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under 29 CFR Part 5 shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR Part 3 which are incorporated by reference in this contract

6. Subcontracts. The contractor or subcontractor will insert in any subcontracts the clauses contained in subparagraphs 1 through 11 in this paragraph A and such other clauses as HUD or its designee may by appropriate instructions require, and a copy of the applicable prevailing wage decision, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this paragraph.

7. Contract termination; debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act Requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract

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

10. (i) Certification of Eligibility. 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) or to be

awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001. Additionally, U.S. Criminal Code, Section 1 01 0, Title 18, U.S.C., "Federal Housing Administration transactions", provides in part: "Whoever, for the purpose of . . . influencing in any way the action of such Administration..... makes, utters or publishes any statement knowing the same to be false..... shall be fined not more than \$5,000 or imprisoned not more than two years, or both."

11. Complaints, Proceedings, or Testimony by Employees. No laborer or mechanic to whom the wage, salary, or other labor standards provisions of this Contract are applicable shall be discharged or in any other manner discriminated against by the Contractor or any subcontractor because such employee has filed any complaint or instituted or caused to be instituted any proceeding or has testified or is about to testify in any proceeding under or relating to the labor standards applicable under this Contract to his employer.

B. Contract Work Hours and Safety Standards Act. The provisions of this paragraph B are applicable where the amount of the prime contract exceeds \$100,000. As used in this paragraph, the terms "laborers" and "mechanics" include watchmen and guards.

(1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which the individual is employed on such work to work in excess of 40 hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of 40 hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in subparagraph (1) of this paragraph, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in subparagraph (1) of this paragraph, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of 40 hours without payment of the overtime wages required by the clause set forth in subparagraph (1) of this paragraph.

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

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

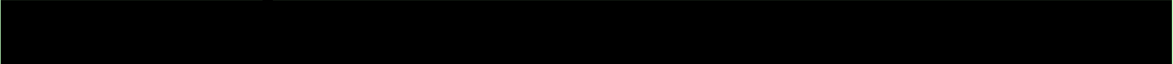
C. Health and Safety. The provisions of this paragraph C are applicable where the amount of the prime contract exceeds \$100,000.

(1) No laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his health and safety as determined under construction safety and health standards promulgated by the Secretary of Labor by regulation.

(2) The Contractor shall comply with all regulations issued by the Secretary of Labor pursuant to Title 29 Part 1926 and failure to comply may result in imposition of sanctions pursuant to the Contract Work Hours and Safety Standards Act, (Public Law 91-54, 83 Stat 96). 40 USC 3701 et seq.

(3) The contractor shall include the provisions of this paragraph in every subcontract so that such provisions will be binding on each subcontractor. The contractor shall take such action with respect to any subcontractor as the Secretary of Housing and Urban Development or the Secretary of Labor shall direct as a means of enforcing such provisions.

Required Contract Provisions



REQUIRED CONTRACT LANGUAGE

All project contracts shall contain at a minimum the following provisions, as appropriate.

ALL CONTRACTS

1. Access and Maintenance of Records

The contractor must maintain all required records for five years after final payments are made and all other pending matters are closed.

At any time during normal business hours and as frequently as is deemed necessary, the contractor shall make available to the Iowa Economic Development Authority, the State Auditor, the General Accounting Office, and the Department of Housing and Urban Development, for their examination, all of its records pertaining to all matters covered by this contract and permit these agencies to audit, examine, make excerpts or transcripts from such records, contract, invoices, payrolls, personnel records, conditions of employment, and all other matters covered by this contract.

2. Civil Rights

The Contractor must comply with the following laws and regulations:

- Title VI of the Civil Rights Act of 1964 (P.L. 88-352).
States that no person may be excluded from participation in, denied the benefits of, or subjected to discrimination under any program or activity receiving Federal financial assistance on the basis of race, color, or national origin.
- Title VIII of the Civil Rights Act of 1968 (Fair Housing Act), as amended.
- Federal Executive Order 11063, as amended by Executive Order 12259
Equal Opportunity Housing
- Iowa Civil Rights Act of 1965.
This Act mirrors the Federal Civil Rights Act.
- Section 109 of Title I of the Housing and Community Development Act of 1974, as amended (42 U.S.C. 5309).
Provides that no person shall be excluded from participation in, denied the benefits of, or subjected to discrimination on the basis of race, color, national origin, sex, age, or handicap under any program or activity funded in part or in whole under Title I of the Act.
- The Age Discrimination Act of 1975, as amended (42 U.S.C. 1601 et seq.)
Provides that no person on the basis of age, be excluded from participation in, be denied the benefits of or be subjected to discrimination under any program or activity receiving Federal financial assistance.
- Section 504 of the Rehabilitation Act of 1973, as amended (P.L. 93-112, 29 U.S.C. 794).
Provides that no otherwise qualified individual shall solely by reason of his/her handicap be excluded from participation in, be denied the benefits of, or be discriminated against under any program or activity receiving Federal financial assistance.
- Americans with Disabilities Act (P.L. 101-336, 42 U.S.C. 12101-12213)
Provides comprehensive civil rights to individuals with disabilities in the areas of employment, public accommodations, state and local government services, and telecommunications.

- Section 3 of the Housing and Urban Development Act of 1968, as amended (12 U.S.C. 1701u).

The purpose of section 3 of the Housing and Urban Development Act of 1968 (12 U.S.C. 1701u) (section 3) is to ensure that employment and other economic opportunities generated by certain HUD financial assistance shall, to the greatest extent feasible, and consistent with existing Federal, State and local laws and regulations, be directed to low- and very low-income persons, particularly those who are recipients of government assistance for housing, and to business concerns which provide economic opportunities to low- and very low-income persons.

3. Termination Clause

All contracts utilizing CDBG funds must contain a termination clause that specifies the following:

- Under what conditions the clause may be imposed.
- The form the termination notice must take (e.g., certified letter).
- The time frame required between the notice of termination and its effective date.
- The method used to compute the final payment(s) to the contractor.

4. Certification regarding government-wide restriction on lobbying.

All contracts utilizing CDBG funds must contain the following certification concerning restriction of lobbying:

"The Recipient certifies, to the best of his or her knowledge and belief, that:

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

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

5. Lead-Safe Housing Regulations (As applicable)

24 CFR Part 35 et. al.

6. Notice of Awarding Agency Requirements and Regulations Pertaining to Reporting

The Contractor must provide information as necessary and as requested by the Iowa Economic Development Authority for the purpose of fulfilling all reporting requirements related to the CDBG program.

ALL CONTRACTS IN EXCESS OF \$10,000

1. COMPREHENSIVE PROCUREMENT GUIDELINE: RECOVERED MATERIALS

"The contractor agrees to comply with all the requirements of Section 6002 of the Resource Conservation and Recovery Act (RCRA), as amended (42 U.S.C. 6962), including but not limited to the regulatory provisions of 40 CFR Part 247, and Executive Order 12873, as they apply to the procurement of the items designated in Subpart B of 40 CFR Part 247."

2. Federal Executive Orders 11246 and 11375:

Provides that no one be discriminated in employment.

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

- (1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.
- (2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.
- (3) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer, advising the labor union or workers' representative of the contractor's commitments under Section 202 of the Executive Order No. 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- (4) The contractor will comply with all provisions of Executive Order No. 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- (5) The contractor will furnish all information and reports required by Executive Order No. 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

- (6) In the event of the contractor's non-compliance with the nondiscrimination clause of this contract or with any of such rules, regulations, or orders, this contract may be canceled, terminated or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order No. 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order No. 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- (7) The contractor will include the provisions of Paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order No. 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the contracting agency may direct as a means of enforcing such provisions including sanctions for noncompliance: Provided, however, that in the event the contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the contracting agency, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

ALL CONTRACTS IN EXCESS OF \$100,000

Clean Air and Water Acts:

- Section 306 of the Clean Air Acts (42 U.S.C. 1857(h)).
- Section 508 of the Clean Water Act (33 U.S.C. 1368).
- Executive Order 11738. *Providing administration of the Clean Air and Water Acts*

Clean Air and Water Acts - required clauses:

This clause is required in all third-party contracts involving projects subject to the Clean Air Act (42 U.S.C. 1857 et seq.), the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.), and the regulations of the Environmental Protection Agency with respect to 40 CFR Part 15, as amended. It should also be mentioned in the bid document.

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

- (1) The CONTRACTOR will certify that any facility to be utilized in the performance of any nonexempt contract or subcontract is not listed on the Excluded Party Listing System pursuant to 40 CFR 32.
- (2) The CONTRACTOR agrees to comply with all the requirements of Section 114 of the Clean Air Act, as amended, (42 U.S.C. 1857c-8) and Section 308 of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1318) relating to inspection, monitoring, entry, reports, and information, as well as all other requirements specified in said Section 114 and Section 308, and all regulations and guidelines issued thereunder.
- (3) The CONTRACTOR agrees that as a condition for the award of the contract, prompt notice will be given of any notification received from the Director, Office of Federal Activities, Environmental Protection Agency, indicating that a facility utilized or to be utilized for the contract is under consideration to be listed on the Excluded Party Listing System.
- (4) The CONTRACTOR agrees that it will include or cause to be included the criteria and requirements in Paragraph (1) through (4) of this section in every nonexempt subcontract and require every subcontractor to take such action as the Government may direct as a means of enforcing such provisions.

ALL CONSTRUCTION CONTRACTS IN EXCESS OF \$2,000

Federal Labor Standards

In addition to the preceding provisions, all construction contracts in excess of \$2,000 must include the Federal Labor Standards Provisions (verbatim) found in Appendix 2 under Required Contract Provisions. (Housing rehabilitation contracts of less than 8 units are excluded from this requirement.)

Federal Labor Standards Provisions (verbatim) found in Appendix 2, including:

- Davis-Bacon and Related Acts
- Contract Work Hours and Safety Standard Act
- Copeland Anti-kickback Act

EMPLOYEE RIGHTS

UNDER THE DAVIS-BACON ACT

FOR LABORERS AND MECHANICS EMPLOYED ON FEDERAL OR FEDERALLY ASSISTED CONSTRUCTION PROJECTS

PREVAILING WAGES

You must be paid not less than the wage rate listed in the Davis-Bacon Wage Decision posted with this Notice for the work you perform.

OVERTIME

You must be paid not less than one and one-half times your basic rate of pay for all hours worked over 40 in a work week. There are few exceptions.

ENFORCEMENT

Contract payments can be withheld to ensure workers receive wages and overtime pay due, and liquidated damages may apply if overtime pay requirements are not met. Davis-Bacon contract clauses allow contract termination and debarment of contractors from future federal contracts for up to three years. A contractor who falsifies certified payroll records or induces wage kickbacks may be subject to civil or criminal prosecution, fines and/or imprisonment.

APPRENTICES

Apprentice rates apply only to apprentices properly registered under approved Federal or State apprenticeship programs.

PROPER PAY

If you do not receive proper pay, or require further information on the applicable wages, contact the Contracting Officer listed below:

or contact the U.S. Department of Labor's Wage and Hour Division.



WAGE AND HOUR DIVISION
UNITED STATES DEPARTMENT OF LABOR

1-866-487-9243
TTY: 1-877-889-5627
www.dol.gov/whd



WH1321 REV 10/17

DERECHOS DEL EMPLEADO

BAJO LA LEY DAVIS-BACON

PARA OBREROS Y MECÁNICOS EMPLEADOS EN PROYECTOS DE CONSTRUCCIÓN FEDERAL O CON ASISTENCIA FEDERAL

SALARIOS PREVALECIENTES

No se le puede pagar menos de la tasa de pago indicada en la Decisión de Salarios Davis-Bacon fijada con este Aviso para el trabajo que Ud. desempeña.

SOBRETIEMPO

Se le ha de pagar no menos de tiempo y medio de su tasa básica de pago por todas las horas trabajadas en exceso de 40 en una semana laboral. Existen pocas excepciones.

CUMPLIMIENTO

Se pueden retener pagos por contratos para asegurarse que los obreros reciban los salarios y el pago de sobretiempo debidos, y se podría aplicar daños y perjuicios si no se cumple con las exigencias del pago de sobretiempo. Las cláusulas contractuales de Davis-Bacon permiten la terminación y exclusión de contratistas para efectuar futuros contratos federales hasta tres años. El contratista que falsifique los registros certificados de las nóminas de pago o induzca devoluciones de salarios puede ser sujeto a procesamiento civil o criminal, multas y/o encarcelamiento.

APRENDICES

Las tasas de aprendices sólo se aplican a aprendices correctamente inscritos bajo programas federales o estatales aprobados.

PAGO APROPIADO

Si Ud. no recibe el pago apropiado, o precisa de información adicional sobre los salarios aplicables, póngase en contacto con el Contratista Oficial que aparece abajo:

o póngase en contacto con la División de Horas y Salarios del Departamento de Trabajo de los EE.UU.



DIVISIÓN DE HORAS Y SALARIOS
DEPARTAMENTO DE TRABAJO DE LOS EE.UU.

1-866-487-9243
TTY: 1-877-889-5627
www.dol.gov/whd





OSHA[®]
Occupational Safety
and Health Administration

Job Safety and Health IT'S THE LAW!

All workers have the right to:

- A safe workplace.
- Raise a safety or health concern with your employer or OSHA, or report a work-related injury or illness, without being retaliated against.
- Receive information and training on job hazards, including all hazardous substances in your workplace.
- Request an OSHA inspection of your workplace if you believe there are unsafe or unhealthy conditions. OSHA will keep your name confidential. You have the right to have a representative contact OSHA on your behalf.
- Participate (or have your representative participate) in an OSHA inspection and speak in private to the inspector.
- File a complaint with OSHA within 30 days (by phone, online or by mail) if you have been retaliated against for using your rights.
- See any OSHA citations issued to your employer.
- Request copies of your medical records, tests that measure hazards in the workplace, and the workplace injury and illness log.

This poster is available free from OSHA.

Contact OSHA. We can help.

Employers must:

- Provide employees a workplace free from recognized hazards. It is illegal to retaliate against an employee for using any of their rights under the law, including raising a health and safety concern with you or with OSHA, or reporting a work-related injury or illness.
- Comply with all applicable OSHA standards.
- Report to OSHA all work-related fatalities within 8 hours, and all inpatient hospitalizations, amputations and losses of an eye within 24 hours.
- Provide required training to all workers in a language and vocabulary they can understand.
- Prominently display this poster in the workplace.
- Post OSHA citations at or near the place of the alleged violations.

FREE ASSISTANCE to identify and correct hazards is available to small and medium-sized employers, without citation or penalty, through OSHA-supported consultation programs in every state.





Seguridad y Salud en el Trabajo

¡ES LA LEY!

Todos los trabajadores tienen el derecho a:

- Un lugar de trabajo seguro.
- Decir algo a su empleador o la OSHA sobre preocupaciones de seguridad o salud, o reportar una lesión o enfermedad en el trabajo, sin sufrir represalias.
- Recibir información y entrenamiento sobre los peligros del trabajo, incluyendo sustancias tóxicas en su sitio de trabajo.
- Pedirle a la OSHA inspeccionar su lugar de trabajo si usted cree que hay condiciones peligrosas o insalubres. Su información es confidencial. Algún representante suyo puede comunicarse con OSHA a su nombre.
- Participar (o su representante puede participar) en la inspección de OSHA y hablar en privado con el inspector.
- Presentar una queja con la OSHA dentro de 30 días (por teléfono, por internet, o por correo) si usted ha sufrido represalias por ejercer sus derechos.
- Ver cualesquieras citaciones de la OSHA emitidas a su empleador.
- Pedir copias de sus registros médicos, pruebas que miden los peligros en el trabajo, y registros de lesiones y enfermedades relacionadas con el trabajo.

Este cartel está disponible de la OSHA para gratis.

Llame OSHA. Podemos ayudar.

Los empleadores deben:

- Proveer a los trabajadores un lugar de trabajo libre de peligros reconocidos. Es ilegal discriminar contra un empleado quien ha ejercido sus derechos bajo la ley, incluyendo hablando sobre preocupaciones de seguridad o salud a usted o con la OSHA, o por reportar una lesión o enfermedad relacionada con el trabajo.
- Cumplir con todas las normas aplicables de la OSHA.
- Reportar a la OSHA todas las fatalidades relacionadas con el trabajo dentro de 8 horas, y todas hospitalizaciones, amputaciones y la pérdida de un ojo dentro de 24 horas.
- Proporcionar el entrenamiento requerido a todos los trabajadores en un idioma y vocabulario que pueden entender.
- Mostrar claramente este cartel en el lugar de trabajo.
- Mostrar las citaciones de la OSHA acerca del lugar de la violación alegada.

Los empleadores de tamaño pequeño y mediano pueden recibir ASISTENCIA GRATIS para identificar y corregir los peligros sin citación o multa, a través de los programas de consultación apoyados por la OSHA en cada estado.



Equal Employment Opportunity is

THE LAW

Private Employers, State and Local Governments, Educational Institutions, Employment Agencies and Labor Organizations

Applicants to and employees of most private employers, state and local governments, educational institutions, employment agencies and labor organizations are protected under Federal law from discrimination on the following bases:

RACE, COLOR, RELIGION, SEX, NATIONAL ORIGIN

Title VII of the Civil Rights Act of 1964, as amended, protects applicants and employees from discrimination in hiring, promotion, discharge, pay, fringe benefits, job training, classification, referral, and other aspects of employment, on the basis of race, color, religion, sex (including pregnancy), or national origin. Religious discrimination includes failing to reasonably accommodate an employee's religious practices where the accommodation does not impose undue hardship.

DISABILITY

Title I and Title V of the Americans with Disabilities Act of 1990, as amended, protect qualified individuals from discrimination on the basis of disability in hiring, promotion, discharge, pay, fringe benefits, job training, classification, referral, and other aspects of employment. Disability discrimination includes not making reasonable accommodation to the known physical or mental limitations of an otherwise qualified individual with a disability who is an applicant or employee, barring undue hardship.

AGE

The Age Discrimination in Employment Act of 1967, as amended, protects applicants and employees 40 years of age or older from discrimination based on age in hiring, promotion, discharge, pay, fringe benefits, job training, classification, referral, and other aspects of employment.

SEX (WAGES)

In addition to sex discrimination prohibited by Title VII of the Civil Rights Act, as amended, the Equal Pay Act of 1963, as amended, prohibits sex discrimination in the payment of wages to women and men performing substantially equal work, in jobs that require equal skill, effort, and responsibility, under similar working conditions, in the same establishment.

GENETICS

Title II of the Genetic Information Nondiscrimination Act of 2008 protects applicants and employees from discrimination based on genetic information in hiring, promotion, discharge, pay, fringe benefits, job training, classification, referral, and other aspects of employment. GINA also restricts employers' acquisition of genetic information and strictly limits disclosure of genetic information. Genetic information includes information about genetic tests of applicants, employees, or their family members; the manifestation of diseases or disorders in family members (family medical history); and requests for or receipt of genetic services by applicants, employees, or their family members.

RETALIATION

All of these Federal laws prohibit covered entities from retaliating against a person who files a charge of discrimination, participates in a discrimination proceeding, or otherwise opposes an unlawful employment practice.

WHAT TO DO IF YOU BELIEVE DISCRIMINATION HAS OCCURRED

There are strict time limits for filing charges of employment discrimination. To preserve the ability of EEOC to act on your behalf and to protect your right to file a private lawsuit, should you ultimately need to, you should contact EEOC promptly when discrimination is suspected:

The U.S. Equal Employment Opportunity Commission (EEOC), 1-800-669-4000 (toll-free) or 1-800-669-6820 (toll-free TTY number for individuals with hearing impairments). EEOC field office information is available at www.eeoc.gov or in most telephone directories in the U.S. Government or Federal Government section. Additional information about EEOC, including information about charge filing, is available at www.eeoc.gov.

Employers Holding Federal Contracts or Subcontracts

Applicants to and employees of companies with a Federal government contract or subcontract are protected under Federal law from discrimination on the following bases:

RACE, COLOR, RELIGION, SEX, NATIONAL ORIGIN

Executive Order 11246, as amended, prohibits job discrimination on the basis of race, color, religion, sex or national origin, and requires affirmative action to ensure equality of opportunity in all aspects of employment.

INDIVIDUALS WITH DISABILITIES

Section 503 of the Rehabilitation Act of 1973, as amended, protects qualified individuals from discrimination on the basis of disability in hiring, promotion, discharge, pay, fringe benefits, job training, classification, referral, and other aspects of employment. Disability discrimination includes not making reasonable accommodation to the known physical or mental limitations of an otherwise qualified individual with a disability who is an applicant or employee, barring undue hardship. Section 503 also requires that Federal contractors take affirmative action to employ and advance in employment qualified individuals with disabilities at all levels of employment, including the executive level.

DISABLED, RECENTLY SEPARATED, OTHER PROTECTED, AND ARMED FORCES SERVICE MEDAL VETERANS

The Vietnam Era Veterans' Readjustment Assistance Act of 1974, as amended, 38 U.S.C. 4212, prohibits job discrimination and requires affirmative action to employ and advance in employment disabled veterans, recently separated veterans (within

three years of discharge or release from active duty), other protected veterans (veterans who served during a war or in a campaign or expedition for which a campaign badge has been authorized), and Armed Forces service medal veterans (veterans who, while on active duty, participated in a U.S. military operation for which an Armed Forces service medal was awarded).

RETALIATION

Retaliation is prohibited against a person who files a complaint of discrimination, participates in an OFCCP proceeding, or otherwise opposes discrimination under these Federal laws.

Any person who believes a contractor has violated its nondiscrimination or affirmative action obligations under the authorities above should contact immediately:

The Office of Federal Contract Compliance Programs (OFCCP), U.S. Department of Labor, 200 Constitution Avenue, N.W., Washington, D.C. 20210, 1-800-397-6251 (toll-free) or (202) 693-1337 (TTY). OFCCP may also be contacted by e-mail at OFCCP-Public@dol.gov, or by calling an OFCCP regional or district office, listed in most telephone directories under U.S. Government, Department of Labor.

Programs or Activities Receiving Federal Financial Assistance

RACE, COLOR, NATIONAL ORIGIN, SEX

In addition to the protections of Title VII of the Civil Rights Act of 1964, as amended, Title VI of the Civil Rights Act of 1964, as amended, prohibits discrimination on the basis of race, color or national origin in programs or activities receiving Federal financial assistance. Employment discrimination is covered by Title VI if the primary objective of the financial assistance is provision of employment, or where employment discrimination causes or may cause discrimination in providing services under such programs. Title IX of the Education Amendments of 1972 prohibits employment discrimination on the basis of sex in educational programs or activities which receive Federal financial assistance.

INDIVIDUALS WITH DISABILITIES

Section 504 of the Rehabilitation Act of 1973, as amended, prohibits employment discrimination on the basis of disability in any program or activity which receives Federal financial assistance. Discrimination is prohibited in all aspects of employment against persons with disabilities who, with or without reasonable accommodation, can perform the essential functions of the job.

If you believe you have been discriminated against in a program of any institution which receives Federal financial assistance, you should immediately contact the Federal agency providing such assistance.

La Igualdad de Oportunidades en el Empleo es

LA LEY

Empleadores privados, autoridades locales y estatales, instituciones educativas, agencias de empleo y organizaciones laborales

Los solicitantes de empleo y los empleados de la mayoría de los empleadores privados, autoridades locales y estatales, instituciones educativas, agencias de empleo y organizaciones laborales están protegidos conforme a la ley federal contra la discriminación por cualquiera de los siguientes motivos:

RAZA, COLOR, RELIGIÓN, SEXO, ORIGEN NACIONAL

El Título VII de la Ley de Derechos Civiles de 1964, y sus enmiendas, protege a los solicitantes de empleo y a los empleados contra la discriminación en la contratación, ascenso, despido, sueldo, beneficios adicionales, capacitación laboral, clasificación, referencia, y otros aspectos del empleo, debido a la raza, color, religión, sexo (incluido el embarazo) u origen nacional. La discriminación religiosa incluye el no realizar los arreglos razonables para las prácticas religiosas de un empleado, cuando tales arreglos no impongan una dificultad indebida.

DISCAPACIDAD

El Título I y el Título V de la Ley de Estadounidenses con Discapacidades de 1990, y sus enmiendas, protegen a los individuos que califiquen contra la discriminación por una discapacidad en la contratación, ascenso, despido, sueldo, beneficios adicionales, capacitación laboral, clasificación, referencia, y otros aspectos del empleo. La discriminación por discapacidad incluye el no realizar los arreglos razonables para las limitaciones mentales o físicas conocidas de un individuo con una discapacidad quien solicite empleo o sea empleado, salvo que implique una dificultad indebida.

EDAD

La Ley Contra la Discriminación por Edad en el Empleo de 1967, y sus enmiendas, protege a los solicitantes de empleo y a los empleados que tengan 40 años de edad o más contra la discriminación por la edad en la contratación, ascenso, despido, sueldo, beneficios adicionales, capacitación laboral, clasificación, referencia, y otros aspectos del empleo.

SEXO (SALARIOS)

Adicionalmente a la prohibición de la discriminación por sexo estipulada en el Título VII de la Ley de Derechos Civiles, y sus enmiendas, la Ley de Igualdad Salarial de 1963, y sus enmiendas, prohíbe la discriminación por sexo en el pago de salarios a los hombres y mujeres que realicen un trabajo sustancialmente similar, en empleos que requieran iguales destrezas, esfuerzos y responsabilidades, bajo condiciones laborales similares, en el mismo establecimiento.

GENÉTICA

El Título II de la Ley contra la Discriminación por Información Genética de 2008 (GINA) protege a los solicitantes de empleo y a los empleados contra la discriminación con basada en información genética, en la contratación, ascenso, despido, sueldo, beneficios adicionales, capacitación laboral, clasificación, referencia, y otros aspectos del empleo. GINA también restringe la adquisición de la información genética por parte de los empleadores y limita estrictamente la divulgación de la información genética. La información genética incluye la información sobre las pruebas genéticas de los solicitantes de empleo, los empleados o sus familiares; la manifestación de enfermedades o desórdenes en los familiares (históricamente médico familiar); y las solicitudes o recibo de servicios genéticos por los solicitantes de empleo, los empleados o sus familiares.

REPRESALIA

Todas estas leyes federales prohíben a las entidades cubiertas tomar represalias contra una persona que presente un cargo de discriminación, participe en un procedimiento de discriminación o se oponga a una práctica laboral ilegal.

QUÉ DEBE HACER SI CONSIDERA QUE HA OCURRIDO UNA DISCRIMINACIÓN

Hay límites estrictos de tiempo para presentar cargos de discriminación en el empleo. Para conservar la capacidad del EEOC de actuar en su nombre y para proteger su derecho de presentar una demanda privada, en caso de que en última instancia lo necesite, usted debe comunicarse con el EEOC de manera oportuna cuando sospeche de la discriminación:

La Comisión para la Igualdad de Oportunidades en el Empleo de los EE.UU. (EEOC), 1-800-669-4000 (número gratuito) o 1-800-669-6820 (número TTY gratuito para las personas con dificultades auditivas). La información de las oficinas de campo del EEOC está disponible en www.eeoc.gov o en la mayoría de los directorios telefónicos en la sección de Gobierno de los EE.UU. o Gobierno Federal. Puede encontrar información adicional sobre el EEOC, incluida la información sobre la presentación de cargos, en www.eeoc.gov.

Empleadores que tengan contratos o subcontratos federales

Los solicitantes de empleo y los empleados de compañías con un contrato o subcontrato gubernamental federal están protegidos conforme a las leyes federales contra la discriminación por los siguientes motivos:

RAZA, COLOR, RELIGIÓN, SEXO, ORIGEN NACIONAL

La Orden Ejecutiva 11246, y sus enmiendas, prohíbe la discriminación en el trabajo por motivo de raza, color, religión, sexo u origen nacional, y exige la aplicación de acción afirmativa para garantizar la igualdad en las oportunidades en todos los aspectos del empleo.

INDIVIDUOS CON DISCAPACIDADES

La Sección 503 de la Ley de Rehabilitación de 1973, y sus enmiendas, protege a los individuos que califiquen contra la discriminación por una discapacidad en la contratación, ascenso, despido, sueldo, beneficios adicionales, capacitación laboral, clasificación, referencia, y otros aspectos del empleo. La discriminación por discapacidad incluye el no realizar los arreglos razonables para las limitaciones mentales o físicas conocidas de un individuo con una discapacidad quien solicite empleo o sea empleado, salvo que implique una dificultad indebida. La Sección 503 también exige que los contratistas federales tomen las acciones afirmativas para emplear y ascender en el empleo a individuos calificados con discapacidades en todos los niveles laborales, incluido el nivel ejecutivo.

VETERANOS CON MEDALLAS DEL SERVICIO DE LAS FUERZAS ARMADAS Y VETERANOS DISCAPACITADOS, SEPARADOS RECIENTEMENTE Y DE OTRO ESTATUS PROTEGIDO

La Ley de Asistencia a la Readaptación de los Veteranos de Vietnam de 1974, y sus enmiendas, 38 U.S.C. 4212, prohíbe la discriminación laboral y exige la acción afirmativa para emplear y ascender en el empleo a veteranos discapacitados, veteranos separados

del servicio recientemente (dentro de los tres años dados de baja del servicio activo), otros veteranos protegidos (quienes hayan prestado el servicio militar en una guerra o en una campaña o expedición para la cual se haya autorizado una insignia de campaña), y los veteranos con medallas del Servicio de las Fuerzas Armadas (veteranos quienes, mientras se encontraban en el servicio activo, participaron en una operación militar de EE.UU. para la cual se les otorgó una medalla del Servicio de las Fuerzas Armadas).

REPRESALIA

Se prohíben las represalias contra una persona que presente un cargo de discriminación, participe en un procedimiento de la Oficina de Programas de Cumplimiento de Contratos Federales (OFCCP), o quien se oponga a la discriminación de conformidad con estas leyes federales.

