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Mobile Area Water and  
 Sewer System  
 4725 Moffett Rd Suite A  
 Mobile, AL 36618-2236  
 PO Box 180249  
 Mobile, AL 36618-0249

**INVITATION FOR BID**  
**July 27, 2023**

INVITATION FOR BID NUMBER	IFB 23-039
NAME OF BID	Annual Contract for Wire Fencing
BIDS WILL BE RECEIVED AT	MAWSS Bid Box Donaghey Business Entrance 4725A Moffett Road or PO Box 180249 Mobile, AL 36618
MANDATORY PREBID MEETING DATE/TIME	August 9, 2023 at 8:00 am in the Board Room located at 4725A Moffett Road, Mobile, AL 36618
BID OPENING DATE	August 18, 2023
BID CLOSING TIME	10:30 am Central Time
AWARD WILL BE MADE BY	Total Cost
CONTRACT PERIOD	10/1/23 – 9/30/24 with 2 one-year extension options
MATERIAL DELIVERED TO	S Palmer Gaillard Pumping Station 1450 Pumping Station Road Mobile, AL 36608
ADDITIONAL INFORMATION CONTACT	Markus Moore (251) 721-0828 or <a href="mailto:mamoore@mawss.com">mamoore@mawss.com</a> of Steve Davis (251) 463-7021 or <a href="mailto:sdavis@mawss.com">sdavis@mawss.com</a>
APPLICABLE SDP POLICY	17-01

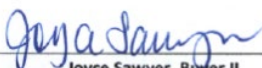
Sealed bids must be in the Purchasing Department no later than the time specified in order to be considered. Submissions received after the deadline will not be considered. Envelopes must bear the name of the supplier, company address and the words “IFB 23-039 Wire Fencing Annual Contract” or “IFB 23-039 NO QUOTE.” Facsimile or email bids will not be accepted.

All bids must be submitted on the attached forms or your bid will be disqualified. Bidder shall furnish all the information required by the solicitation. The bidder’s name must be typed or printed on the bid sheet, and signed by the bidder or appropriate authorized executive officer of the bidder’s company. Bidders must initial any changes or erasures. Bidders should retain a copy of bids for their records.

Bidders shall acknowledge receipt of all addenda to this solicitation by signing and returning each addendum or by identifying the addendum number and the date on the bid form. Failure to acknowledge receipt of any addendum by a bidder will result in rejection of the bid if MAWSS determines that the addendum contains information that materially changes the requirements.

All bids shall be quoted FOB Destination, freight prepaid with no additional charges. Unless otherwise specified in the bid, all prices will be on a firm-fixed price basis and are not subject to adjustments based on costs incurred. MAWSS reserves the right to reject any or all bids submitted, to waive any informality in any bid or in the bid process, or to terminate the bid process at any time, if deemed by MAWSS to be in MAWSS’s best interest.

A Purchase Order and this “Invitation for Bid” with “Specifications,” “Conditions,” “Bid Form,” signed by the successful bidder’s authorized representative, and all attached drawings and other documents furnished by MAWSS to the bidders with the Invitation for Bid in order to illustrate the contract requirements, will constitute a contract for the goods and/or services to be purchased.

  
 Joyce Sawyer, Buyer II  
 Board of Water and Sewer Commissioners

## IFB 23-039 WIRE FENCING – ANNUAL CONTRACT CONDITIONS

The Board of Water and Sewer Commissioners of the City of Mobile will accept bids for **Wire Fencing – Annual Contract** in our Purchasing Department Bid Box located at 4725 Moffett Road Suite A, Mobile, AL 36618 **no later than 10:30 a.m.** local time on **August 18, 2023**. Award will be by Total Cost. The bidder offers and agrees, if this bid is accepted, to furnish the items as defined in the specifications for the unit price set opposite each item. Pricing shall be FOB Mobile, Alabama. All items shall be delivered to our **Big Creek Lake Pumping Station** located at **1450 Pumping Station Rd, Mobile, AL 36608** or to the job site as needed. The bidder shall state the expected length of delivery time on the Bid Form.

**A Mandatory Pre-Bid Meeting will be held in the Board Room at 8:00 am on August 9, 2023 located at 4725A Moffett Road, Mobile, AL 36618.**

No substitution for items to be provided pursuant to this contract shall be permitted during the contract period without the express written consent of MAWSS. All items provided shall be for commercial use and for the purposes reflected in the contract documents. MAWSS shall not be committed to the amount of work to be completed.

Bidder understands that his/her bid shall be good and may not be withdrawn for a period of sixty (60) calendar days after the scheduled closing time for receiving bids. A bidder may not modify its bid after bid opening. Errors in the extension of unit prices stated in a bid or in multiplication, division, addition or subtraction in a bid may be corrected by the MAWSS Purchasing Buyer prior to award. In such cases, unit prices shall not be changed.

It is the responsibility of the bidder to determine prior to the bid opening whether any amendment, additions, deletions or changes of any type have been made to this Invitation for Bid, Conditions, Specifications, Bid Form or any of the other bid documents. Bid documents and any amendments made to this bid will be posted on our website at [www.mawss.com](http://www.mawss.com).

A copy of the SDP (Supplier Diversity Program) policy that applies to this Invitation For Bid can be furnished upon request. It is the responsibility of the bidder to read and meet the requirements of this policy. Please contact the Supplier Diversity Program Manager, Felicia Thomas, at 251-694-3194 or [ftomas@mawss.com](mailto:ftomas@mawss.com) for any questions regarding this policy. **Bidders MUST acknowledge receipt of this policy and submit all the required documentation with the bid proposal.** Important SDP Policy excerpt:

**“Contractors bidding on MAWSS projects or other contracts must list all Diverse Contractors/Suppliers subcontractors and suppliers on the Subcontracting Plan form submitted in the bid package and sign the form. When preparing a bid, the bidding Contractor must obtain firm prices from all Diverse Contractors/Suppliers. The bid package must include correspondence from each Diverse Contractor/Supplier on the Diverse Contractor/Supplier’s letterhead in which the Diverse Contractor/Supplier confirms negotiated terms for the subcontract or supply contract, including compensation and a brief description of the scope of work or the items to be supplied.”**

**“Contractors are required to use Diverse Contractors/Suppliers only in the areas for which the Diverse Contractors/Suppliers are certified.”**

**“The Contractor must file a written report with MAWSS’s Supplier Diversity Office with a copy delivered to Accounting once a month documenting the Contractor’s continuing compliance with the MAWSS Supplier Diversity Program. This report will list all Diverse Contractor/Supplier’s subcontractors and supplier’s currently performing work or providing supplies for the contract.”**

A copy of the SDP (Supplier Diversity Program) policy that applies to this Invitation For Bid can be found on our website by clicking on the following link:

[https://www.mawss.com/uploads/final---supplier-diversity-17-01---approved-1-7-21-\(updated-changes-2-3-2021\).pdf](https://www.mawss.com/uploads/final---supplier-diversity-17-01---approved-1-7-21-(updated-changes-2-3-2021).pdf).

**Invoicing Requirements:** MAWSS is requiring additional information for all work performed and services provided. On the vendor’s invoice for payment should be a detailed listing of work performed, services provided, dates completed, locations involved and any other pertinent information needed to verify the work and/or services were completed in accordance to the bid specs. This additional information can be supplied in the form of detailed invoices, work orders, checklists or any other documents used to track the work performed or services provided but details must be included on the actual invoice. A copy of the invoice and these additional details must be sent to the “ADDITIONAL INFORMATION CONTACT” found on Page 1 of the bid documents and a copy emailed to Accounts Payable at [AcctsPayable@mawss.com](mailto:AcctsPayable@mawss.com).

**END OF CONDITIONS**

**IFB 23-039 WIRE FENCING – ANNUAL CONTRACT  
PROPOSAL**

**TO: BOARD OF WATER AND SEWER COMMISSIONERS  
OF THE CITY OF MOBILE, ALABAMA**

Submitted: \_\_\_\_\_  
(Date)

The undersigned, as Bidder, hereby declares that he has examined the site of the Work and informed himself fully in regard to all conditions pertaining to the place where the Work is to be done; that he has examined the Plans and Specifications for the Work and contractual documents relative thereto, and has read all General Conditions and Special Provisions furnished; and that he has satisfied himself relative to the Work to be performed.

The Bidder proposes and agrees, if this Proposal is accepted, to contract with the Board of Water and Sewer Commissioners of the City of Mobile, Alabama in the form of contract specified to furnish all materials, equipment, machinery, tools, apparatus, permits, means of transportation and labor necessary to complete the construction of:

**Wire Fencing - Annual Contract  
IFB 23-039**

in full and complete accordance with the shown, noted, described and reasonably intended requirements of the Plans, Specifications and Contract Documents to the full and entire satisfaction of the Board of Water and Sewer Commissioners of the City of Mobile, Alabama with a definite understanding that no money will be allowed for extra work except as set forth in the attached General Conditions and Contract Documents for the lump sum or unit prices listed opposite each item.

It is agreed that the description under each item, being briefly stated, implies, although it does not mention, all incidentals and that the prices stated are intended to cover all such work, materials and incidentals as constitute Bidder's obligations as described in the Specifications and any details not specifically mentioned, but evidently included in the Contract shall be compensated for the item in which it most logically is included.

The quantities for bid items listed on the bid form are estimated quantities only for the purpose of comparing bids. Any differences between these estimated quantities and actual quantities required for construction shall not be taken as a basis for claims by the Contractor for extra compensation. Compensation will be based on the lump sum or unit prices and actual construction quantities.

The Bidder further proposes and agrees hereby to commence the Work with an adequate force, plant and equipment at the time stated in the notice to the Contractor from the Owner/Engineers to proceed, and fully complete performance within duration specified in the scope of work.

If agreed to by the contractor and approved by the Board of Water and Sewer Commissioners of the City of Mobile, Alabama by means of a written approval, the contract may be extended up to two (2) additional one (1) year increments. However, no guarantee is implied or expressed that said extension of the contract time will be approved after the initial duration of the contract. The contractor shall not exceed the contract amount or termination date without a written approval from the board. Any work performed without said written approval will be at the contractor's expense. With no exceptions, the unit prices bid shall remain in effect for the duration of the contract.

**IFB 23-039 WIRE FENCING - ANNUAL CONTRACT  
PROPOSAL (Cont.)**

Bid Bond

The undersigned further agrees that, in case of failure on his part to execute the said Contract and the bond within ten (10) consecutive calendar days after written notice being given of the award of the Contract, the check or bid bond in the amount of five percent (5%), of this bid, not to exceed \$1,000 accompanying this bid, and the monies payable thereon, shall be paid into the funds of the Board of Water and Sewer Commissioners of the City of Mobile, Alabama as liquidated damages for such failure; otherwise the check or bid bond accompanying this Proposal shall be returned to the undersigned:

Attached hereto is a certified check or bid bond on the Bank of \_\_\_\_\_  
(Name of Bank or Surety)

\_\_\_\_\_ for the sum of \_\_\_\_\_  
\_\_\_\_\_ Dollars (\$ \_\_\_\_\_)

made payable to the Board of Water and Sewer Commissioners of the City of Mobile, Alabama.

