#### WILDLIFE CONSERVATION COMMISSION

John P. Zelbst CHAIRMAN John D. Groendyke VICE CHAIRMAN Danny Robbins Bill Brewster MEMBER Leigh Gaddis MEMBER Robert S. Hughes

SECRETARY Ed Abel MEMBER MEMBER Robert S. Hughes II MEMBER Bruce Mabrey MEMBER



MARY FALLIN, GOVERNOR J.D. STRONG, DIRECTOR

wildlifedepartment.com

DEPARTMENT OF WILDLIFE CONSERVATION

P.O. Box 53465

Oklahoma City, OK 73152

PH. (405) 521-3851

### **Bid Solicitation Cover Page**

Date: March 27, 2017

Solicitation Information

Solicitation Number: 029P

Project Name:

Hackberry Flat, Auxiliary Pipeline

Project Address:

211 North 15 Frederick, OK

Project City: Project Zip Code:

73542

Bids Due (Date): Bids Due (Time) April 11, 2017 3:00 PM CST Agency Contact Information

Agency Name:

Oklahoma Department of Wildlife

Conservation

Contact Name:

Paul Proctor

Mailing Address:

P.O. Box 53465, Oklahoma City, OK, 73152 2100 NE 37<sup>th</sup> Street

Delivery Address: Contact City:

Oklahoma City

Contact Zip Code

73111 405-522-5762

Contact Phone: Contact Fax:

405-522-3486

Contact Email:

paul.proctor@odwc.ok.gov

The Oklahoma Department of Wildlife Conservation is inviting written bids for all labor and materials described by this solicitation.

Bids will be accepted until the Date and Time specified above. Late Bids will not be accepted.

Method of Responding to this Solicitation: Bids will be accepted by mail, fax, email or hand delivered to the Agency Contact specified above.

The requirements of the proposed contract for construction are described within this Solicitation, and the Solicitation will become a part of any resultant Contract. Bidder will perform work in compliance with all applicable codes, standards, ordinances and laws. The issuance of this Solicitation does not guarantee that the State of Oklahoma will enter into a contract and the State reserves the right to reject any and all bids.

In preparing your bid, please review the attached documents and comply with instructions given:

- · Bid Form: Submit your Bid using the form provided.
- Statutory Bid Affidavit: Complete this affidavit and return with your Bid.
- Agreement Between Owner and Contractor: This is the contract that will be used.
- Invoice Affidavit for Construction: After contract award, this document must be submitted with the Contractor's Invoice for Payment
- Scope of Work (SOW): Description and Requirements of the proposed construction contract.

[Optional] A pre-bid walk-through will be held [state date, time and location]OR Bidder may contact the Agency Contact listed above to arrange for a site visit.

If the Bidder has any questions about this Solicitation, please contact the Agency Contact listed above.

This Solicitation and any resulting Contract for Construction is in accordance with 61 O.S. §101- 138, and specifically 61 O.S. §103(B) regarding projects under the statutory amount mandated therein. Any resultant contract will be awarded by the Oklahoma Office of Management and Enterprise Services, Division of Capital Assets Management, Construction and Properties Department.

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### DEPARTMENT OF WILDLIFE CONSERVATION

P.O. Box 53465

Oklahoma City, OK 73152

PH. (405) 521-3851

### **Bid Form**

To:	Oklahoma Department of Wildlife Conservation P.O. Box 53465	From:	m Name	
	Oklahoma City, OK 73152			
	Attn: Paul Proctor	Ad	dress	
	RE: Solicitation Number # 029P	Cit	y/State/Zip	
		Te	ephone No.	FEI No.
		En	ail Address:	
	The undersigned, being familiar with the local condi accordance with the provisions thereof, hereby propo listed herein.	itions affecting to oses to furnish a	he cost of the wo all labor, materials	rk, with the Solicitation for Bids and ir and equipment necessary for the sums
	By submitting a bid for services, the bidder certifies th §1313 and participate in the Status Verification Sys includes but is not limited to the free Employment Veri	stem. The Stat	us Verification Sy	stem is defined in 25 O.S. §1312 and
	The bidder also certifies that they are in compliance February 6, 2012 and effective July 1, 2012, that the owned, leased or contracted for use by the State of O leased or contracted for use by agencies or instrumen	e use of any tob klahoma, includ	acco product shall ng but not limited t	be prohibited on any and all properties
	In submitting the bid, it is agreed that this bid may no Work is to start within ten (10) days after receipt of Wo			
	If awarded a contract, we propose to complete this Order.	work within	calendar	days from the date of receipt of Worl
6.	Bid Proposal: Lump Sum			
				Dollars
	\$	(Num	hers)	
			5010)	
			Signature	
			,	