Toda persona quien considere que un contratista ha incumplido sus obligaciones antidiscriminatorias o de acción afirmativa conforme a las autoridades antes indicadas, debe contactar de inmediato a:

The Office of Federal Contract Compliance Programs (OFCCP), U.S. Department of Labor, 200 Constitution Avenue, N.W., Washington, D.C. 20210, 1-800-397-6251 (número gratuito) o (202) 693-1337 (número TTY). También puede contactar a la OFCCP por el correo electrónico OFCCP-Public@dol.gov, o llamando a una oficina distrital o regional de la OFCCP, la cual puede encontrar en la mayoría de los directorios telefónicos en la sección U.S. Government (Gobierno de los EE.UU.), Department of Labor (Departamento del Trabajo).

Programas o actividades que reciban asistencia financiera federal

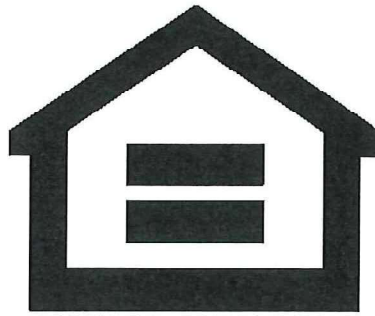
RAZA, COLOR, ORIGEN NACIONAL, SEXO

Adicionalmente a las protecciones del Título VII de la Ley de Derechos Civiles de 1964, y sus enmiendas, el Título VI de la Ley de Derechos Civiles de 1964, y sus enmiendas, prohíbe la discriminación por raza, color u origen nacional en los programas o actividades que reciban asistencia financiera federal. La discriminación en el empleo está cubierta por el Título VI si el objetivo principal de la asistencia financiera es la provisión del empleo, o donde la discriminación laboral cause o pueda causar una discriminación en la provisión de los servicios conforme a tales programas. El Título IX de las Enmiendas en la Educación de 1972 prohíbe la discriminación en el empleo por motivo del sexo en las actividades o programas educativos que reciban asistencia financiera federal.

INDIVIDUOS CON DISCAPACIDADES

La Sección 504 de la Ley de Rehabilitación de 1973, y sus enmiendas, prohíbe la discriminación en el empleo por una discapacidad, en cualquier programa o actividad que reciba asistencia financiera federal. Se prohíbe la discriminación en todos los aspectos del empleo contra las personas con discapacidades quienes, con o sin arreglos razonables, puedan realizar las funciones esenciales del trabajo.

Si usted considera que ha sido discriminado en un programa de alguna institución que reciba asistencia financiera federal, debe contactar inmediatamente a la agencia federal que proporciona dicha asistencia.



**EQUAL HOUSING
OPPORTUNITY**

**We Do Business in Accordance With the Federal Fair
Housing Law**

(The Fair Housing Amendments Act of 1988)

**It is Illegal to Discriminate Against Any Person
Because of Race, Color, Religion, Sex,
Handicap, Familial Status, or National Origin**

In the sale or rental of housing or
residential lots

In the provision of real estate
brokerage services

In advertising the sale or rental
of housing

In the appraisal of housing

In the financing of housing

Blockbusting is also illegal

Anyone who feels he or she has been
discriminated against may file a complaint of
housing discrimination:

1-800-669-9777 (Toll Free)

1-800-927-9275 (TTY)

www.hud.gov/fairhousing

**U.S. Department of Housing and
Urban Development
Assistant Secretary for Fair Housing and
Equal Opportunity
Washington, D.C. 20410**



IGUALDAD DE OPORTUNIDAD EN LA VIVIENDA

Conducimos nuestros negocios de acuerdo a la Ley Federal de Vivienda Justa

(Acta de enmiendas de 1988 de la Ley Federal de Vivienda Justa)

Es ilegal discriminar contra cualquier persona por razon de su raza, color, religion, sexo, incapacidad fisica o mental, la presencia de niños menores de 18 años o de mujer embarazada en su familia o su origen nacional

■ En la venta o renta de vivienda y terrenos residenciales

■ En los anuncios de venta o renta de vivienda

■ En la financiamiento de vivienda

■ Amenazar o interferir con la persona para que no registre su queja

■ En los servicios de corretaje que prestan vendedores de vivienda

■ En la valoracion de vivienda

■ Tambien es ilegal forzarle a vender o rentar su vivienda diciendole que gente de otra raza, religion o grupo etnico se estan mudando en su vecindario

Cualquier persona que sienta que fue discriminada debe de enviar su queja de discriminacion:

1-800-669-9777 (llamada gratis)
1-800-927-9275 (TDD llamada gratis)

U.S.Department of Housing
and Urban Development
Assistant Secretary for Fair Housing and
Equal Opportunity
Washington, D.C. 20410

HOUSING AND URBAN DEVELOPMENT ACT OF 1968
SAMPLE SECTION 3 CLAUSE

A. The work to be performed under this contract is subject to the requirements of section 3 of the Housing and Urban Development Act of 1968, as amended, 12 U.S.C. 1701u (section 3). The purpose of section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD-assisted projects covered by section 3, shall, to the greatest extent feasible, be directed to low- and very low-income persons, particularly persons who are recipients of HUD assistance for housing.

B. The parties to this contract agree to comply with HUD's regulations in 24 CFR part 135, which implement section 3. As evidenced by their execution of this contract, the parties to this contract certify that they are under no contractual or other impediment that would prevent them from complying with the part 135 regulations.

C. The contractor agrees to send to each labor organization or representative of workers with which the contractor has a collective bargaining agreement or other understanding, if any, a notice advising the labor organization or workers' representative of the contractor's commitments under this section 3 clause, and will post copies of the notice in conspicuous places at the work site where both employees and applicants for training and employment positions can see the notice. The notice shall describe the section 3 preference, shall set forth minimum number and job titles subject to hire, availability of apprenticeship and training positions, the qualifications for each; and the name and location of the person(s) taking applications for each of the positions; and the anticipated date the work shall begin.

D. The contractor agrees to include this section 3 clause in every subcontract subject to compliance with regulations in 24 CFR part 135, and agrees to take appropriate action, as provided in an applicable provision of the subcontract or in this section 3 clause, upon a finding that the subcontractor is in violation of the regulations in 24 CFR part 135. The contractor will not subcontract with any subcontractor where the contractor has notice or knowledge that the subcontractor has been found in violation of the regulations in 24 CFR part 135.

E. The contractor will certify that any vacant employment positions, including training positions, that are filled (1) after the contractor is selected but before the contract is executed, and (2) with persons other than those to whom the regulations of 24 CFR part 135 require employment opportunities to be directed, were not filled to circumvent the contractor's obligations under 24 CFR part 135.

F. Noncompliance with HUD's regulations in 24 CFR part 135 may result in sanctions, termination of this contract for default, and debarment or suspension from future HUD assisted contracts.

G. With respect to work performed in connection with section 3 covered Indian housing assistance, section 7(b) of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450e) also applies to the work to be performed under this contract. Section 7(b) requires that to the greatest extent feasible (i) preference and opportunities for training and employment shall be given to Indians, and (ii) preference in the award of contracts and subcontracts shall be given to Indian organizations and Indian-owned Economic Enterprises. Parties to this contract that are subject to the provisions of section 3 and section 7(b) agree to comply with section 3 to the maximum extent feasible, but not in derogation of compliance with section 7(b).

CLEARINGHOUSES FOR SOLICITATION OF MINORITY OWNED AND FEMALE OWNED BUSINESSES

Small Business Administration District Office

210 Walnut Street, Room 749
Federal Building
Des Moines, IA 50309
Contact Person: Dawnelle Conley
515/284-4913
<http://www.sba.gov/ia/desmo>

Sioux City Construction League

3900 Stadium Drive
P.O. Box 3346
Sioux City, IA 51102 -3346
712/255-9730
<http://www.siouxcityconstructionleague.com>

Illinois MBDA Business Center

105 W. Adams Street
Suite 230
Chicago, IL 60603
312/755-2565

National Association of Women in Construction (NAWIC)

327 S. Adams Street
Fort Worth, TX 76104
Toll Free: 800-552-3506
Fax: 817-877-0324
Web: www.nawic.org

Iowa Chapters

#80 - Greater Des Moines
Amber Darby
515-778-6116

#160 - Cedar Rapids/Iowa City
Carol Hustad
319-848-3133

<http://www.nawic.org/chapters/iowa.htm>

CLEARINGHOUSES FOR SOLICITATION OF MINORITY OWNED AND FEMALE OWNED BUSINESSES

CONSTRUCTION UPDATE PLAN ROOMS

For more information, visit <http://www.mbionline.com>

Master Builders of Iowa/Construction Update Plan Room

221 Park Street
PO Box 695
Des Moines, IA 50306
Phone: 515-288-8904 or 1-800-362-2578
Fax: 515-288-8718

Construction Update Plan Room, Fort Dodge

24 N. 9th Street, Suite A
Fort Dodge, IA 50501-4251
Phone: 515-955-5500
Fax: 515-955-3245

North Iowa Builders Exchange

9 N. Federal
Mason City, IA 50401-3228
Phone: 641-423-5334
Fax: 641-423-5725

Master Builders of Iowa - Omaha Builders Exchange Office

4255 S. 94th St.
Omaha, NE 68127-1223
Phone: (402) 593-6908
Fax: (402) 593-6912

Master Builders of Iowa - Waterloo Office

612 Mulberry
Waterloo, Iowa 50703
Phone: (319) 232-3621
Fax: (319) 274-098

PART IV

Special Provisions

SPECIAL PROVISIONS

The Special Provisions modify, amplify or amend the General Provisions and Covenants used on this project and takes precedence over them in the event of any discrepancy.

S.P. 1 – CONSTRUCTION SCHEDULE AND SEQUENCE:

The contractor shall submit a time schedule for construction prior to the preconstruction meeting, and shall resubmit if the schedule varies significantly throughout construction. Notice to proceed with construction will be given at the preconstruction meeting, provided that all required paperwork has been submitted for Contractor registration with the Grant Administrator (ECICOG). Early authorization to proceed with certain construction activities, such as falling trees or removal of CRP grasses may be made prior to the preconstruction meeting, if requested by the Contractor.

CRP is present on CC-020, C-023 (do not disturb), CC-032, CC-031, CC-093, CC-094, and CC-096

Timing restrictions resulting from CRP

CRP can not be disturbed from May 15th -August 1st. All areas with CRP must begin work from August 2nd – May 14th. CRP reseeding must occur from April 15th – July 1st; November 14th – Freeze up; or February 1st – March 15th (frost seed).

Timing restrictions resulting from Landowner requirements

Coordinate work on the sites with the landowners planting schedules.

The Tier II environmental survey was unable to be fully completed on a small portion of Conkling 20-23 and 30-33 due to access. The contractor shall **stop work immediately** and notify the Engineer if any cultural resources or artifacts are discovered during ground disturbance in this unevaluated area. If this occurs, work will not be allowed to proceed until the site is assessed by an archeologist and the tribes are consulted.

The project completion date is June 30th, 2021.

S.P. 2 – SUBSTANTIAL COMPLETION:

Substantial completion shall be defined as performance of all work on the contract including seeding, fertilizing and mulching. Final acceptance of the project will not occur until all work is completed on the contract, the seeding has been accepted in accordance with the contract documents and the project site has been cleaned up in accordance with the contract documents. The performance bond shall guarantee the work, as further described in the Contract documents, from the date of substantial completion.

S.P. 3 – INSURANCE: The Contractor shall provide a Certificate of Liability Insurance in accordance with Project Insurance Requirements section of this project manual.

S.P. 4 – SALES TAX: Johnson County will issue special exemption certificates to contractors and subcontractors allowing them to purchase, or withdraw from inventory, materials for the contract free from sales tax in accordance with Section 1020 Part 1.08B of the General Provisions.

S.P. 5 – SUBSURFACE SOIL DATA: A Subsurface soil investigation has not been completed for each site. Bidders are expected to examine the site and then decide for themselves the character of the material to be encountered. Bidders may also find it useful to utilize “Web Soil Survey” to get a general idea of the soils they may encounter on-site. Bidders may contact landowners during the bid process to obtain permission to review conditions at the construction site to satisfy themselves as to the actual construction conditions and the level of construction difficulty they will encounter. Access for the purpose of making test borings shall be arranged by contacting the Watershed Coordinator. All boring holes shall immediately be refilled to the Owner’s satisfaction.

S.P. 6 – SUBMITTALS: The Contractor shall provide submittals for the following items: pipe; aggregate; geotextile; revetment stone; fertilizer; seeding; mulching; tile; tile inlets; tile outlets; fencing; silt fence; and livestock water system materials including pipe, valve, tank, and hydrant. The submittals shall be provided to the Engineer for review no later than one week prior to the Contractor needing to order the material to allow time for review.

S.P. 7 – CONTRACTOR’S ACCESS: Ingress and egress routes have been discussed and preliminarily determined for each specific site with each of the landowners. The contractor shall coordinate with the private landowner for confirming the ingress, egress, and staging areas. The entire project shall be completed on private property. Agreements and easements (as needed) for work on the property can be reviewed at the office of the Watershed Coordinator (Johnson County SWCD). Upon completion of construction, the Contractor shall be responsible for restoring the ingress and egress routes and staging areas. Restoration in crop fields shall include deep cultivation and grading to loosen compacted soil and to restore the surface to a smooth surface that blends in with the surrounding ground. Restoration shall include, but not limited to, tillage, reseeding, and repair of existing fences. The site shall be returned to its original condition. This includes seeding, fertilizing and mulching, if necessary. There shall be no separate payment for these activities and shall be included in the payment for mobilization.

S.P. 8 – CONSTRUCTION STAKING: The Engineer shall supply benchmarks, control points, and mark centerline of ridge lines of each WASCOB. Starting and stopping locations will be marked on each grassed waterway when requested. All additional staking shall be supplied by the Contractor, including but not limited to, top and toes of streamlines, piping, and drain tiles. The Contractor shall also be responsible for the construction checkout form/table which can be completed with a level or laser level and does not require a transit or total station. There will be no separate payment for these items and shall be included for each associated bid item.

S.P. 9 – UTILITIES: The Contractor is responsible for One-Call locates prior to starting construction. The Contractor shall provide proof of One Call tickets by providing the Engineer documentation of the Iowa One Call locate. The Engineer shall be notified immediately of any conflicts in utilities or drain tiles. The Contractor shall be responsible for the repair of any

damage to utility lines or structures caused by the Contractor's work. Existing tile drains damaged in construction shall be repaired with the size, material and wall size to match existing and connected with transition fittings. Existing tiles shall not be connected into proposed tiles unless noted by the Engineer. Contractor shall keep an As-Built record of encountered underground utilities with horizontal and vertical locations with notes on existing conditions and proposed repairs and changes.

S.P. 10 – CODES AND REGULATORY AGENCIES: The Contractor shall comply with all applicable codes, regulations and the directions of all properly appointed authorities having jurisdiction.

S.P. 11 – PERMITS AND INSPECTIONS: The Contractor shall obtain and furnish all necessary permits and inspection certificates for all material and labor furnished by the Contractor. Certificates shall be obtained from the proper inspection authorities. The cost of permits, certificates and all fees required (if any) in connection with the installation shall be borne by the Contractor. The Watershed has obtained various permits for each of the practices, as shown on the cover sheet of the drawings. Iowa DNR General Permit #2 is not required on these projects.

S.P. 12 – INCIDENTAL ITEMS OF WORK: The Contractor is responsible for the performance of any item of miscellaneous work indicated on the Plans or Specifications even though these items may be omitted from the Bid Schedule. Such omission indicates that compensation for these omitted categories is considered included in those pay items which are listed in the Bid Schedule.

S.P. 13 – EMERGENCY ACCESS: The construction zone shall be maintained to such a condition to permit emergency vehicles access to the construction area at all times.

S.P. 14 – SAFETY REQUIREMENTS: The Contractor shall be solely and exclusively responsible for providing temporary ladders, guard rails, shoring, bracing, dewatering (if required), warning signs, night lights, and other safeguards desirable or required, and shall comply with all Federal, State and Municipal Safety Requirements. The Contractor shall be solely and exclusively responsible for the design, construction, inspection and continual maintenance of such facilities at all times. The Contractor shall be responsible for protecting the work and stored materials until completion and acceptance of the work by the Owner. It shall be the sole and exclusive responsibility of the Contractor to provide a safe place to work for all laborers and mechanics and other persons employed on or in connection with the project, and nothing in these Contract Documents shall be construed to give any of such responsibility to the Owner or Engineer.

S.P. 15 – CLEANUP OF THE PROJECT SITE: The Contractor shall at all times keep the site of the work and adjacent premises as free from materials, debris, rubbish and trash as practicable, and shall remove same from any portion of the site if, in the opinion of the Owner, such materials, debris, rubbish or trash constitute a nuisance or are objectionable in any way to the public. The Contractor shall be responsible for the removal of dirt accumulation or any other debris on pavements resulting from the Contractor's operations on the work.

At the completion of the work, the Contractor shall remove all materials, implements, barricades, equipment, staging, piling, falsework, debris and rubbish connected with or caused by operations for such work immediately upon the completion of that work and shall leave the premises in perfect condition insofar as affected by the work under this Contract. Fires for disposal of rubbish on the site are prohibited.

S.P. 16 – RECORD DRAWINGS: The Contractor shall make notes on the drawings showing any revisions made during construction. A copy of the record drawing notes shall be given to the Engineer upon completion.

S.P. 17 – DAMAGE: The Contractor is responsible for damage to existing buildings and to existing facilities and is responsible for the repair of any damage caused by the Contractor's work. This shall include any and all work to repair or restore the Contractor's assembly and storage area.

S.P. 18 – COORDINATION BETWEEN OWNER AND ENGINEER: The Project Engineer and Watershed Coordinator will handle most aspects of coordination and oversight with the Contractor during construction. The Contractor is also required to coordinate with the landowner as required in the specifications. In the event the Contractor has questions, they shall be directed to the Engineer. The Contractor shall provide the Engineer and the Watershed Coordinator a minimum of 48 hours' notice before mobilizing to the site.

S.P. 19 – COORDINATION OF SPECIFICATIONS, PLANS AND SPECIAL PROVISIONS: In case of a discrepancy within the various items included in the contract documents, the items shall prevail, or govern, in the following descending order:

1. Special Provisions
2. Plans, including plan notes
3. Supplemental Specifications
4. Standard General Specifications

PART V

Supplemental Specifications

SECTION 1: EARTHWORK

1.1 SITE PREPARATION

- a. The Contractor shall protect and maintain erosion and sedimentation controls during earth moving operations.
- b. The Contractor shall stop work and notify the Watershed Coordinator immediately if contaminated soils, historical artifacts, or other environmental or historic items are encountered.
- c. The Contractor shall fill depressions caused by clearing and grubbing operations with satisfactory soil material unless further excavation or earthwork is indicated.
- d. Corn stubble may be disked into the existing soil.
- e. The Contractor shall be responsible for One-Call locates prior to beginning construction.
- f. The Engineer shall be notified of any apparent conflicts with existing utilities, services, tiles, drains, fittings, culverts, or any other existing utility that is not shown on the construction documents.

1.2 CLEARING AND GRUBBING

- a. Clearing and grubbing shall be in accordance with applicable sections of Section IA-1 of the Standard General Specifications except as noted herein.
- b. The Contractor shall remove obstructions, demolished materials, and waste materials. These shall include trash and debris. The Contractor shall burn, bury, or legally dispose of them off site per IA-1 Site Preparation.
- c. Non-combustible material may be buried on site per IA-1 Site Preparation.
- d. All trees and shrubs shall be cleared and grubbed within a minimum of 30 feet from any Structure or Wetland.
- e. No additional payment shall be made for additional clearing and grubbing needed to obtain earthfill, unless specifically noted on the plans. Clearing and grubbing additional area to obtain earthfill shall be considered incidental to the earthfill item.
- f. Clearing and grubbing required for fences shall be in accordance with Supplemental Specification Section 3.3.
- g. Woody vegetation may be burned on site per Iowa DNR requirements. No burning shall be permitted within ¼ mile of a residence without written permission of the occupants.
- h. The Contractor must obtain permission from the landowner if they desire to take any of the wood from the site.
- i. Due to the presence of potential “Indiana Bat Habitat”, trees shall be cleared between **October 1st and March 31st**. In lieu of clearing trees during that timeframe, the Contractor has the option to only fall the trees in the timeframe between October 1st and March 31st and follow-up with clearing the trees at a later date (as long as other allowable construction windows are met).

1.3 REMOVAL OF WATER

- a. Surface water and ground water shall be removed per section IA-11 of the Standard General Specifications except as noted herein.
- b. The Contractor shall maintain water levels below the bottom of trench excavations.
- c. The Contractor shall ensure operation of the dewatering system does not damage adjacent areas and any discharge points are protected from erosion. The Contractor shall provide sediment control for sediment contaminated water discharged directly from trench.

1.4 EXCAVATION

- a. Excavation shall be completed per IA-21 of the Standard General Specifications except as noted herein.

SECTION 1: EARTHWORK

- b. The Contractor shall protect structures, utilities, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earth moving operations.
- c. The Contractor shall dispose of surplus soil material on site or use on another practice as noted.
- d. Class 13 Excavation includes all normal soil such as loam, silt, gumbo, peat, clay, soft shale, sand, gravel, granite, trap, quartzite, chert, limestone, sandstone, hard shale, slate, rock fragments, boulders, or any other material encountered, regardless of its nature.
- e. The Contractor shall excavate no less than to the depths and elevations indicated on plans regardless of the character of surface and subsurface conditions encountered. Unclassified excavated materials may include rock, soil materials, and obstructions. No changes in the Contract Sum or the Contract Time will be authorized for rock excavation or removal of obstructions.
- f. If excavated materials intended for fill and backfill include unsatisfactory soil materials and rock, replace any required earthfill with satisfactory soil materials.
- g. Wetlands shall not be excavated any deeper than what is shown on the plans.

1.5 EARTHFILL

- a. Earthfill shall be completed per IA-23 of the Standard General Specifications except as noted herein.
- b. Earthfill shall be compacted using Method 1 or Method 2 as described in section IA-23 of the Standard General Specifications at the contractor's discretion.
- c. The quantity of earthfill is based upon the existing ground line and the proposed finished grade, including the embankments without allowance for topsoil.
- d. Protect structures, utilities, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earth moving operations.

1.6 GRASSED WATERWAYS

- a. Grassed Waterways shall be completed per IA-412 of the Standard General Specifications except as noted herein.
- b. Surplus and unsuitable excavated materials will be disposed of at locations shown on the drawings or at locations approved by the inspector. Spoil shall not be placed where it will block the flow of water into the waterway.
- c. The area adjacent to the upper end of the waterway shall be graded to divert upper watershed flows into the newly constructed waterway. The outlet end of the waterway shall be left in a stable condition after construction.
- d. The quantity of grassed waterway is based upon the centerline length of the proposed grassed waterway and includes all work associated with installation of a grassed waterway according to the plans including but not limited to, excavation, fill, topsoil handling, and any necessary clearing and grubbing not already identified on the plans.

1.7 TOPSOILING

- a. Topsoiling shall be completed per IA-26 of the Standard General Specifications except as noted herein.
- b. The Contractor shall dispose of unsuitable topsoil on site or use on another practice as noted. Any disposal area shall have existing topsoil stripped and respread after soil has been spread.
- c. The Contractor shall mow all weeds, grass, and growing crops or other herbaceous vegetation close to the ground prior to removing topsoil. The Contractor shall shred ground cover by shallow plowing or blading and thorough disking.

SECTION 1: EARTHWORK

- d. Topsoil within areas of excavation and earthfill shall be stripped to a minimum depth of six (6) inches or as needed to remove all topsoil prior to constructing earthfill (an embankment) in that area.
- e. Topsoil shall be stockpiled in an area outside of the excavation and fill limits in a manner to prevent intermingling with other materials. Erosion control shall be placed as needed around the stockpile.
- f. The Contractor shall respread topsoil to a minimum depth of six (6) inches after all grading and trenching activities in the area have been completed.
- g. Finished topsoil shall be free of clods, lumps, roots, litter, other undesirable material, or stones larger than one (1) inch prior to restoring the surface.
- h. For dams and basins; stripping, salvaging, and spreading topsoil shall be paid for in the unit price for the applicable bid item. This quantity is based off the footprint of the embankment, spillway, and/or structure. There will be no additional payment for handling topsoil for borrow sites; however, topsoil stripping, salvaging, and spreading shall still be required.

1.8 LOOSE ROCK RIPRAP

- a. Loose rock riprap or revetment shall be completed per IA-61 of the Standard General Specifications except as noted herein.
- b. The revetment shall be broken limestone, dolomite, quartzite, or granite from an approved NRCS source or Iowa DOT source (Materials I.M. 409) meeting the following requirements:
 - a. A minimum of 50% of the stone is to be composed of beds or slabs more than 5 inches thick.
 - b. A minimum of 10% of the beds or slabs are to be thick enough to produce the required weight of either the stone or concrete, with the greatest dimension not more than two times the smallest dimension.
 - c. Abrasion loss for all revetment stone shall not exceed 50% when tested in accordance with AASHTO T96.
 - d. Revetment shall be of C Freeze quality with the maximum percent allowed of 10% in accordance with Iowa DOT Materials Laboratory Test Method No. 211, Method C.
 - e. Revetment stone shall meet the following gradations:
 - 1) Class D Revetment
 - a) Nominal top weight of 250 pounds.
 - b) At least 50% of the stones are to weigh more than 90 pounds.
 - c) At least 90% of the stones are to weigh more than 5 pounds.
 - 2) Revetment Stone (6+,12-)
 - a) 100% passing the 12-inch screen.
 - b) 50-85% passing a 10.8-inch screen.
 - c) 20-60% passing a 9-inch screen.
 - d) 10-40% passing a 7.8-inch screen.
 - e) 100% retained on the 6-inch screen.
- c. Where required per plans, the bid price for revetment stone shall include the installation of Geotextile Fabric in accordance with IA-95 of the Standard General Specifications, except as noted herein. Geotextile fabric shall be Type 1, Nonwoven.

1.9 GEOTEXTILE FABRIC

- a. Geotextile Fabric for grassed waterways shall be completed per IA-95 of the Standard General Specifications and shall be of the type as called out in the plans.

SECTION 1: EARTHWORK

- b. Geotextile fabric checks shall be installed per the details in the plans and shall be measured per linear foot of fabric check installed, measured perpendicular to the grassed waterway. There will be no additional payment installation of the depth and width of the geotextile fabric as called out in the plans; trenching and backfill of the geotextile fabric shall be considered incidental.

1.10 TEMPORARY DITCH CROSSING

- a. In any cases where a temporary ditch crossing is needed during construction, the Contractor shall be responsible for restoration of the stream, existing ditch crossing, and adjacent areas upon completion.
- b. The Contractor shall restore the temporary ditch crossing in the same manner as ingress/egress routes are restored.

SECTION 2: PIPING & TILING

2.1 PLASTIC (PVC, PE) PIPE

- a. Pipe furnishing and installation shall be per IA-45 of the Standard General Specifications except as noted herein.
- b. The Contractor shall expose possible conflicts in advance of construction, such as utility lines and drainage structures. They shall also verify elevations and locations of each and verify clearance for proposed construction.
- c. The Contractor shall provide proper equipment for placing pipe without damage to the pipe.
- d. The Contractor shall assemble joints as specified by the pipe manufacturer.
- e. The Contractor shall repair or replace defective pipe or joints, or remove and relay pipe not meeting alignment tolerances, as directed by the Engineer.
- f. The Contractor shall notify Iowa One Call forty-eight (48) hours prior to beginning pipe installation.

2.2 TILE DRAINS FOR LAND DRAINAGE

- a. Tile, tile inlets and tile outlet furnishings and installation shall be per IA-46 of the Standard General Specifications except as noted herein.
- b. All tile shall be either perforated, single wall tile or non-perforated, dual wall tile as noted on the drawings.
- c. Outlet sections shall always be a non-perforated, dual wall pipe section. An internally mounted, finger-type rodent guard shall be included as incidental to the outlet section pipe.
- d. Tile inlet sections shall be high-density polyethylene with 1-inch diameter holes furnished and installed per IA-620 of the Standard General Specifications.
- e. It is the Contractor's responsibility for the required clearing, grubbing and grading to installed tile outlets and inlets.
- f. The Contractor shall sign a NRCS Tile Certification after completion of tile installation.