By \_\_\_\_\_  
(Legal Signature)

\_\_\_\_\_  
(Printed Name and Title)

Witness: \_\_\_\_\_  
(Legal Signature)

Witness: \_\_\_\_\_  
(Legal Signature)

**BIDS WILL NOT BE CONSIDERED, UNLESS ACCOMPANYING BID BOND IS SIGNED BY PRINCIPAL AND SURETY, OR IN LIEU THEREOF, A CERTIFIED CHECK, OR IRREVOCABLE UNCONDITIONAL LETTER OF CREDIT FROM YOUR BANK MUST ACCOMPANY THE PROPOSAL.**

CONTRACTOR ADDRESS:

\_\_\_\_\_  
\_\_\_\_\_

CONTRACTOR'S LICENSE NO:

\_\_\_\_\_

BIDDER acknowledges receipt of the following ADDENDA:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**IFB 23-039 WIRE FENCING – ANNUAL CONTRACT  
GENERAL REQUIREMENTS**

**1.0 GENERAL**

The Contractor shall provide all labor, equipment, permits, incidentals, and materials necessary to provide the following services to all the Wire Fencing listed in the Proposal for the contract period. This agreement will be in effect for the contract period with the option to renew for two (2) calendar years in one (1) year increments, at the same price, if agreed to in writing by both parties.

The work will be performed in the Big Creek Water Shed area and is subject to be changed as well as their general location within the MAWSS system. At the prebid meeting, a site visit will be scheduled to allow the Contractor's access to all of the units that are included within this bid proposal.

All personnel provided by the Contractor shall be subject to the approval of the Owner's representative based on their training, experience, qualifications, and ability to perform the required service in an efficient manner. Failure to provide such personnel in the required numbers shall be considered sufficient reason to terminate the agreement.

All work shall be performed in a workmanlike manner. Materials and workmanship shall be subject to the Owner's inspection and approval.

Contractor shall maintain all work areas in an orderly manner and shall remove and properly dispose of all trash as the work is completed.

The wire fencing shall be installed in accordance with the Standard Details and specifications identified in Section A.

**A. BASIS OF PAYMENT AND METHOD OF MEASURE:**

Item Number Classification: This subsection shall be amended to include the following new or modified pay items:

**ITEM # 1     3 Strands Barbed Wire Strung Throughout Fence:** The unit price bid for this item shall be compensation in full for all labor, materials, equipment, and incidentals necessary for one (1) linear foot (LF) of 3 strands, complete in place and in accordance with the contract documents.

**Fence Material:** 3 strands of Bekaert 14-gauge Cattleman Pro 20 Professional Strength High-Tensile barbed wire with 4 points, 5" spacing and class 3 zinc coating or equivalent strung throughout the fence.

**ITEM # 2     6' – 6" Green T-Posts:** The unit price bid for this item shall be compensation in full for all labor, materials, equipment, and incidentals necessary for one (1) each (EA), complete in place and in accordance with the contract documents.

**Post:** 6' – 6" CMC Southern Post Green Steel T-Posts or equivalent placed approximately every 15' between pull posts.

**ITEM # 3     6" x 8' Round Fence Pull Posts:** The unit price bid for this item shall be compensation in full for all labor, materials, equipment, and incidentals necessary for one (1) each (EA), complete in place and in accordance with the contract documents.

**Post:** 6" x 8' round fence treated with a minimum .40 pcf CCAC (Chromated Cooper Aresenate) and rated AWPA UC4A for ground contact placed approximately every 150' for pull posts.

**ITEM # 4     4" x 10' Round Fence Post for Bracing Corners to Pull Post Assembly:** The unit price bid for this item shall be compensation in full for all labor, materials, equipment, and incidentals necessary for one (1) each (EA), complete in place and in accordance with the contract documents.

**Post:** 4" x 10' round fence post treated with a minimum .40 pcf CCAC (Chromated Cooper Aresenate) and rated AWPA UC4A for ground contact for bracing corners to pull posts.

**IFB 23-039 WIRE FENCING – ANNUAL CONTRACT  
INSURANCE REQUIREMENTS**

- A. **General:** The Supplier shall provide insurance in accordance with the required specifications. A current certificate of insurance must be provided with your bid. MAWSS does not need to be named as an additional insured on this certificate.
- B. **Supplier Coverage:** The Supplier shall not commence work under this Contract until he has obtained all insurance required under the following paragraphs and until such insurance has been approved by the Owner, nor shall the Supplier allow any subcontractor to commence work on his subcontract until all similar insurance required of the subcontractor has been obtained and approved. If the subcontractor does not take out insurance in his own name, the Supplier shall provide such insurance protection for the subcontractor and such subcontractor's employees.
- C. **Casualty Insurance:** The following insurance coverages (with limits not less than specified herein) shall be maintained by the Supplier for the duration of the Contract, affording coverage for any claim arising out of Supplier's operations herein, whether by the Supplier or by any subcontractor or by any Employee or Agent of either:
1. Claims of employees under Worker's Compensation and other similar employee benefit acts, including claims because of bodily injury, occupational sickness or disease, or death.
  2. Claims arising out of bodily injury, sickness, disease, or death of any person other than employee.
  3. Claims for damages arising out of libel, slander, false arrest, detention or imprisonment, malicious prosecution, defamation or violation of right of privacy, wrongful entry or eviction or other right of private occupancy, including claims as a result of an offense related to the employment of a claimant by Contractor (so-called "Personal Injury").
  4. Claims arising out of damage to or destruction of tangible property, including loss of use.
  5. The Supplier shall furnish certification of insurance and policies verifying that the above coverages are in effect before commencing any work, and that each policy is endorsed to give the Owner 30 days notice in writing in the event of cancellation or material change therein.

Policies of Insurance shall state that the Owner and the Owner's employees be named as additional insureds on the Supplier's Automobile Liability and Commercial General Liability policies. In respect to Worker's Compensation, a Waiver of Subrogation shall be issued in favor of the Owner. Where applicable, the U.S. Longshore and Harborworkers Compensation Act Endorsement shall be attached to the policy. Where applicable, the Maritime Coverage Endorsement (to include coverage under Jones Act) shall be attached to the policy. Both the U. S. Longshore and Harborworkers and the Maritime Coverage shall have limits equal to or greater than the employer's liability coverage.

6. Rated by AM Best – A- or better. For non-admitted companies, a rating of A or better by AM Best.
  - a. At the discretion of the Board, worker's compensation insurance may be placed through a qualified worker's compensation self-insurance fund.

b. **Limits of Liability:**

<b>Worker's Compensation</b>	Statutory
<b>Employers' Liability</b>	\$500,000 Each Accident \$500,000 by Disease, Policy Limit \$500,000 by Disease, Each Employee
<b>Commercial Automobile</b>	\$1,000,000 Each Accident Bodily Injury and Property Damage Combined Business Auto Includes All Owned, Leased, Hired and Non-Owned Automobiles
<b>Commercial General Liability</b>	\$1,000,000 per Occurrence \$1,000,000 Personal & Advertising Injury \$2,000,000 General Aggregate per Project \$2,000,000 Products & Completed Operations Aggregate \$100,000 Fire Damage Liability

**Umbrella Liability:** In addition to the basic limits previously set out for Commercial General Liability, Products and Completed Operations, Automobile Liability and Worker's Compensation, coverage shall be issued with a "pay on behalf of" wording, including Personal Injury and other extensions, and provide coverage at least as broad as that afforded by the primary insurance policies.

**Extensions (only if applicable):**

Blanket Contractual Liability	Blanket Collapse and Underground Coverage
Personal Injury	Broad Form Property (including Completed
Host Liquor Liability	Operations)
Non-owned Watercraft Liability	Employees as Additional Insureds
Worldwide Products	Incidental Medical Malpractice
Fire Legal Liability	Extended Bodily Injury (Assault and Battery)
Newly Acquired Organizations	

When and if the use of explosives for blasting purposes appears necessary or desirable, such methods shall not be undertaken without written authorization of the Owner, and then only provided that acceptable extensions of liability coverage have been obtained specifically to include the explosion ("X") hazard and the collapse ("C") hazard. The policy of general liability shall include the special underground property damage coverage (providing the so-called "U" hazard) on a blanket basis.

- D. **Property Insurance:** The Contractor shall assume complete responsibility for safe-guarding all portions of the work in progress, whether completed or not, until such work has been accepted by the Owner, and shall maintain such insurance to protect himself against perils which may cause such property to be damaged or destroyed. This coverage shall be similar to the former All Risks of Physical Loss Form, including, if available, Collapse. Title to such work in progress, whether completed or not, shall remain vested in the Contractor until finally accepted by the Owner.
- E. **Owner's Protective Liability:** The Supplier shall furnish from a carrier acceptable to the Owner, a policy of liability insurance, commonly called "Owner's Protective Liability" in the name of the Board of Water and Sewer Commissioners of the City of Mobile, d/b/a MAWSS, providing "Independent Contractor's Coverage" for the operations embraced by this Contract with limits of \$1,000,000 bodily injury and \$1,000,000 property damage. Policy shall be endorsed that the premium is to be paid by the named Supplier.

**END OF INSURANCE**

**IFB 23-039 WIRE FENCING – ANNUAL CONTRACT  
SPECIAL PROVISIONS**

**SAFETY AND HEALTH REQUIREMENTS:**

NOTICE TO CONTRACTORS, VENDORS, SUPPLIERS AND DELIVERY COMPANIES PERFORMING WORK FOR THE BOARD OF WATER AND SEWER COMMISSIONERS OF THE CITY OF MOBILE:

The Contractor shall comply with the Department of Labor Safety and Health Regulations for construction promulgated under the Occupational Safety and Health Act of 1970 (P.L. 91-596) and under Section 107 of the Contract Work Hours and Safety Standards Act (P.L. 91-54) and any amendments or additions thereto.

The Contractor shall be familiar and comply with the Board’s Safety Rules Handbook in so far as it augments the specific regulation referred to in this Section.

The Contractor alone shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. The Contractor shall take all necessary precautions for the safety of, and shall provide necessary protection to prevent damage, injury or loss to:

- A. All employees on the Work and other persons and organizations who may be affected thereby.
- B. All the Work and materials and equipment to be incorporated the rein, whether in storage on or off the site.
- C. Other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal relocation or replacement in the course of construction.

The Contractor shall comply with all applicable Laws and Regulations of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection. All damage, injury or loss to any property caused, directly or indirectly, in whole or in part, by Contractor any Subcontractor, Supplier or any other person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, shall be remedied by the Contractor.

The Contractor shall designate a responsible representative at the site whose duty shall be the prevention of accidents. This person shall be the Contractor’s superintendent unless otherwise designated in writing by the Contractor to the Owner. The Contractor shall procure the referenced safety and health regulations, shall keep them on file, and shall require all supervisory personnel to become familiar with them.

1. Any party performing work or making deliveries on Mobile Area Water and Sewer System (MAWSS) property, public property, or private property for the MAWSS shall report details of any accident causing injury to employees other than MAWSS personnel within 24 hours to the designated MAWSS employee having responsibility for that work site or work activity.

Upon notification to appropriate MAWSS site personnel, the Contractor will notify the MAWSS Safety Department in written format as found on the “MAWSS Contractor Accident Report” so that records may be maintained for informational purposes.

The Board of Water and Sewer Commissioners will not accept liability for accidents or injury to personnel, damage to equipment or theft of property involving contractors, vendors, suppliers or delivery companies.

2. To conduct business with the Board of Water and Sewer Commissioners, contractors, vendors, suppliers or delivery companies must certify in writing that they have in force a drug and alcohol policy at least equal to that established for the Mobile Area Water and Sewer System’s zero tolerance drug policy.



**IFB 23-039 WIRE FENCING – ANNUAL CONTRACT  
SDP POLICY ACKNOWLEDGEMENT**

A copy of the SDP policy that applies to this Invitation For Bid has been included in this package. It is the responsibility of the bidder to read and meet the requirements of this policy. Please contact the Supplier Diversity Program Manager, Felicia Thomas, at 251-694-3194 or [fthomas@mawss.com](mailto:fthomas@mawss.com) for any questions regarding this policy. **Bidders MUST acknowledge receipt of this policy and submit the all required documentation with the bid proposal.**

Bidders shall take all necessary and reasonable steps in accordance with this Policy to ensure that Diverse Contractors/Suppliers have the maximum allowable opportunity to compete for subcontracts and contracts for services, supplies, or other goods. Bidders shall not discriminate in awarding subcontracts and supplier contracts on the basis of race, color, national origin, ethnicity, or sex, during the bid process as well as during performance of a MAWSS contract.