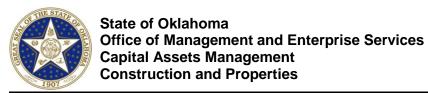
The Oklahoma Department of Wildlife Conservation is the state agency responsible for managing fish and wildlife. The Wildlife Department receives no general tax appropriations and is supported by hunting and fishing license fees and federal excise taxes on hunting and fishing equipment.



# State of Oklahoma Office of Management and Enterprise Services Capital Assets Management Construction and Properties

# **Bid Affidavits**

In accordance with 61 O.S. § 108 and § 115, a s	worn statement sha	ıll accompany any co	mpetitive bid s	ubmitted for a public con	struction contract.
STATE OF	)	Project Name:	HACKBER'	Y FLAT PIPLINE, LOC	CATION 2
COUNTY OF	) ss )	CAP Project No.:			
NON-COLLUSION STATEMENT					
A. For the purposes of a competitive to construction contract, the undersigned, being certifies that  1. I am the duly authorized agent of  the bidder submitting the competitive bid what this statement, for the purpose of ce pertaining to the existence of collusion and between bidders and state officials or empfacts pertaining to the giving or offering of government personnel in return for special the letting of any contract pursuant to the statement is attached;  2. I am fully aware of the facts and surrounding the making of the bid to which attached and have been personally and duthe proceedings leading to the submission of the subm	nich is attached to rtifying the fact- nong bidders and loyees, as well as things of value to al consideration in bid to which this ad circumstances of this statement is	a. to a of commercial of the c	any collusion petition by a from bidding any collusion ntity, quality any other term any discussing concerning for special collusion, if awarded seither the collision or bay, give or designed.	r nor anyone subjects been a party:  among bidders in resigneement to bid at a with any state official or price in the prospets of such prospective ons between bidders exchange of money insideration in the letting the contract, whether ontractor nor anyone control has paid, given at the contract of th	straint of freedom a fixed price or to all or employee as ective contract, or contract, nor s and any state or other thing of ng of a contract.  competitively bid e subject to the ren or donated or r employee of the
BUSINESS RELATIONSHIPS STATEMENT  A. I further certify that the nature of any part within one (1) year prior to the date of this		statement i	s attached. ess relations		t or which existed
(If none, so state; use additional sheet if necessary.)  B. That any such business relationship pre between any officer or director of the bid party to the project is:  (If none, so state; use additional sheet if necessary.)	sently in effect o ding company an				
C. And that the names of all persons have companies or firms are:	ing any such bus	siness relationship	s and the po	sitions they hold with	n their respective
(If none of the business relationships herein above in If awarded a contract, the bidder affirms that invoices submitted for payment will reflect a tr	the work will be	carried out in conf	ormance with	the contract requirer	nents and that all
(Bidder Signature)	_ Subscribed ar	nd sworn to before	me this	day of	,20
			(Signature o	f notarial officer)	
(Bidder Printed Name)	_			nission Expires:	
(Bidder Printed Title)	_	(Seal)	Mv	Commission #	