SECTION 3: SURFACE RESTORATION

3.1 SEEDING AND MULCHING FOR PROTECTIVE COVER

- a. Seeding and mulching for protective cover shall be in accordance with Section IA-6 of the Standard General Specifications except as noted herein.
- b. Native Seed Producers

Native Seed Producer	Contact	Location	Phone	Email
All Native Seed, LLC	Tom Schwartz	Sioux City	888-224-2004	quote@allnativeseed.com
Allendan Seed	Angela Barker	Winterset	515-462-1241	allendan@allendanseed.com
Applied Ecological Services	Mathew Stone	Dubuque	563-845-0779 or 608-214-2365	mathew@appliedeco.com
Backyard Designs	Chelsea Buman	Harlan	641-420-8891	bumanc01@gmail.com
Custom Seed Services	Roger Schwery	Panama	712-489-2430	customseed@iowatelecom.net
Diversity Farms	Jon Judson	Dedham	712-830-4143	diversityfarms@iowatelecom.net
Freedom Creek Prairie, LLC	Rick Schafer	Prescott	641-344-4722	rick@freedomcreekprairie.com
Hoksey Native Seeds	Aaron Corbin	Lynnville	641-594-3305	info@hokseynativeseeds.com
Ion Exchange	Howard Bright	Harpers Ferry	563-419-0837	hbright@ionXchange.com
Osenbaugh Grass Seed	John Osenbaught	Lucas	641-766-6790	john@prairieseedsfarms.com
Prairie Moon Nursery		Winona, MN	866-471-8156	info@prairiemoon.com
Shooting Star Native Seeds	Mark Udstuen	Spring Grove, MN	507-498-3944	info@shootingstarnativeseed.com

- c. Seed Products:

- 1) **Type I Seed Mix** for waterways and embankments. Fertilizing, seeding, and mulching rates per acre shall be as follows:

Lime	3,000 pounds ECCE
Fertilizer	50-150-100 NPK
Bromegrass	20 pounds pure live seed
Oats	65 pounds pure live seed
Medium red clover	5 pounds pure live seed
Mulch	2 tons
- i) Type I seeding shall be completed between March 1 and May 31, August 10 and September 30, or as a dormant seed in November.
- 2) **Type II Temporary Seed Mix** for disturbed farmable areas. Seeding rates per acre shall be as follows:

<u>March 1 - October 31</u>	
Canada wildrye	5 pounds pure live seed
Grain rye	50 pounds pure live seed
Oats	50 pounds pure live seed
<u>November 1 - February 28</u>	
Canada wildrye	7 pounds pure live seed
Grain rye	62 pounds pure live seed
Oats	62 pounds pure live seed

SECTION 3: SURFACE RESTORATION

- 3) **Type III Wetland Mix.** The Contractor may submit mixes with slight variations to the below mix for the Engineer's consideration and approval meeting the following:
- At least 75% of the dominant plant species within the vegetative community shall be designated, per Midwest regional wetland plant list, obligated (OBL), facultative wetland (FACW), or facultative (FAC) as defined in the 1987 delineation manual. Each acre of restored wetland must contain at least 7 native hydrophitic vegetative species. No more than 20% aerial coverage of non-native, aggressive, invasive species to include, phragmites, purple loosestrife, garlic mustard, flowering rush, Canada thistle, purple crown vetch, autumn olive, hairy cupgrass, leafy spurge, glossy buckthorn, amur honeysuckle, morrow's honeysuckle, tatarian honeysuckle, bell's honeysuckle, Eurasian water milfoil, Japanese knotweed, common buckthorn, and multiflora rose in any 50-foot by 50-foot area and no more than 15% of the entire wetland area vegetation.
 - Reed canary grass shall not be included in the seed mix due to its existing presence on site.
 - Seed Mix:

Common Name	Scientific Name	Indicator Status	PLS: pounds/acre*
Arrowhead	<i>Sagittaria latifolia</i>	OBL	0.250
Big bluestem	<i>Andropogon gerardii</i>	FAC	1.000
Bluejoint grass	<i>Calamagrostis canadensis</i>	OBL	0.0625
Blue vervain	<i>Verbena Hastata</i>	FACW	0.0625
Golden Alexander	<i>Zizia aurea</i>	FAC	0.0625
Bicknell's sedge	<i>Carex bicknellii</i>	FACU	0.125
Dark green bulrush	<i>Scirpus atrovirens</i>	OBL	0.030
Fox sedge	<i>Carex vulpinoidea</i>	FACW	0.100
New England aster	<i>Symphyotrichum novae-angliae</i>	FACW	0.125
Nodding bur marigold	<i>Bidens cernua</i>	OBL	0.500
Porcupine sedge	<i>Carex hystericina</i>	OBL	0.500
Prairie cordgrass	<i>Spartina pectinata</i>	FACW	1.000
Rice cutgrass	<i>Leersia oryzoides</i>	OBL	0.250
Sneezeweed	<i>Helenium autumnale</i>	FACW	0.125
Softstem bulrush	<i>Schoenoplectus tabernaemontani</i>	OBL	0.500
Spike rush	<i>Eleocharis palustris</i>	OBL	0.250
Swamp milkweed	<i>Asclepias incarnata</i>	OBL	1.000
Switchgrass	<i>Panicum virgatum</i>	FAC	0.500
Prairie blazing star	<i>Liatris pycnostachya</i>	FAC	0.125
Canada wildrye	<i>Elymus canadensis</i>	FACU	3.000
Common mountain mint	<i>Pycnanthemum virginianum</i>	FACW	0.100
Total			9.6675

- Fertilizer: No fertilizer shall be used in conjunction with the Type III seed mix.
- Mulch: Mulch shall be applied at a rate of 2 Tons/ Acre in accordance with Section 3.1 (g).

SECTION 3: SURFACE RESTORATION

4) **Type IV Stramaglia Upland Mix**

Grasses		
Common Name	Scientific Name	Total PLS lbs in Mix
Cool Season Grasses		
Western Wheatgrass	Agrropyron smithii	0.5
Prairie Junegrass	Koeleria macrantha	0.025
Sedges		
Prairie Oval Sedge	Carex brevior	0.025
Field Oval Sedge	Carex molestra	0.025
Warm Season Grasses		
Sideoats Grama	Bouteloua curtipendula	2
Little Bluestem	Schizachyrium scoparium	1.25
Composite Dropseed	Sporobolus compositus	0.25
Sand Dropseed	Spolobolus cryptandrus	0.0375
Prairie Dropseed	Sporobolus heterolepis	0.05
	Grass total	4.16
		LBS PLS
Forbs		
Common Name	Scientific Name	Total PLS oz in Mix
Legumes		
Leadplant	Amorpha canescens	1
Canadian Milkvetch	Astragalus Canadensis	1.5
White Wild Indigo	Baptisia alba	0.5
Partridge Pea	Chamaecrista fasciculate	8
White Prairie Clover	Dalea candida	2.5
Purple Prairie Clover	Dalea purpurea	3
Round-headed Bush Clover (legume)	Lespedeza capitata	2.75
Forbs		
Butterfly Milkweek	Asclepias tuberosa	1
Pale Purple Coneflower	Echinacea pallida	1.5
Rattlesnake Master	Eryngium yuccifolium	1
Ox-eye sunflower	Heliopsis helianthoides	1.5
Rough Blazing Star	Liatris aspera	0.5
Wild Bergamot	Monarda fistulosa	1
Stiff Goldenrod	Oligoneuron rigidum	0.5
Foxglove Beardtongue	Penstemon digitalis	0.375
Large-flowered Beardhtongue	Penstemon grandflorus	1.75
Prairie Cinquefoil	Potentilla argute	0.5
Yellow Coneflower	Ratibida pinnata	1
Black Eyed Susan	Rudbeckia hirta	2.25
Wild Petunia	Ruellia humilis	1.5
Oldfield Goldenrod	Solidago nemoralis	0.15
Smooth Blue Aster	Symphyotrichum laeve	0.25
Skyblue Aster	Symphyorrichum oolentangiense	0.25
Ohio Spiderwort	Tradescantia ohiensis	0.5
Hoary Vervain	Verbena stricta	1.25

SECTION 3: SURFACE RESTORATION

Golden Alexanders	Zizea aurea	1.5
	Forb total	37.53
		OZ PLS

- i) Fertilizer: No fertilizer shall be used in conjunction with the Type IV seed mix.
- ii) Mulch: Mulch shall be applied at a rate of 2 Tons/ Acre in accordance with Section 3.1 (g).

5) Type V Stramaglia Wetland Mix

Grasses		
Common Name	Scientific Name	Total oz in Mix
Giant manna grass	Glyceria grandis	4
Fowl manna grass	Glyceria striata	2.5
Sedges/Rusher		
Bristly sedge	Carex comosa	2.5
Lake sedge	Carex lacustris	1
Lurid sedge	Carex lurida	2
Spike rush	Eleocharis palustris	3
Torrey's rush	Juncus torreyi	0.125
Hardstem bulrush	Schoenoplectus acutus	0
Softstem bulrush	Schoenoplectus tabernaemontani	4
River bulrush	Scirpus fluviatilis	8
Woolgrass	Scirpus cyperinus	0.15
	Grass total	27.28
		Oz PLS
Forbs		
Sweetgrass	Acorus calamus	1.5
Water plantain	Alisma subcordatum	4
Marsh Milkweed	Aslepias incarnate	3
Sneezeweed	Bidens cernuua	1.5
Blueflag iris	Iris shrevei	3
Monkey flower	Mimulus ringens	0.125
Arrowhead	Sagittaria latifolia	1.5
American bur reed	Sparganium eurycarpum	8
	Forb total	22.63
	Grand Total Oz (PLS)	49.90

- i) Fertilizer: No fertilizer shall be used in conjunction with the Type V seed mix.
- ii) Mulch: Mulch shall be applied at a rate of 2 Tons/ Acre in accordance with Section 3.1 (g).

6) Type VI O'Donnell Native Seed Mix

Grasses		
Common Name	Scientific Name	Total PLS lbs in Mix
Slender wheatgrass	Agropyron trachycaulum	24

SECTION 3: SURFACE RESTORATION

Virginia wild rye	<i>Elymus virginicus</i>	16
Big bluestem	<i>Andropogon gerardii</i>	16
Switchgrass	<i>Panicum virgatum</i>	8
Cordgrass	<i>Spartina pectinate</i>	4
Sedges/Rushes		
Fowl manna grass	<i>Glyceria striata</i>	1.5
Fox sedge	<i>Carex vulpinoidea</i>	1.5
Dark green bulrush	<i>Scirpus atrovirens</i>	0.5
	Grass total	41.53
		LBS PLS
Forbs		
Common Name	Scientific Name	Total PLS oz in Mix
Swamp milkweed	<i>Asclepias incarnate</i>	1
Rattlesnake master	<i>Eryngium yuccifolium</i>	1
Joe Pye weed	<i>Eupatorium maculatum</i>	0.125
Sneezeweed	<i>Helenium autumnale</i>	0.125
Prairie blazingstar	<i>Liatris pycnostachya</i>	0.5
Great blue lobelia	<i>Lobelia siphilitica</i>	0.05
Monkey flower	<i>Mimulus ringens</i>	0.05
Wild bergamot	<i>Monarda fistulosa</i>	1
Foxglove beardtongue	<i>Penstemon digitalis</i>	0.25
False dragonhead	<i>Physostegia virginiana</i>	0.5
Mountain mint	<i>Pycnanthemum virginianum</i>	0.25
Black-eyed susan	<i>Rudbeckia hirta</i>	3
Sweet black-eyed susan	<i>Rudbeckia subtomentosa</i>	1
Rosinweed	<i>Silphium integrifolium</i>	0.5
Riddell's goldenrod	<i>Solidago riddellii</i>	0.05
New England aster	<i>Symphotrichum novae-angliae</i>	0.1
Blue vervain	<i>Verbena hastata</i>	1.5
Ironweed	<i>Vermonia fasciculata</i>	0.5
Culver's root	<i>Veronicastrum virginicum</i>	0.05
Golden alexanders	<i>Zizia aurea</i>	1
	Forb total	40.51
		OZ PLS

- i) Fertilizer: No fertilizer shall be used in conjunction with the Type VI seed mix.
- ii) Mulch: Mulch shall be applied at a rate of 2 Tons/ Acre in accordance with Section 3.1 (g).

- 7) Type VII Fine Leaf Fescue Mix for CC-114. Fertilizing, seeding, and mulching rates per 1000 SF shall be as follows:

Fertilizer	12-4-8 NPK (2 pounds)
Hard Fescue	2 pounds pure live seed
Sheep Fescue	2 pounds per live seed
Chewings Fescue	2 pounds per live seed
Creeping Fescue	2 pounds per live seed
Mulch	100 pounds

SECTION 3: SURFACE RESTORATION

- i) Type VII seeding shall be completed between March 1 and May 31 or August 10 and September 30, or as a dormant seed in November.
- 8) Type VIII Boyle Mix. Fertilizing, seeding, and mulching rates per 1000 SF shall be as follows:

Lime	3,000 pounds ECCE
Fertilizer	50-150-100 NPK
Alfalfa	4 pounds pure live seed
Red Clover	2 pounds pure live seed
Kentucky Bluegrass	2 pounds pure live seed
Orchardgrass	3 pounds pure live seed
Perennial Rye	2 pounds pure live seed
Brome	2 pounds pure live seed
Mulch	2 tons
- d. If the seeding is performed as a frost seeding; the ground shall be topsoiled and shaped smooth in the fall prior to freeze-up; and the fertilizer, seed, and mulch shall be applied in the spring during freeze-thaw periods. The fertilizer and seed shall generally be applied in the mornings prior to the ground surface thawing throughout the day. The seed application rate shall be double the above-described seeding rates.
- e. The “Fertilizing, Seeding, and Mulching” bid items include seedbed preparation, fertilizing, seeding, and furnishing and placing mulch.
- f. Fertilizers:
 - Fertilizer shall comply with the rules of the Iowa Department of Agriculture and as follows:
 - 1) The grade of fertilizer will be identified according to the percent nitrogen (N), percent of available phosphoric acid (P₂O₅), and percent water soluble potassium (K₂O), in that order, and approval will be based on that identification.
 - 2) All fertilizer shall be furnished from an established fertilizer dealer and guaranteed percentage analysis shall be provided by the fertilizer supplier on each container with the proper scale weight records.
 - 3) Fertilizer shall be of a type that can be uniformly distributed by the application equipment. Fertilizer may be furnished in a dry (granular) or liquid form.
 - 4) When applied dry, the fertilizer shall be a granular, non-burning product composed of not less than 50% organic slow acting, guaranteed analysis professional fertilizer. Granular or pellet form shall be uniform in composition, dry, and free flowing without caking or other damage not suitable for use.
 - 5) When applied in a liquid form, fertilizer may be or may be furnished as separate ingredients.
 - 6) Upon request of the Contracting Authority, the Contractor shall provide a test of the fertilizer for conformance with the required analysis at no additional compensation; a tolerance of 1.0 percentage point plus or minus will be considered substantial compliance.
- g. Mulches:
 - Materials – In lieu of the mulch materials shown in IA-6, the following may be used:

SECTION 3: SURFACE RESTORATION

- 1) Straw Mulch: Provide air-dry; clean; and mildew-, weed-, and seed-free salt hay or threshed straw of wheat, rye, oats, or barley.
 - 2) Sphagnum Peat Mulch: Partially decomposed sphagnum peat moss, finely divided or of granular texture, and with a pH range of 3.4 to 4.8.
 - 3) Muck Peat Mulch: Partially decomposed moss peat, native peat, or reed-sedge peat, finely divided or of granular texture, with a pH range of 6 to 7.5, and having a water-absorbing capacity of 1100 to 2000 percent.
 - 4) Compost Mulch: Well-composted, stable, and weed-free organic matter, pH range of 5.5 to 8; moisture content 35 to 55 percent by weight; 100 percent passing through 1-inch (25-mm) sieve; soluble salt content of 2 to 5 decisiemens/m; not exceeding 0.5 percent inert contaminants and free of substances toxic to plantings.
- Anchoring of the mulch shall be required.

3.2 INGRESS AND EGRESS

- a. Upon completion of construction of each site, the Contractor shall be responsible for restoring the ingress and egress routes and staging areas. Restoration in crop fields shall include deep cultivation and grading to loosen compacted soil and to restore the surface to a smooth surface that blends in with the surrounding ground. Restoration of seeded areas shall include tillage and reseeding the vegetation. Restoration shall also include repair of any damaged fences.
- b. There shall be no separate payment for restoration of ingress and egress routes and staging areas. Payment for the restoration shall be included in the payment for mobilization.

3.3 FENCING, GATES, AND CATTLE PANELS

- a. Fencing removal and replacement is not anticipated on this project.
- b. If the contractor chooses to remove/replace fencing for borrow or access with the land owner's permission, fencing shall be replaced in accordance with Section IA-92 of the Standard General Specifications.

SECTION 4: STORM WATER POLLUTION PREVENTION

4.1 POLLUTION CONTROL

- a. Pollution control shall be per Section IA-5 of the Standard General Specifications except as noted herein.
- b. Silt fence shall be maintained by the Contractor repairing or replacing non-functioning silt fence that allows water to flow under the fence, is torn, or is otherwise damaged, due to inadequate installation, at no additional cost. When accumulated sediment reaches a level of one-half the height of the fence, the accumulated sediment shall be removed to the original ground line and within 6 inches of the silt fence. The Contractor shall carefully inspect the existing silt fence for structural integrity and signs of undermining and make any necessary repairs.
- c. The Contractor shall protect and maintain erosion and sedimentation controls until all disturbed areas have reached final stabilization. The Contractor shall remove the silt fence and posts after the site has reached final stabilization and the Watershed has authorized its removal, unless they request and obtain permission from the landowner for the silt fence to be left in place.
- d. Silt Fence: (Refer to Iowa Statewide Urban Design and Specifications (SUDAS) Figure 9040.119). Use silt fence that meets the following requirements:
 - 1) Fabric: Conform to Iowa DOT Article 4196.01.
 - 2) Posts: 4-foot minimum steel (T-section) weighing at least 1.25 pounds per foot, exclusive of anchor plate. Painted posts are not required.
 - 3) Fastener: Wire or plastic ties with a minimum tensile strength of 50 pounds.
- e. Silt fence shall be installed in accordance with the following:
 - 1) Install material along the contour of the ground, as specified in the contract documents, or as directed by the Engineer.
 - 2) Install silt fence with a mechanical soil slicing machine that creates a slit in the ground while simultaneously installing the fabric. The trenching method may be used when situations will not allow soil slicing, as determined by the Engineer.
 - 3) Construct a “J-hook” at each end of a continuous run of silt fence, by turning the end of the silt fence uphill, as necessary to prevent runoff from flowing around ends when water behind the fence ponds to a level even with the top of the fence.
 - 4) Insert 12 inches of fabric to a minimum depth of 6 inches (fabric may be folded below the ground line).
 - 5) Compact installation by driving along each side of the silt fence, or by other means, as necessary to adequately secure the fabric in the ground, to prevent pullout and water flow under the fence.
 - 6) Drive steel posts into the ground alongside the silt fence, to a minimum depth of 20 inches, unless otherwise specified by the Engineer. Space posts as required to adequately support silt fence.
 - 7) Contractor shall remove silt fence once permanent vegetation has been established.
- f. Wattles: (Refer to Iowa SUDA Figure 9040.105). Use wattles that meet the following requirements:
 - 1) Netting: Open weave, degradable netting. Nominal diameter of 9 inches, or as specified.
 - 2) Fill Material: Straw, wood excelsior, coir, or other natural materials approved by the Engineer.
 - 3) Stakes: 1 inch by 1 inch (minimum) wooden stakes, or stakes of equivalent strength.

SECTION 4: STORM WATER POLLUTION PREVENTION

- g. Wattles
 - 1) Installation:
 - a) Construct a shallow trench, 2 to 4 inches deep, matching the width and contour of the wattle.
 - b) Install wattle along contour of slope.
 - c) Turn ends of wattle uphill to prevent water from flowing around ends.
 - d) Place and compact excavated soil against the wattle, on the uphill side.
 - e) Drive stakes through the center of the wattle, into the ground at a maximum spacing of 4 feet along the length of the wattle, and as needed to secure the wattle and prevent movement.
 - f) Abut ends of adjacent wattles tightly. Wrap joint with a 36 inch wide section of silt fence and secure with stakes.
 - 2) Removal: The contractor may leave the wattle in place at the end of construction.
 - 3) Replacement:
 - a) When accumulated sediment reaches a level one-half the height of the wattle, or when the wattle becomes clogged with sediment and no longer allows runoff to flow through, the existing wattle and accumulated sediment may be left in place and a new wattle installed up-slope from the existing wattle.

4.2 SWPPP MANAGEMENT

- a. All sites that disturb more than 1 acre and will require an Iowa DNR NPDES General Permit #2. The Engineer has prepared Storm Water Pollution Prevention Plans for these sites, which will be gone over in further detail at the pre-construction meeting.
- b. The Bid Package #5 sites that are known to disturb more than 1 acre are as shown below.
 - 1) CC-113 to CC-114 (Rath)
- c. Newspaper Notices will be published and the Notice of Intent will be submitted to the Iowa DNR and shall have approval prior to the beginning of construction.
- d. The Contractor shall maintain the SWPPP throughout the project duration.
- e. The Contractor shall ensure that controls utilized in the SWPPP conform to the type and quantity of erosion and sediment controls shown in the contract documents.
- f. The Contractor shall inspect, maintain, and repair erosion and sedimentation control measures during construction at the frequency required by the Iowa DNR NPDES General Permit No. 2 until permanent vegetation has been established.
- g. The Contractor shall coordinate and carry out all requirements of Iowa DNR NPDES General Permit No. 2 and any local ordinance requirements, including:
 - 1) Update the SWPPP according to the requirements of the NPDES General Permit No. 2.
 - 2) Revise the SWPPP and implement changes, as necessary, to prevent sediment or hazardous materials from being transported off the site.
 - 3) Perform, and maintain records of, weekly erosion and sediment control site inspections, unless otherwise specified.
 - 4) Retain all records on-site, or as required by the NPDES General Permit No. 2.
 - 5) After final stabilization, provide all records and documentation to the Engineer. Retain a copy of all records for the period required under the Permit.

SECTION 4: STORM WATER POLLUTION PREVENTION

- 6) Continue to perform the work required under this item throughout the duration of the project, and until final stabilization is achieved.
- h. If the Contractor determines that temporary seeding/mulching or a stabilized construction entrance is needed, they shall notify the Watershed Coordinator. Payment for these items will be through a change order process and will only be made if prior authorized by the watershed.

SECTION 5: DESCRIPTION OF BID ITEMS & BASIS OF COMPENSATION

5.1 GENERAL

- a. The following bid items comprise the units and basis of compensation for the contract divisions. The bid items shall include any incidental items not specifically included in order to complete the improvements in accordance with the contract documents.
- b. The contract price to complete the improvements of the project account for the compensation to the contractor for labor, materials, equipment, tools, supervision and related items in accordance with the plans and specifications.

5.2 DIVISION 20 - BID ITEMS & BASIS OF COMPENSATION

20.01 Clearing and Grubbing

This item includes clearing and grubbing of woody growth, refuse removal, structure removal, and removal of any fences located within the project limits for all practices as described in Section 1 of the Supplemental Specifications. There shall be no field measurement as compensation shall be at the Contract price per acre based upon plan quantity.

20.02 Topsoil Strip, Salvage and Re-Spread

This item includes topsoil stripping, salvaging, and re-spreading for all practices as described in Section 1 of the Supplemental Specifications. Topsoil within borrow areas shall be paid for under dirt work items. There shall be no field measurement as compensation shall be at the Contract price per cubic yard based upon plan quantity.

20.03 Grassed Waterway, 25' to 40' Wide

This item includes all earthwork necessary for the installation of the CC-007 grassed waterway as described in Section 1 of the Supplemental Specifications and as shown on the drawings. Compensation shall be at the Contract price per linear foot of waterway installed at a width of 25' to 40'.

20.04 Excavation, Class 13

This item includes all earthwork as defined in Section 1 of the Supplemental Specifications used in the construction of Rock Chutes and Riffles. There shall be no field measurement as compensation shall be at the Contractor price per cubic yard based upon plan quantity

20.05 Excavation, Fringe Wetlands

This item includes excavating for fringe wetlands as described in Section 1 of the Supplemental Specifications and as shown on the drawings. There shall be no field measurement as compensation shall be at the Contract price per cubic yard based upon plan quantity.

20.06 Excavation, Core Trench

This item includes excavating for the core trench as described in Section 1 of the Supplemental Specifications and as shown on the drawings. There shall be no field measurement as compensation shall be at the Contract price per cubic yard based upon plan quantity.

SECTION 5: DESCRIPTION OF BID ITEMS & BASIS OF COMPENSATION

20.07 Earthfill, Dams/Terraces/Basins

This item includes placing and compacting earthfill for the Dry Pond (CC-089) and the Water and Sediment Control Basin (CC-090) described in Section 1 of the Supplemental Specifications and as shown on the drawings. There shall be no field measurement as compensation shall be at the Contract price per cubic yard based upon plan quantity.

20.08 Excavation, Hauling

This item includes hauling the waste soil from CC-115 and CC-152 to CC-117 and CC-116 as described in Section 1 of the Supplemental Specifications and as shown on the drawings. There shall be no field measurement as compensation shall be at the Contract price per cubic yard based on plan quantity.

20.09 4" Tile Relocations

This item includes removing and disposing of the end of the existing pipe in the area of CC-113 in order to regrade the dry pond, furnishing and installing a new relocated 4" pipe as described in Section 2 of the Supplemental Specifications and as shown on the drawings. Trench excavation, dewatering, bedding, backfill material, joint wrapping, and fittings shall be incidental. Compensation shall be at the Contract price per linear foot of pipe furnished and installed.

20.10 HDPE Pipe, Dual Wall, 24"

This item includes removing and disposing of the end of the existing pipe in the area of CC-113 in order to regrade the dry pond, furnishing and installing a new relocated 24" pipe as described in Section 2 of the Supplemental Specifications and as shown on the drawings. The pipe shall have a smooth interior and corrugated exterior. Trench excavation, dewatering, bedding, backfill material, joint wrapping, and fittings shall be incidental. Compensation shall be at the Contract price per linear foot of pipe furnished and installed.

20.11 CMP, 12"

This item includes furnishing and installing a 12" CMP pipe at the vehicle crossing for CC-116 as described in Section 2 of the Supplemental Specifications and as shown on the drawings. Trench excavation, dewatering, bedding, backfill material, joint wrapping, and fittings shall be incidental. Compensation shall be at the Contract price per linear foot of pipe furnished and installed.

20.12 CMP, 24"

This item includes furnishing and installing a 24" CMP pipe at the outlets of CC-113 and CC-117 as described in Section 2 of the Supplemental Specifications and as shown on the drawings. Trench excavation, dewatering, bedding, backfill material, joint wrapping, and fittings shall be incidental. Compensation shall be at the Contract price per linear foot of pipe furnished and installed.

SECTION 5: DESCRIPTION OF BID ITEMS & BASIS OF COMPENSATION

20.13 Revetment Stone, 6+ 12-

This item includes furnishing and installing 6+, 12- Revetment Stone as described in Section 1 of the Supplemental Specifications and as shown on the drawings. Compensation shall be at the Contract price per ton of revetment stone furnished and installed based upon certified scale weight tickets provided by the Contractor up to the plan quantity amount, unless additional quantity was preapproved in writing by the watershed.

20.14 Fertilizing, Seeding & Mulching, Type I

This item includes preparing the seedbed, fertilizing seeding, and mulching as described in Section 3 of the Supplemental Specifications and as shown on the drawings (CC-113 dam. CC-114, and CC-117 dam only). Compensation shall be at the Contract lump sum price for the entire division.

20.15 Temporary Seeding, Type II

This item includes temporary seeding of all disturbed areas that are unable to be permanently seeded within 30 days as required by the SWPPP as described in Section 3 of the Supplemental Specifications and as shown on the drawings. Compensation shall be at the contractor's price per acre as measured in the field by the engineer.

20.16 Seeding & Mulching for Wetlands, Type III

This item includes preparing the seedbed, seeding, and mulching for wetlands as described in Section 3 of the Supplemental Specifications and as shown on the drawings (CC-117). Compensation shall be at the Contract lump sum price for the entire division.

20.17 Seeding & Mulching, Type IV Stramaglia Upland Mix

This item includes laying out the 6' wide paths of existing lawn grass to remain (allow the owner to review prior to spraying), spraying the area outside of the paths with herbicide, preparing the seedbed, seeding, and mulching as described in Section 3 of the Supplemental Specifications and as shown on the drawings (CC-115). Compensation shall be at the Contract lump sum price for the entire division.

20.18 Seeding & Mulching, Type V Stramaglia Wetland Mix

This item includes preparing the seedbed, seeding, and mulching as described in Section 3 of the Supplemental Specifications and as shown on the drawings (CC-115). Compensation shall be at the Contract lump sum price for the entire division.

20.19 Seeding & Mulching, Type VI O'Donnell Native Seed Mix

This item includes preparing the seedbed, seeding, and mulching as described in Section 3 of the Supplemental Specifications and as shown on the drawings (CC-152). Compensation shall be at the Contract lump sum price for the entire division.

20.20 Fertilizing, Seeding & Mulching, Type VII Fine Leaf Fescue Mix

This item includes preparing the seedbed, fertilizing the seed, seeding, and mulching as described in Section 3 of the Supplemental Specifications and as shown on the drawings outside of the dam and rock check on the Rath property (CC-113 and CC-114). Compensation shall be at the Contract lump sum price.

SECTION 5: DESCRIPTION OF BID ITEMS & BASIS OF COMPENSATION

20.21 Fertilizing, Seeding & Mulching, Type VIII Boyle Mix

This item includes preparing the seedbed, fertilizing seeding, and mulching the access route and staging areas outside of the rock chute and wetland areas as described in Section 3 of the Supplemental Specifications and as shown on the drawings (CC-116 and CC-117). Compensation shall be at the Contract lump sum price.

20.22 Geotextile Fabric Check (CC-152)

This item includes furnishing and installing geotextile fabric for use as geotextile fabric checks as described in Section 1 of the Supplemental Specifications and as shown on the drawings in the waterways. Compensation shall be at the Contract price per linear foot of geotextile fabric check installed, measured perpendicular to the associated grassed waterway.

20.23 Erosion Control, Silt Fence

This item includes furnishing, installing, maintaining, and removing silt fence as described in Section 4 of the Supplemental Specifications and as shown on the drawings. Compensation shall be at the Contract price per linear foot of silt fence.

20.24 Erosion Control, (RECP)

This item includes furnishing, installing, and maintaining the rolled erosion control product described in Section 4 of the Supplemental Specifications and as shown on the drawings (CC-114). Compensation shall be at the Contract price per linear foot of wattle.

20.25 Mobilization

This item includes performing all aspects of mobilization and completing the project in accordance with Part 2 – General Provisions and Covenants of Contract and Part 3 – CDBG Provisions, as amended and supplemented by Part 4 – Special Provisions to include restoration of Contractor access and staging areas. Compensation shall be at the Contract price for each site/landowner. Note, CC-113 and CC-114 are one mobilization due to proximity.

PART VI

Standard General Specifications

STANDARD GENERAL SPECIFICATIONS

Natural Resources Conservation Services (NRCS) Construction Specifications *(applicable sections)*

IA-1	Site Preparation
IA-3	Structure Removal
IA-5	Pollution Control
IA-6	Seeding and Mulching for Protective Cover
IA-11	Removal of Water
IA-21	Excavation
IA-23	Earthfill
IA-26	Topsoiling
IA-45	Plastic (PVC, PE) Pipe
IA-46	Tile Drains for Land Drainage
IA-52	Steel Pipe Conduits
IA-61	Loose Rock Riprap
IA-81	Metal Fabrication and Installation
IA-92	Fences
IA-95	Geotextile
IA-600	Terraces
IA-620	Underground Outlet

NATURAL RESOURCES CONSERVATION SERVICE CONSTRUCTION SPECIFICATION

IA-1 SITE PREPARATION

1. SCOPE

Site preparation work shall consist of clearing, grubbing, stripping, refuse removal, bank sloping and structure removal on the site as necessary to rid the site of all undesirable materials on or near the surface and prepare the site for the structure. All woody growth within the construction area shall be cleared and all stumps and roots one inch in diameter or larger shall be grubbed from the site. In addition, all areas within 25 feet of the footprint of the structure shall be cleared and grubbed except as directed by NRCS. The work shall also consist of the removal and disposal of structures (including fences) that must be removed to perform other items of work.