**The following documentation must be included in the bid proposal.**

- SDP Policy Acknowledgement **and**
- SDP Subcontracting Plan **and**
- Written correspondence from each Diverse Contractor/Supplier

**OR**

- SDP Policy Acknowledgement **and**
- SDP Subcontracting Plan **and**
- Affidavit of Contractor’s Good Faith Efforts to Meet Supplier Diversity Goals **and**
- Documentation supporting the statements in the Affidavit

Please refer to the attached policy for more information regarding these requirements as well as all other requirements of this policy.

The signer declares under penalty of perjury that she/he is authorized to sign this document and bind the company or organization to the all of the requirements of this policy.

Company Name \_\_\_\_\_

Submitted By \_\_\_\_\_ Title \_\_\_\_\_  
Please Print

Signature \_\_\_\_\_ Date \_\_\_\_\_

**IFB 23-039 WIRE FENCING – ANNUAL CONTRACT  
SDP SUBCONTRACTING PLAN**

In order for your proposal to be considered, must complete all blanks in this Subcontracting Plan and sign with a handwritten signature where indicated below and include this form in your proposal.

**Failure to fill in the blanks on this Subcontracting Plan and/or to include a handwritten signature will be cause for rejection of your bid.**

It is MAWSS's goal that in all contracts, contractors shall make a demonstrated good faith effort to award 15% of the contract amount to certified Disadvantaged Business Entities [SDP's] / Diverse Suppliers as subcontractors and/or suppliers performing commercially useful functions which are consistent with contract requirements.

Copies of MAWSS SDP Policy 16-01 (for public works projects), SDP/Supplier Diversity Policy 17-01 (for contracts for other goods and services), MAWSS's list of certified Disadvantaged Business Enterprises (SDPs) / Diverse Suppliers, and lists of organizations that have information on SDPs / Diverse Suppliers are available from MAWSS's Supplier Diversity Office (251-694-3194) or from the MAWSS website at [www.mawss.com](http://www.mawss.com).

STATE WHAT PERCENTAGE OF THE WORK FOR THIS CONTRACT YOU PLAN TO AWARD TO SDP/DIVERSE SUPPLIER SUBCONTRACTORS AND/OR VENDORS	TOTAL %
ESTIMATED TOTAL DOLLAR AMOUNT TO BE AWARDED TO SDP/DIVERSE SUPPLIER	TOTAL \$
AMOUNT BID FOR THIS CONTRACT	TOTAL \$

If the above percentage is zero or is less than 15%, be sure to include your Affidavit of Contractor's Good Faith Efforts to Meet Subcontractor / Vendor Diversity Goals and all supporting documentation in your bid package.

Please list below all subcontractors and suppliers which you plan to use for this contract. Also indicate which of these are SDPs / Diverse Supplier by writing "Yes" or "No" where indicated. Also list for each the percentage of the total contract amount to be performed by each and the certification group the SDP / Diverse Supplier is certified with. Attach additional sheets if needed. (If you are not using any subcontractors or vendors, you will need to write "zero" below and sign the form.)

SUBCONTRACTOR/VENDOR NAME	SDP/DIVERSE SUPPLIER (Yes or No)	% OF CONTRACT	CERTIFICATION GROUP (MAWSS, ALDOT, ADECA, SRMSDC, BCIA)
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

**CAUTION: ACCURATELY COMPLETE ALL PARTS OF THIS FORM AND SIGN BELOW.**

**WE WILL EXERCISE GOOD FAITH TO COMPLY WITH THIS PLAN AND MAWSS' SDP REQUIREMENTS.**

\_\_\_\_\_  
**BIDDER**

\_\_\_\_\_  
**BY**

**IFB 23-039 WIRE FENCING - ANNUAL CONTRACT  
BID FORM**

<u>ITEM #</u>	<u>DESCRIPTION</u>	<u>UNIT OF MEAS.</u>	<u>QTY</u>	<u>UNIT PRICE DOLLARS/CENT</u>	<u>TOTAL DOLLAR/CENTS</u>
1	3 Strands Barbed Wire Strung throughout Fence	LF	6,000		
2	6'- 6" Green T- Posts	EA	400		
3	6" x 8' Round Fence Pull Posts	EA	40		
4	4" x 10' Round Fence Post for Bracing Corners to Pull Post Assembly	EA	40		
<b>TOTAL BID</b>					

**Notes:**

- The Quantities listed in this proposal are for determining the low bidder and in no way represent the quantities for this annual contract. If the unit price bid is considered high by the Owner, the Owner may use other forces to perform that item. This contract is to enhance the Owner's forces and does not give the Contractor exclusive right to perform the work listed above.**
- The contract amount performed in a given year shall not exceed MAWSS budget for this work, which may be significantly less than contract amount awarded.**
- Proposals in which the unit or lump sum prices bid are obviously unbalanced may be rejected in accordance with MAWSS standard specifications.**

**Delivery After Receipt of Order:** \_\_\_\_\_ **Payment Terms:** \_\_\_\_\_

Company Name \_\_\_\_\_

Address \_\_\_\_\_

City, State, Zip \_\_\_\_\_

Submitted By \_\_\_\_\_ Title \_\_\_\_\_

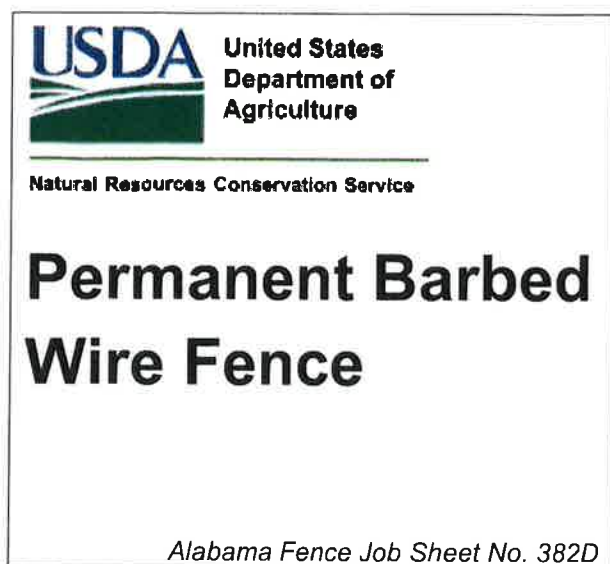
Please Print

Phone \_\_\_\_\_ Email Address \_\_\_\_\_

The signer declares under penalty of perjury that she/he is authorized to sign this document and bind the company or organization to the all of the terms and conditions of this agreement.

Signature \_\_\_\_\_ Date \_\_\_\_\_

# **APPENDIX**



The barb wire fence is well suited for the restraint and management of large livestock, particularly cattle. When constructed in accordance with NRCS specifications and quality materials, the barbed wire fence provides quality fencing with a life of about twenty or more years. In addition to its relatively long service the barbed wire fence has advantages in its feasibility on most sites, the relative ease of construction, and the relative low cost and feasibility of repairs. The barbed wire fence is not well suited for the restraint of smaller species/classes of livestock. It is not recommended for horses.

### **Purposes**

This practice is applied to facilitate the application of conservation practices by providing a means to control movement of animals and people.

Specific purposes may include:

- Exclusion of livestock for natural resource benefits
- Exclusion of animals or humans for safety concerns
- Cross fencing for prescribed grazing
- Fencing to establish pastures in a grazing system

Following are basic specifications for construction. Additional information is located within the attached drawings and in the Alabama NRCS Construction Specifications or Fence Job Sheet number AL382. Use the following link to navigate to the AL NRCS conservation practices:

(<http://efotg.sc.egov.usda.gov/treemenuFS.aspx>).

This job sheet may be used in conjunction with Barbed Wire Fence practices identified in the Environmental Quality Incentives Program (EQIP).

Component	Specifications																						
Barbed Wire	The barbed wire shall be new, double strand steel, 12 ½ gauge; or 15 ½ gauge high tensile (Galvanized Class III) barbed wire. For cattle set top wire at least 42 inches above ground. <b>Minimum number of wire strands for EQIP customers (circle one) Three / Four</b>																						
Line Posts	<ul style="list-style-type: none"> <li>• Metal posts shall be new standard steel “T” or “U” posts (≥ 1.25 lbs./linear ft.); or,</li> <li>• New wooden posts with nominal diameter of 3” in diameter;               <ul style="list-style-type: none"> <li>○ preservative treated wooden posts (meet federal TT-W-571 or the AWWA specifications, see below),</li> <li>○ untreated posts of red cedar heartwood with one-half diameter made of heartwood, pine heartwood, Osage orange, black and honey locust, catalpa or mulberry</li> </ul> </li> <li>• Used utility poles must meet requirements in the associated attachment.</li> <li>• Posts spacing: ≤16 feet and no stays; or, up to 30 ft. with stays evenly spaced between posts</li> <li>• Wood posts will be placed ≥ 2 ft. in the ground and steel posts will be driven ≥ 18 in. into the ground.</li> <li>• <b>Receive approval from NRCS before using trees as fence posts.</b></li> </ul>																						
Brace Units	<ul style="list-style-type: none"> <li>• Line brace or pull assembly units: High tensile 15.5 gauge wire - ≤ 1320 feet, otherwise ≤ 660 feet. Closer spacing will be needed for major changes in slope and/or changes in direction &gt; 30°.</li> <li>• <b>Brace units will follow the attached drawings.</b></li> <li>• Wooden anchor posts shall be ≥ 5” in diameter and cross members ≥ 4” in diameter. Steel anchor posts shall be 2.5 inches (nominal) in diameter. Steel cross members will be 2.0 inches (nominal) in diameter. Steel members will be high quality galvanized or painted. Tops will be capped.</li> <li>• Used utility poles must meet requirements in the associated attachment.</li> <li>• Corner or gate brace assembly anchor posts, and in-line brace units will be set 30" deep in concrete in 12" diameter hole or set 36" deep.</li> <li>• Brace horizontal cross members will be at least 8’ long, placed 8’ – 12’ below post top, between top two wires. Use 9 gauge galvanized , 12.5 gauge high tensile smooth or 15.5 gauge high tensile barbed wire for brace tensioning.</li> </ul>																						
Required New Wood Posts Preservative Treatment Levels, AWWA- U1-015, UC4A or later standard.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Wood Preservative Treatment</th> <th style="text-align: center;">Retention (lb/ft3)</th> </tr> <tr> <th></th> <th style="text-align: center;">UC4A (general use)</th> </tr> </thead> <tbody> <tr> <td>Creosote coal tar</td> <td style="text-align: center;">8</td> </tr> <tr> <td>Pentachlorophenol</td> <td style="text-align: center;">0.4</td> </tr> <tr> <td>Copper naphthenate</td> <td style="text-align: center;">0.055</td> </tr> <tr> <td>Ammoniacal copper zinc arsenate*</td> <td style="text-align: center;">0.4</td> </tr> <tr> <td>Chromated Copper Arsenate</td> <td style="text-align: center;">0.4</td> </tr> <tr> <td>Alkaline copper quat (ACQ)*</td> <td style="text-align: center;">0.4</td> </tr> <tr> <td>Copper azole, type B (CA-B)*</td> <td style="text-align: center;">0.21</td> </tr> <tr> <td>Copper azole, type C (CA-C)*</td> <td style="text-align: center;">0.15</td> </tr> <tr> <td>Dispersed copper azole (ESR reports)</td> <td style="text-align: center;">0.15</td> </tr> </tbody> </table>	Wood Preservative Treatment	Retention (lb/ft3)		UC4A (general use)	Creosote coal tar	8	Pentachlorophenol	0.4	Copper naphthenate	0.055	Ammoniacal copper zinc arsenate*	0.4	Chromated Copper Arsenate	0.4	Alkaline copper quat (ACQ)*	0.4	Copper azole, type B (CA-B)*	0.21	Copper azole, type C (CA-C)*	0.15	Dispersed copper azole (ESR reports)	0.15
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UC4A: General use, agricultural posts, cross bracing.																							