# **Standard Form of Agreement Between Owner and Contractor**

Minor Projects under the Statutory Amount or No Design Consultant

This	s document has important le	egal consequences.	Consultation with an attorney is encouraged with respect to its completion.			
AG	REEMENT made as of the	day of	in the year <b>20</b> .			
BETWEEN the Owner:  State of Oklahoma Office of Management and Enterprise Services Division of Capital Assets Management Construction and Properties Department Will Rogers Building 2401 N. Lincoln, Suite 106 Oklahoma City, OK 73105						
_	n behalf of sing Agency:	[Name]				
Ar	nd the Contractor:	[Name] [Address]				
Fo	or the Project:	Solicitation No: CAP Project No: Project Name: Project Location:	[CAP Proj#] [CAP Proj Name]			
The	Owner and Contractor agr	ee as follows:				
AR.	TICLE 1. THE CONTRACT	DOCUMENTS				
Rec the	quirements, Provisions, Screin, included as an attach	ope of Work, Plans ment. The Contract	eement and the Solicitation, as referenced, inclusive of any stated Conditions, , Specifications, Addenda and the Contractor's Bid Form as may be contained represents the entire and integrated agreement between the parties hereto and igreements, either written or oral.			
AR <sup>3</sup>	TICLE 2. THE WORK OF	THIS CONTRACT				
	The Contractor shall fully Contract Documents to be		escribed in the Contract Documents, except to the extent specifically indicated in others.			
AR	TICLE 3. CONTRACT SU	M AND PAYMENTS				
	arate Purchase Order issu		Il be the date of the Work Order issued by the Owner and affixed to the State's cost of the Work. The Contract Time shall be measured from the date of Work			
Pro		of commencement	n of the entire Work not later than <b>[Insert Number Of Days or "N/A" for 1+ FY</b> , or as follows: <b>[Insert "N/A" or FY year info]</b> , subject to adjustments of this nts.			
	If provided for in the Solici		as-needed maintenance or trade services, the Contract Time may be extended for o the Agreement.			
AR'	TICLE 4. CONTRACT SUN (The clause selected wit		alid 4.1 contractual clause)			
	4.1 This Contract is for a firm fixed price in the amount of [Insert Amount in Words] Dollars (\$ [Insert Amount in Number Projects with duration of one month or less shall be invoiced upon final completion. Projects with a duration exceeding of month may be incrementally invoiced on a monthly basis. Final payment will not be made until Owner's Representative I verified that all work has been completed. No payment will be made to the Contractor after the Final Completion Date until work is complete.					
			may or may not purchase the quantities stated in the Solicitation. Work authorized rates stated on the Contractor's Bid Form. Invoices will be accepted for payment			

monthly for the Work completed in the previous month.

- **5.1 OWNER'S REPRESENTATIVE:** For the purposes of this Contract, the Administrator of DCAM/CAP or a designated person shall serve as the Owner's Representative, and serve as the Supervisory Official for the purposes of accepting the work and approving Invoices for Payment. No work will be accepted, nor any payments made without approval by the Owner or the Owner's Representative.
- **5.2 CONTRACT CHANGES:** Contract Changes shall be provided only upon prior written authorization by the Owner, and are subject to the statutory limits set forth in 61 O.S. § 121. Upon request by the Owner's Representative, Contractor shall prepare an itemized cost proposal for the requested contract change and submit to Owner's Representative for review and approval. If accepted by Owner, a Change Order will be processed and returned to Contractor, authorizing the change in the work and providing a notice to proceed.
- **5.3 AUDITS AND RECORDS CLAUSE**: As used in this clause, "records" includes books, documents, accounting procedures and practices, and other data, regardless of type and regardless of whether such items are in written form, in the form of computer data, or in any other form. In accepting any contract with the State, the Contractor agrees any pertinent State or Federal agency will have the right to examine and audit all records relevant to execution of the resultant contract. The contractor is required to retain all records relative to this contract for the duration of the contract term and for a period of three years following completion and/or termination of the contract. If an audit, litigation, or other action involving such records are started before the end of the three year period, the records are required to be maintained for three years from the date that all issues arising out of the action are resolved or until the end of the three year retention period, whichever is later
- **5.4 OWNERSHIP OF DOCUMENTS**: All documentation generated as an instrument of service is and shall remain the property of the Owner, including shop drawings, equipment manuals, equipment warranties and as-built drawings. Contractor shall deliver said documents to Owner's Representative or as otherwise stated in the Solicitation upon final completion of the work.
- **5.5 SUCCESSORS AND ASSIGNS**: The Owner and the Contractor each binds themselves, partners, successors, assigns and legal representatives to the other party to this Agreement and to the partners, successors, assigns and legal representatives of such other party with respect to all covenants of this Agreement. The Contractor shall not assign, sublet or otherwise transfer its interest in this Agreement without the written consent of the Owner.
- 5.6 DISPUTES AND CLAIMS: The Owner and Contractor shall endeavor to resolve claims, disputes and other matters in question between them by participating in good faith in a settlement meeting to obtain a mutual agreement that resolves the claim or dispute. If an agreement cannot be attained, the Contractor may appeal to the Administrator of the Division of Capital Assets Management, by submitting written notice of a protest to the Administrator within twenty-one (21) days of the previous settlement meeting. The Administrator may hear the protest or may assign the Contractor's appeal to an administrative law judge the Division retains. If the appeal is assigned to an administrative law judge, the administrative law judge shall review the protest for legal authority and jurisdiction. If legal authority and jurisdictional requirements are met, the administrative law judge shall conduct an administrative hearing in accordance with the Administrative Procedures Act, 75 O.S. § 309 et seq., and provide findings of fact and conclusions of law to the Administrator. The Administrator shall send written notice to the Contractor of the final decision sustaining or denying the Contractor's appeal. If the Administrator denies Contractor's appeal, the Contractor may appeal pursuant to provisions of 75 O.S., § 309 et seq. of the Administrative Procedures Act.