For wetland restoration, enhancement, or creation projects, the wetland area shall be disturbed as little as possible and existing naturally vegetated spillway areas shall not be disturbed.

2. FOUNDATION PREPARATION

The construction areas shall be stripped a minimum of 6 inches to remove all unsuitable materials such as organic matter, grasses, weeds, sod, debris, and stones larger than 6 inches in diameter.

In an earth embankment foundation area, all channel banks and sharp breaks shall be sloped to no steeper than 1.5 horizontal to 1 vertical.

The foundation area shall be thoroughly scarified before placement of fill material. The surface shall have moisture added or shall be compacted if necessary so that the first layer of fill material can be compacted and bonded to the foundation.

3. STRIPPED MATERIAL DISPOSAL

Suitable soil material shall be stockpiled for use as topsoil. The other stripped materials shall be buried, removed from the site, or disposed of as directed by the owner or NRCS. Whenever possible, material shall not be disposed of in the pool area created by the structure.

Stockpiled materials around a construction site should be placed so as not to hinder subsequent construction operations.

4. DISPOSAL OF REFUSE MATERIALS

Waste materials from clearing and structure removal shall be burned or buried at locations approved by the owner. Buried materials shall be covered with a minimum of 2 feet of earthfill. Whenever possible, material shall not be disposed of in any pool area created by the structure.

All refuse shall be disposed of in a manner which complies with all local and state regulations.

5. SALVAGE

Items to be salvaged shall be as shown on the drawings. Structures and fencing materials that are designated to be salvaged shall be carefully removed and neatly placed in the specified storage areas.

6. SPECIAL SPECIFICATIONS

**NATURAL RESOURCES CONSERVATION SERVICE
CONSTRUCTION SPECIFICATION**

IA-3 STRUCTURE REMOVAL

1. SCOPE

The work shall consist of the removal, salvage and/or disposal of structures (including fences) from the designated areas and as indicated on the drawings.

2. MARKING

Each structure or item to be removed will be marked by means of stakes, flags, painted markers or other suitable methods.

3. REMOVAL

All structures designated for removal shall be removed to the specified extent and depth.

4. SALVAGE

Structures that are designated to be salvaged shall be carefully removed and neatly placed in the specified storage areas. Salvaged structures that are capable of being disassembled shall be dismantled into individual members or sections. Such structures shall be neatly match marked with paint prior to disassembly. All pins, nuts, bolts, washers, plates and other loose parts shall be marked or tagged to indicate their proper location in the structure and shall be fastened to the appropriate structural member or packed in suitable containers. Materials from fences designated to be salvaged shall be placed outside the work area on the property from which they are removed. Wire shall be rolled into uniform rolls of convenient size. Posts and rails shall be neatly piled.

5. DISPOSAL OF REFUSE MATERIALS

Refuse materials resulting from structure removal shall be burned or buried at locations shown on the drawings. Buried materials shall be covered with a minimum of 2 feet of earthfill. Whenever possible, material shall not be disposed of in the pool area created by the structure.

All refuse shall be disposed of in a manner which complies with all local and state regulations.

6. SPECIAL SPECIFICATIONS

NATURAL RESOURCES CONSERVATION SERVICE CONSTRUCTION SPECIFICATION

IA-5 POLLUTION CONTROL

1. SCOPE

The work shall consist of installing measures or performing work to control erosion and minimize the production of sediment and other pollutants to water and air during construction operations.

2. MATERIALS

All materials furnished shall meet the requirements shown on the drawings or in the specifications.

3. EROSION AND SEDIMENT CONTROL MEASURES AND WORKS

The measures and works shall include, but are not limited to, the following:

Staging of Earthwork Activities: The excavation and moving of soil materials shall be scheduled so that areas unprotected from erosion will be minimized. These areas will be unprotected for the shortest time feasible.

Seeding: Structures and disturbed areas shall be seeded as soon as possible after construction is completed.

Temporary seedings may be used as an alternative to other stabilization measures as approved by NRCS.

Mulching: Construction areas that have been disturbed but have no construction activity scheduled for 21 days or more shall have erosion protection measures applied by the 14th day. This erosion protection may be mulching or other approved temporary measures. Construction areas shall not be left open during a winter shutdown period and shall be protected by mulching.

All seeding and mulching shall be completed in accordance with the seeding plan and Iowa Construction Specification IA-6, Seeding and Mulching for Protective Cover.

The following works may be temporary. If they are installed as a temporary measure, they shall be removed and the area restored to its original state when they are no longer needed or when permanent measures are installed.

Diversions: Diversions may be required to divert clean runoff water away from work areas and to collect runoff from work areas for treatment and safe disposition.

Stream Crossings: Culverts or bridges may be required where construction equipment must cross streams.

Sediment Basins: Sediment basins may be required to settle and filter out sediment from eroding areas to protect properties and streams below the construction site.

Sediment Filters: Straw bale filters, geotextile sediment fences, or other equivalent methods may be used to trap sediment from areas of limited runoff. Sediment filters shall be properly anchored to prevent erosion under them.

Waterways: Waterways may be required for the safe removal of runoff from fields, diversions, and other structures or measures.

4. CHEMICAL POLLUTION

The Contractor shall provide watertight tanks or barrels or construct a sump sealed with plastic sheets to be used to dispose of chemical pollutants, such as drained lubricating or transmission oils, greases, soaps, concrete mixer wash water, asphalt, etc., produced as a by-product of the construction work. At the completion of the construction work, sumps shall be removed and the area restored without causing pollution.

Sanitary facilities such as chemical toilets or septic tanks shall not be placed adjacent to live streams, wells, or springs. They shall be located at a distance sufficient to prevent contamination of any water sources. At the completion of construction work, facilities shall be disposed of without causing pollution.

5. AIR POLLUTION

The burning of brush or trash or disposal of other materials shall adhere to local and state regulations.

Fire prevention measures shall be taken to prevent the start or the spreading of wild fires, which result from project work. Fire breaks or guards shall be constructed at locations shown on the drawings.

All public access or haul roads used by the contractor during construction of the project shall be sprinkled or otherwise treated to fully suppress dust. All dust control methods shall insure safe operations at all times. If chemical dust suppressants are used, the material shall be a commercially available product specifically designed for dust suppression and the application shall follow manufacturer's requirements and recommendations. A copy of the product data sheet and manufacturer's recommended application procedures shall be provided to the Engineer five working days before use.

6. MAINTENANCE, REMOVAL, AND RESTORATION

All pollution control measures and works shall be adequately maintained in a functional condition as long as needed during the construction operation. All temporary measures shall be removed and the site restored to as near original conditions as practical.

7. SPECIAL SPECIFICATIONS

**NATURAL RESOURCES CONSERVATION SERVICE
CONSTRUCTION SPECIFICATION**

IA-6 SEEDING AND MULCHING FOR PROTECTIVE COVER

1. SCOPE

The work shall consist of seeding, mulching, and fertilizing all disturbed areas and other areas as indicated on the drawings or otherwise designated.

2. SEEDBED PREPARATION AND APPLICATION

The entire area to be seeded shall be reasonably smooth and all washes and gullies shall be filled to conform to the desired cross-section before actual seedbed preparation is begun. At this stage of the operation, the required fertilizer and lime shall be applied uniformly and incorporated into the top 3 inches of the soil with suitable tillage equipment. The seedbed preparation operation shall be suspended when the soil is too wet or too dry. The seedbed shall be loosened to a depth of at least three inches.

On side slopes steeper than 2-1/2 horizontal to 1 vertical, the 3 inch minimum depth of seedbed preparation is not required, but the soil shall be worked enough to insure sufficient loose soil to provide adequate seed cover.

Unless otherwise specified, the seeding operation shall be performed immediately after preparation of the seedbed. The seed shall be drilled or broadcast by equipment that will insure uniform distribution of the seed.

3. MATERIALS

The seeding, fertilizing, and mulching requirements are as specified on Form IA-CPA-4.

Straw from cereal grains or hay will be used as mulching material. It shall be relatively free of weeds.

4. MULCH APPLICATION

The required mulching shall be performed as soon as possible after seeding unless otherwise specified. The mulch shall be applied uniformly over the area. The type and rate shall be as specified. When mulching is required, all areas seeded during any one day shall be mulched within 24 hours. The mulch may be spread by any means that results in a uniform cover.

The mulch shall be anchored. Anchoring of the mulch may be performed by a mulch anchoring tool or regular farm disk weighted and set nearly straight, by installation of mulch netting, or by other methods approved by NRCS.

5. SPECIAL SPECIFICATIONS

**NATURAL RESOURCES CONSERVATION SERVICE
CONSTRUCTION SPECIFICATION**

IA-11 REMOVAL OF WATER

1. SCOPE

The work shall consist of the removal of surface water and ground water as needed to perform the required construction in accordance with the plans and specifications.

2. DIVERTING SURFACE WATER

The Contractor shall build, maintain and operate all cofferdams, channels, diversions, flumes, sumps, and other temporary protective works needed to divert surface water away from the construction site while construction is in progress.

3. DEWATERING THE CONSTRUCTION SITE

Foundations, cutoff trenches, borrow areas and other parts of the construction site shall be dewatered as needed for proper execution of the construction work. The Contractor shall furnish, install, operate and maintain all works and equipment needed to perform the dewatering.

4. EROSION AND POLLUTION CONTROL

Removal of water from the construction site, including the borrow areas shall be accomplished in such a manner that erosion and the transmission of sediment and other pollutants are minimized.

5. REMOVAL OF TEMPORARY WORKS

After temporary works have served their purposes and before the Contractor leaves the site, they shall be removed.

6. SPECIAL SPECIFICATIONS

**NATURAL RESOURCES CONSERVATION SERVICE
CONSTRUCTION SPECIFICATION**

IA-21 EXCAVATION

1. SCOPE

The work shall consist of the excavation required by the drawings and specifications and disposal of the excavated materials. The cutoff trench and any other required excavations shall be dug to the lines and grades shown on the drawings or as staked in the field. Structure or trench excavations will conform to all safety requirements of OSHA.

2. USE OF EXCAVATED MATERIALS

Suitable materials from the specified excavations shall be used in the construction of required permanent earth fill. The suitability of materials for specific purposes shall be determined by the NRCS Inspector.

3. DISPOSAL OF WASTE MATERIAL

All surplus or waste material shall be disposed of in areas shown on the drawings or as approved by the NRCS Inspector. The waste material shall be smoothed and sloped to provide drainage.

4. STRUCTURE AND TRENCH EXCAVATION

Structure or trench excavations will conform to all safety requirements of OSHA.

5. BORROW EXCAVATION

When the quantities of suitable materials obtained from specified excavations are insufficient to construct the specified fills, additional materials shall be obtained from the designated borrow areas as shown on the drawings or as approved by NRCS and the landowner. On wetland projects, borrow shall not be taken from the wetland area within 10 feet of the embankment or as shown on the drawings.

Borrow areas shall be excavated and grading completed in a manner to eliminate steep or unstable side slopes or hazardous or unsightly conditions.

6. OVER-EXCAVATION

Excavation beyond the specified lines and grades shall be corrected by filling the resulting voids with compacted earthfill, except that if the earth is to become the subgrade for riprap, sand or gravel bedding or drainfill, the voids shall be filled with material conforming to the specifications for the riprap, bedding or drainfill, as appropriate.

7. SPECIAL SPECIFICATIONS

**NATURAL RESOURCES CONSERVATION SERVICE
CONSTRUCTION SPECIFICATION**

IA-23 EARTHFILL

1. SCOPE

The work shall consist of the construction of earth fills required by the drawings and specifications. The completed work shall conform to the lines, grades, and elevations shown on the drawings or as staked in the field.

2. MATERIALS

All fill materials shall be obtained from required excavations and designated borrow areas. Fill materials shall contain no sod, brush, roots or other bio-degradable materials. Rocks larger than 6 inches in diameter shall be removed prior to compaction of the fill.

3. FOUNDATION PREPARATION

Foundations for earthfill shall be stripped a minimum of 6 inches to remove vegetation and other unsuitable materials. Foundation surfaces shall be scarified to a minimum depth of 2 inches prior to placing fill material.

Foundation and abutment surfaces shall not be sloped steeper than 1.5 horizontal to 1 vertical unless otherwise shown on the drawings.

4. PLACEMENT

Fill shall not be placed until the required excavation and foundation preparation have been completed and the foundation has been inspected and approved by NRCS. Fill shall not be placed upon a frozen surface, nor shall snow, ice, or frozen material be incorporated in the fill.

Adjacent to structures or pipes, fill shall be placed in a manner which will prevent damage. The height of the fill adjacent to structures or pipes shall be increased at approximately the same rate on all sides.

The materials used throughout the earth fill shall be essentially uniform. Selective placement shall be as shown on the drawings or approved by NRCS.

If the surface of any layer becomes too hard and smooth for proper bond with the succeeding layer, it shall be scarified to a minimum depth of 2 inches before the next layer is placed.

The top surfaces of embankments shall be maintained approximately level during construction, except that a cross-slope of approximately 2% shall be maintained to ensure effective drainage.

When moving fill material from the borrow area(s) to the embankment by use of bulldozers only, the following steps shall be followed:

- Immediately after the borrow material is pushed to the embankment, it shall be spread in horizontal lifts placed parallel to the centerline of the embankment.
- Compactive effort will then be applied by operating equipment parallel to the centerline of the fill or embankment.
- Lift thicknesses shall be in strict compliance with Clause 6, below.

Sectional fills are not allowed unless they are shown on the construction drawings.

5. CONTROL OF MOISTURE CONTENT

The moisture content of the fill material shall be adequate for obtaining the required compaction. Material that is too wet shall be dried to meet this requirement, and material that is too dry shall have water added and mixed until the requirement is met.

The moisture content of the fill material shall be such that a ball formed with the hands does not crack or separate when struck sharply with a pencil and will easily ribbon out between the thumb and finger.

Earth foundations under and adjacent to concrete structures shall be prevented from drying and cracking before concrete and backfill are placed.

The application of water to the fill materials shall be accomplished at the borrow areas insofar as possible.

6. COMPACTION

Earth fill shall be compacted by one of the following methods as specified on the plans or in Section 8, Special Specifications. If no method is specified, compaction will be in accordance with Method 1.

- Method 1 - Earthfill shall be placed so that the wheels or tracks of the loaded hauling equipment, traveling in a direction parallel to the centerline of fill, pass over the entire surface of each layer being placed. Low ground pressure vehicles shall not be used for this purpose.
- Method 2 - Two (2) complete passes of a tamping-type roller will be made over each layer. The roller shall be capable of exerting a minimum force of two hundred (200) pounds per square inch.
- Method 3 - Minimum density shall be 90% of the maximum density as determined by ASTM D 698 and as shown on the plans.

The maximum thickness of a lift of fill before compaction shall be 9 inches, unless otherwise indicated on the drawings.

Fill adjacent to structures, pipe conduits, and appurtenances shall be placed in layers not more than 4 inches thick and compacted to a density equivalent to that of the surrounding fill. Methods used to obtain compaction for fine or coarse grained materials are as follows:

- For fine grained materials, hand tamping or manually directed power tampers may be used. Hand compaction only shall be used to compact the earthfill under the bottom half of circular pipes. Manually directed power tampers shall not be used in tight spaces where applying full compactive effort will result in direct contact of the tamper plate with the pipe. Care should be taken so that compaction around the spillway pipe does not cause uplift of the pipe resulting in a void beneath the pipe.
- For coarse grained materials (sands and gravels), vibratory plate compactors shall be used for obtaining compaction. However, hand tamping shall be used to compact the material under the bottom half of circular pipes.

In all cases, follow manufacturer instructions for the specific compaction equipment being used. Heavy equipment shall not be operated within 2 feet of any structure or pipe.

Compacting of fill adjacent to concrete structures shall not be started until the concrete is 7 days old.

7. ISLANDS, MOUNDS, AND LOAFING AREAS ON WETLAND RESTORATION, ENHANCEMENT, OR CREATION PROJECTS

Islands shall be randomly located within the wetland area at locations shown on the drawings or as staked in the field. The orientation of island shorelines shall be random with attention given to prevailing winds to limit wave damage. In general, the side of the island with the longest dimension shall be parallel to the prevailing wind direction. Side slopes of islands shall be as shown on the drawings, but in no case shall be steeper than 6 horizontal to 1 vertical. Island shapes shall be irregular.

Loafing areas shall be constructed in the areas shown on the drawings or as staked in the field and shall be graded to drain runoff water. The elevation of at least one loafing area should be above the maximum water level whenever possible.

Excavated material not suitable for embankments, wetland dikes, or islands can be used to create mounds or blended into surrounding topography to create a natural appearance. Spoil material shall not be spread on existing wetland areas.

Organic soils shall not be used to construct islands, loafing areas, dikes, or embankments.

8. SPECIAL SPECIFICATIONS

**NATURAL RESOURCES CONSERVATION SERVICE
CONSTRUCTION SPECIFICATION**

IA-26 TOPSOILING

1. SCOPE

The work shall consist of salvaging topsoil from borrow areas or required excavations and spreading it on the exposed disturbed areas.

2. QUALITY OF TOPSOIL

Topsoil shall consist of friable surface soil reasonably free of grass, roots, weeds, sticks, stones, or other foreign materials.

3. EXCAVATION

After the site has been cleared and grubbed, the topsoil shall be removed from borrow areas and required excavation areas to the depth as shown on the drawings. Topsoil shall be stockpiled at locations approved by NRCS.

4. SPREADING

Spreading shall not be done when the ground or topsoil is frozen, excessively wet, or otherwise in a condition detrimental to the work. Surfaces designated to be covered shall be lightly scarified just prior to the spreading operation. Where compacted fills are designated to be covered by topsoil, the topsoil shall be placed concurrently with the fill and shall be bonded to the compacted fill with the equipment.

Topsoil shall be placed to the minimum depth shown on the drawings. After the spreading operation is completed, the surface shall be finished to a reasonably smooth surface.

5. SPECIAL SPECIFICATIONS

NATURAL RESOURCES CONSERVATION SERVICE CONSTRUCTION SPECIFICATION

IA-45 PLASTIC (PVC, PE) PIPE

1. SCOPE

The work shall consist of furnishing and installing plastic pipe and the necessary fittings specified herein or as shown on the drawings. This specification does not cover subsurface drainage systems.

2. MATERIALS

Corrugated Polyethylene (PE) Tubing. Corrugated PE tubing and fittings shall conform to the requirements of the applicable specification listed below:

<u>Kind of Pipe</u>	<u>Specification</u>
Corrugated Polyethylene(PE) Tubing and Fittings, Nominal Sizes 3 to 6 inch, inclusive	ASTM F 405
Large Diameter Corrugated Polyethylene Tubing and Fittings, Nominal Sizes 8 to 24 inch, inclusive	ASTM F 667
Polyethylene (PE) Large Diameter Profile Wall Sewer and Drain Pipe	ASTMF 894

Poly(Vinyl Chloride) (PVC) Plastic Pipe. PVC pipe and fittings shall conform to the requirements of the applicable specification listed below:

<u>Kind of Pipe</u>	<u>Specification</u>
PVC Plastic Pipe, Schedules 40, 80 and 120.....	ASTM D 1785
PVC Pressure-Rated Pipe (SDR Series)	ASTM D 2241
PVC Pressure Pipe, 4 in. through 12 in., for Water Distribution	AWWA C900
PVC Water Transmission Pipe, Nominal Diameters 14 in through 36 in.....	AWWA C905

PVC and PE Plastic Pipe. Plastic pipes meant for non-potable, livestock water supply shall conform to the requirements of the applicable specification listed below:

<u>Kind of Pipe</u>	<u>Specification</u>
Polyethylene (PE) Plastic Pipe, (SIDR-PR) Based on Controlled Inside Diameter.....	ASTM D 2239
PVC Pressure-Rated Pipe (SDR Series)	ASTM D 2241

3. FITTINGS AND JOINTS

Pipe joints shall conform to the details shown on the drawings. Pipe shall be installed and joined in accordance with the manufacturer's recommendations.

Joints may be bell and spigot type with elastomeric gaskets, coupling type with elastomeric gasket on each end, or solvent cemented. Gaskets shall conform to ASTM D 1869. Solvent cemented joints shall not be used for pond spillway pipes. Solvent cemented joints for PVC pipe and fittings shall be in accordance with ASTM D 2855. When a lubricant is required to facilitate joint assembly, it shall be a type having no detrimental effect on the gasket or pipe material.

Mechanical joints (split couplings and snap couplings) may be used when joining PE pipe and fittings when the pipe is used for non-pressure flow and a free draining sand or gravel bedding material is provided. Elastomeric-sealed mechanical joints shall be used when joining PE pipe and

fittings under pressure flow or where seepage cannot be tolerated. Where non-pressure pipe is specified, the fittings shall be of the same or similar materials as the pipe and shall provide the same durability and strength as the pipe.

A special case of livestock water supply involves pipes through a dam or embankment. Only PE pipe meeting the above specification may be used. PE pipe, of 1 ¼, 1 ½, or 2-inch diameter shall be installed so that there are no joints within the embankment area.

Where pressure pipe is specified, fittings shall have a design capacity equal to or exceeding that specified for the pipe to which it is attached. Fittings shall be cast iron, steel, one piece injection molded plastic fitting or fabricated from plastic pipe and one piece injection molded plastic fittings. Pressure pipe fittings shall conform to the requirements of the applicable specification listed below.

<u>Kind of Fitting</u>	<u>Specification</u>
Threaded PVC Plastic Pipe Fittings, Schedule 80.....	ASTM D 2464
PVC Plastic Pipe Fittings, Schedule 40.....	ASTM D 2466
PVC Plastic Pipe Fittings, Schedule 80.....	ASTM D 2467
Butt Heat Fusion (PE) Plastic Fittings for PE Plastic Pipe and Tubing	ASTM D 3261
Joints for Plastic Pressure Pipes Using Flexible Elastomeric Seals.....	ASTM D 3139
PVC Pressure Pipe, 4 in. through 12 in., for Water Distribution	AWWA C900
PVC Water Transmission Pipe, Nominal Diameters 14 in through 36 in.	AWWA C905

4. HANDLING AND STORAGE

Pipe shall be delivered to the job site and handled by means which provide adequate support to the pipe and does not subject it to undue stresses or damage. When handling and placing plastic pipe, care shall be taken to prevent impact blows, abrasion damage, and gouging or cutting (by metal surfaces or rocks). All special handling requirements of the manufacturer shall be strictly observed. Special care shall be taken to avoid impact when the pipe must be handled at temperatures of 40 degrees F (4.4 degrees C) or less.

Pipe shall be stored on a relatively flat surface so that the barrels are evenly supported. Unless the pipe is specifically coated to withstand exposure to ultraviolet radiation, it shall be covered with an opaque material when stored outdoors for a period of 15 days or longer.

5. TRENCHING

Plastic pipe conduits shall be installed in trenches or plowed in according to the following methods:

- A. **Trencher Constructed** - When conditions permit, trenching for pipelines, which are buried from 5 to 6 feet deep, are usually done with a narrow 4 to 6 inch wide chain trencher. Where there is little gravel and the ground is not too wet, these trenchers bring up well pulverized soil that makes good backfill material. Where rocks are not present, any of this material may be backfilled directly around the pipe. There is no practical way to compact the fill in these narrow trenches. The owner must be made aware that this material normally consolidates to its maximum extent in two to five years, but depressions or low spots can be hazards to livestock, humans and equipment.
- B. **Backhoe Constructed Trench** – Backhoe trenches are usually a minimum of 12 inches wide. The material frequently comes out of the trench as clods, large chunks, and rocks. Immediately backfill over the pipe with 4 to 6 inches of soil that is free of these clods, large chunks, and rocks. If adequate excavated material is not available, then material such as sand or fine gravel should be imported and placed around the pipe to a depth of 4 to 6 inches over the top of the pipe. Fill the trench with the remaining excavated material.

- C. **Plowing** – Plowing, or ripping, is a trenchless method for installing plastic pipe. It is a multi-stage process consisting of positioning a vibrating or static (non-vibrating) plow equipped with a trailing product guide which feeds pipe to the depth setting of the plow as it moves forward. The pipe is inserted into the ground continuously along a predetermined path and depth. The vertical depth of installation is controlled by hydraulic adjustment of the plow shear head and the surface contours. The depth of insertion must be continually adjusted to compensate for changes in terrain.

6. LAYING AND BEDDING THE PIPE

Plastic pipe conduits and fittings shall be installed as shown on the drawings and specified herein. The pipe shall be laid so that there is no reversal of grade between joints, unless otherwise shown on the drawings. The pipe shall be placed with the bell end upstream, unless otherwise specified. The pipe shall be carefully placed on the bedding or into the pipe trench.

Care shall be taken to prevent distortion and damage during unusually hot (over 90 degrees F) or cold weather (under 40 degrees F). After the pipe has been assembled in the trench, it shall be allowed to reach ground temperature before backfilling to prevent pull out of joints due to thermal contraction.

The pipe ends and the couplings shall be free of foreign material when assembled. During the placement of the pipe, each open end of the pipeline shall be closed off by a suitable cover or plug at the end of work on the pipeline each day and until work resumes or installation is complete.

Perforated pipe shall be laid with the perforations down and oriented symmetrically about the vertical centerline. Perforations shall be clear of any obstructions when the pipe is laid.

Pipe shall be firmly and uniformly supported throughout the entire length. Bell-holes shall be made in the bedding under bells or couplings and other fittings to prevent the pipe from being supported by fittings.

- a. Earth Bedding. When bedding is specified, the pipe shall be firmly and uniformly bedded in a shaped bedding groove that closely conforms to the bottom of the pipe for a depth equal to a minimum of 1 inch or 5 percent of the diameter of the pipe, whichever is greater. The bedding material shall be free of rocks or stones greater than 0.5 inch diameter and earth clods greater than 2 inch diameter.
- b. Sand or Gravel Bedding. When sand or gravel bedding is specified, the pipe shall be firmly and uniformly placed on a sand or gravel bed. Sand or gravel fill shall be carefully placed and compacted as specified herein and as shown on the drawings.

A few installations of above ground pipelines have been noted. These installations are normally laid directly on the ground and very close to an existing fence line for protection. Only those pipelines designed to withstand exposure to ultraviolet radiation may be utilized for these installations. Adequate thrust control shall be incorporated in these installations.

7. BACKFILL

The pipe shall be held down during backfilling to the top of the pipe to prevent its being lifted from its original placement.

Within 2 feet of the pipe, backfill shall be carefully placed and compacted by means of hand tamping or manually directed power tampers or plate vibrators to form a continuous uniform support around the pipe. Maximum thickness of layers before compaction within 2 feet of the pipe shall be 4 inches and at more than 2 feet from the pipe a maximum thickness before compaction shall be 9 inches. Unless otherwise specified, the initial backfill shall be compacted to a density equivalent to that of the adjacent fill or foundation materials.

The water content of cohesive backfill material shall be such that, kneaded in the hand, the soil will form a ball which does not readily separate. For non-cohesive sand and gravel backfill material, water content is not a concern for thin lifts.

8. SPECIAL SPECIFICATIONS

**NATURAL RESOURCES CONSERVATION SERVICE
CONSTRUCTION SPECIFICATION**

IA-46 TILE DRAINS FOR LAND DRAINAGE

1. SCOPE

The work shall consist of furnishing and installing drainage pipe (tubing) and tile and the necessary fittings and appurtenances.

2. MATERIALS

Concrete drain tile shall conform to the requirements of ASTM C 412 and clay drain tile shall conform to the requirements of ASTM C 4.

Corrugated polyethylene (PE) pipe (tubing) and fittings shall conform to ASTM F 405 (3" to 6") or F 667 (3" to 24"), as appropriate. Corrugated profile wall (dual wall) polyethylene (PE) pipe shall meet or exceed the requirements of ASTM F 2648 (2" to 60") or ASTM F 2306 (12" to 60"). Pipe conforming to AASHTO M 252 (3" to 10"), or AASHTO M 294 (12" to 60") is acceptable. Perforated tubing shall have a water inlet area of at least 1 square inch per foot, provided by perforations spaced uniformly along the long axis of the tubing. The perforations shall be circular or slots. Circular perforations shall not exceed 3/16 inch in diameter. Slots shall not be more than 1/8 inch wide.

3. EXCAVATION

Unless otherwise specified, excavation for and subsequent installation of each drain line shall begin at the outlet end and progress upstream.

The trench or excavation for the conduit shall be constructed to the line, depth, cross section, and grade shown on the drawings, or as directed by the NRCS Inspector. The trench bottom shall be smooth and free of exposed rock. If rock is encountered in the trench bottom, over-excavate the trench and place at least 6 inches of compacted earth or sand bedding in the trench to bring it up to the conduit grade.

If not otherwise shown on the drawings, trench width at the top of the conduit shall be the minimum required to permit installation and provide bedding conditions suitable to support the load on the conduit, but with not less than three (3) inches of clearance on each side of the conduit. Maximum trench width shall be the conduit diameter plus 12 inches measured at the top of the conduit, unless approved bedding is installed.

Trench shields, shoring and bracing, or other methods, necessary to safeguard the workers and work, and to prevent damage to the existing improvements shall be furnished, placed, and subsequently removed by the contractor.

Plow installation is allowed. Minimum trench width shall be two (2) inches wider than the conduit on each side. Grade control and bedding conditions shall be closely inspected during plow installation. Boulders, cobbles, or cemented soils can cause the plow to jump and lose grade. These hardpoints can also puncture or dimple and deform the pipe.