\*Do not use aluminum staples with ACQ treated wood due to corrosion.  
Do not use landscape wood products as they typically do not meet wood preservative requirements.

**Attachments:**

- Drawing - AL-ECS-382-01 Single Corner Post or Angle Brace Assembly with Sliding Plate
- Drawing - AL-ECS-382-05 H-Brace Pull Assembly
- Drawing - AL-ECS-382-06 Wire Fence Braces (Floating In-Line Corner and H-braces)
- Drawing - AL-ECS-382-08 3, 4, or 5 Strand Barbed Wire Fence
- Drawing - AL-ECS-382-20 Double Panel (H + N Brace) Corner Brace Assembly
- Job Sheet No. AL382A Selection and Use of Wood Utility Poles in Fence Systems

**All substitutions in materials or modifications in the design from those contained herein must receive written approval by NRCS prior to beginning construction.**

**Practice Design (planning process) and Construction Certification**

Landowner/Cooperator: \_\_\_\_\_

Field Office: \_\_\_\_\_

Farm/Tract Number: \_\_\_\_\_

**All substitutions in materials or modifications in design from those given under specifications must be approved by NRCS prior to beginning construction.**

**Planned Fence Amounts and Construction Approval\***

Farm No.	Tract Number	Field Number	Fence Run Number	Planned Length	Applied Length	Meets Standards and Specifications/Approved by:	Date Fence Construction Approved

**Additional Planning Notes:**


\*Attach drawings or maps that identify planned fence run identification, locations, length and constructed location and lengths.

**Approved Modifications:**


Prepared By: \_\_\_\_\_ Date: \_\_\_\_\_

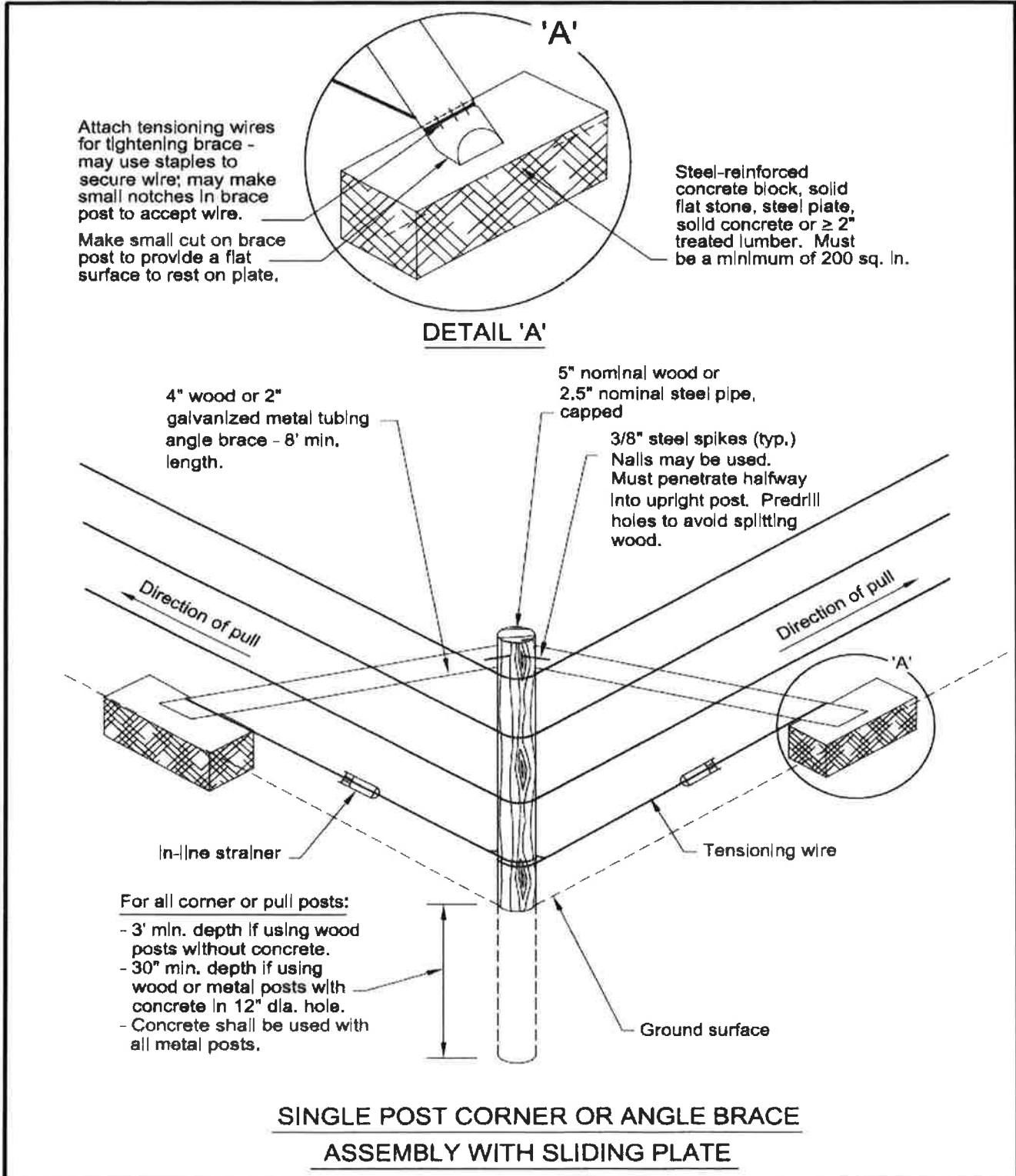
Landowner signature: \_\_\_\_\_ Date: \_\_\_\_\_


**Post Fence Construction Notes:**


**Prepared By:** \_\_\_\_\_ **Date:** \_\_\_\_\_

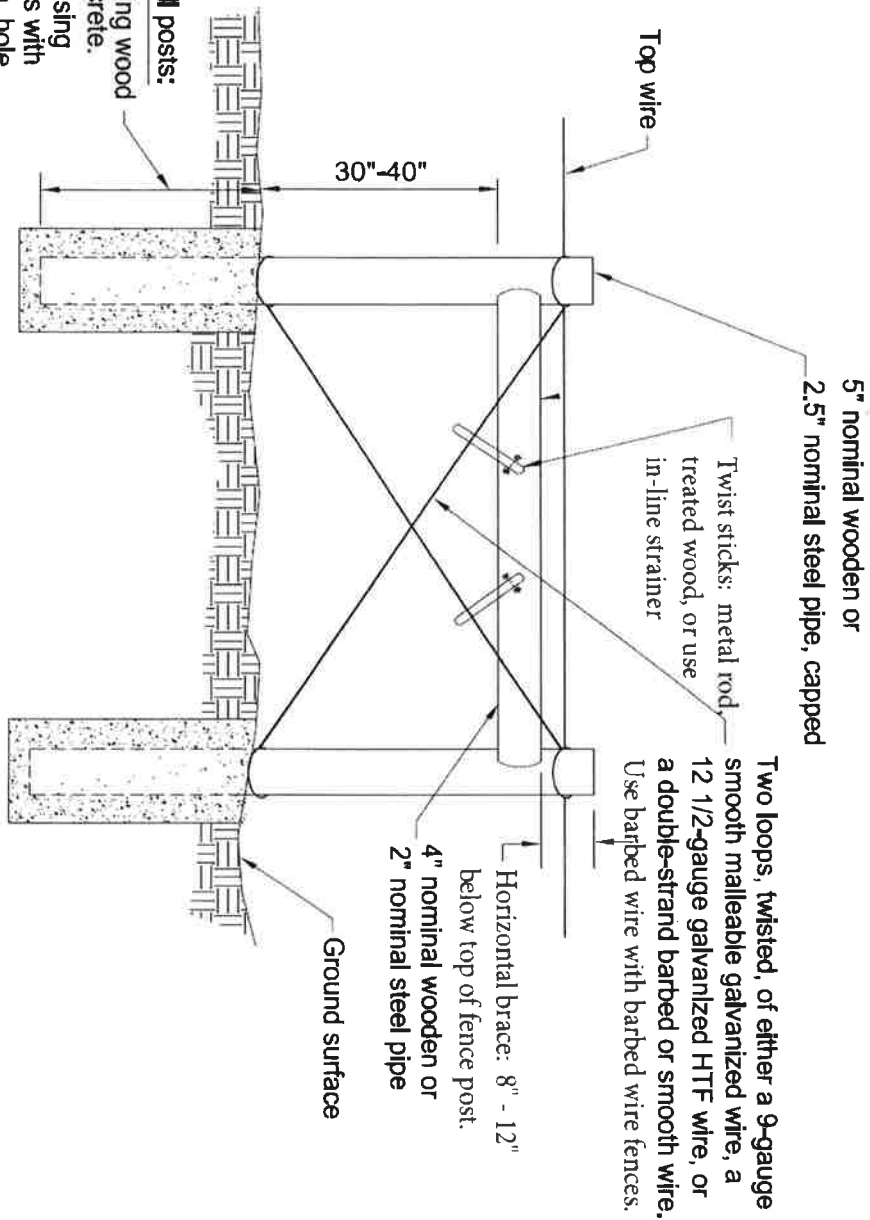
**Landowner signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_





 <p>Natural Resources Conservation Service United States Department of Agriculture</p>	Designed _____	Date _____	File Name _____
	Drawn _____		Drawing Name AL-ECS-382-01
	Checked _____		Rev. 2/16
	Approved _____	5/12	Sheet of _____

- For all corner or pull posts:**
- 3' min. depth if using wood posts without concrete.
  - 30" min. depth if using wood or steel posts with concrete in 12" dia. hole.
  - Concrete shall be used with all steel posts.



**H-BRACE PULL ASSEMBLY**

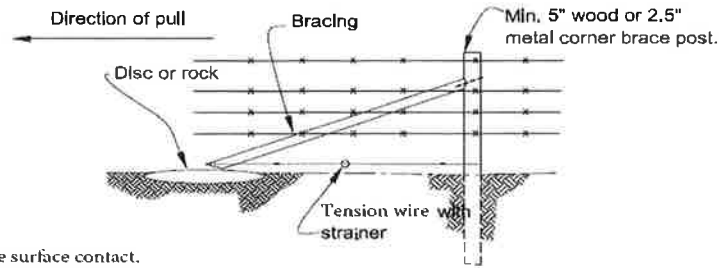


Designed _____	Date _____
Drawn _____	
Checked _____	
Approved _____	5/12

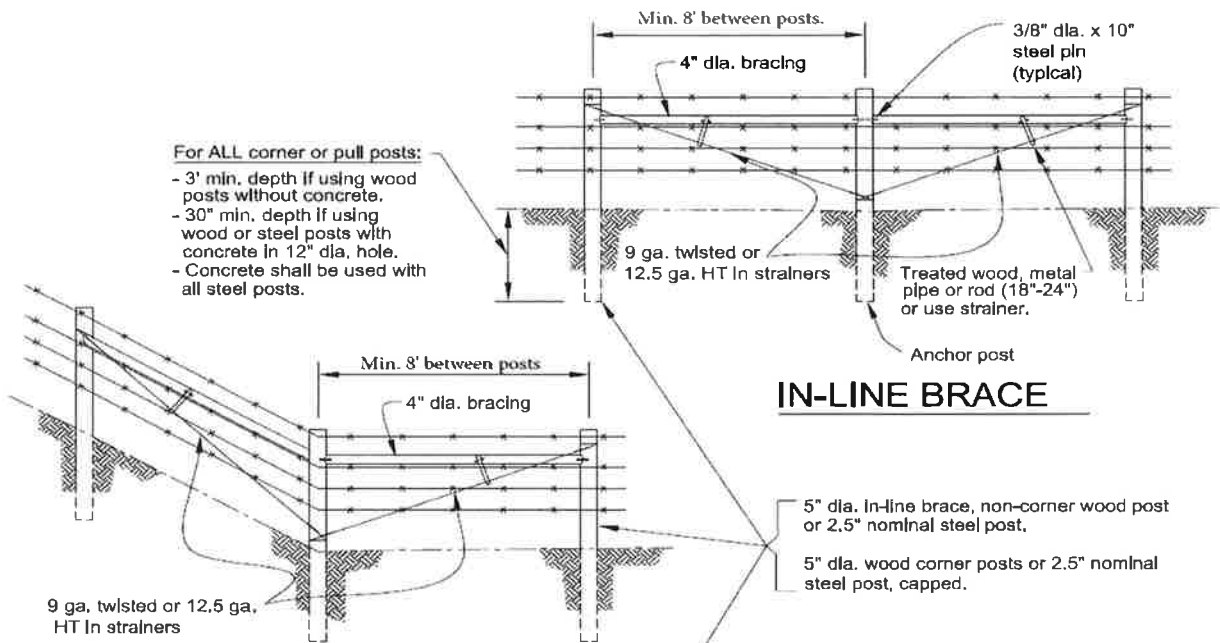
File Name
Drawing Name AL-ECS-382-05
00/00/00 00:00
Sheet of