### 5.7 TERMINATION

- **5.7.1** This Agreement may be terminated by the Owner upon mailing notice of termination to the Contractor at least seven (7) working days in advance of the date of termination if the Contractor substantially fails to perform according to the terms and conditions of this Agreement in the opinion of the Owner or funds for the Project are insufficient to proceed with the Project. In the event of termination, the Contractor shall be paid compensation for services performed up until the date of termination subject to amounts withheld to satisfy any rightful claim or set off by the Owner.
- **5.7.2** This Agreement may be terminated by either party upon not less than seven days' written notice should the other party fail substantially to perform in accordance with the terms of this Agreement through no fault of the party initiating the termination.
- **5.7.3** This Agreement may be terminated by the Owner upon not less than seven days' written notice to the Contractor for the Owner's convenience and without cause.
- **5.8 INSURANCE**: Insurance meeting the minimum limits of coverage listed below shall be maintained in full force by Contractor for the duration of the Contract. Certificates of Insurance shall be furnished naming the Owner as the Certificate Holder prior to acceptance of the Contract or issuance of a Work Order. The following are minimum limits of insurance coverage. If higher limits or additional insurance provisions are stated in the Bid Solicitation, the requirements of the Solicitation shall be the minimum required
  - **5.8.1** Workers' Compensation and Employers' Liability meeting statutory limits mandated by state and federal laws. (Companies exempt from the Workers' Compensation Act may substitute DCAM/CAP Form A321D in lieu of a Certificate of Coverage).
  - 5.8.2 Commercial General Liability shall be \$100,000 (Each Occurrence) and \$300,000 (General Aggregate).
  - **5.8.3** Automobile Liability (owned, non-owned and hired vehicles) shall be \$100,000 (Each Occurrence) and \$300,000 (General Aggregate), for bodily injury and property damage
  - 5.8.4 Property Damage (for projects under \$50,000) shall be \$50,000 (Each Occurrence) and \$100,000 (General Aggregate).
  - **5.8.5** Builder's Risk (for projects \$50,000.00 and above) shall be \$50,000 (Each Occurrence) and \$100,000 (General Aggregate).

#### **5.9 BONDS**

- **5.9.1** Bonds are required for any contract where the firm, fixed price contract sum equals or exceeds fifty thousand dollars (\$50,000), or where an individual work order under a non-binding service or maintenance contract exceeds fifty thousand dollars (\$50,000).
  - **5.9.1.1** Performance Bond for 100% of the value of the Contract to insure completion of the Work.
  - **5.9.1.2** Defect Bond for 100% of the value of the Contract to provide correction of defects in the construction and equipment for one year after acceptance of the Work; and
  - **5.9.1.3** Payment Bond for 100% of the Contract to assure that the Owner is protected from the action of Subcontractors, suppliers and employees for unpaid debts of the Contractor.
- 5.9.2 All bonds shall be on the forms prescribed and issued by the Owner as attached to this Agreement
- **5.9.3** Irrevocable Letters of Credit may be used as a substitute for the required bonds, on the forms prescribed and provided by the Owner and issued by a financial institution insured by the Federal Deposit Insurance Corporation or the Federal Savings and Loan Insurance Corporation.
- 5.10JURISDICTION: This Agreement shall be governed by the laws of the State of Oklahoma.