4. PREPARING THE BEDDING

Unless otherwise specified, no filter or envelope is required. In stable soils, the bottom of the trench shall be shaped to form a semicircular, trapezoidal, or 90-degree "V" groove in its center. The groove shall be shaped to fit the size of tile. The 90-degree "V" groove shall not be used on conduits greater than 6 inches in diameter.

If the bottom of the trench does not provide a sufficiently stable or firm foundation for the drain tile, a sand-gravel mix or other approved materials shall be used to stabilize the bottom of the trench.

5. FILTER OR ENVELOPE MATERIAL

When a filter is specified, the shape of the bottom of the trench, gradation and the thickness of the filter or envelope material to be placed around the conduit will be as shown on the drawings. The envelope or filter material shall be placed in the bottom of the trench just prior to the laying of the conduit. The conduit shall then be laid and the envelope or filter material placed over the conduit.

6. PLACEMENT AND JOINT CONNECTIONS

All drains shall be laid to grade.

Joints between lateral concrete and clay drain tiles shall vary with soil type as follows:

- a. Peat and muck - 1/4 inch preferred, 3/8 inch maximum
- b. Clay - 1/8 inch preferred, 1/4 inch maximum
- c. Silt and loam - 1/16 inch preferred, 1/8 inch maximum
- d. Sand - tightest possible fit.

Joints between main drain tile, which serve only to collect and transport drainage water from lateral tile lines, should be the tightest fit possible.

Where the joint width exceeds the maximum above, the joint shall be covered with a permanent type material such as coal tar pitch treated roofing paper, fiber glass sheet or mat, or plastic sheet.

After placement and blinding of plastic tubing, but prior to backfilling, sufficient time shall elapse to allow the tubing to reach the ambient temperature of the trench. All split fittings shall be securely tied with nylon cord before backfill is placed. When corrugated plastic tubing is used, no more than 5% stretch will be allowed.

7. CONNECTIONS

Lateral connections will be made with manufactured appurtenances (wyes, tees, etc.) comparable in strength and durability with the specified conduit unless otherwise shown on the drawings.

Existing drain lines not shown on the drawings but encountered during installation shall be bridged across the trench or connected into the new line, as directed by NRCS.

Connections with the outlet pipe shall be made watertight.

8. OUTLETS

A continuous section of non-perforated conduit at least 20 feet long shall be used at the outlet. At least two-thirds of the outlet pipe shall be buried in the ditch bank, and the cantilever section must extend to the toe of the ditch side slope or the side slope protected from erosion. Acceptable materials for use at the outlet include the following:

- a. Corrugated metal pipe, galvanized or aluminum, 16 gauge minimum;
- b. Smooth steel pipe with a minimum wall thickness of 3/16 inch;
- c. Smooth plastic pipe, polyvinyl chloride (PVC), with a SDR of 26 or less or schedule 40 or heavier; or
- d. Corrugated profile wall (dual wall) polyethylene pipe (PE).

All plastic (PVC) and polyethylene pipe (PE) outlets shall include ultra-violet stabilizer. PVC and PE pipe outlets shall not be used where burning vegetation on the outlet ditch bank is likely to create a fire hazard.

The outlet shall be equipped with a flap-gate type rodent guard.

9. BLINDING

After the conduit is placed in the excavated groove, friable material from the sides of the trench shall be placed around the conduit, completely filling the trench to a depth of not less than six (6) inches over the top of the conduit. For material to be suitable it must not contain hard clods, rocks, frozen soil, or fine material which will cause a silting hazard to the drain. Conduit placed during any one day shall be blinded by the end of the day's work.

10. BACKFILLING

The backfilling of the trench shall be completed as rapidly as consistent with the soil conditions. Automatic backfilling machines may be used. Backfill shall extend above the ground surface and be well rounded over the trench.

Unless otherwise shown on the plans, in mineral soils, the minimum depth of cover over subsurface drains shall be 2.4 feet. In organic soils, the minimum depth of cover after initial subsidence shall be 3.0 feet.

11. SPECIAL SPECIFICATIONS

**NATURAL RESOURCES CONSERVATION SERVICE
CONSTRUCTION SPECIFICATION**

IA-52 STEEL PIPE CONDUITS

1. SCOPE

The work shall consist of furnishing and installing steel pipe complete with appurtenances.

2. MATERIALS

Steel pipe shall be new, new reject or used seamless and welded steel pipe. Reject or used pipe may be accepted if inspected by the Natural Resources Conservation Service before installation and found to be in good condition. All pipe must have the following minimum wall thickness.

<u>Pipe Diameter</u>	<u>Minimum Wall Thickness</u>
4-16"	1/4"
18-26"	9/32"
over 26"	3/8"

Unless otherwise specified, special fittings and appurtenances shall be of the same material as the pipe.

Steel welding electrodes shall conform to the requirements of American Welding Society specifications AWS A5.1. "Specification for Mild Steel Covered Arc-Welding Electrodes," except that they shall be uniformly and heavily coated (not washed) and shall be of such a nature that the coating will not chip or peel while being used with the maximum amperage specified by the manufacturer.

3. LAYING AND BEDDING THE PIPE

Pipe shall be laid to the line and grade shown on the drawings. Unless otherwise specified, the pipe shall be laid so that there are no reversals of grade between joints, and shall also be installed in accordance with the manufacturer's recommendations. The pipe shall be firmly and uniformly bedded to the depth and in the manner specified on the drawings. An ample "bell hole" working area may be left at pipe joints to perform welding, coating, etc., activities. The "bell hole" area shall then be bedded, as specified, prior to backfill operations.

The pipe shall be weighed down sufficiently to prevent its displacement from the bedding during placement of the backfill under the haunches.

4. JOINTS

Pipe joints shall conform to the details shown on the drawings and shall be sound and watertight.

Welded Joints. Welding and welded joints shall conform to the welding procedure details and requirements of AWWA Standard C 206. Field welding shall be done in such a way as to avoid burning the protective coating on the pipe except in the immediate vicinity of the weld.

Welded field joints shall be single welded butt joints or lap welded slip joints, as shown on the drawings.

5. HANDLING THE PIPE

The Contractor shall furnish such equipment as is necessary to place the pipe without damaging the pipe.

6. BACKFILLING

Backfill material shall have sufficient moisture so that optimum compaction can be obtained.

Backfill around the pipe shall be placed in layers not more than 4 inches thick before compaction.

Each layer of backfill shall be compacted with power tampers, hand tampers, or plate vibrators to the same density requirements as specified for the adjacent embankment. Backfill over and around the pipe shall be brought up uniformly on all sides. The passage of earth moving equipment will not be allowed over the pipe until backfill has been placed above the top of the pipe surface to a depth of two (2) feet.

7. SPECIAL SPECIFICATIONS

NATURAL RESOURCES CONSERVATION SERVICE CONSTRUCTION SPECIFICATION

IA-61 LOOSE ROCK RIPRAP

1. SCOPE

The work shall consist of the construction of loose rock riprap revetments, structures and blankets, including filter layers or bedding where specified.

2. MATERIALS

Rock for loose rock riprap, filter layers or bedding shall come from sources approved by NRCS. The rock shall be excavated, selected and handled as necessary to meet the quality and grading requirements of this specification and the construction drawings.

Individual rock fragments shall be dense, sound and free from cracks, seams and other defects conducive to accelerated weathering. The rock fragments shall be angular to sub rounded in shape. The least dimension of an individual rock fragment shall not be less than 1/3 the greatest dimension of the fragment unless otherwise specified on the construction drawings.

3. SUBGRADE PREPARATION

The subgrade surfaces on which the riprap or bedding is to be placed shall be cut or filled and graded to the lines and grades shown on the drawings. When fill to subgrade lines is required, it shall consist of approved materials and shall be compacted to a density equal to the adjacent existing soil material.

Rock materials shall not be placed until the foundation preparation is completed and the subgrade surfaces have been inspected and approved by NRCS.

4. EQUIPMENT-PLACED ROCK RIPRAP

Rock shall be placed by equipment on the surfaces and to the depths specified. The riprap shall be constructed to the full thickness in one operation and in such a manner as to avoid serious displacement of the underlying materials. The rock shall be delivered and placed in a manner that will insure that the riprap in place shall be reasonably homogeneous with the larger rocks uniformly distributed and firmly in contact, one to another, with the smaller rocks and spalls filling the voids between the larger rocks. Placement of rock shall begin at the bottom of the slope or downstream end of the structure.

Riprap shall be placed in a manner to prevent damage to structures. Hand placing will be required to the extent necessary to prevent damage to adjacent structures.

5. HAND-PLACED RIPRAP

Rock shall be placed by hand on the surfaces and to the depths specified. It shall be securely bedded with the larger rocks firmly in contact, one to another. Spaces between the larger rocks shall be filled with smaller rocks and spalls. Smaller rocks shall not be grouped as a substitute for larger rock. Flat slab rock shall be laid on edge unless otherwise specified. Placement of rock shall begin at the bottom of the slope or downstream end of the structure.

6. FILTER LAYERS OR BEDDING

When the drawings specify filter layers or bedding beneath riprap, the filter or bedding material shall be spread uniformly on the prepared subgrade surfaces to the depth specified. Compaction of filter layers or bedding will not be required, but the surface of such layers shall be finished reasonably free of mounds, dips or windrows.

7. SPECIAL SPECIFICATIONS

**NATURAL RESOURCES CONSERVATION SERVICE
CONSTRUCTION SPECIFICATION**

IA-81 METAL FABRICATION AND INSTALLATION

1. SCOPE

The work shall consist of furnishing, fabricating, and installing metalwork including metal parts of composite structures.

2. MATERIALS

Steel shall be of structural quality. Finished surfaces shall be smooth and true to assure proper fit.

Bolts, nuts, washers, rods, rivets, etc., shall be of a material equal to the steel being fastened.

3. PROTECTIVE COATINGS

Protective coatings will consist of either galvanizing or painting and shall be applied by the fabricator.

Galvanizing shall consist of a zinc coating by the hot dip process, except that bolts, nuts, and washers may have a electrodeposited zinc coating.

Paint System for this specification shall consist of the application of one coat of Epoxy Polyamide Primer (lead and chromate free) and one or more coats of Epoxy Polyamide (intermediate or finish), lead free. When finished, it will have a minimum dry film thickness of 8.0 mils.

4. FABRICATION

Materials shall be carefully fabricated as shown on the drawings. The fabrication shall be smooth and true to assure proper fit. Galvanized items shall not be cut, welded, or drilled after the zinc coating is applied.

5. ERECTION

The metal shall be erected true and plumb, closely conforming to the drawings.

6. SPECIAL SPECIFICATIONS

NATURAL RESOURCES CONSERVATION SERVICE CONSTRUCTION SPECIFICATION

IA-92. FENCES

1. SCOPE

The work shall consist of furnishing and installing fences, including gates and fittings.

2. STANDARD FENCE

Barbed wire fences shall have a minimum of 4 wires for farm borders. A minimum of three wires shall be used for interior fencing, cross fencing, or excluding livestock from special areas such as wildlife area, forested tracts or other special use areas. Wires shall be spaced approximately an equal distance apart. The top wire shall be at least 42 inches high and 2 inches below the top on wood posts and 1 inch below the top on steel posts. The bottom wire shall be 18 inches or less above the ground level. Wire shall be spaced no more than 12 inches apart.

Each barbed wire shall consist of 2 twisted strands of either 12 ½ gauge wire or 15 ½ gauge high tensile strength wire. The barbs shall be either 2-point barbs on approximately 4 inch centers or 4-point barbs on approximately 5 inch centers. Wire shall be stretched and attached after the posts are properly set and backfilled. Attach wire to the side of the post closest to the livestock, except on corners and curves where the wire should be placed on the outside of the corner or curve.

Top and bottom strands of woven wire shall be a minimum of 12 ½ gauge. Wire for intermediate strands shall be 14 1/3 gauge or heavier. Fences with woven wire 32 inches or less in height shall have at least 2 barbed wires above the woven wire spaced 8 to 12 inches apart. Fences constructed with woven wire higher than 32 inches shall have at least 1 barbed wire 8 to 12 inches above the woven wire. The base of the woven wire shall be placed near the ground surface. The top wire shall be at least 42 inches above the ground level and 2 inches below the top of wood posts and 1 inch below the top of steel posts. All wire shall be galvanized. . Wire shall be stretched and attached after the posts are properly set and backfilled. Attach wire to the side of the post closest to the livestock, except on corners and curves where the wire should be placed on the outside of the corner or curve.

Staples shall be 9 gauge steel or heavier with a minimum length of 1 ½ inches for soft woods and a minimum length of 1 inch for close grained hardwoods. Drive staples diagonal to the grain of the wood and at a slight downward angle. Space should be left between the staple and the post to permit free movement of the wire. Wires may be attached to steel posts by use of manufacturer's clips or by 14 gauge galvanized wire twisted at least two turns.

All wooden posts (except red cedar, Osage orange, or black locust) shall be treated with pentachlorophenol, creosote, or chromated copper arsenate (CCA) by a method that ensures complete penetration of the sapwood. At least half of the diameter of red cedar shall be heartwood. Quality of treated wood shall provide sufficient strength and quality to last for the expected life of the fence.

All corner posts, gate posts, end posts, pull posts and brace posts normally shall be wood with sufficient length for the construction of at least a 42 inch high fence and permit setting the post at least 36 inches deep. Earth backfill shall be thoroughly tamped. On areas where soil depth is restricted to less than 36 inches, additional anchors or deadman applied against the direction of pull may be needed. Wood posts shall have a minimum top diameter of 5 inches. A 2-½ inch steel pipe with appropriate bracing or set in concrete of sufficient depth also may be used. Reinforced concrete or metal posts of equivalent strength may be substituted if they have suitable means of attaching wires and braces.

The maximum spacing of line posts shall be one rod (16.5 feet). Wood line posts shall have a 3 inch top (2 ½ inch for Osage orange). Wood line posts shall have a minimum length of 6 ½ feet and shall be set or driven to a minimum depth of 24 inches where conditions permit. When posts are set, earth backfill shall be thoroughly tamped. Steel line posts shall weigh not less than 1.33 pounds per foot and shall have a steel anchor plate securely fastened to the plate. The posts shall be “T”, “U”, or “Y” shaped and have corrugations, knobs, studs, or grooves suitable for fastening fencing to the posts. Steel posts shall be rolled from high carbon steel and shall have a protective coating; either galvanized by the hot dip process, painted with one or more coats of high grade weather resistant paint for steel, or enameled and baked. Steel line posts shall be at least 6 feet in length and shall be set in the ground a minimum of 20 inches. Steel posts shall be used as line posts at least once every 6 rods (99 feet) to act as a ground for lightning protection.

End bracing will be installed at locations where the fence ends and on both sides of gate openings. Corner bracing should be installed where fence alignment changes 15 degrees or more. Bracing is required at all corner, gate, pull and end assemblies in a fence. The brace member shall be the equivalent of a wood post with at least a 3 ½ inch diameter at the top or standard weight 2 inch diameter galvanized steel pipe. The brace shall be at least 3 feet above the ground and at least 8 inches below the top of the post. The brace member shall be 6 to 8 feet in length. A brace wire consisting of 2 complete loops of 9 gauge smooth wire, 2 loops of barbed wire or a single loop of 12 ½ gauge high tensile strength wire shall be installed. “H” braces or angle braces as shown in figure 3 will be used in standard fences.

Pull post assemblies consisting of three posts with braces shall be installed in straight reaches of fence at intervals 660 feet (40 rods), at any point where the vertical angle described by two adjacent reaches of wire is upward and exceeds 10 percent and at the beginning and end of each curve.

For a narrow ditch or draw crossing with slopes steeper than 8 feet horizontal to 1 foot vertical, the fence shall be anchored with a concrete anchor weighing at least 150 pounds and buried with at least 18 inches of cover or a commercial screw-in type metal anchor 5 inches in diameter and not less than 48” long to position the fence to the contour of the ditch or draw.

Wire gates shall be made of the same materials as used for the fence. Panel or tube type gates shall be equivalent in quality to the fencing material and shall be fitted with at least two hinges and a latch or galvanized chain for fastening.

3. CHAIN LINK FENCE

Chain link fence, fabric, posts, top rails, braces, gates and accessories shall conform to the requirements of ASTM Specifications types, classes and materials listed below. The fence shall be constructed in a workmanlike manner.

Fabric shall be ASTM A392, 2-inch mesh, 9 gauge galvanized steel wire. Zinc coating shall be Class 2. Fabric shall be 60 inches in height. Fabric shall not be stretched until at least 4 days after the posts are set in concrete backfill or grouted in concrete walls. A stretcher bar of the same length as the fabric width shall secure each end of each run of fabric. The bar and fabric shall be stretched taut and secured to the end post by tension bands equally spaced not more than 15 inches apart. The fabric shall be attached to all braces; the top rail, all line posts and the tension wire by wire ties or clips at intervals not exceeding two feet.

Posts and fence framework shall conform to the requirements of ASTM F1043 Group 1A, for Heavy Industrial Fence. Coatings shall be type A galvanized coating both internal and external surfaces. Steel pipe for posts shall conform to the requirements of ASTM F1043 and F1083. The minimum diameter of end, corner, and pull posts shall be 2 3/8 inches. Line posts shall be at least 1.9 inches in diameter. Gate posts shall have a minimum diameter of 2 7/8 inches. The maximum spacing of line posts shall be ten feet. Post holes shall be at least 6 inches in diameter and 18 inches deep for line posts and 24 inches for corner, end, pull and gate posts. All posts shall be set in concrete backfill. Concrete shall completely fill the annular space around the posts and shall be neatly finished to slope

up to the post approximately 1 ½ inches above the ground surface. Pull posts shall be located in long straight runs of fence at intervals of 500 feet or less. Posts set in concrete walls shall be grouted into preformed holes at least 12 inches in depth. Where posts are installed in highly corrosive soils such as disturbed mine spoil, the posts shall be vinyl coated in addition to the above requirements and set in concrete poured inside a 6 inch clay tile or plastic tubing at least 24 inches long.

When used, **braces and top rails** shall be installed horizontally at the height shown on the drawings or recommended by the manufacturer. See previous paragraph for specifications. Braces and top rails shall be attached to the posts by suitable fittings, as recommended by the manufacturer. When the brace has been placed, a 6 gauge double truss galvanized steel wire with adjustable tightener and fittings shall be attached to the corner post just below the brace and to the brace post approximately 4 inches above ground level. A similar truss wire shall be attached to brace post just below the brace and to the corner post approximately 4 inches above ground level. A 7 gauge galvanized steel tension wire, tightened by mechanical means, shall be placed approximately 4 inches from the ground level. A similar tension wire shall be placed at the top of the fence if a top rail is not used.

Gates, gateposts and gate accessories shall conform to the requirements of ASTM F900. Coating shall be the same as the adjoining fence and framework.

4. HIGH TENSILE WIRE (HTW) FENCE

HTW fence shall have a minimum of eight smooth strands of galvanized 12 ½ gauge **wire** with not less than 0.8 ounce of zinc per square foot of wire surface and a tensile strength of 200,000 pounds per square inch. Each strand of wire shall be strung to a tension of not less than 250 pounds. The top wire shall be 48 to 54 inches above the ground surface. The bottom wire shall not be more than 6 inches above the ground surface. The wire shall be fastened on a direct line splice with enough nicopress sleeves that the accumulated strength of the sleeves exceeds the tensile strength of the wire. End wrap splices shall be fastened with two nicopress sleeves. Splices may also be made with other products used as directed by the manufacturer.

Posts shall be the same size and material as posts for standard fences. Line posts shall be spaced not more than 30 feet apart with spacer made of wood or fiberglass spaced at not more than 15 feet from either post. Corners, pull assemblies, ends and gates shall have a double assembly consisting of three driven posts with horizontal braces. Each assembly shall be further braced with a double wrap of high tensile wire (see attachment A).

5. PERMANENT HTW ELECTRIC FENCE

Permanent HTW electric fences are constructed with the intent of being in place for years. It is the equivalent of any non-electric permanent fence. Electric fences provide psychological deterrent rather than a physical barrier to livestock and wildlife. To be effective, a shock of at least 1,000 volts must be delivered to cattle, 2,000 volts to sheep and 2,500-3,000 volts to deer, dogs, and coyotes.

Wire shall be a single strand of 12 ½ gauge or larger with a minimum tensile strength of 110,000 pounds per square inch. The wire shall galvanized (Type III) or aluminum or copper clad. Barbed wire should not be used on electric fences because of safety hazard. Wire will be attached to the posts by a method that allows them to slip. Wires will be attached to stays in a manner that prevents stay slippage along the fence. The tension of each wire shall be sufficient to maintain the wires at the appropriate height. Suggested wire heights and spacing are shown by intended use in the following table:

Fence Description	Number of Wires	Wire Height (In.)
<u>Internal/Cross Fence</u>		
Cow /calf & stocker	1 wire	30 to 34
Hogs	1 wire	12
Cow /calf & stocker	2 wire	22;32
Sheep and cattle	3 wire	10; 20; 32
Sheep and cattle	4 wire	10; 20;32;46
<u>Perimeter Fence</u>		
Cattle, horses, sheep (Non-predator)	5 wire	10; 20; 30; 40; 50
Sheep, goats (Predator)	8 wire	4; 8; 12; 18; 24; 30; 40; 52

Electronic energizers of power fence controllers shall be installed according to manufacturer's recommendations. The energizers shall be high power, low impedance with 5,000 volt peak output and a pulse that is less than 300 mAmps in intensity, finished within 0.0003 of a second and at a rate of 35-65 pulses per minute. Energizers shall be provided with high impact, weather resistant cases. Circuitry shall be solid state. Service modules shall be snap-in for fast field repair. A safety fuse to prevent over pulsing shall be provided. The system shall be 110 volt, 220 volt or 12-volt battery powered. The battery-powered system shall be capable of working for at least 3 weeks without replacing the battery. If the length of the fence requires more than 4 joules (watts times seconds equals joules), a solar charger will be needed for 12 volt systems. The energizer shall be capable of producing one joule for each mile of planned fence when average energy loss is expected.

All electric fences must be properly grounded. The energizer ground wire should be connected to a galvanized pipe or rod ½ inch or larger in diameter. Bury 3 feet of ground rod for each joule of energy output. Ground rods should be buried where soil remains moist for best results. Ground rods should be driven into the ground at least 10 feet apart when multiple rods are necessary to provide the required length of ground rod. Normally individual ground rods will be driven no more than 6 to 8 feet into the ground. Connect a continuous ground wire from the energizer to each ground rod with aluminum or galvanized steel clamp. If energizer terminals are not stainless steel or copper, do not use copper ground rods due to corrosion at the connection and subsequent loss of electrical continuity. Copper rods with copper wire may be used if energizer terminals are stainless steel or copper. Use copper clamps with copper wire and copper rods.

The ground wire(s) of the fence may be connected to the same ground as the energizer or to a separate ground with the same size and depth requirements. More ground rods may be needed for the system to function properly. Do not use the grounding system for other existing applications, such as power poles, breaker boxes and milk barns,. At least 25 feet should separate the fence grounding system from any other grounding system.

Lightening can cause damage to the energizer. Most energizers are poorly protected from damage caused by lightning. External **lightning arrestors** and an induction loop (lightning choke) should be installed for added protection. Lightning arrestor grounding rods should be placed at least 65 feet from those of the energizer (See attachment B).

Install an additional set of ground rods and attach to a lightning arrestor. The lightning arrestor ground must be better than the energizer ground for it to function properly, because lightning will seek the path of least resistance to ground. Use at least 1 more ground rod on the arrestor than was used on the energizer. Attach the lightning arrestor to the wires of the fence. Install a lightning choke in the fence line immediately between the lightning arrestor and the energizer.

For protection of energizers, it is recommended that for 120 or 240-volt energizers that a voltage **spike protector** be used. Also, a ground rod should be installed at electric company's transformer pole (primary ground) and another ground rod installed at the electrical circuit breaker box (secondary ground), if they do not exist. Additionally, a surge protector should be installed between the energizer and power supply.

Insulation used for positive charged wire(s) must be high-density polyethylene with ultra-violet stabilizer or high-density polypropylene with ultra-violet stabilizer.

Braces and end assemblies are required at all corners, gates and angles in the fence line (See attachment A for criteria on corners, angles, and brace assemblies.)

For 1 and 2 wire fences, corner, gate, end and brace assemblies use one of the following:

- Steel "T" post that are a minimum of 1.25 pounds per foot of length, with appropriate knee, deadman, angle or H-brace.
- Wood posts with a minimum top diameter of 3.5 inches set two feet in the ground with appropriate knee, deadman, angle, or H-brace.
- Wood, steel pipe or fiberglass post with a minimum top diameter of 5 inches, set to a depth equal to, or greater than, the height of the post above the ground without bracing.
- Steel pipe or fiberglass posts with a minimum diameter of 2 inches, set 2 feet in the ground with appropriate knee, angle, or H-brace, deadman or anchor plate.
- Steel pipe or fiberglass posts with a minimum diameter of 2 inches and set in concrete to a depth of 2 feet.
- Steel pipe or fiberglass posts with a minimum diameter of 1 inch with appropriate angle bracing and sufficient ground anchoring to maintain wire tension while remaining erect and firmly anchored.

For 3 or more wire power fences; corner, gate, end and brace assemblies will be either a floating angle brace or H-brace assembly. Posts will be 4-inch nominal wood, 2-inch nominal steel pipe (capped), 2-inch fiberglass or steel "T" posts with appropriate appurtenances for corner and end bracing. Posts must be set a minimum of 2 feet in the ground.

All wood posts shall be at least 2 inches higher than the top wire of the fence. Posts of any other material shall be at least 1 inch higher than the top wire of the fence.

Line post and stays will be either:

- Australian ironwood (eucalyptus) at least 2 inches in diameter; fiberglass, rigid plastic and PVC solid round sucker rod of at least 5/8 inch diameter, or fiberglass "T" post and stays of at least 1 inch in cross-section. Attach wire to the post with loose wire clips or run the wire through holes in the post. Attach the wire to stays with tight clips.
- Wood posts at least 3 inches in diameter of black locust, red cedar, Osage orange, redwood, pressure treated pine or any other wood of equal life and strength may be used. At least one half of the diameter of the red cedar and redwood post shall be heartwood. Pressure treated posts shall be treated with pentachlorophenol, creosote, or chromated copper arsenate (CCA) by a method which ensures the complete penetration of the sapwood. Insulators shall attach wire.
- Steel "U" or "T" posts that are a minimum of 1.25 pounds per foot of length. Wire shall be attached with insulators.

Posts for one or two wire fences shall be long enough to be set at least 18 inches in the ground, except that in soils which are sandy loam or coarser in texture, the posts shall be set at least 24 inches into the ground. Posts for 3 or more wire fences shall be set at least 24 inches into the ground. Posts in dips shall be constructed so that they do not pull out of the soil. Posts 2 inch or smaller shall be anchored. Wood posts shall be set to a depth sufficient to resist pull out.

Wood posts shall be at least 2 inches higher than the top wire on the fence. All other posts shall be at least 1 inch higher than the top wire of the fence.

Spacing of the line posts and stays depends on the terrain and the number of wires. Maximum spacing is as follows

- One or two wire fences may have line posts spaced up to 100 feet apart with no stays. Line posts may be spaced 150 feet apart with stays every 50 feet between the posts
- For three and four wire fences, the line posts may be spaced every 50 feet with no stays or every 150 feet with stays at spacing of not more than every 50 feet.
- Fences with more than 4 wires shall have posts and stays spaced every 30 feet, with posts not further apart than every 90 feet.
- In undulating terrain, space posts and stays as needed to maintain the fence height.

Insulators for conductive material posts, end, corner and angle braces shall be high-density polyethylene with ultra-violet stabilizer, high density polypropylene with ultra-violet stabilizer, or porcelain. All insulators shall be capable of withstanding 10,000 volts or more of current leakage. Red insulators attract hummingbirds and should not be used.

Electrified **gates** may be constructed of a single straight wire, galvanized cable, or polytape with a insulated spring loaded handle or an expandable, coiled, high tensile, 12 ½ gauge wire attached to an insulated handle. The number of wires shall be determined by the objective of the fence. The gate shall be constructed so that it is non-electrified when the gate is open. Overhead or underground transmission lines will be used to carry electricity past the gate to the remainder of the fence.

Use insulated galvanized wire for crossing gates and areas where an electrical shock to livestock and humans is undesirable. All underground wires must be insulated for a minimum of 15,000 volts. Insulated underground wire should be specifically designed for high voltage electric fence. The insulation shall be high-density polyethylene with ultra-violet stabilizer or high-density polypropylene with ultra-violet stabilizer. Placing buried wire inside plastic pipe helps to decrease the likelihood of short-circuiting. Overhead transmission lines shall be at a height where the lines do not impeded movement of livestock or equipment.

An electrified **floodgate** may be used in lieu of a non-electrified gate if desired. The electrified floodgate should be constructed by stretching an electrified wire across the drainage above the high water level. Attach droppers of 12 ½ gauge high tensile fence wire, galvanized cable or galvanized chains to the electrified wire at a spacing of 6 inches for sheep and 12 inches for cattle. The droppers shall be extended to approximately 6 inches above normal water level. Connect gate to electric fence with a double insulated cable through a cutoff switch and flood control gate controller. If flooding is expected to last for an extended period of time, switch the floodgate off. (See attachment C).