**Notes for floating brace:**

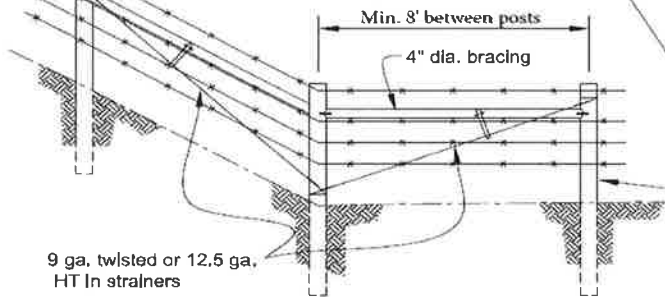
1. Use 2" dia. steel pipe or 4" dia. wood cross-member. Landscape timbers are not permitted.
2. Use 8" spike nail or brace pin at connection to post.
3. Use 15" min. disc blade or flat stone as shown. Min. 200 sq. in. surface area. Do not use cinder blocks.
4. Notch brace member 3/8" at lower end to accept tension wire. Make slight cut on lower side of angle brace to provide more surface contact.
5. Clinch tension wires both directions with wire or crimping sleeve.
6. Set posts in ground at least 36" deep (or 30" deep in concrete) in 12" dia. hole.
7. Steel reinforced solid concrete block or treated board min. of 2 inches thick may also be used to support the angle brace.



**FLOATING BRACE**



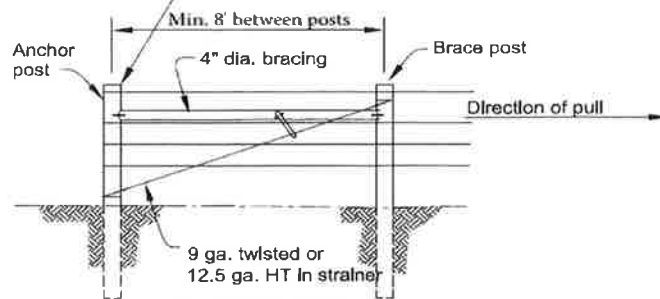
**IN-LINE BRACE**



**CORNER BRACE**

**For ALL corner or pull posts:**  
 - 3' min. depth if using wood posts without concrete.  
 - 30" min. depth if using wood or steel posts with concrete in 12" dia. hole.  
 - Concrete shall be used with all steel posts.

5" dia. in-line brace, non-corner wood post or 2.5" nominal steel post.  
 5" dia. wood corner posts or 2.5" nominal steel post, capped.



**H BRACE**

**For all horizontal brace members:**  
 Min. of 8' long  
 Min. 4" diameter treated wood or 2" diameter steel pipe  
 Place 8" - 12" below top of fence post.

Drawing not to scale. Standardized drawing must be adapted to the specific site.



**WIRE FENCE BRACES  
 ( Floating, In-line,  
 Corner and H-braces)**

Designed _____	Date _____	File Name _____
Drawn _____		Drawing Name AL-ECS-382-06
Checked _____		00/00/00 00:00
Approved _____	5/12	Sheet _____ of _____

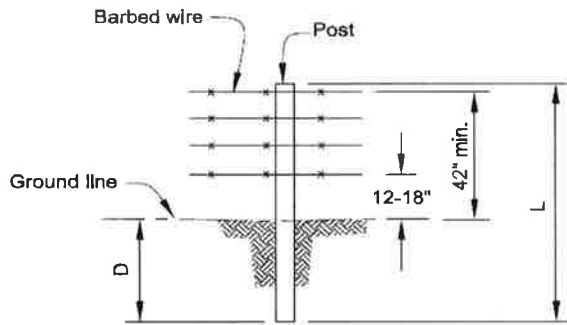
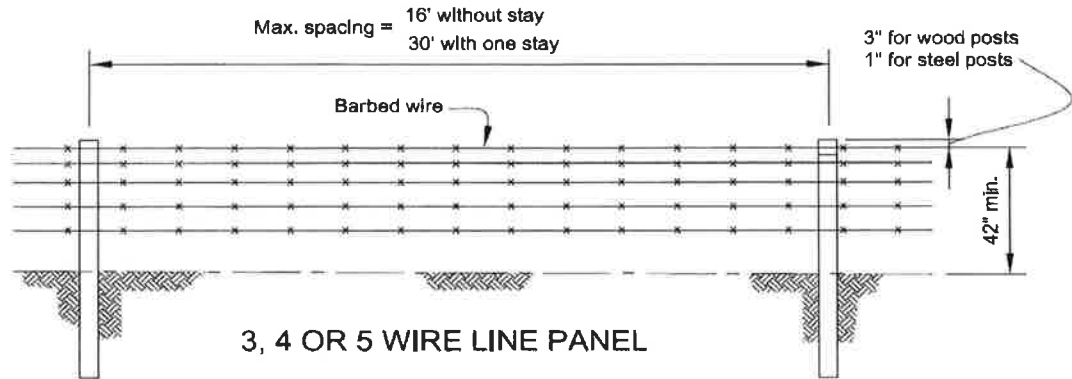
USDA-NRCS  
ALABAMA  
STANDARD  
DRAWING

FOTG SECTION IV  
CONSERVATION PRACTICE

CODE 382 - FENCE  
3, 4 or 5 STRAND BARBED WIRE FENCE

STANDARD DRAWING NO.  
AL-ECS-382-08

APPROVED: 5/12  
DRAWN BY:  
REVISED: 2/15



BARBED WIRE DETAIL

BARBED WIRE

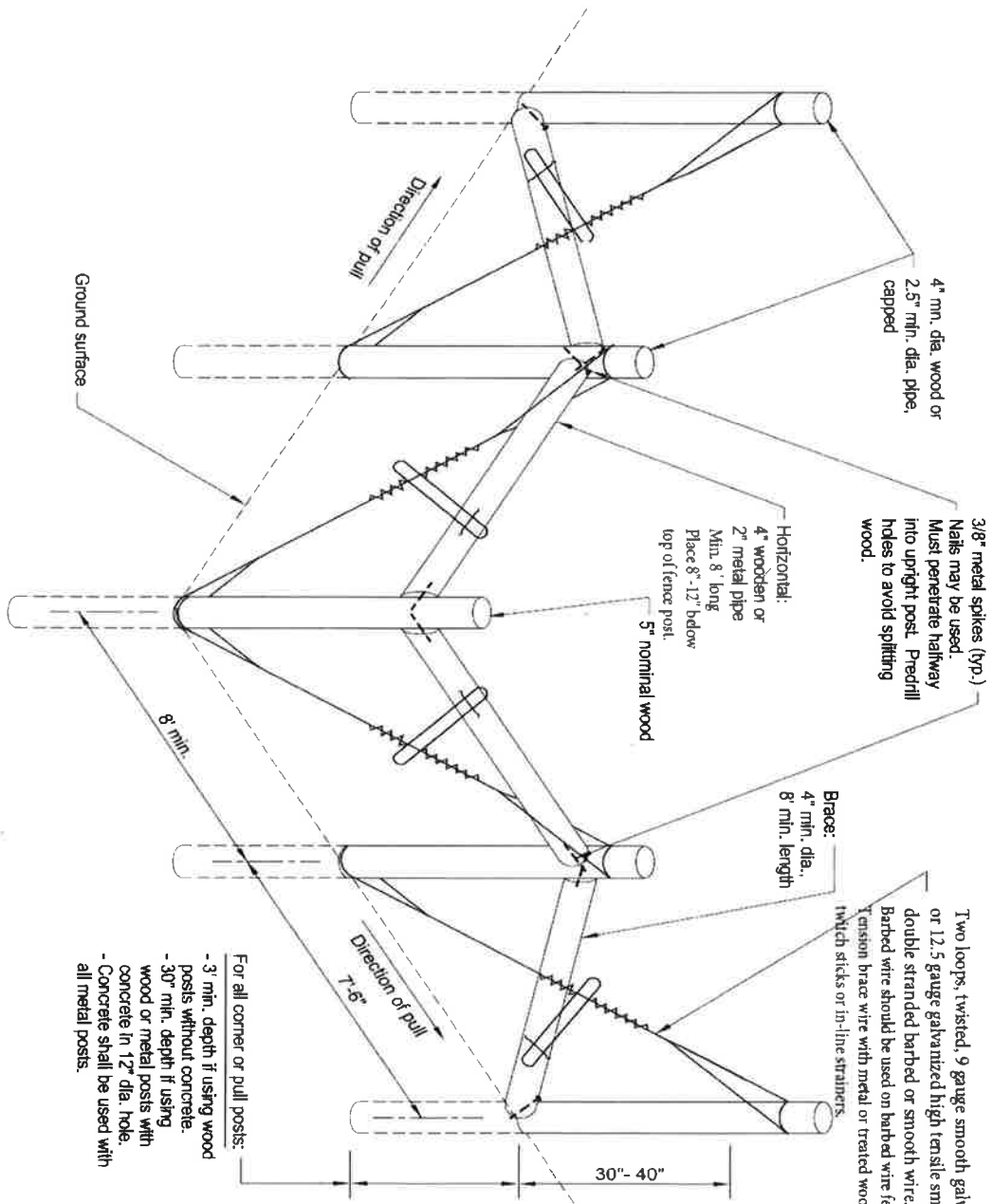
12 1/2 gauge conventional or  
15 1/2 gauge high-tensile non-electric

LINE	Wood: L = 6 ft. min. D = 24 in. min. Diameter = 3 in. min. *Do not use landscape timbers	Steel: L = 5.5 ft. min. D = 18 in. min. Standard "T" or "U" > 1.25 lbs/ft
CORNER OR GATE	Wood: L = 7 ft. min. D = 3 ft. min./30" w/concrete Diameter = 5 in. min.	Steel: L = 7 ft. min. D = 30 in. min. (set in concrete) Diameter = Round 2-1/2 in. O.D. (capped)
FASTENERS:	Porcelain or UV stabilized plastic insulators	
STAPLES:	9 gauge (min) , 1 1/2" w/barbs for softwoods and 1" for hardwoods	
STAYS:	5/8" min. fiberglass, 9.5 gauge wire twist or 1"x1.5" high density wood	

EXCEPTIONS:

1. See construction specification (382) for further details and options.
2. Place strands of barbed wire closer to ground when goats, sheep or hogs are fenced.
3. For use as a suspension fence, see construction specification for barbed wire.