#### ARTICLE 6. OTHER CONDITIONS OF THE CONTRACT

- **6.1** The Contractor certifies that it and all proposed subcontractors, whether known or unknown at the time this contract is executed or awarded, are in compliance with 25 O.S. §1313 and participate in the Status Verification System. The Status Verification System is defined in 25 O.S. §1312 and includes but is not limited to the free Employee Verification Program (E-Verify) available at <a href="https://www.dhs.gov/E-Verify">www.dhs.gov/E-Verify</a>.
- **6.2** The Contractor certifies that they are in compliance with the State of Oklahoma Governor's Executive Order 2012-01, filed February 6, 2012 and effective July 1, 2012, the use of any tobacco product shall be prohibited on any and all properties owned, leased or contracted for use by the State of Oklahoma, including but not limited to all buildings, land and vehicles owned, leased or contracted for use by agencies or instrumentalities of the State of Oklahoma.
- 6.3 Other documents, if any, forming part of the Contract Documents are as follows:

Purchase Order [Select]

STATE OF OKLAHOMA		[NAME]
Office of Management and Enterprise Com-	:	

This Agreement entered into as of the day and year written above.

Office of Management and Enterprise Services Division of Capital Assets Management

(Owner Signature) (Date Signed)

Mickerl Jones
Director
Construction and Properties Department

(Date Signed)

(Contractor Signature) (Date Signed)

(Printed Name and Title)

#### ATTACHMENTS:

- 1. Contractor's Bid Form
- Contractor's Bid Affidavit
- Contractor's Insurance Certificate(s)
- **4.** Contractor's Bonds (if applicable)
- 5. Copy of Solicitation for Bids
- **6.** n/a

# State of Oklahoma Office of Management and Enterprise Services Division of Capital Assets Management Construction and Properties

# **Non-Collusion Affidavit**

The statement below	must be signed and	notarized before this	contract will bec	ome effective	
STATE OF	) ) ss	Project Name:			
COUNTY OF		CAP Project #:			
			, of lawful ag	ge, being first du	lly sworn, on oath
states, (S)he is the duly authorized agent of	of				, the
Company under the contract which is attac	hed to this staten	nent, for the purpos	se of certifying	the facts pertain	ing to the giving of
things of value to government personnel in o	rder to procure sa	id Contract;			
	•	,			
(S)he is fully aware of the facts and circums has been personally and directly involved in					ent is attached and
Neither the Company nor anyone subject to donate to any office or employee of the State the Contract to which this statement is attach	e of Oklahoma an				
(Company Printed Name)	-				
	Subscribed and	sworn to before me	this	day of	.20
(Authorized Representative Signature)					, -
			(Signature of n	otarial officer)	
(Authorized Representative Printed Name)					
			My Commiss	ion Expires:	
(Authorized Representative Printed Title)	_	(Seal)	My Commiss	ion #:	



# State of Oklahoma Office of Management and Enterprise Services Capital Assets Management Construction and Properties

### **Invoice Affidavit for Construction**

(For Minor Projects under the Statutory Amount or No Design Consultant)