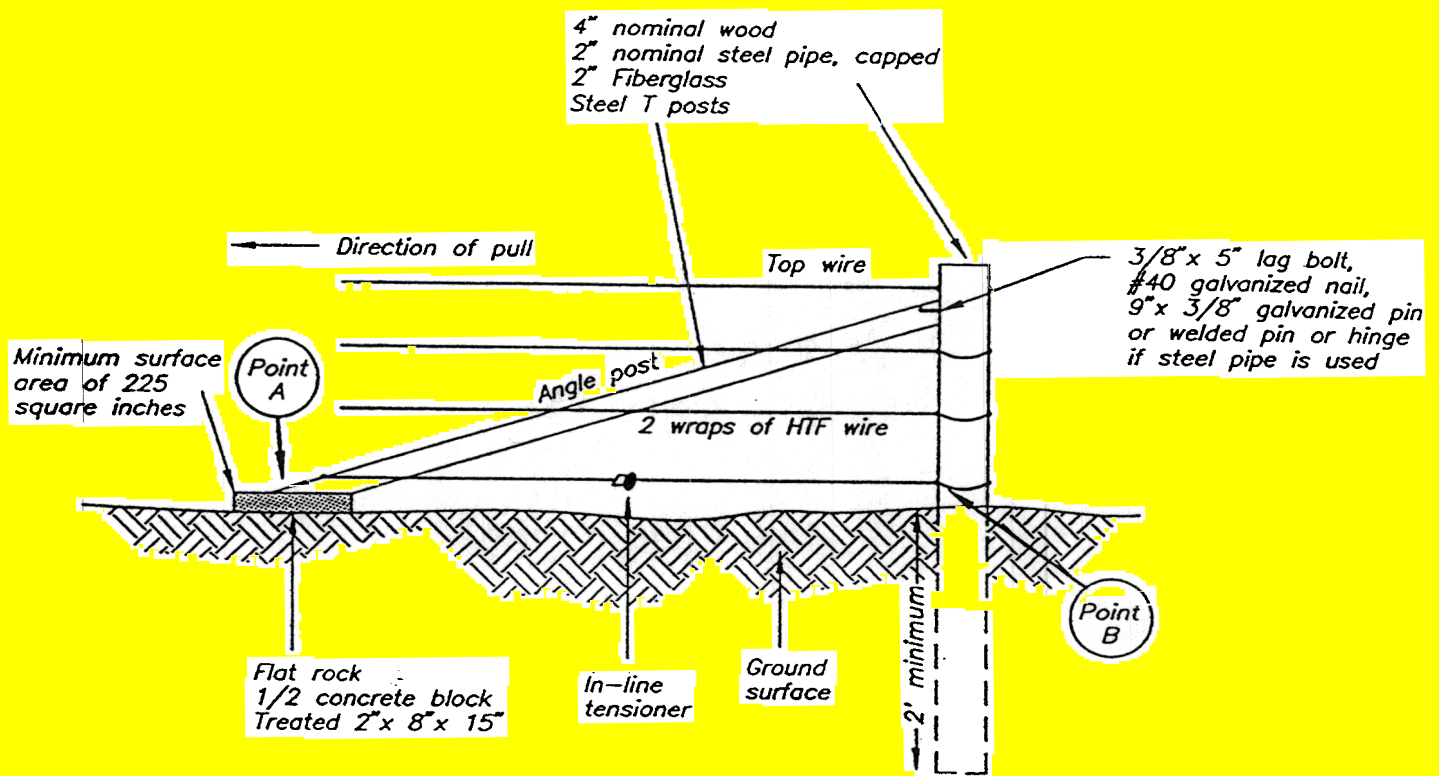
Other materials of equivalent strength, durability and design may be used.

6. TEMPORARY ELECTRIC FENCE

Temporary electric fencing is constructed with the intent of being left in place for only a short period of time. The fence is not intended as a substitute or equivalent of permanent fence. The temporary fence requires materials, design and construction that will accomplish the intended purpose and last for the planned time period with no more maintenance than is desired.

Many companies market portable fence systems that use materials such as polyethylene wire and tape with steel or aluminum wire woven into them, aluminum wire, plastic and fiberglass posts, reels to roll up wire, and battery operated energizers that are high voltage and low impedance (see previous section on energizers). A minimum of six strands of steel or aluminum wire should be woven into the polywire or polytape. Temporary fences may be attached to permanent fences to subdivide pasture. Follow manufacturer's directions for construction, use and operation of temporary electric fences

7. SPECIAL SPECIFICATIONS

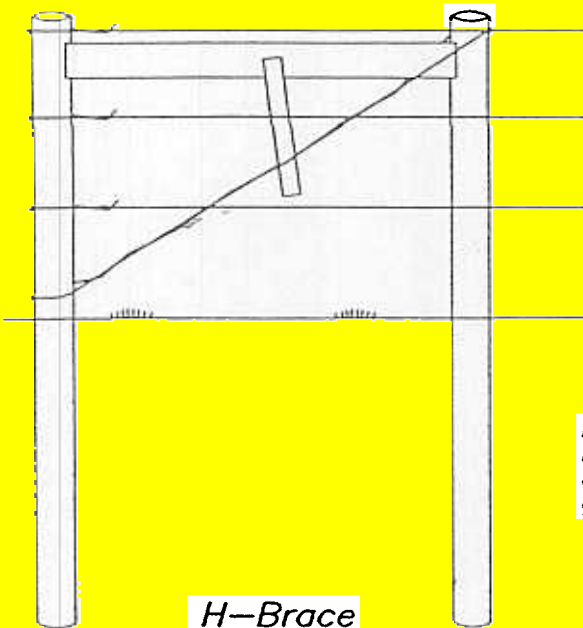


Note:
Distance from point A to B shall be a minimum twice the height between the top wire and the ground surface.

Single Post End Brace (Floating Angle Brace) Assembly

Figure 1

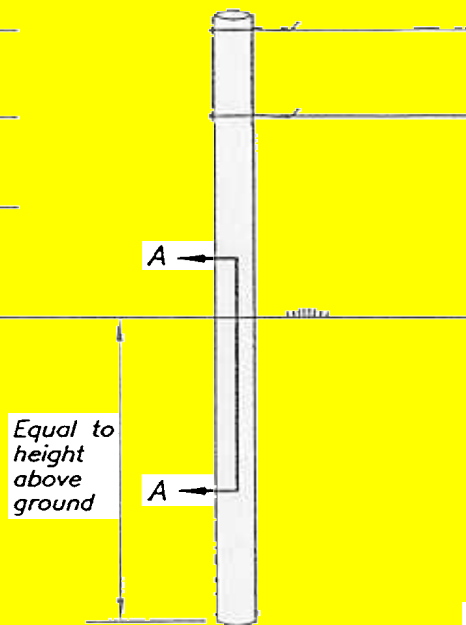
Attachment A



H-Brace

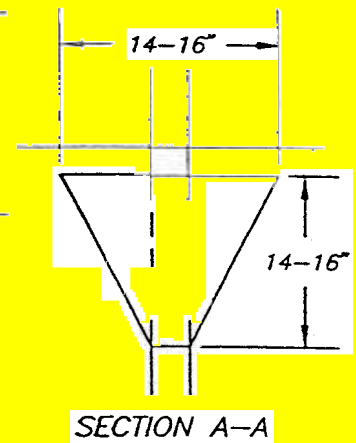
Note:
Same sizes
with bracing
(See Figure 1)

Use H or Diagonal Braces with fences
having over 2 wires or where pull
distances is > 660 feet.



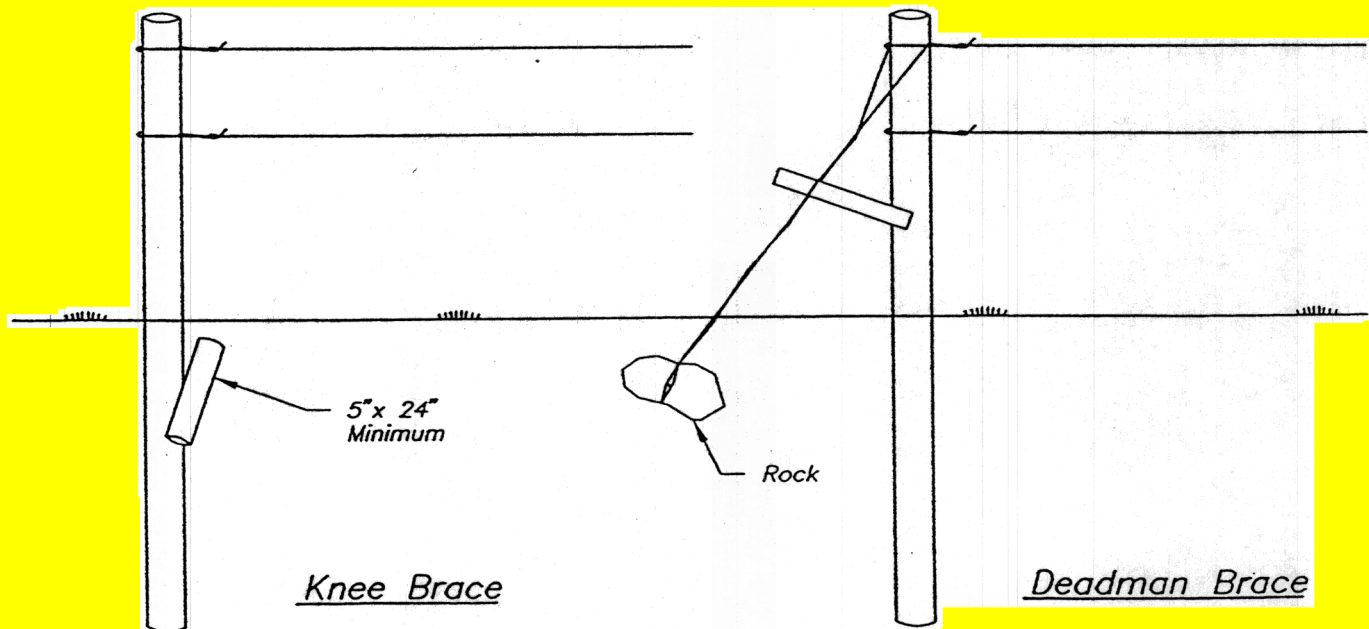
Single Post Assembly

Single Post—No brace with
wood, fiberglass, or steel pipe
with a minimum top diameter
of 5" set to depth greater
than or equal to the height
of the post above ground.



Alternate Single
Post Assembly

Single steel post with a
minimum nominal diameter
of 2" set in ground 1/2
the length of the post with
anchor plate, knee brace or
deadman.



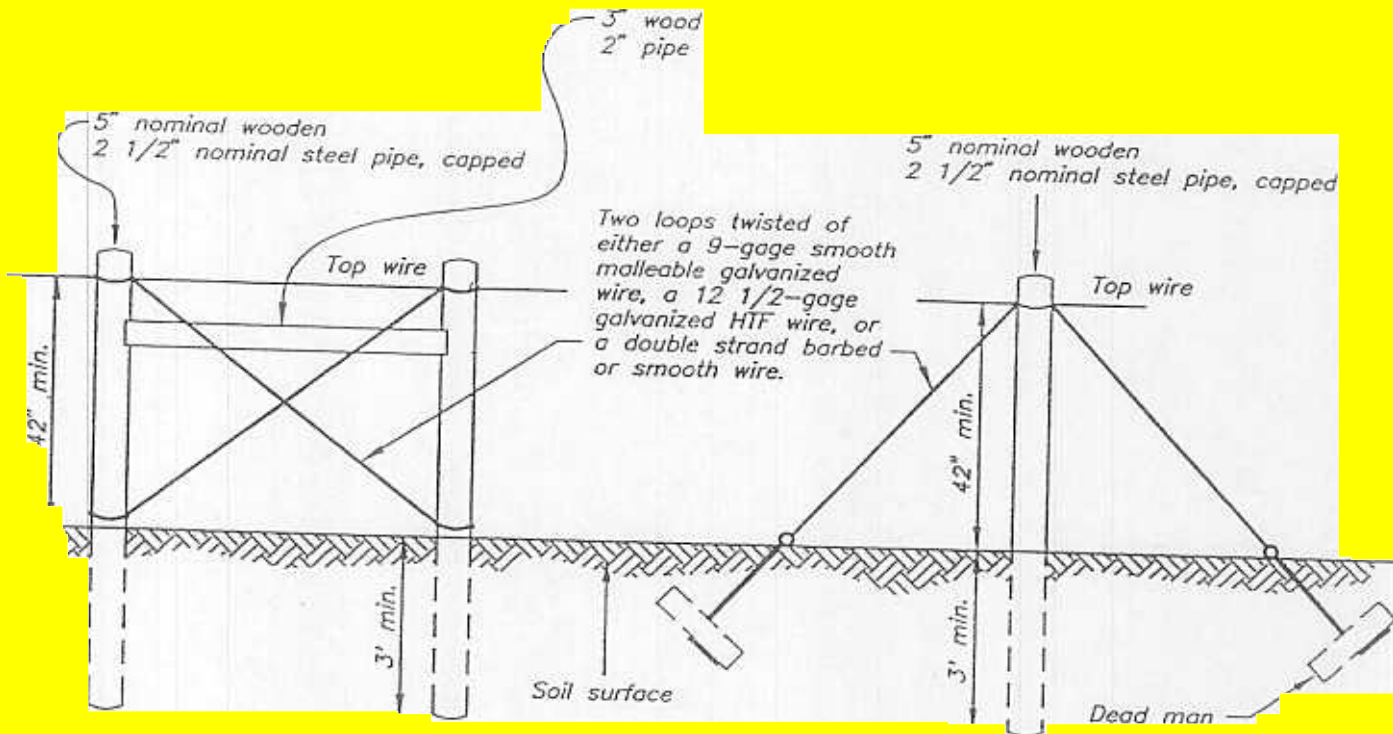
Knee Brace

Deadman Brace

Knee or Deadman Braces may be used on fences with
2 wires or where pull distances is < 660 feet.

Electric Fencing Bracing Alternatives

Figure 2



H-Brace
Pull Assembly

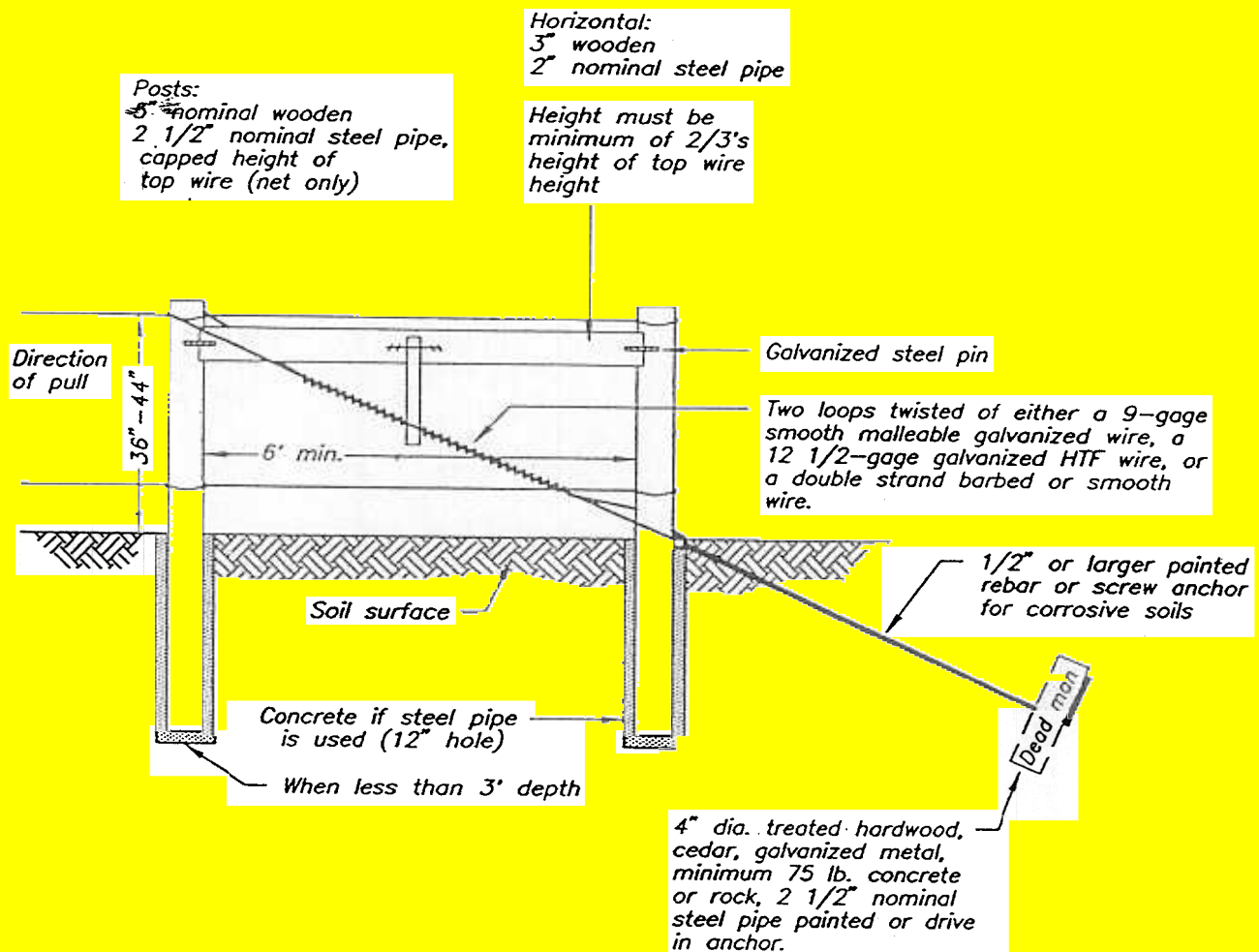
(a)

Single Post
Pull Assembly

(b)

Standard Suspension Fence,
Corner and Pull Assembly

Figure 3



Materials: Post must be new eastern red juniper, blueberry juniper, bois-d'arc, treated pine, treated hardwood, or steel pipe (cemented). Used steel pipe is acceptable and must be painted.

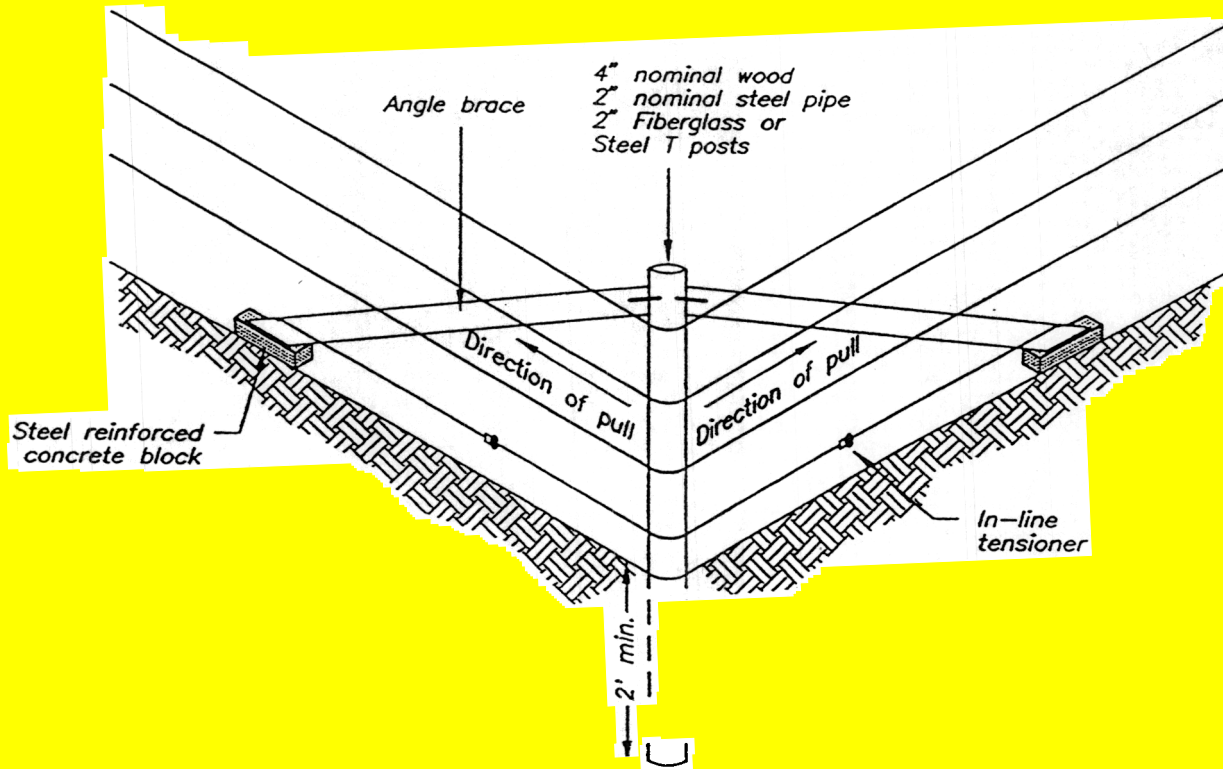
Splices: Use "western-union splices, figure "8" knots or crimping sleeves for malleable wire.
Use crimping sleeves or figure "8" knot for high tensile strength wire.

2 Post Brace With Deadman

(c)

Standard Suspension Fence,
Corner and Pull Assembly

Figure 3

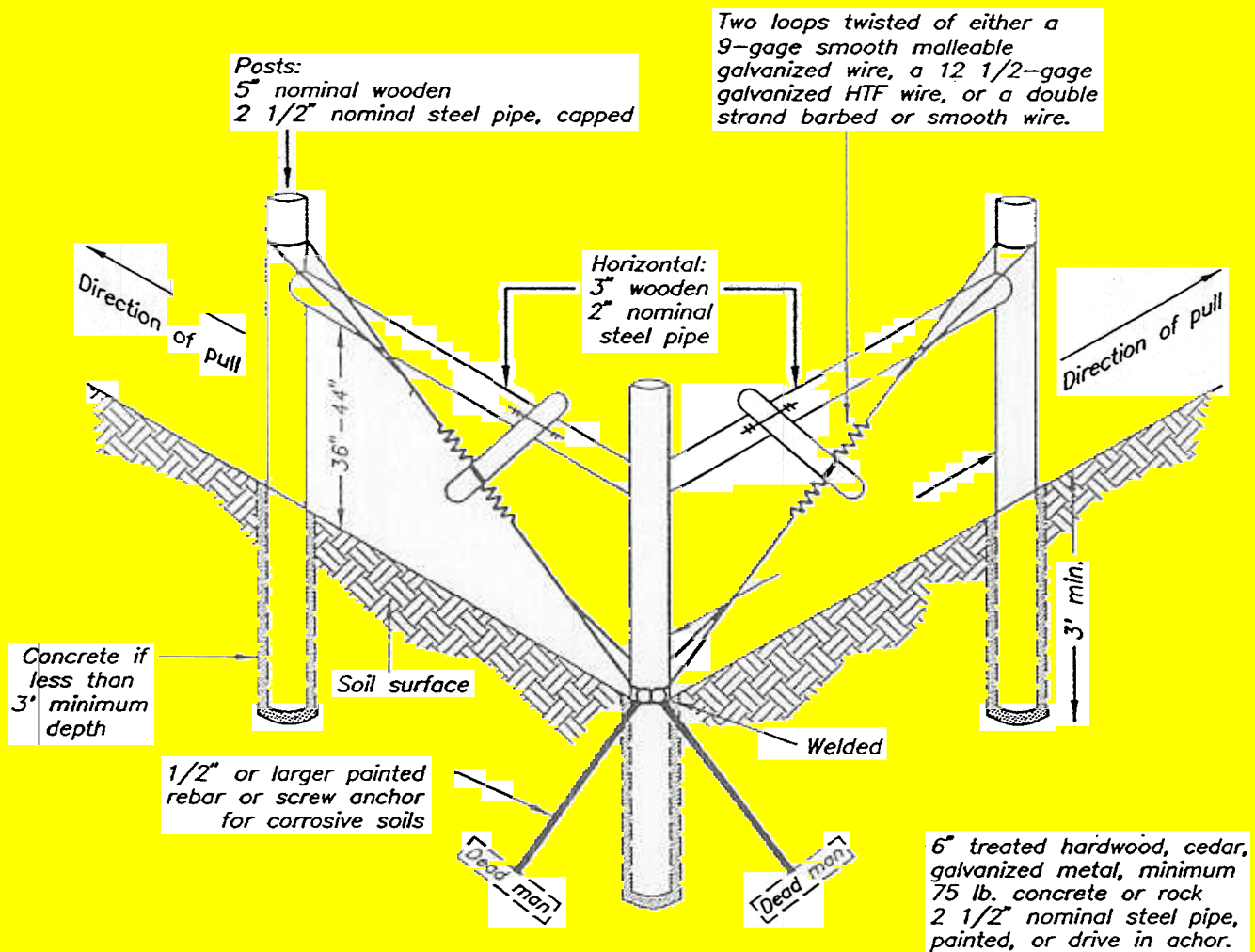


Single Post Corner or Angle Brace Assembly

(d)

Standard Suspension Fence,
Corner and Pull Assembly

Figure 3



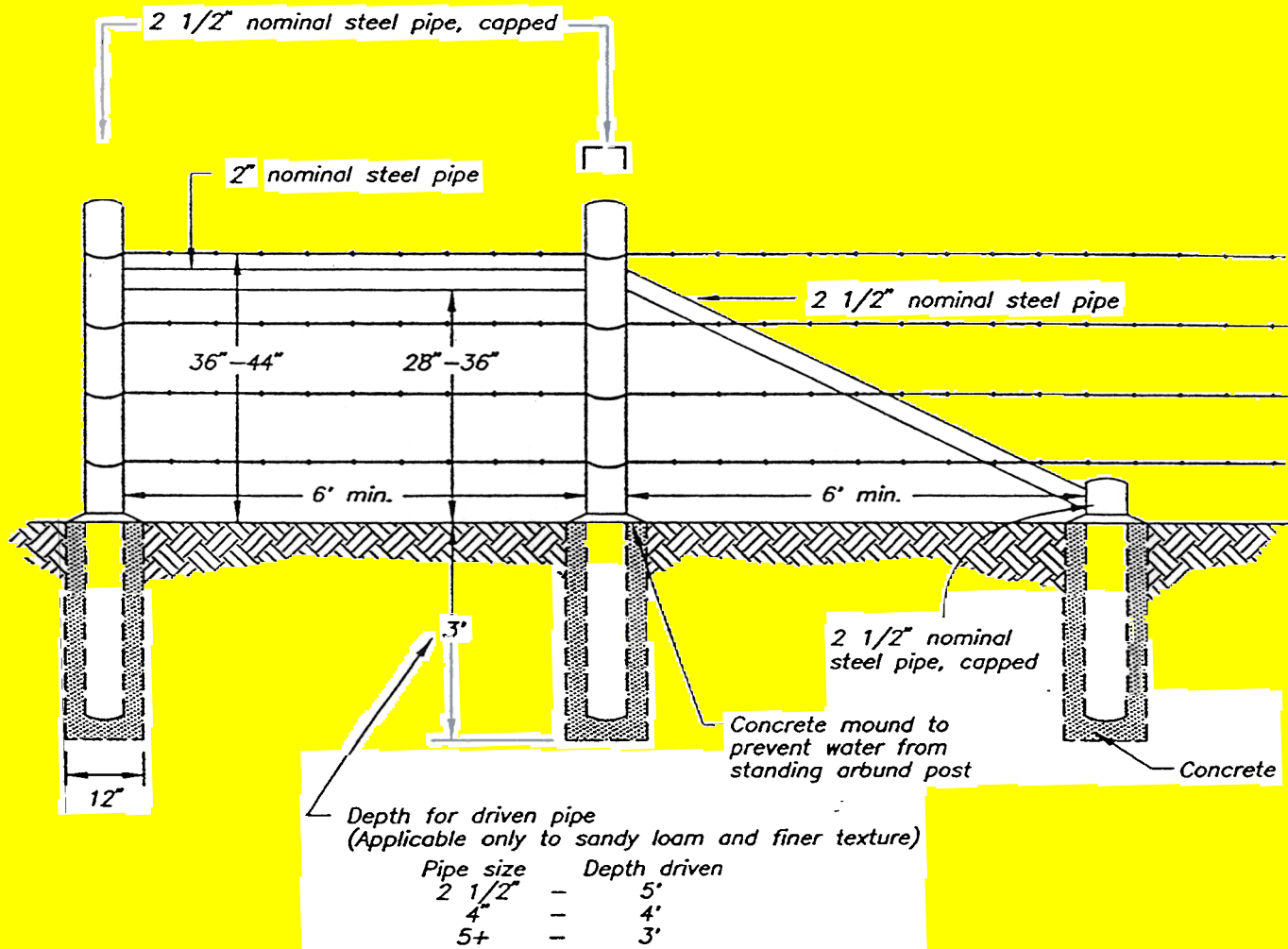
Materials: Post must be new eastern red juniper, blueberry juniper, bois-d'arc, treated pine, treated hardwood, or steel pipe. Used steel pipe is acceptable and must be painted.

Splices: Use "western-union splices, figure "8" knots or crimping sleeves for malleable wire.

Use crimping sleeves or figure "8" knot for high tensile strength wire.