Drawing not to scale. Standardized drawing must be adapted to the specific site.



**DOUBLE PANEL (H & N BRACE) CORNER BRACE ASSEMBLY**

For all corner or pull posts:  
 - 3' min. depth if using wood posts without concrete.  
 - 30" min. depth if using wood or metal posts with concrete in 12" dia. hole.  
 - Concrete shall be used with all metal posts.



Designed _____	Date _____	File Name _____
Drawn _____		Drawing Name AL-ECS-382-20
Checked _____		00/00/00 00:00
Approved _____		Sheet _____ of _____



Natural Resources Conservation Service

## Selection and Use of Wood Utility Poles in Fence Systems

Alabama Guide Sheet No. AL382A



In order to meet the national and state NRCS conservation practice standards (CPS), fencing materials shall be durable and of high quality. Wood utility poles may be used in fencing in limited circumstances and primarily for gate posts, pull assemblies, and bracing.

The section from the wood utility pole (called utility fence post) used in fencing must be of high quality, without rot, structural damage or damage from insects or woodpeckers. Additionally, it must be free of drilled holes, non-fence related appurtenances, or visible cracks into the heart wood of the post.

To check the utility posts for internal rot strike the post in question with a hammer to detect voids or rot in the wood. Voids will make "hollow sounds" when the post is struck by the hammer. Typically hammers will rebound more from a solid post than when hitting a section with an internal decay pocket. The internal decay pocket may also cause a sound that is dulled compared to the crisp sound of a solid pole section.

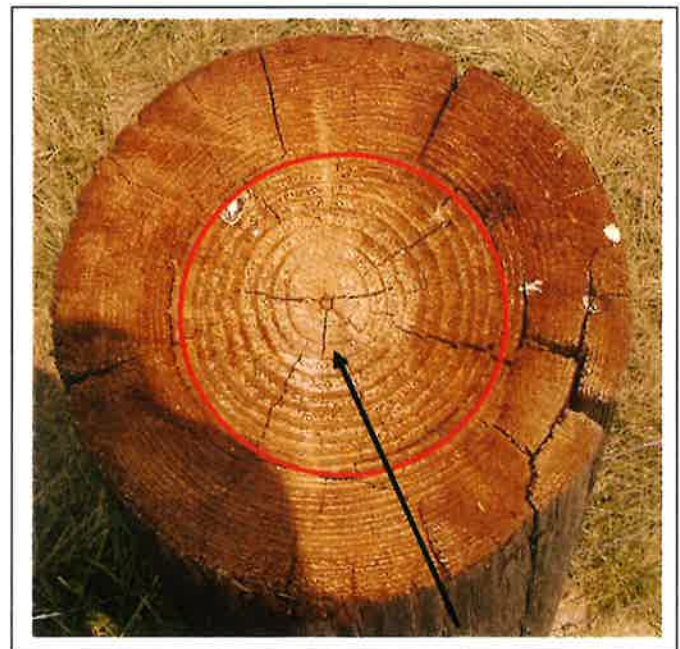
When internal rot is detected in the utility pole, either replace the pole or trim the pole as needed to ensure the section used for the post is rot free.

Due to their high risk of rot, sections of older utility poles that have previously been used at ground level and below shall not be used as a fence post.

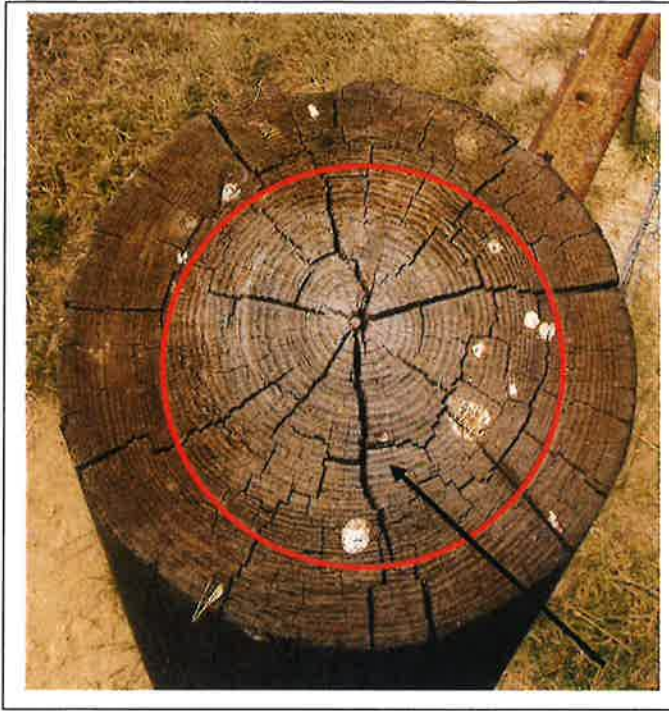
The heartwood of the utility fence post must equal or exceed the diameter of the planned post in the NRCS Fence standard. See examples in Figures 1 and 2. The non-heartwood or outer shell of the post must be of sufficient quality to properly hold appurtenances needed in fencing, such as staples, nails, stand-off insulators or gates.

Used wooden utility fence posts will be a minimum of class 10 American National Standards Institute (ANSI) or about 12 inches in diameter.

Utility fence posts shall be installed according to instructions in Alabama CPS, Fence, Code 382, and related guidance documents. For example, the length of the utility fence post must equal or exceed the designed post length. In addition, all installed posts will have an impervious barrier placed on top of post to keep water from entering into the post.



**Figure 1.** Suitable Utility Post. The red circle shows the approximate boundary of heartwood. Wood splits are mostly from outer edge of post to the edge of the heartwood.



**Figure 2.** Non-suitable Utility Post. The red circle depicts the approximate boundary of heartwood. Numerous cracks penetrate into the center.

### References

USDA RUS Bulletin, 1730B-121, Wood Pole Inspection and Maintenance,

[http://www.rd.usda.gov/files/UEP\\_Bulletin\\_1730B-121.pdf](http://www.rd.usda.gov/files/UEP_Bulletin_1730B-121.pdf)

Standard Specifications for Wood Poles, USDA Forest Service,

<http://www.fpl.fs.fed.us/documnts/pdf1997/wolfe97b.pdf>

## Fence

### Barbed Wire

#### Conservation Practice Job Sheet

RI-382(a)



#### Definition

A constructed barrier to livestock, wildlife, or people.

#### Purpose

This job sheet is provided as a component of a resource conservation plan. This practice may be applied to contain and control livestock and wildlife movement, facilitate a prescribed grazing system, protect sensitive areas from grazing livestock, and to eliminate access to unsafe areas.

#### Conditions where Practice Applies

This practice may be used on any area where a fence is needed to control access, movement and containment of livestock and wildlife and where people safety and movement is of

concern. Conservation plan maps showing the approximate fence location, complementary conservation practices, grazing schedule, other relevant information, and additional specifications may be included.

Barbed wire fence is not recommended for horses.

#### General Criteria and Specifications

All fence construction shall comply with federal, state, and local fencing codes. Practice Lifespan is 20 years.

#### Fence Line Clearing

Fence lines will be cleared of brush and trees; gullies and steep banks may require grading. Clearing along stream banks will be held to a minimum and no vegetation may be removed within the buffer area, except as required for stream crossings.

Fencing materials shall be of a quality and durability that meets the intended management objectives. Construction shall be performed in a manner that meets the intended management objective. Wire and hardware will be new, galvanized material.

#### Line Post

Maximum spacing between line posts is 16.5 feet. All wooden line posts shall be set at least 30" into the ground.

#### Suitable line posts

3½" in diameter wooden posts of black locust, red cedar (mostly heartwood), redwood, and pressure treated pine or other wood of equal life and strength. Pressure treatment shall meet the requirements for ground contact.



Steel posts must be new, and be painted or galvanized and weigh a minimum of 1.25 pounds per one foot of length. Post will be driven 18" in the ground or as specified by manufacturer. **Every 50 feet or 4<sup>th</sup> post will be wooden.**

The following steel posts are acceptable for line posts:

Style 1 – "T" Section 1-3/8" x 1-3/8" x 1/8" thick

Style 2 – "U" Section 2" x 1-1/4" x 3/32"

Style 3 – "L" Section 2" x 2" x 1/4"

Lightweight stamped-steel posts are not allowed.

#### Brace Posts

Posts shall be set and maintained in a vertical position. All wooden brace posts are to be 5" minimum diameter and set 3 feet into the ground. Horizontal rail brace posts are to be 4" minimum diameter by 8 feet long and be installed 8"-12" below the top of the vertical brace post.

#### Corners and Braces

Refer to drawings on pages 7 through 9 for fence brace configurations and spacing.

#### Single H Braces

Single H Brace corners and end braces may only be installed at the ends of straight fence spans of 165 feet or less.

#### Double H Braces

All corners, fence line ends and gate openings require Double H Brace assemblies, except that Single H Braces may be substituted in straight fence spans of 165 feet or less.

#### Double H Brace Pull Assemblies

Double H Brace pull assemblies are required in straight fence spans at a maximum spacing of 660 feet. Brace wire shall be high tensile, galvanized steel, or 9 gauge soft wire.

#### Adjoining Fences

A fence adjoining an existing fence must terminate in a brace assembly as required above.

#### Corners

A bend in the fence tighter than 20 degrees is considered a corner and not a "straight" pull brace. (In an 8-foot long brace section, 20 degrees is approximately 3 feet off the straight line. Refer to drawings). The above H brace rules apply to corners considering each wire-pull direction from the corner post. Combination single and double H corners are permitted.

If hand set, all backfilled material shall be thoroughly tamped in 4" layers. Post holes shall be at least 6" larger than the diameter or side dimension of the posts. Synthetic posts are to be installed as specified by the manufacturer. If concrete backfill is used, the concrete must be pre-mixed, and worked into place up to the ground surface. No stress shall be applied to posts set in concrete for at least 24 hours after the concrete has set.

#### Wire

All barbed wire shall consist of class 3 galvanized 4-point barbs spaced not more than 5" apart. Galvanized barbed wire shall be fabricated from 12-1/2 gauge class 1 galvanized or better or 15-1/2 gauge class 3 galvanized strand wire and shall meet the requirements of ASTM A121. HT Class 3 barbed 15 1/2 gauge wire meeting the requirement of ASTM A121 may also be used.

**Wire Placement** - see table 1 at end of job sheet for placement.

Wires may be equally spaced or spaced according to figure 3.

**Stretching Wire**

Barbed Wire – Should be pulled taut. In warm weather, a stretch of 100 feet (prior to attaching to posts) should sag no more than 4” in the middle and no more than 2” in cold weather.

**Attaching Fencing to Post**

The fencing wire shall be placed on the livestock side of line posts and on the outside of corners and posts in bends and braces in bends.

Each strand of barbed wire shall be attached to each wooden post using 9-gauge galvanized 1½” staples, driven diagonally with the grain of the wood and at a slight downward angle (except in dips). Staples shall not be driven tight to the post.

Wire splices shall be crimped or spliced with 8 wraps around the other (“Western Union Splice”).

The fencing shall be fastened to steel line posts with either 2 turns of 14 gauge galvanized steel wire or the post manufacturer’s special wire clips.

**Stays and Battens**

If used, stays may be made of rot-resistant wood, plastic, fiberglass, or heavy galvanized twisted wire. Stays should be properly fastened to each fence wire. Stay length shall be sufficient for attachment to all fence wires while maintaining correct wire spacing.

**Other Considerations**

**Approved alternative fence systems** include “Common Sense Fence” or other equivalent fencing systems, approved by an NRCS Resource Conservationist (RC), and installed to manufacturer’s recommendation as approved by RC.