	Progress Payment			Date of	f Progress Invoice:	
	Final Payment			Da	te of Final Invoice:	
ST	ATE OF	_) ) ss	Project Name:	Hack	berry Flat Pipeline, Location	on 2
СО	UNTY OF	_)	CAP Project No.	:		
СО	NTRACTOR OR SUPPLIER – COMPLETE THIS S	SECTIO	N (Choose Appr	opriate O	ption)	
	Option 1: Contract Award is Less than \$50,000 an	nd Affida	avit Provided in lie	u of Statu	ntory Bonds	
	Affidavit: The undersigned Contractor or Supplier belief, the Work or Materials covered by this Invoite the Contract Documents, that all amounts have be Invoices for Payment, if any, were issued and panow due. In accordance with 61O.S., § 1.(C), that any of the contents of the affidavit are false, under the contents of the affidavit are false, under the contents of the affidavit are false.	ice for F een paid ayments e Contr	Payment has beer d by the Contracto s received from the actor acknowledg	n completor or Suppletor or Sup	ed or materials delivered in a plier for Work or Materials for , and that current payment s ne execution of this affidavit	accordance with r which previous shown herein is with knowledge
	Option 2: Contract Award is Greater than \$50,000	and St	atutory Bonds hav	e been p	rovided	
	Certification: The undersigned Contractor or Supplementary the Work or Materials covered by this Invoice for Contract Documents, that all amounts have been Invoices for Payment, if any, were issued and panow due.	r Paymon n paid b	ent has been comby the Contractor	npleted or or Suppli	r materials delivered in acco ier for Work or Materials for	ordance with the which previous
(Coi	mpany Printed Name)		(Aut	horized Rep	presentative Printed Name)	
/A.	horized Representative Printed Title)		/A.u.	harized Pan	presentative Signature)	
•	DTARIZE ONLY IF OPTION 1 ABOVE IS CHECKE	ED)	(Aut	попгеа кер	resentative Signature)	
•	Subscribed and sworr	n to (or	affirmed) before m	ne on	day of	, 20
				(Signati	ure of notarial officer)	
				Му	Commission Expires:	
		(Seal)			My Commission #:	
CE	RTIFICATION OF SUPERVISORY OFFICIAL	(Owner	's Representative	)		
Sup has	accordance with the Contract Documents, based of pervisory Official certifies to the Owner that to the progressed as indicated, the quality of the Work is ment of the Amount Certified. Attach Copy of Approximately 2015.	best of s in acc	f the Supervisory cordance with the	Official's	knowledge, information and	belief the Work
(Us	ing Agency Name)	-	(Au	thorized R	epresentative Signature)	
(Re	presentative Printed Name)	(Re	epresentative Title)		(Date)	

If this Affidavit is for Final Payment, forward one copy with final Invoice to DCAM/CAP to close out project.

#### SCOPE OF WORK

### Installation of one (1) replacement Conventional Anode Ground Bed

### To Restore the Cathotic Protection System

Hackberry Flat Auxiliary Pipeline near Frederick, OK

### 1. GENERAL REQUIREMENTS

- Replacement of one (1) conventional ground bed, anodes, cable, splice kits, coke breeze and header cable.
- Location of work is approximately 3 miles north of Frederick, OK and 4 miles east. Near intersection N2260 Rd and E1780 Rd. Description: SW/4 T1S R17W, Section 25 in Tillman County.
- Anodes will be augured in mechanically and cables trenched in utilizing a backhoe or ride-on trencher.
- Existing rectifier and negative cable/connection to be utilized. After installation of ground bed and cable is complete, connection to rectifier will be made with adjustments as necessary to insure proper operation of rectifier and ground bed.
- First anode will be placed maximum 50 feet from rectifier with anodes at 10 foot centers for a total distance of 200 feet.
- Anode bed will utilize roadside borrow easement of Tillman County
- Holes shall be augured 15 feet deep @ 12 inch diameter to allow proper backfilling off coke breeze (see Loresco RS-3 addendum).
- Cables will be trenched utilizing a mechanical ride-on trencher or backhoe at a depth of 18 36 inches.
- Work will not be done on State owned land. Existing ground bed will be removed, this work is for
  installation only. Work area will be field dressed before completion. All work will be done as
  directed by area biologist.

### MATERIALS DESCRIPTION

#2 HMWPE Black Approx. 140 Feet
#8 HMWPE Approx. 150 Feet
#-M 90-B1 (Wye Style) 15 Each
Burndy Crimpit YC4C4 15 Each
GS-4" x 80" Graphite Solid Rod Anode 15 Each

Loresco RS-3 50# bags
 Approx. 113 Each

\*\*PLEASE SEE ATTACHED SHEETS FOR SPECIFICATIONS ON ALL MATERIALS\*\*

Contract will be award to one vendor. Vendor must supply all equipment listed on this contract.

The contract will be issued by the Oklahoma Department of Central Services, Construction and Properties Division (DCS/CAP). The Contractor shall not begin work until the contract is in place and written notice to proceed has been issued by DCS/CAP.

Bids are invited as stated on the solicitation cover sheet and must be returned by the date and time specified. Late bids will not be considered. All bids must be accompanied by the Affidavit, attached.

<u>Insurance</u>: the successful bidder will be required to provide certificates of insurance for general liability, vehicles and worker compensation in the amounts specified in the contract (attached) immediately upon notification that they are the successful bidder. A contract will not be issued without the required proof of insurance.