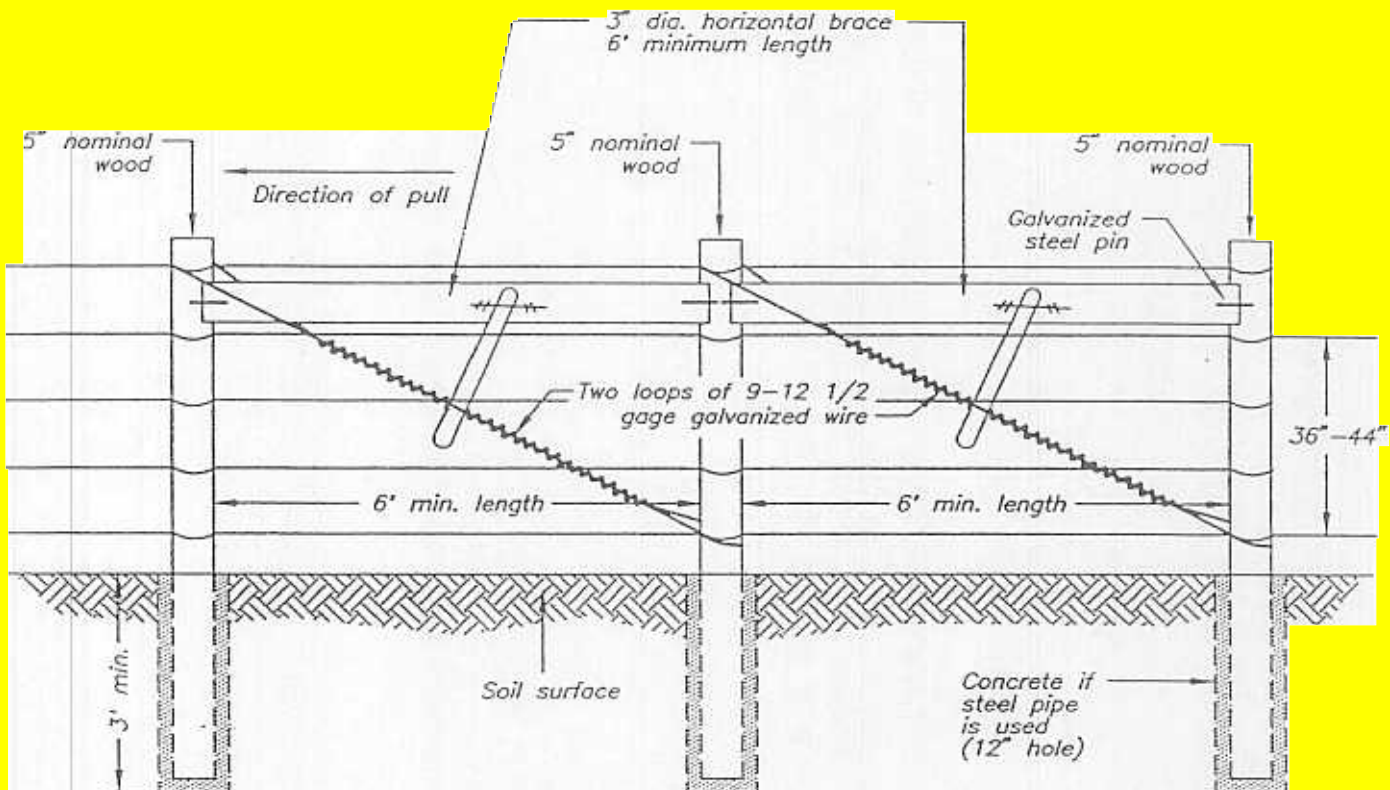
Deadmaned 3-Post Corner

Figure 4



Welded Steel 3-Post Diagonal
End Brace Assembly

Figure 5

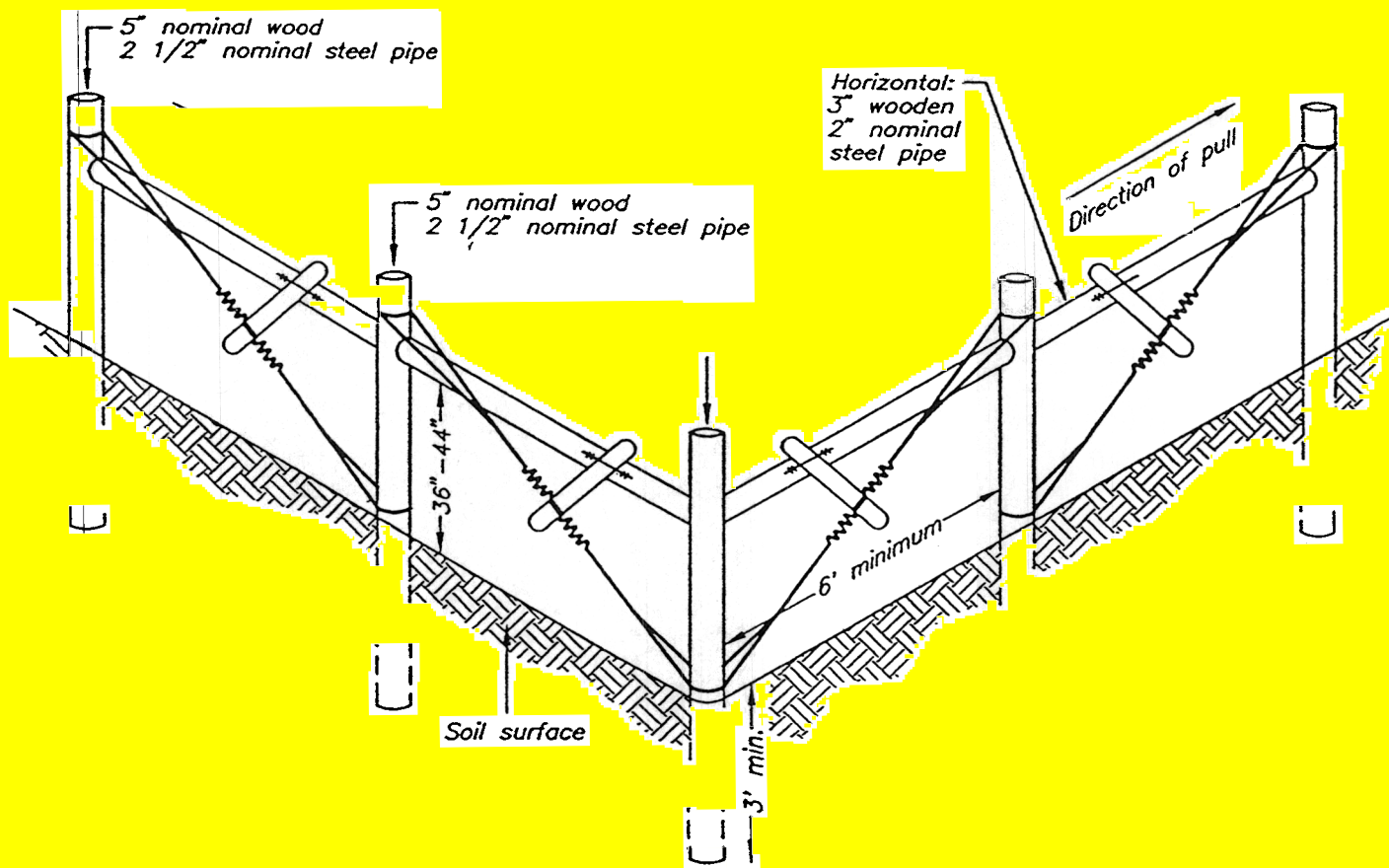


Note:

Materials shown above may be substituted using 2 1/2" nominal steel pipe, capped, set in concrete (12 in. diameter hole). Pipe must be painted.

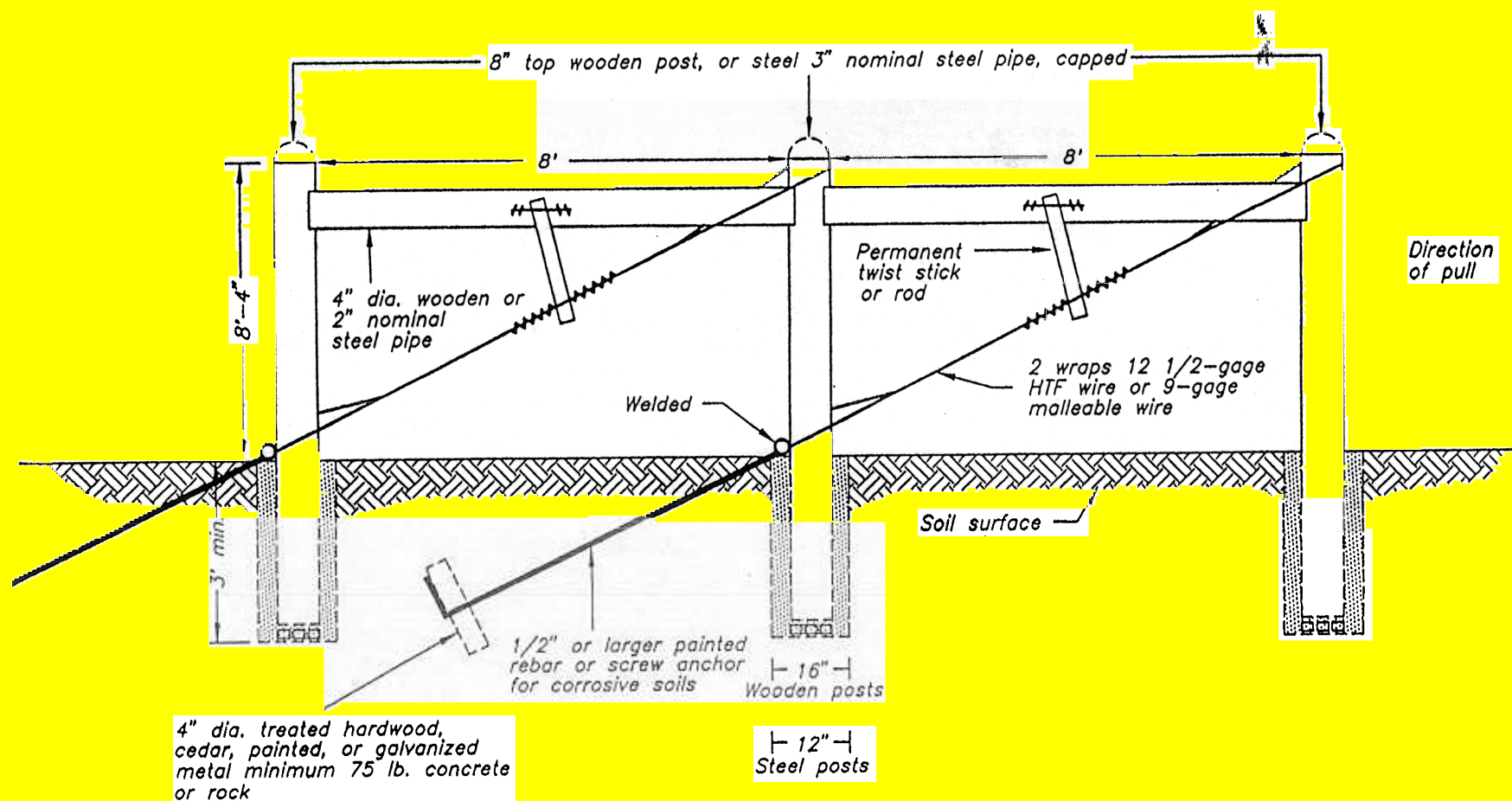
Wooden 3 Post Double "H" Brace
End Assembly Without Deadman

Figure 6



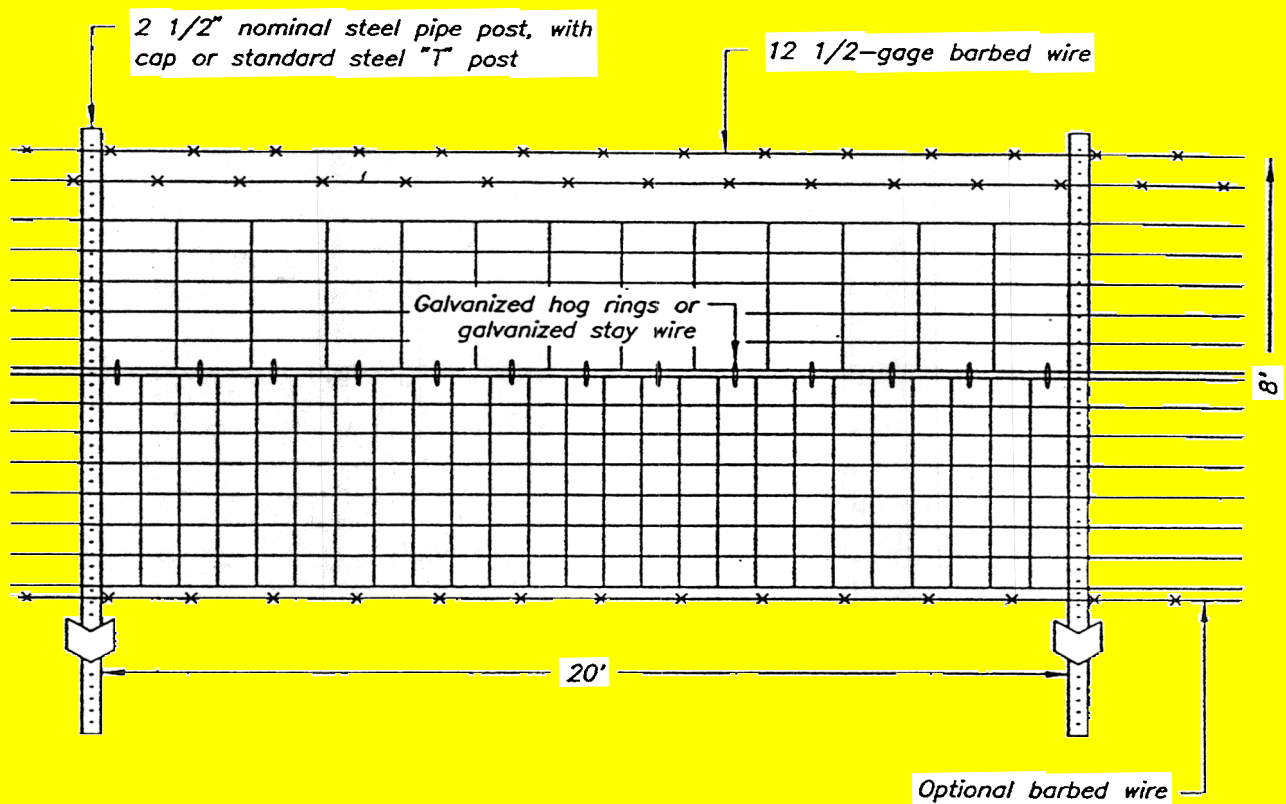
Without Deadman

Figure 7



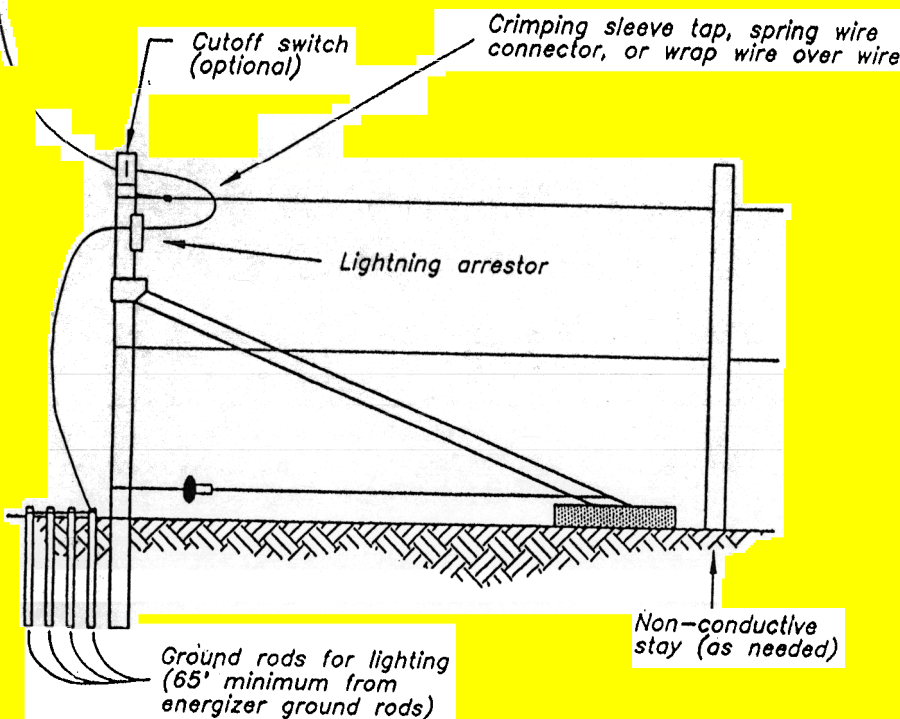
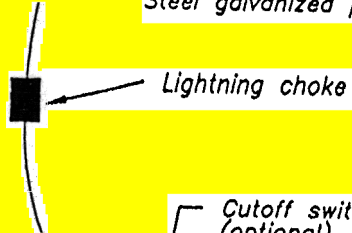
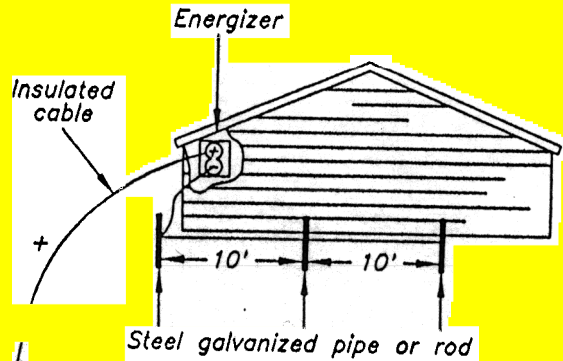
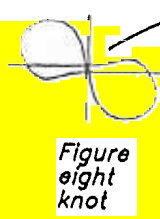
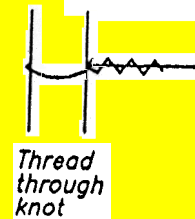
End Brace Assembly Deer Management Fence

Figure 8

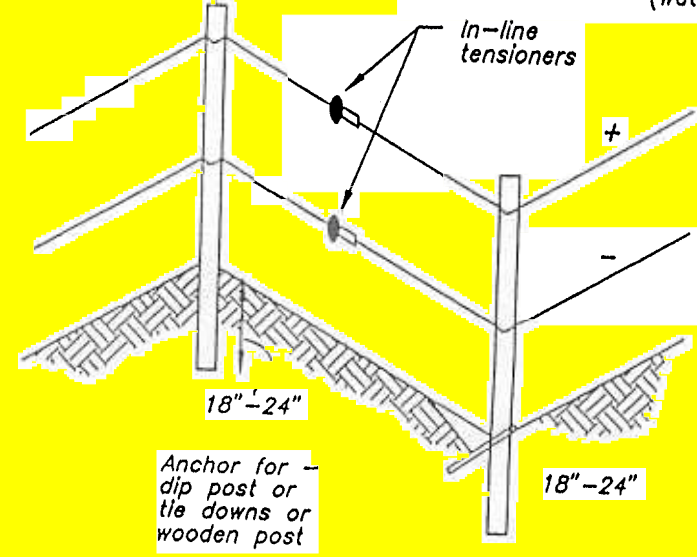
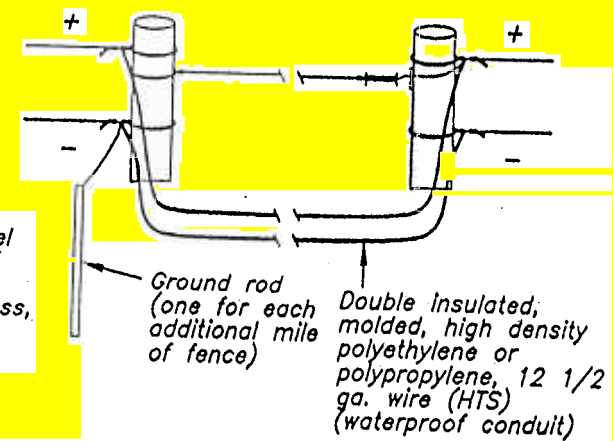


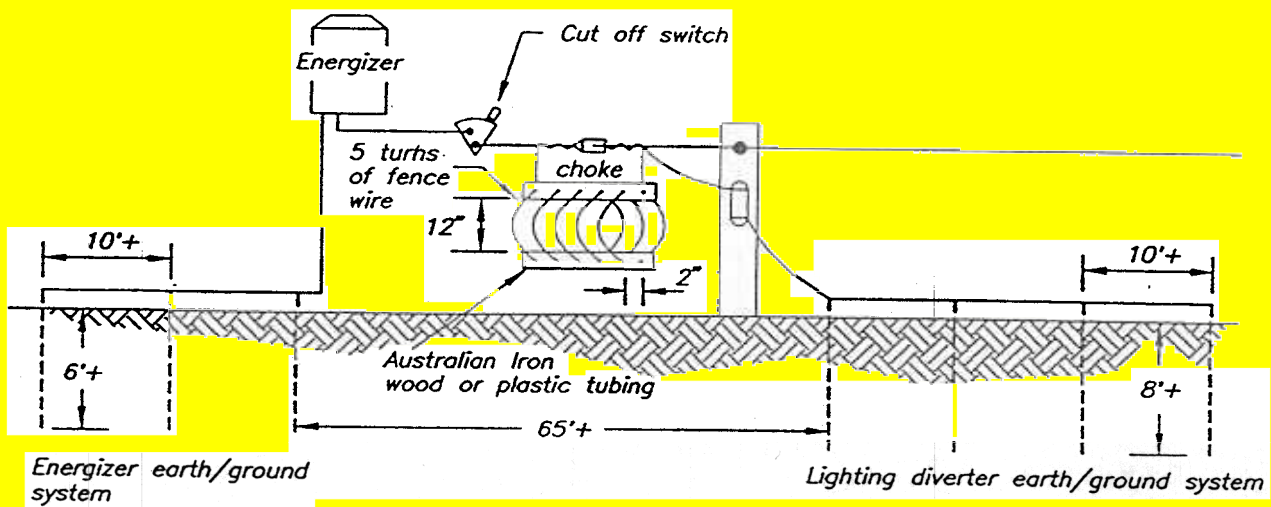
Note: If standard steel "T" posts are used, install 2 1/2" nominal steel pipe post, with cap or 6" top wooden post every 150' (Wooden stays may be placed between line post as needed.)

Methods of tying HTS Wire



3" diameter wood, steel T post, 1" fiberglass T post, 2" Australian ironwood, 5/8" fiberglass, rigid plastic or PVC.



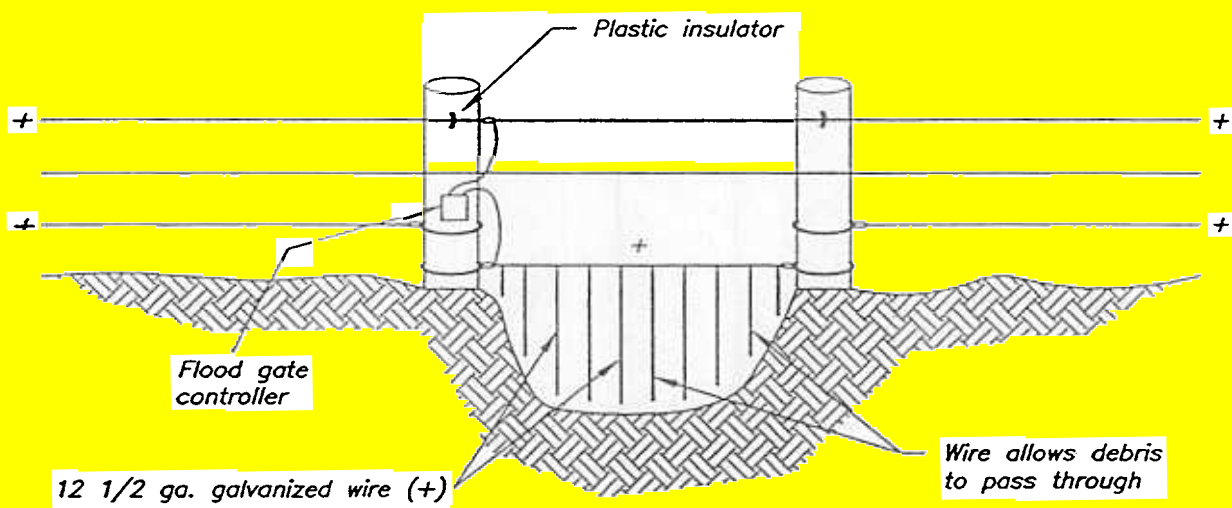


An induction loop may be as an alternative to a choke.

An induction loop is made by coiling 8 to 10 loops of heavily insulated 12 gage wire in 10–12" diameter circles and taping the loops together.

Electric Fence

Figure 2



Electric Flood Gate

Figure 1

NATURAL RESOURCES CONSERVATION SERVICE CONSTRUCTION SPECIFICATION

IA-95 GEOTEXTILE

1. SCOPE

This work shall consist of furnishing all materials, equipment, and labor necessary for the installation of geotextile.

2. MATERIAL QUALITY

Geotextile shall be manufactured from synthetic long chain or continuous polymeric filaments or yarns, having a composition of at least 95 percent, by weight, of polypropylene, polyester or polyvinylidene-chloride. The geotextile shall be formed into a stable network of filaments or yarns that retain their relative position to each other, are inert to commonly encountered chemicals and are resistant to ultraviolet light, heat, hydrocarbons, mildew, rodents and insects. Unless otherwise specified, the class and type of geotextile shall be as shown on the drawings and shall meet the requirements for materials that follow:

- a. Woven Geotextile shall conform to the physical properties listed in Table 1. The woven geotextile shall be manufactured from monofilament yarns that are woven into a uniform pattern with distinct and measurable openings. The geotextile shall be manufactured so that the yarns will retain their relative position with regard to each other. The yarns shall contain stabilizers and/or inhibitors to enhance their resistance to ultraviolet light or heat exposure. The edges of the material shall be selvaged or otherwise finished to prevent the outer yarn from unraveling.
- b. Nonwoven Geotextile shall conform to the physical properties listed in Table 2. Nonwoven geotextile shall be manufactured from randomly oriented fibers that have been mechanically bonded together by the needle-punched process. In addition, one side may be slightly heat bonded. Thermally bonded, nonwoven geotextile, in addition to mechanically bonded, nonwoven geotextile, may be used for Road Stabilization. The filaments shall contain stabilizers and/or inhibitors to enhance their resistance to ultraviolet light or heat exposure.
- c. The geotextile shall be shipped in rolls wrapped with a protective covering to keep out mud, dirt, dust, debris and direct sunlight. Each roll of geotextile shall be clearly marked to identify the brand, type and production run.

3. STORAGE

Prior to use, the geotextile shall be stored in a clean dry place, out of direct sunlight, not subject to extremes of either hot or cold, and with the manufacturer's protective cover in place. Receiving, storage, and handling at the job site shall be in accordance with the requirements in ASTM D 4873.

4. SURFACE PREPARATION

The surface on which the geotextile is to be placed shall be graded to the neat lines and grades as shown on the drawings. The surface shall be reasonably smooth and free of loose rock and clods, holes, depressions, projections, muddy conditions and standing or flowing water (unless otherwise shown on the drawings).

5. PLACEMENT

Prior to placement of the geotextile, the soil surface will be inspected for quality assurance of design and construction. The geotextile shall be placed on the approved prepared surface at the locations and in accordance with the details shown on the drawings. The geotextile shall be unrolled along the placement area and loosely laid (not stretched) in such a manner that it will conform to the surface irregularities when material is placed on or against it. The geotextile may be folded and overlapped to permit proper placement in the designated area.

The geotextile shall be joined by overlapping a minimum of 18 inches (unless otherwise specified), and secured against the underlying foundation material. Securing pins, approved and provided by the geotextile manufacturer, shall be placed along the edge of the panel or roll material to adequately hold it in place during installation. Pins shall be steel or fiberglass formed as a "U", "L", or "T" shape or contain "ears" to prevent total penetration. Steel washers shall be provided on all but the "U" shaped pins. The upstream or up-slope geotextile shall overlap the abutting down-slope geotextile. At vertical laps, securing pins shall be inserted through both layers along a line through approximately the midpoint of the overlap. At horizontal laps and across slope laps, securing pins shall be inserted through the bottom layer only. Securing pins shall be placed along a line approximately 2 inches in from edge of the of the placed geotextile at intervals not to exceed 12 feet unless otherwise specified. Additional pins shall be installed as necessary and where appropriate, to prevent any undue slippage or movement of the geotextile. The use of securing pins will be held to the minimum necessary. Pins are to be left in place unless otherwise specified.

Should the geotextile be torn or punctured, or the overlaps disturbed, as evidenced by visible geotextile damage, subgrade pumping, intrusion, or grade distortion, the backfill around the damaged or displaced area shall be removed and restored to the original approved condition. The repair shall consist of a patch of the same type of geotextile being used, overlaying the existing geotextile. The patch shall extend a minimum of 2 feet from the edge of any damaged area.

The geotextile shall not be placed until it can be anchored and protected with the specified covering within 48 hours or protected from exposure to ultraviolet light. Geotextile shall be placed in accordance with the following applicable specification according to the use indicated in drawings:

Slope protection – Class I or II as indicated in Tables 1 and 2.

The geotextile shall not be placed until it can be anchored and protected with the specified covering within 48 hours or protected from exposure to ultraviolet light. Rock shall not be pushed or rolled over the geotextile.

Class I, unprotected – limit height for dropping stone onto bare geotextile to 3 feet.

Class II, protected – require the use of 6 inches a clean pit-run gravel over the geotextile to cushion the stone and limit the height of drop to 3 feet.

On slopes with strong seepage flow, the geotextile must be in intimate contact with the soil to prevent erosion of the soil surface. Use 6 inches of a clean pit-run gravel over the geotextile to hold it in place and minimize voids under the riprap. Embedment of the geotextile in a trench to form a cutoff at regular intervals down the slope will prevent erosion under the fabric. Place cutoffs more closely together in highly erodible soils and wider apart in more stable soils.

Subsurface drains – Class III as indicated in Tables 1 and 2.

The geotextile shall not be placed until drainfill or other material can be used to provide cover within the same working day. Drainfill material shall be placed in a manner that prevents damage to the geotextile. In no case shall material be dropped on uncovered geotextile from a height of more than 5 feet.

Road stabilization – Class IV as indicated in Tables 1 and 2.

The geotextile shall be unrolled in a direction parallel to the roadway centerline in a loose manner permitting conformation to the surface irregularities when the roadway fill material is placed on its surface. In no case shall material be dropped on uncovered geotextile from a height of more than 5 feet. Unless otherwise specified, the minimum overlap of geotextile panels joined without sewing shall be 24 inches. The geotextile may be temporarily secured with pins recommended or provided by the manufacturer, but they shall be removed before the permanent covering material is placed.

6. SPECIAL SPECIFICATIONS

TABLE 1. REQUIREMENTS FOR WOVEN GEOTEXTILES ^{1/}

Property	Test Method	Class I	Class II	Class III	Class IV
Grab tensile strength (pounds)	ASTM D4632	247 minimum	180 minimum	180 minimum	315 minimum
Elongation at failure (%)	ASTM D4632	< 50	< 50	< 50	< 50
Trapezoidal tear strength (pounds)	ASTM D4533	90 minimum	67 minimum	67 minimum	112 minimum
Puncture strength (pounds)	ASTM D6241	495 minimum	371 minimum	371 minimum	618 minimum
Ultraviolet light (% retained strength)	ASTM D4355	50 minimum	50 minimum	50 minimum	70 minimum
Permittivity (sec ⁻¹)	ASTM D4491			as specified	
Apparent opening size (AOS) ^{2/}	ASTM D4751			as specified	
Percent open area (POA) (%)	USACE ^{3/} CWO-02215-86			as specified	

1/ All values are minimum average roll values (MARV) in the weakest principal direction, unless otherwise noted.