**Alternative fencing and bracing systems**: Alternative fencing and bracing systems must be pre-approved by an NRCS Resource Conservationist (RC), and must be installed according to manufacturer’s recommendations as approved by the RC.

Fences across gullies or streams require special braces and design. Breakaway fences or swinging water gaps allow debris and water to flow past the fence line without destroying the adjacent fence.

Any permanent fencing for grazing livestock should allow flexibility to facilitate implementation of the grazing plan and permit land management activities such as nutrient application, pest control, forage harvest, and other appropriate practices.

Follow all manufacturers’ safety precautions for handling and installing fencing materials.

Locate fences to facilitate maintenance. Where applicable, clear right of ways should be established and maintained to facilitate fence construction and maintenance.

When possible, install fences across slopes to improve grazing distribution, rainfall infiltration, and reduce soil erosion.

Locate fences to facilitate livestock management, handling, watering, and feeding.

Consider placing permanent riparian stream fencing at the edge of the protected buffer or at least 2 times the active channel width from the top of the stream bank but never less than 10 feet. It is recommended that the stream fence have a maintenance gate installed.

## Specifications Worksheet

Site-specific requirements are listed on the specifications sheet. Additional provisions are entered on the job sketch sheet. Specifications are prepared in accordance with the NRCS Field Office Technical Guide. See Conservation Practice Standard *Fence* (382).

<b>Client:</b>	<b>Farm #:</b>
<b>Field(s):</b>	<b>Tract #:</b>
<b>Planned By:</b>	<b>Location:</b>
<b>Date:</b>	<b>Length of Fence:</b>
<b>Landowner Objectives:</b>	

<b>Purpose (check all that apply)</b>	
<input type="checkbox"/> Reduce erosion and improve water quality by controlling livestock access to streams, springs, wetlands, and ponds.	<input type="checkbox"/> Protect sensitive environmental areas and the flora from vehicular, pedestrian, or animal traffic use.
<input type="checkbox"/> Protect newly planted areas from disturbance until established.	<input type="checkbox"/> Protect the safety of people, livestock, and wildlife by limiting or denying access to hazardous areas.
<input type="checkbox"/> Facilitate handling, movement, and feeding of livestock in the pasture environment.	<input type="checkbox"/> Improve distribution and timing of livestock grazing.
<input type="checkbox"/> Other (specify)	

<b>Type of Fence (Check all that apply)</b>		
<input type="checkbox"/> 3-strand barbed wire	<input type="checkbox"/> 4-strand barbed wire	<input type="checkbox"/> 5-strand barbed wire
<input type="checkbox"/> 6-strand barbed wire	<input type="checkbox"/> 8-strand barbed wire	<input type="checkbox"/>

<b>Posts</b>		
<b>Type</b> Black Locust, Eastern red cedar <p style="text-align: center;">OR</p> pressure treated pine or other preservative treated wood <p style="text-align: center;">OR</p> standard steel line posts every 50 feet or 4 <sup>th</sup> post will be wooden	<b>Size</b> Line posts are wood 8 feet or longer 3½" minimum diameter <p style="text-align: center;">OR</p> Standard steel line post 1 <sup>3</sup> / <sub>8</sub> " x 1 <sup>3</sup> / <sub>8</sub> " x 1 <sup>1</sup> / <sub>8</sub> ", with anchor plate	<b>Spacing</b> Wood line posts spaced a maximum of 16½ feet apart set 2.5 feet deep minimum <p style="text-align: center;">OR</p> Steel line posts spaced a maximum of 16½ feet apart set to top of anchor plate or 18" w/wooden post every 50 feet on 4 <sup>th</sup> post.

<b>Braces</b>	
<b>Wooden Braces</b> (8 feet minimum length)  4" diameter at small end	<b>Brace Wire</b> High Tensile, Galvanized Steel, 9 Gauge OR  12½ Gauge High Tensile, Galvanized, Double Wrapped

**Operation and Maintenance**

Inspections and maintenance are required to achieve the intended function, benefits, and life of the practice. The landowner/operator is responsible to establish and implement an inspection and maintenance program. Regular inspection of fences should be part of an ongoing maintenance program. Items to inspect and maintain during the 20-year design life of the practice include, but are not limited to, the following:

1. Inspection of fences after storm events is necessary to ensure the continued proper function of the fence. Promptly repair or replace damaged or broken fencing.
2. Retain and properly discard all broken fencing material and hardware to prevent ingestion by animals or injury to equipment, people, or animals.
3. Remove debris collected in the fencing.
4. Clear the brush from fence lines to reduce voltage loss. Vegetative control can be achieved by herbicides applied per the manufacturer's label.
5. Remove fallen limbs and maintain proper tension on the fence wires. Overhanging trees and limbs should be trimmed or removed as needed.
6. Maintain proper tension on the fence wires.
7. Follow your grazing plan, where appropriate.
8. All necessary precautions should be taken to ensure the safety of construction and maintenance crews.

**Other:**

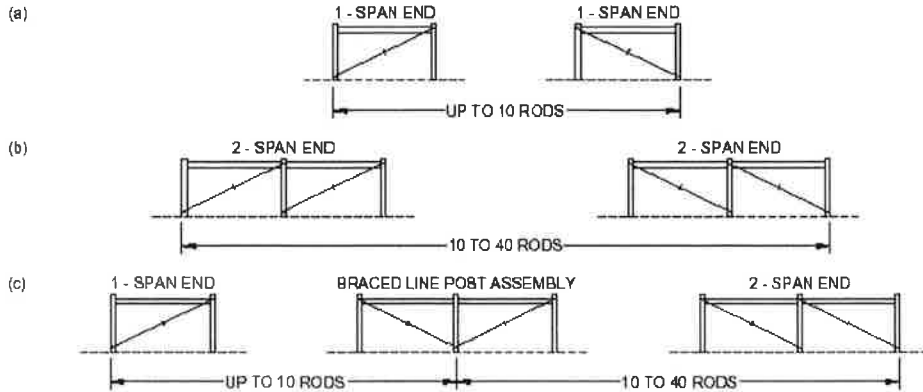
For information regarding this practice contact:

\_\_\_\_\_ at \_\_\_\_\_

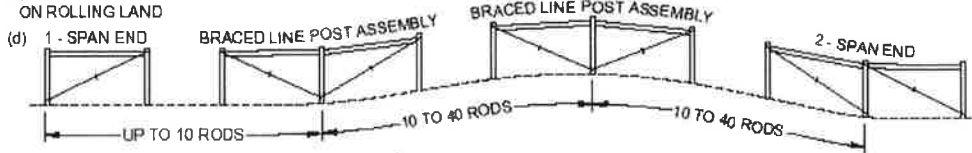
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## Specification Guidesheet for fencing 382 (a)

### STRAIGHT FENCES ON FLAT LAND



### STRAIGHT FENCES ON ROLLING LAND

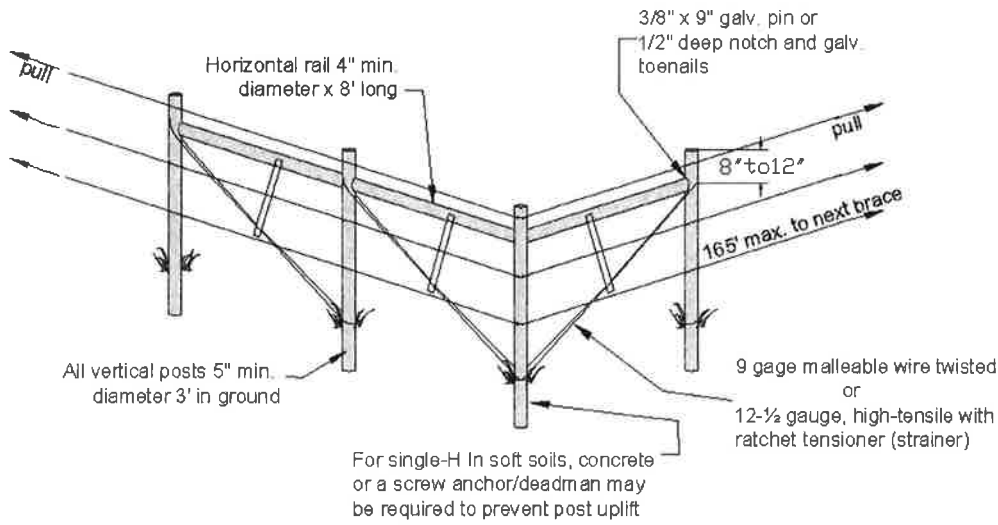


### CURVED FENCES



**Types of anchor-and brace assemblies and where to locate them:** (a) For fence lengths of 10 rods (165 feet) or less, use single-span end construction. (b) For fence lengths of 10 to 40 rods (165 to 660 feet), use double span end construction. (c) For fences more than 40 rods (660 feet) long use a braced-line-post assembly to divide the fence lengths. (d) On rolling land, fence stretching is easier if braced line-post assemblies are located at the foot and top of each hill. (e) Contour fences, more than 20 rods (330 feet) long, should have a braced-line-post assembly installed to keep the stretches to 20 rods (330 feet) or less. Install in straight section at least one post span away from a curve. Do not install on a curve.

**Note: One rod equals 16 ½ feet.**

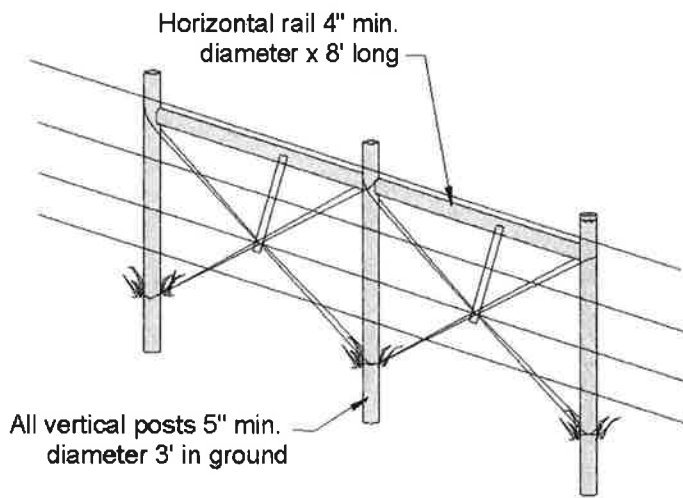


DOUBLE - H BRACE

SINGLE - H BRACE

**Typical Combination Corner Brace Assembly**

Figure 1



**Double - H Brace Pull Assembly**

Figure 2

SUGGESTED SPACING FOR BARBED WIRE

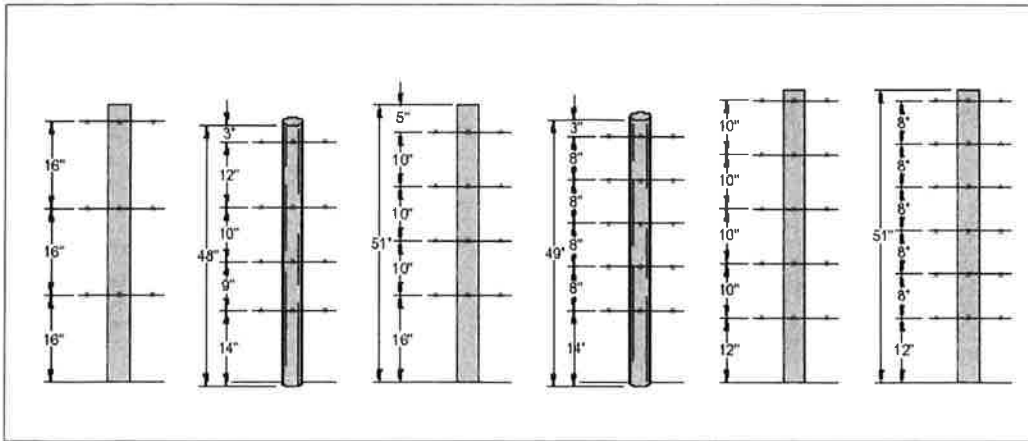
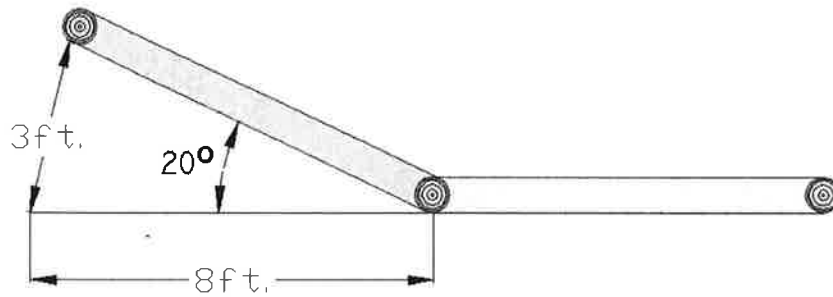


Figure 3



**Top View of Fence Brace Showing  
Minimum Angle to be Considered a Corner**

Figure 4



**RI NATURAL RESOURCES CONSERVATION SERVICE CONSERVATION PRACTICE STANDARD FENCE (382)**

**Table 1. Fence Selection Criteria**

Fence design and construction must meet the minimum requirements for controlling specific animal types.