<u>Terms and conditions</u>: As stated in the contract.

<u>Change Orders</u>: Changes in the work shall not be undertaken without prior written authorization. Field personnel are not authorized to modify the scope of work in any way or to issue change orders to this contract. Contractor shall submit a written request for a proposed change, the reason for the proposed change and the increase or decrease in price and time required as a result of the change. Cumulative changes that exceed the original contract price by more than 15% are prohibited by Oklahoma law.

<u>Invoicing and Project Communication</u>: All work-execution related communications must go through the Agency Representative. Project invoices, including the attached Form G109, Affidavit for Payment, shall be sent to the Agency Representative at the following address and attention:

Kelvin Schoonover, Biologist Hackberry Flat WMA 211 North 15 Frederick, OK 73542 405-823-8425 kelvin.schoonover@odwc.ok.gov

<u>Basis of Contract</u>: The proposed contract will be a hourly rate award. The determination of the Lowest Responsible Bidder will be made based on the lowest hourly rate, along with proposed time to complete the work. Failure to submit a complete bid, inclusive of affidavits and requested information, may disqualify the bidder. The Owner reserves the right to make any inquiries to insure that the lowest bidder is actually able to complete the work in a satisfactory manner.

### 2. EXECUTION

Scheduling: Provide Agency Representative with proposed work schedule prior to beginning work.

Travel: Operator will not be compensated for travel to and from sites.

<u>Closeout</u>: At completion of the work, conduct final inspection with Agency Representative. Complete any corrective work as directed.



### CABLE - SPLICES - CONNECTIONS

# **HMWPE** Direct Burial Cable



The cable utilized in cathodic protection systems is a critical component of any cathodic protection system. MESA provides cable manufactured specifically for cathodic protection applications from a variety of cable manufacturers. The industry standard cable for direct burial is a stranded copper conductor covered with an insulation of high molecular weight polyethylene (HMWPE). The thick insulation provides both electric isolation and mechanical protection. During installation, this cable can withstand considerable mechanical abuse

without compromising the conductor. The HMWPE insulation is chemically resistant and

protects against most organic and inorganic substances.

# Application:

A direct earth burial DC feeder cable for use in cathodic protection systems, for storage tanks, pipelines, wells, vessels and metallic structures either buried or water submerged.

# Standards:

Conductor

Stranded copper conductor conforms to ASTM Specification B-8.

Insulation

Insulation is high molecular weight polyethylene conforming to ASTM D-1248, Type 1, Class A, Category 5, Grades E4 & E5. Tensile Strengths JI, J3. Available with high density polyethylene (Types II, III, IV) Class B & C (all colors).

## Construction:

"ile://localho

Annealed, uncoated, stranded copper conductor, HMW polyethylene black insulation. Surface or indent printed. Custom printing available.

	Size	No. of Strands	Circular Mils	l .	Insulation Thickness Inches		Weight Lbs per 1000 ft	DC Ohms per Mft at 20 C
	#14	7	4,110	.0726	.110	.293	38 .	2.57
os	/cable1.html							

7	6,530	.0915	.110	.311	48	1.62
7	10,380	.116	.110	.340	62	1.02
7	16,510	.142	.110	.370	87	.652
7	26,240	.179	.110	.40	122	.411
7	41,740	.225	.110	.45	175	.258
7	66,360	.283	.110	.510	260	.162
19	83,690	.322	.125	.580	330	.129
19	105,600	.362	.125	.620	401	.102
19	133,100	.406	.125	.660	492	.081
19	211,600	.512	.125	.770	750	.051
	7 7 7 7 19 19	7 10,380 7 16,510 7 26,240 7 41,740 7 66,360 19 83,690 19 105,600 19 133,100	7       10,380       .116         7       16,510       .142         7       26,240       .179         7       41,740       .225         7       66,360       .283         19       83,690       .322         19       105,600       .362         19       133,100       .406	7       10,380       .116       .110         7       16,510       .142       .110         7       26,240       .179       .110         7       41,740       .225       .110         7       66,360       .283       .110         19       83,690       .322       .125         19       105,600       .362       .125         19       133,100       .406       .125	7       10,380       .116       .110       .340         7       16,510       .142       .110       .370         7       26,240       .179       .110       .40         7       41,740       .225       .110       .45         7       66,360       .283       .110       .510         19       83,690       .322       .125       .580         19       105,600       .362       .125       .620         19       133,100       .406       .125       .660	7       10,380       .116       .110       .340       62         7       16,510       .142       .110       .370       87         7       26,240       .179       .110       .40       122         7       41,740       .225       .110       .45       175         7       66,360       .283       .110       .510       260         19       83,690       .322       .125       .580       330         19       105,600       .362       .125       .620       401         19       133,100       .406       .125       .660       492