2/ Maximum average roll value.

3/ Note: CWO is a USACE reference.

TABLE 2. REQUIREMENTS FOR NONWOVEN GEOTEXTILES ^{1/}

Property	Test Method	Class I ^{2/}	Class II ^{2/}	Class III ^{2/}	Class IV ^{2/}
Grab tensile strength (pounds)	ASTM D4632 grab test	202 minimum	157 minimum	112 minimum	202 minimum
Elongation at failure (%)	ASTM D4632	50 minimum	50 minimum	50 minimum	50 minimum
Trapezoidal tear strength (pounds)	ASTM D4533	79 minimum	56 minimum	40 minimum	79 minimum
Puncture strength (pounds)	ASTM D6241	433 minimum	309 minimum	223 minimum	433 minimum
Ultraviolet light (retained strength) (%)	ASTM D4355	50 minimum	50 minimum	50 minimum	50 minimum
Permittivity (sec ⁻¹)	ASTM D4491		0.70 minimum or as specified		
Apparent opening size (AOS) (mm) ^{3/}	ASTM D4751		0.22 maximum or as specified		

1/ All values are minimum average roll values (MARV) in the weakest principal direction, unless otherwise noted.

2/ Needle punched geotextiles may be used for all classes. Heat-bonded or resin-bonded geotextiles may be used for class IV only.

3/ Maximum average roll value.

NATURAL RESOURCES CONSERVATION SERVICE CONSTRUCTION SPECIFICATION

IA-600 TERRACES

1. SCOPE

The work shall consist of terrace construction as shown on the drawings or staked in the field.

2. MATERIALS

Earth materials used in constructing the terraces shall be taken from areas adjacent to the terrace alignment or other approved sources. The fill material shall be free from brush, roots, sod, frozen material, stones over 6 inches in diameter, or other objectionable material.

3. GENERAL REQUIREMENTS

The terraces shall be constructed according to the staked alignment, grade, and cross section with the specified overfill for settlement and the channel graded to drain.

Channel blocks shall be built to the full design height of the terrace unless otherwise specified. Blocks must be compacted and farmable with side slopes of 5 horizontal to 1 vertical or flatter unless otherwise specified. Cuts and fills should be made in such a manner that topography will be enhanced. Cuts should not be made in depressions to secure borrow to build the terrace ridge through those areas, since this increases field slopes. Borrow for large fills across depressions shall be taken from the adjacent ridges.

The surface of the finished terrace shall be reasonably smooth and present a workmanlike finish. Borrow areas shall be uniformly graded. Cuts shall be blended with existing topography so that the finished area is farmable. Any ditch or depression at the bottom of the backslope shall be filled and smoothed so that drainage will be away from the terrace and not parallel to it. Excavation for grassed-back, farmable front slope and narrow-base terraces shall be taken from the downhill side of the terrace except as specified by the NRCS. See the "Minimum Dimensions" sketches in section 7 for definitions and terrace types.

4. FOUNDATION PREPARATION

All dead furrows, ditches or gullies shall be filled before or during the construction of the terraces. All old terraces, fence rows, hedge rows, trees, and other obstructions shall be removed, as necessary, to install a farmable system.

The total disturbed area of the terrace shall be cleared, grubbed, and stripped a minimum of 6 inches to remove vegetation and other unsuitable materials. Smooth surfaces where fill material is to be placed shall be scarified to insure bonding.

5. PLACEMENT

Fill material shall not be placed on sod or on a frozen foundation. The moisture content of terrace fill material shall be such that a ball formed with the hands does not crack or separate when struck sharply with a pencil and will easily ribbon out between the thumb and finger. Material that is too wet shall be dried, and material that is too dry shall have water added or work shall be stopped until moisture conditions are satisfactory.

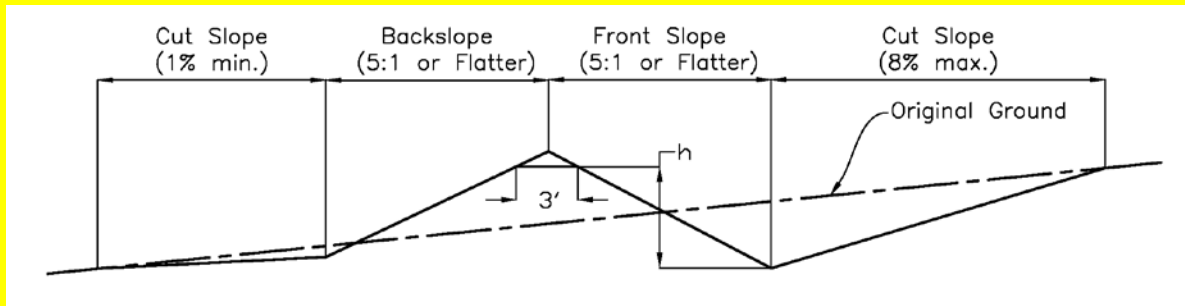
Fill material shall be placed so that the entire terrace receives compactive effort of the construction equipment on the fill. When the base width of the fill exceeds 12 feet, the fill shall be placed in lifts not exceeding one foot with each lift compacted with the construction equipment.

If specified, topsoil shall be stockpiled and spread over borrow areas and the terrace embankment.

6. TERRACE OUTLETS

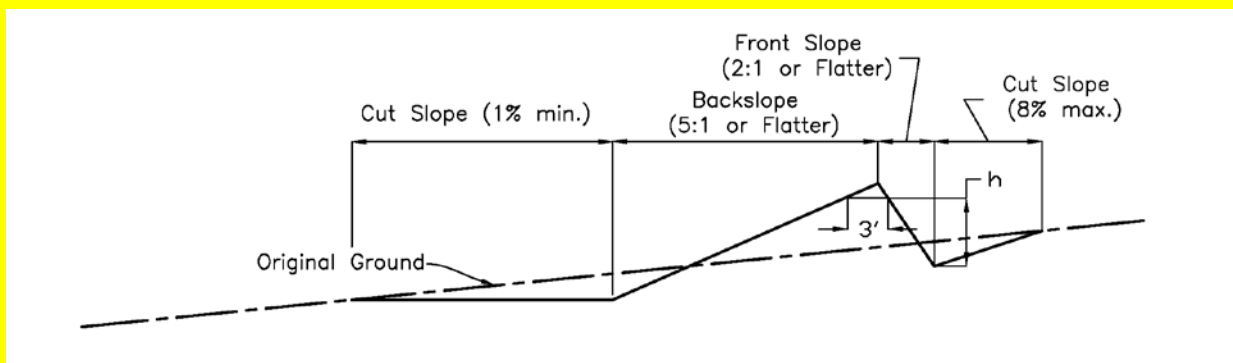
Conduits shall be embedded and backfilled throughout the base width of the terrace ridge. Friable soil material shall be placed in 6 inch layers and hand tamped to a depth of approximately 18 inches over the pipe. The sides of the remaining trench shall be sloped no steeper than 3 horizontal to 1 vertical and backfill placed in 6 inch layers and machine compacted. The materials used for the inlet, outlet, and conduit shall be as specified.

7. MINIMUM DIMENSIONS



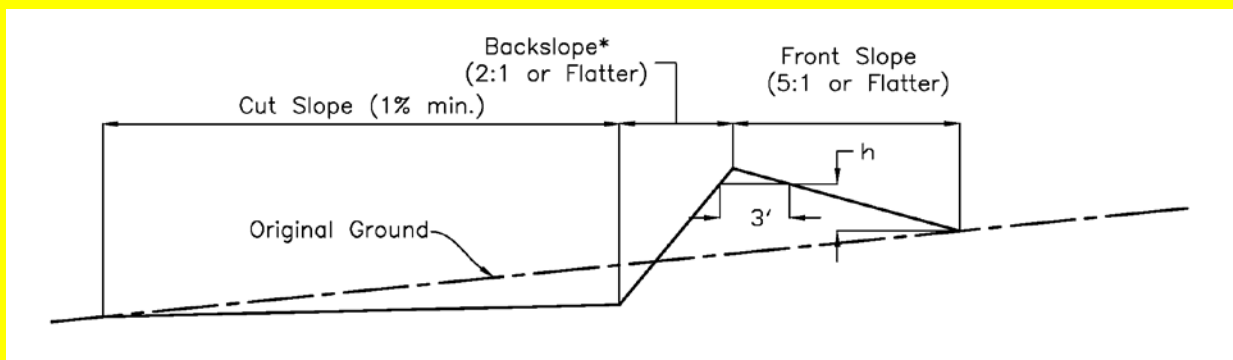
Length of front slope and backslope shall be in increments of machinery width but not less than 15 feet
 h = Design height of the terrace

BROADBASE TERRACE CROSS SECTION



Length of backslope shall be in increments of machinery width but not less than 15 feet
 h = Design height of the terrace

GRASSED FRONT, FARMABLE BACKSLOPE TERRACE CROSS SECTION

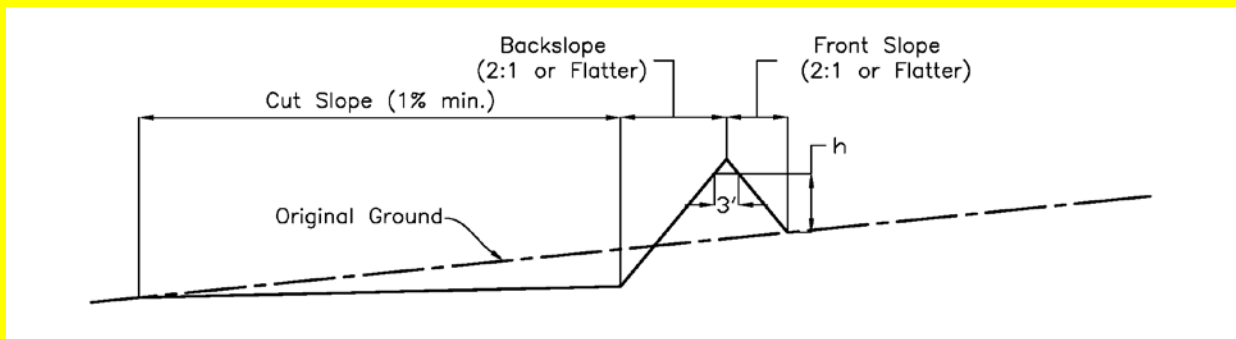


Length of front slope shall be in increments of machinery width but not less than 15 feet

*The backslope shall be no steeper than 2:1 except when built on Ida and Monona soil series types which may have the backslope constructed no steeper than 1.5:1

h = Design height of the terrace

GRASSED-BACK, FARMABLE FRONT SLOPE TERRACE CROSS SECTION



h = Design height of the terrace

NARROW-BASE TERRACE CROSS SECTION

8. SEEDING

Grassed-back, farmable front slope terraces shall have the entire backslope seeded. Narrow-base terraces shall have both the front slope and backslope seeded. Grassed front, farmable backslope terraces shall have the front slope seeded. A protective cover of vegetation shall be established on these areas. Seeding operations shall begin as soon as possible after the terrace earth work has been completed. Seedbed preparation and seeding, liming, fertilizing and mulching rates shall be in accordance with the IA-CPA-4, Seeding Plan, and Construction Specification IA-6, Seeding and Mulching for Protective Cover.

9. SPECIAL SPECIFICATIONS

**NATURAL RESOURCES CONSERVATION SERVICE
CONSTRUCTION SPECIFICATIONS**

IA-620 UNDERGROUND OUTLET

1. SCOPE

This work shall consist of installation of underground outlets and any appurtenant water control structures in accordance with an approved plan and design.

2. MATERIALS

Materials for underground outlets shall meet the requirements as shown in the plans and specifications. They shall be field inspected for any deficiencies such as thin spots or cracking prior to installation.

Conduit

The following reference specifications pertain to products currently acceptable for use as underground outlets:

Plastic

Corrugated Polyethylene (PE) Pipe and Fittings (3-6 inch) ASTM F 405
3 through 24 inch Corrugated Polyethylene (PE) Pipe and Fittings..... ASTM F 667
Poly (Vinyl Chloride) (PVC) Corrugated Sewer Pipe With a Smooth
Interior and Fittings (4-36 inch) ASTM F 949
Poly (Vinyl Chloride) (PVC) Sewer Pipe and Fittings..... ASTM D 2729
Type PSM Poly (Vinyl Chloride) (PVC) Sewer Pipe and Fittings..... ASTM D 3034
Poly (Vinyl Chloride) (PVC) Pressure-Rated Pipe (SDR Series) ASTM D 2241
Polyethylene Plastics Pipe and Fittings Materials ASTM D 335

Clay

Clay Drain Tile ASTM C 4
Vitrified Clay Pipe, Extra Strength, Standard Strength and Perforated..... ASTM C 700
Vitrified Clay Pipe, test methods..... ASTM C 301

Concrete

Concrete Drain Tile (4-36 inch) ASTM C 412
Concrete Pipe for Irrigation or Drainage ASTM C 118
Concrete Pipe, Manhole Sections, or Tile (test methods)..... ASTM C 497
Concrete Sewer, Storm Drain and Culvert Pipe ASTM C 14
Reinforced Concrete Culvert, Storm Drain and Sewer Pipe..... ASTM C 76
Perforated Concrete Pipe ASTM C 444
Portland Cement ASTM C 150

Other

Styrene-Rubber (SR) Plastic Drain Pipe and Fittings..... ASTM D 2852
Corrugated Aluminum Pipe for Sewers and Drains ASTM B 745
Corrugated Steel Pipe, Metallic-Coated for Sewers and Drains..... ASTM A 760

Inlet

The inlet shall be fabricated and installed as shown on the plans. Inlets must be of durable material, structurally sound, and resistant to damage by rodents or other animals. Inlets shall be of rigid material, which does not require supplemental support to remain in a vertical position. Materials, which meet these requirements, include the following:

1. Corrugated metal pipe, galvanized or aluminum, 16 gauge minimum,
2. Smooth steel pipe, with 3/16 inch minimum wall thickness,
3. Smooth plastic pipe, polyvinyl chloride (PVC), with an SDR of 43 or less,
4. High-density polyethylene pipe (PE). Round pipe shall have an SDR of 43 or less. Square intakes shall have minimum wall thickness as shown in the following table:

<u>Nominal Size</u>	<u>Minimum Thickness</u>
6 inch	0.16 inch
8 inch	0.21 inch
10 inch	0.26 inch
12 inch	0.31 inch

All plastic and polyethylene inlets shall include ultra-violet stabilizer to protect from solar degradation.

Perforations in the inlet shall be smooth and free of burrs. Unless otherwise specified, the above ground portion of the inlet shall have holes evenly spaced around the perimeter of the inlet in accordance with the following table:

<u>Inlet Size</u>	<u>Minimum Number of 1" Diameter Holes per Foot of Inlet</u>
4 inch	20
5 inch	24
6 inch	30
8 inch	40
10 inch	50
12 inch	60

If slots or round holes other than 1 inch in diameter are provided, the total cross sectional area of the openings per foot shall be equivalent to that provided by 1 inch diameter round holes meeting the above criteria.

The below ground portion of the inlet may be perforated with holes 5/16 of an inch in diameter or less to provide drainage around the inlet.

Appurtenances (i.e. tees and elbows) for polyvinyl chloride (PVC) inlets shall be schedule 40 or heavier.

Additional subsurface drainage tubing or tile may be used in conjunction with the surface inlet to improve access and farmability around the inlet. These underground extensions (when used) shall have a minimum length of 10 feet.

The inlet shall be offset from the main conduit except as noted below. A minimum of 8 feet of non-perforated conduit shall be installed between the inlet and the main conduit. The minimum diameter of the offset line shall be 3 inches. When conduit capacity is based on orifice flow from the inlet, such inlets shall be fabricated so that an orifice can easily be installed.

Only the top inlet in a terrace system may be placed directly on the main conduit. If the top most inlet in a terrace system is placed directly on the main conduit, the conduit shall be non-perforated from the inlet to the toe of the terrace back slope.

Outlet

A continuous section of non-perforated conduit at least 20 feet long shall be used at the outlet. Two-thirds of the outlet pipe shall be buried in the ditch bank, and the cantilever section must extend to the toe of the ditch side slope or the side slope shall be protected from erosion. Acceptable materials for use at the outlet include the following:

1. Corrugated metal pipe, galvanized or aluminum, 16 gauge minimum;
2. Smooth steel pipe, with 3/16 inch minimum wall thickness;
3. Smooth plastic pipe, polyvinyl chloride (PVC), with a SDR of 26 or less or schedule 40 or heavier; or
4. Corrugated profile wall (dual wall) polyethylene (PE) pipe meeting or exceeding the requirements of ASTM F 2648 (2" to 60"), ASTM F 2306 (12" to 60"). Pipe conforming to AASHTO M 252 (3" to 10"), or AASHTO M 294 (12" to 60") is acceptable.

All plastic and polyethylene pipe outlets shall include ultra-violet stabilizer. PVC and PE pipe outlets shall not be used where burning vegetation on the outlet ditch bank is likely to create a fire hazard.

Connections with the outlet pipe shall be made watertight.

The outlet shall be equipped with a flap-gate type rodent guard.

3. TRENCH EXCAVATION

Trench excavation shall be sufficient to provide required cover after other construction is completed.

The trench bottom shall be smooth and free of exposed rock. If rock is encountered in the trench bottom, over-excavate the trench and place at least 6 inches of compacted earth or sand bedding in the trench to bring it up to the conduit grade. In stable soils, the bottom of the trench shall be shaped to form a semicircular, trapezoidal, or 90-degree "V" groove in its center. The groove shall be shaped to fit the size of conduit. The 90-degree "V" groove shall not be used on conduits greater than 6 inches in diameter.

Unless otherwise shown on the drawings, trench width at the top of the conduit should be the minimum required to permit installation and provide bedding conditions suitable to support the load on the conduit, but with not less than 3 inches of clearance on each side. Maximum trench width shall be the conduit diameter plus 12 inches measured at the top of the conduit, unless approved bedding is installed.

Plow installation is allowed except under the base width of the terrace or embankment. Trench width shall be at least two (2) inches wider than the conduit on each side to allow sufficient bedding to support the pipe.

4. INSTALLATION

The underground outlet system shall be installed to the line and grade shown in the plans or as staked in the field. Conduit lines shall be installed and properly blinded or bedded prior to placement of any other earthfill over the lines.

Conduit lines shall be joined with standard factory couplers, if applicable, to produce a continuous system. Internal couplers may be used if they do not cause excessive flow restrictions. Conduit ends shall be protected during installation.

All appurtenant structures, including trash and rodent guards, shall be installed promptly and provisions shall be made for protecting them during installation. All conduit ends except the outlet and inlets with screens shall be capped with standard factory end caps or concrete. When corrugated plastic tubing is used, no more than 5% stretch will be allowed.

Orifice plates, when specified, shall have smooth edges and fit tightly.

5. TRENCH BACKFILL

Conduits shall be bedded and backfilled throughout the base width of the basin embankment or terrace ridge. Friable soil material shall be placed in 4 inch layers and hand tamped to a depth of 2 feet above the conduit. The sides of the remaining trench shall be sloped no steeper than 3 horizontal to 1 vertical and backfill placed in 9 inch layers and machine compacted.

Water packing may be used as an alternative to mechanical compaction. If the conduit is non-perforated, it shall be filled with water during the water packing procedure. The initial backfill, before wetting, shall be of sufficient depth to ensure complete coverage of the pipe after consolidation has taken place. Water packing is accomplished by adding water in such quantity as to thoroughly saturate the initial backfill without inundation. The wetted fill shall be allowed to dry until firm before final backfill is begun. Final backfill shall be accomplished by placing friable soil material in 4 inch layers and hand tamping to a depth of 2 feet above the conduit. The sides of the remaining trench shall be sloped no steeper than 3 horizontal to 1 vertical and backfill placed in 9 inch layers and machine compacted.

Conduit which is not under the embankment or terrace ridge shall be backfilled with select bedding material containing no hard objects larger than 1½ inches in diameter to a minimum depth of 6 inches over the conduit. The conduit shall be held in place mechanically while select backfill material is placed around and over the conduit. This is to ensure that the proper conduit grade is maintained. All backfill material shall be placed so that deflection or displacement of the conduit will not occur. The remainder of the trench above the conduit shall be backfilled as rapidly as consistent with the soil conditions. Backfill shall extend above the ground surface and be well rounded over the trench. Large stones, frozen material, and large clods are not allowed in the backfill material.

6. FINISH

Work areas shall be smoothed and left in a workmanlike manner. Vegetation or other protective cover shall be established as specified.

7. SPECIAL SPECIFICATIONS

STANDARD GENERAL SPECIFICATIONS

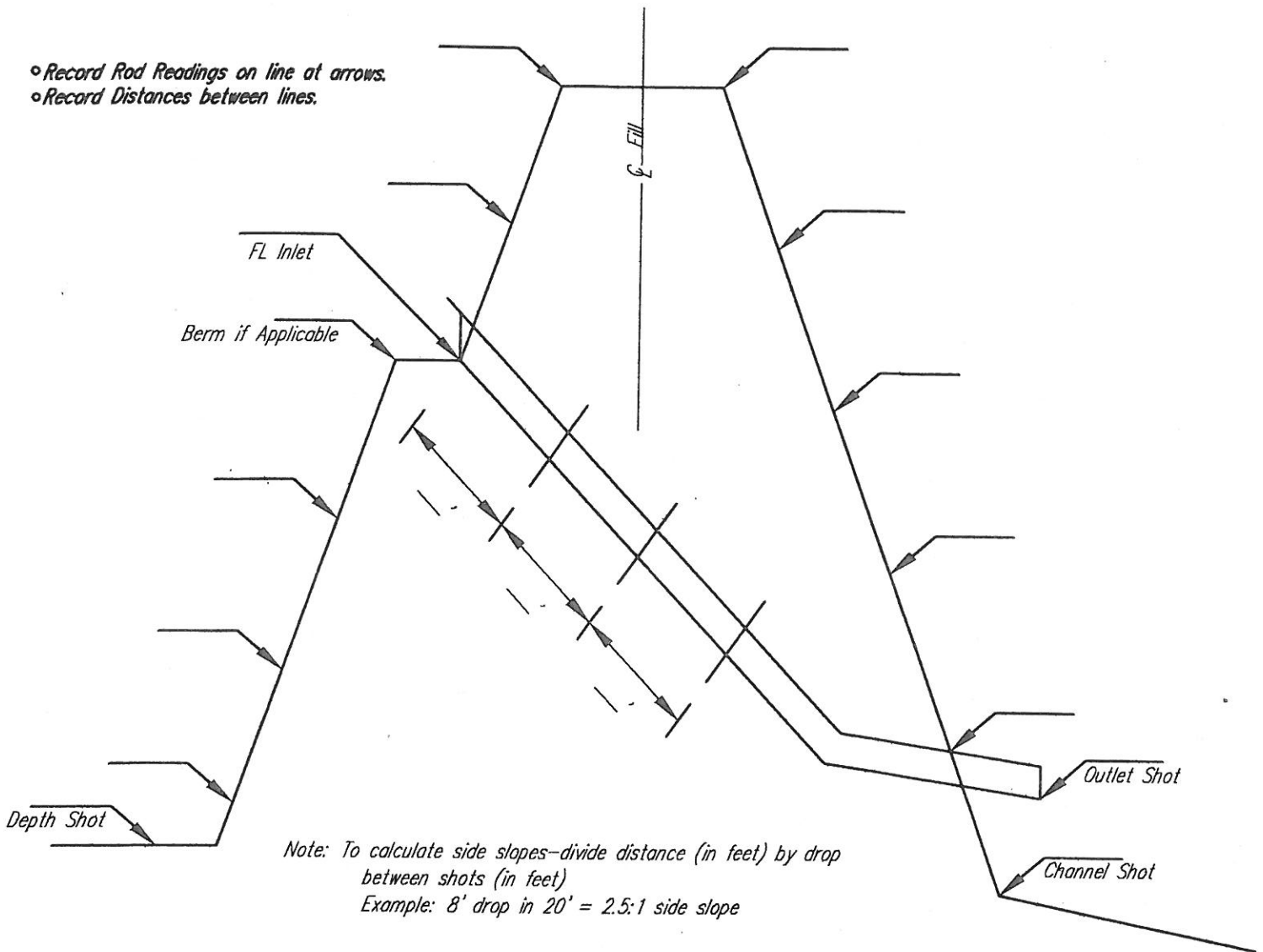
Check-Out and Certification Forms

The following check-out and certification forms are required:

SITE	Pond (Attached Form)	Grassed Waterway (Attached Form)
Division 20		
CC-113	X	
CC-114		
CC-115		
CC-116		
CC-117		
CC-152		X

Cross Section of Fill at Pipe

- Record Rod Readings on line at arrows.
- Record Distances between lines.



Landowner: _____

_____ Ft. of _____" diameter CMP, SMP or SPP
 _____ Ft. of _____" diameter Corrugated Plastic Pipe (Tile)
 _____ No. of _____" X _____" X _____" Anti-seep Collars

Contractors Certification

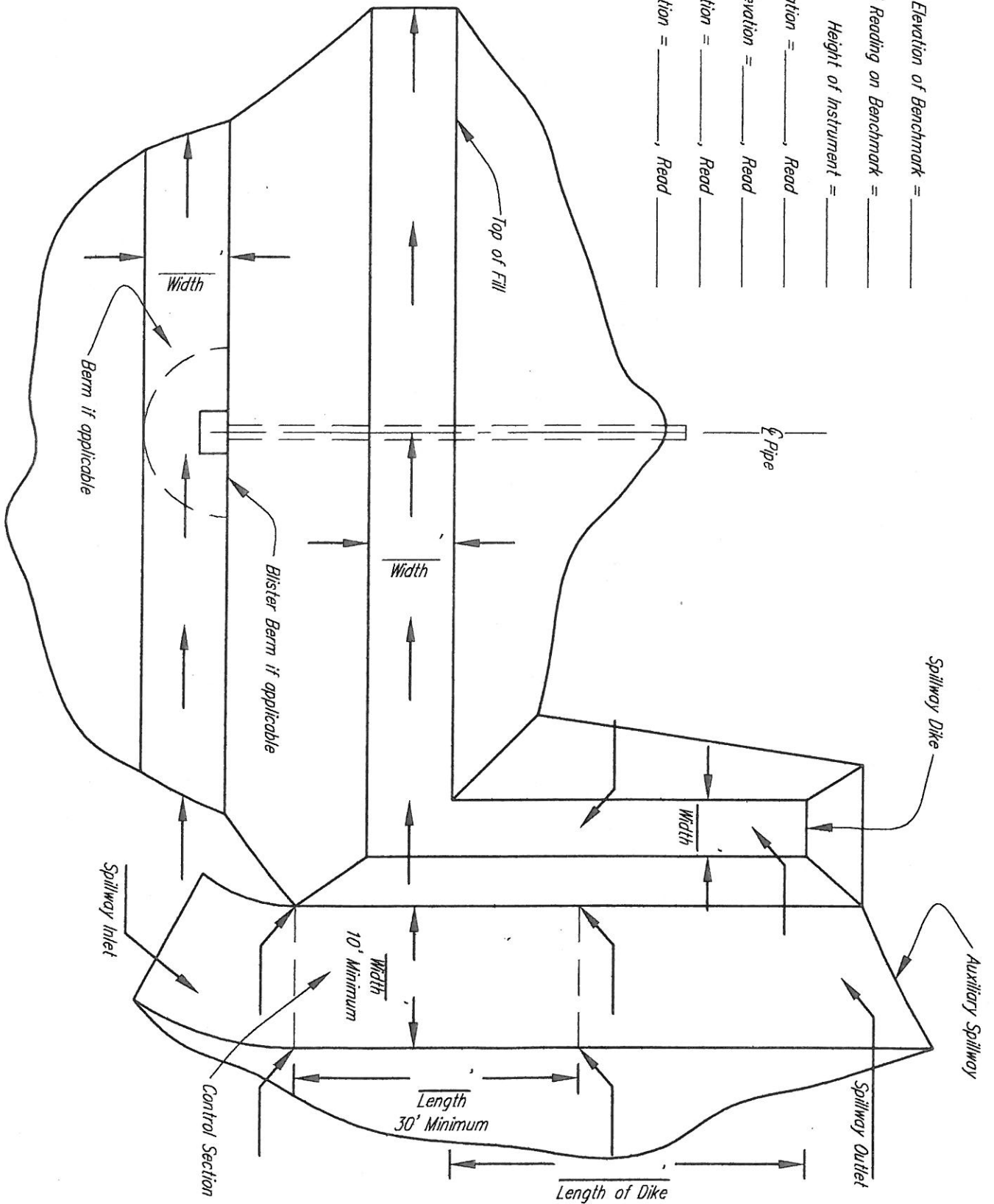
I certify that I have constructed the described pond or structure and that it meets the plans and specifications as set forth by the Natural Resources Conservation Service (NRCS).

Contractor: _____ Date: _____

NRCS Checkout and Certification

Checkout Notes were reviewed and approved by: _____ Date: _____

Elevation of Benchmark = _____
 Rod Reading on Benchmark = _____
 Height of Instrument = _____
 Constructed Top Elevation = _____, Read _____
 Settled End Elevation = _____, Read _____
 Auxiliary Spillway Elevation = _____, Read _____
 Inlet Elevation = _____, Read _____



- Record Rod Readings on lines at arrows.
- Record Distances between arrows.
- Shots are not to be more than 50" apart across top of dam.

As-Built Grassed Waterway Table (Contractor to Fill out Constructed Lengths, Widths and Depths)						
Waterway & Reach	Designed Grass Waterway Width 25' to 40'		Top Width	Depth at Left Quarter Point	Depth at Center	Depth at Right Quarter Point
CC-152	1					
TOTAL:						