Animal type to control	Fence type	Purpose of Fence				Spacing Inches above ground level <small>ww fences start 2-3 " above the ground</small>
		Perimeter (boundary) prohibited areas	Access lanes & stream crossings	Interior subdivision	Stream exclusion	
Minimum Criteria						
Inches						
Cattle	Barbed 3-wire	NO	NO	Meets	Meets	18, 30, 42
Cattle	Barbed 4-wire	NO	Meets	Exceeds	Exceeds	16 to 48 evenly spaced
Cattle	Barbed 5-wire	Meets	Exceeds	Exceeds	Exceeds	14 to 48 evenly spaced
Cattle	Non-Electric 4-wire high tensile smooth			Exceeds	Meets	12 to 42 evenly spaced
Cattle	Non-Electric 6-wire high tensile smooth	No	Meets	Exceeds	Exceeds	12 to 44 evenly spaced
Cattle	Non-Electric 8-wire high tensile smooth	Meets	Exceeds	Exceeds	Exceeds	12 to 44 evenly spaced
Cattle	Electric 1-wire high tensile smooth	NO	NO	Meets	NO	32
Cattle	Electric 2-wire high tensile smooth	NO	Meets	Exceeds	Meets	20, 32
Cattle	Electric 3-wire high tensile smooth	NO	Exceeds	Exceeds	Exceeds	18, 30, 42
Cattle	Electric 4-wire high tensile smooth	Meets	Exceeds	Exceeds	Exceeds	12 to 42 evenly spaced
Cattle	Electric 5-wire high tensile smooth	Exceeds	Exceeds	Exceeds	Exceeds	12 to 44 evenly spaced
Cattle	Electric 1-wire Polywire or Polytape (1 hot wire)	NO	NO	Meets	NO	32
Cattle	Electric 2-wire Polywire or Polytape (2 hot wires)	NO	Meets	Exceeds	Meets	20, 32
Cattle	Woven wire plus one or more top wire	Exceeds	Exceeds	Exceeds	Exceeds	47 min, 6 max between top wires
Cattle	Wood or Composition boards (6" wide)	Exceeds	Exceeds	Exceeds	Exceeds	6, 6, 8, 10 between boards
Cattle	HT Woven wire plus one or more top wires	Exceeds	Exceeds	Exceeds	Exceeds	47 min, 6 max between top wires
Goats & sheep	Barbed 5-wire	NO	NO	Meets	Meets	6 to 32 evenly spaced
Goats & sheep	Barbed 6-wire	NO	Meets	Exceeds	Exceeds	6 to 36 evenly spaced
Goats & sheep	Barbed 8-wire	Meets	Exceeds	Exceeds	Exceeds	6 to 48 evenly spaced
Goats & sheep	Non-Electric 5-wire high tensile smooth	NO	NO	Meets	Meets	6 to 32 evenly spaced
Goats & sheep	Non-Electric 6-wire high tensile smooth	NO	Meets	Exceeds	Exceeds	6 to 36 evenly spaced
Goats & sheep	Non-Electric 7-wire high tensile smooth	Meets	Exceeds	Exceeds	Exceeds	6 to 42 evenly spaced
Goats & sheep	Electric 3-wire high tensile smooth	NO	NO	Meets	Meets	8, 18, 30
Goats & sheep	Electric 4-wire high tensile smooth	NO	Meets	Exceeds	Exceeds	6 to 36 evenly spaced
Goats & sheep	Electric 5-wire high tensile smooth	Meets	Exceeds	Exceeds	Exceeds	6 to 38 evenly spaced
Goats & sheep	Woven wire plus one or more top wire	Exceeds	Exceeds	Exceeds	Exceeds	32 min, 6" max between top wires
Goats & sheep	Wood or Composition boards (6" wide)	Exceeds	Exceeds	Exceeds	Exceeds	6, 6, 8, 10 between boards
Goats & sheep	HT Woven wire plus one or more top wires	Exceeds	Exceeds	Exceeds	Exceeds	35 min, 6" max between top wires

Animal type to control	Fence type	Purpose of Fence				Spacing Inches above ground level <small>ww fences start 2-3 " above the ground</small>
		Perimeter (boundary) prohibited areas	Access lanes & stream crossings	Interior subdivision	Stream exclusion	
Minimum Criteria						Inches
Horses	Electric 2-wire high tensile smooth	NO	Meets	Meets	Meets	28, 38
Horses	Electric 3-wire high tensile smooth	NO	Exceeds	Exceeds	Exceeds	28, 38, 48
Horses	Electric 4-wire high tensile smooth	Meets	Exceeds	Exceeds	Exceeds	18 to 54 evenly spaced
Horses	Electric 5-wire high tensile smooth	Exceeds	Exceeds	Exceeds	Exceeds	18 to 54 evenly spaced
Horses	Electric 1-wire Polywire or Polytape	NO	NO	Meets	NO	34
Horses	Electric 2-wire Polywire or Polytape	NO	Meets	Meets	Meets	28, 48
Horses	Woven wire w/1 wire HT on top	Exceeds	Exceeds	Exceeds	Exceeds	48 + HT at 54
Horses	Mesh "No climb" 2"x4" spacing	Exceeds	Exceeds	Exceeds	Exceeds	48 + HT at 54"
Horses	Wood or Composition boards (6" wide)	Exceeds	Exceeds	Exceeds	Exceeds	18 min. 12 max. between boards
Hogs	Electric 2-wire high tensile smooth	NO	NO	Meets	Meets	8, 16
Hogs	Electric 3-wire high tensile smooth	NO	Meets	Exceeds	Exceeds	8, 16, 24
Hogs	Woven wire 32" w/ 1 wire barb or HT	Exceeds	Exceeds	Exceeds	Exceeds	32 + barb or HT at 38
Hogs	Woven wire 32" w/ 1 Ht electric inside	Meets	Meets	Meets	Meets	32 + 1 electric wire 8 off ground, 8 inside of fence.
Deer	Woven wire 96" tall w/2 strands of smooth wire	Meets	Meets	Meets	Meets	96" w/smooth wire at 9' and 10'
Buffalo	Electric 4-wire high tensile smooth	NO	NO	Meets	Meets	16 to 42 evenly spaced
Buffalo	Electric 5-wire high tensile smooth	NO	Meets	Exceeds	Exceeds	16 to 48 evenly spaced
Buffalo	Electric 6-wire high tensile smooth	Meets	Exceeds	Exceeds	Exceeds	12 to 52 evenly spaced
Chickens/turkey	Woven wire 2"x4" 1 wire HT or barb above	Exceeds	Exceeds	Exceeds	Exceeds	72
Emu and ostrich	Woven wire 6"x6" 1 wire HT or barb above	Exceeds	Exceeds	Exceeds	Exceeds	72
Chickens/turkey	HT Woven wire 2"x4" 1 wire HT or barb above	Exceeds	Exceeds	Exceeds	Exceeds	72
Emu and ostrich	HT Woven wire 6"x6" 1 wire HT or barb above	Exceeds	Exceeds	Exceeds	Exceeds	72
People	Chain link	Meets	Preferred option			60 with 1 barb above
People	Electric 5-wire	Meets				12 to 60 evenly spaced
People	Woven wire 47 inch plus 1 or 2 barbed wires or HT elec	Meets				47 min. HT or barb at 6 spacing to 48. HT may be electrified

Alternative fencing and bracing systems may be approved by the Resource Conservationist, i.e. common sense fence, horseguard or equivalent.

<b>Practice Installation Guidelines</b>
It shall be the responsibility of the landowner to obtain all necessary permits and/or rights, and to comply with all ordinances and laws pertaining to this installation.
Practice designs and specifications shall be reviewed by NRCS planner with the landowner prior to start of work for practice installation.
Contact the NRCS planner _____ at 401- _____ prior to installation. Keep NRCS planner updated throughout the installation process.
Contact the NRCS planner _____ at 401- _____ upon completion of practice.

<b>Practice specifications and special requirements</b>
Installation shall be in accordance with the following specifications and special requirements. <b>NO CHANGES ARE TO BE MADE IN THE DRAWINGS OR SPECIFICATIONS WITHOUT PRIOR APPROVAL OF THE NRCS.</b>
1. Use Practice Specifications: <u>Fencing specifications worksheet</u> <u>Specification Guide Sheet for Fencing (382)</u>
The landowner/operator acknowledges that:
A) He/she has received a copy of the practice specifications, and Operation and Maintenance plan, and that he/she has an understanding of the contents and the requirements.
B) He/she has or will obtain all of the necessary permits prior to construction.
C) No changes will be made in the installation of the job without prior concurrence of the NRCS technician.
D) This practice has a lifespan of 20 years.
E) Adherence to the Operation and Maintenance plan of the installed work is necessary for proper performance during the practice lifespan.
F) NRCS planner shall be contacted prior to installation for a review of the practice installation and at completion for practice certification.
Accepted by : _____ Date: _____
Address : _____

<b>Practice design approval</b>
Lead Discipline for this practice: <b>Biological Conservation Sciences Division</b>
Job Classification:
<input type="checkbox"/> No design changes were made. <input type="checkbox"/> Design changes were approved and are included
Design approved by: _____ Date: _____

<b>Practice certification</b>
I have made an on-site inspection and have determined that the practice has been installed according to practice standard and specifications.
Certified by: _____ Date: _____



## IFB # 23-039 Wire Fencing Purchasing Bid Checklist

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**Vendor must initial each section below indicating compliance with statement. Failure to complete this form and provide requested documentation could result in rejection of your company's bid.**

---

- \_\_\_\_\_ 1. All licenses required per the bid specs and any other state and local licenses.
- \_\_\_\_\_ 2. Bid Bond or Cashier's Check included in bid package.
- \_\_\_\_\_ 3. Insurance Requirements met and copy provided.
- \_\_\_\_\_ 4. Mandatory Pre-Bid Meeting attended.
- \_\_\_\_\_ 5. Supplier Diversity Package included.
- \_\_\_\_\_ 6. Understand Proposal, General Requirements, Special Provisions, Specifications outlined in bid package.
- \_\_\_\_\_ 7. Agree to invoicing requirements outlined in bid package.

By signing below, bidder agrees they have read and understand the terms of this bid.

\_\_\_\_\_  
Business Name of Bidder

\_\_\_\_\_  
Signature of Bidder or Authorized Agent

\_\_\_\_\_  
Date