# **Specification for HMWPE Cathodic Protection Cable**

# Scope

• This specification describes a special single conductor high molecular weight polyethylene insulated cable designed for direct earth burial DC service in cathodic protection installations.

# Applicable Specifications

- The following specifications form a part of this specification to the extent specified herein:
- American Society for Testing and Materials (ASTM) Specification B-8, latest edition, for Concentric-Lay Stranded Copper Conductors, Hard, Medium-Hard or Soft.
- American Society for Testing and Materials (ASTM) Specification D-1248, latest edition, for Polyethylene Plastic Molding and Extrusion Materials.
- Insulated Cable Engineers Association (ICEA) Pub. No. S-61-402 (NEMA Pub. No. WC-5) for Thermoplastic-Insulated Wire and Cable for the Transmission and Distribution of Electrical Energy.

# Conductor

• The copper conductors shall be Class B stranded, compressed, annealed,

uncoated copper in accordance with ASTM Specification B-8, latest edition.

### Insulation

- The conductor shall be insulated with high molecular weight polyethylene insulation complying with physical and electrical requirements of ASTM Specification D-1248, latest edition.
- The average thickness of insulation shall be 0.110 inch for conductor sizes #8 AWG to #2 AWG and 0.125 inch for sizes #1 AWG to #4/0 AWG. The minimum thickness at any point shall be not less than 90% of the specified average thickness. The insulation shall be applied tightly to the conductor and shall be free-stripping.

# Identification

 The insulated cable shall be surface ink printed with: Conductor Size, Manufacturer, HMW/PE CATHODIC PROTECTION CABLE.

### Tests

• The completed cable shall be tested in accordance with the requirements of ICEA Pub. No. S-61-402, Part 6.

# Shipping

- Shipping lengths shall be as specified for the individual order.
- Packaging shall be in accordance with standard commercial practices.

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# 3M Wye Resin Splice Kits - 90-B1

SEND TO CLIENT

8+1:0

# 3M Wye Resin Splice Kits - 90-B1

Description 90-B1 Specifications

### Scotchcast Resin Splicing Kits

While crimpits and split boits mechanically splice buried wires on cathodic protection systems, a connection is not complete until it is sealed against moisture and corrosive chemicals. Scotchcast splicing kits provide this protection. They are packaged with all the materials necessary for encapsulating wire connections to provide total electrical insulation. The main component of the Scotchcast kit is a two-part epoxy resin. Because the resin is packaged in a specially designed mixing pouch, field installations are greatly simplified. The packaging ensures proper mixing ratios and makes clean-up unnecessary. Each kit is also provided with



molded plastic forms and 3M electrical insulating tape to surround the wire splice. Once the resin is properly mixed, it is simply poured into the plastic form. The resin cures in approximately 30 minutes to provide a moisture-tight seal and electrically insulated splice.

Scotchcast kits are available for a wide range of wire configurations. When odd-sized or odd-shaped splices must be protected, multi-mold kits should be used. These kits are designed to handle almost any type of splice configuration. Each kit is provided with the same components as regular 3M Scotchcast kits with the exception of the molded plastic forms. Multi-mold kits are supplied with wrap-around molds made of polyester film and porous webbing.

### **Typical Applications**

The Scotchcast splicing kits are the proven way to protect wire splices from moisture and corrosion. They are ideal for impressed current cathodic protection systems which use anode header cables. The Scotchcast resin contained in the kits is rated up to 1000 volts. The resin cures in 30 minutes at temperature of 60°F and above.

### Product(s)

		.,	
Item #	Product Name		Specs
1	the state of the s	the control of the co	The second second
90-B1	90-B1 Wye Resin Splice Kit	Request for Quote	PDF
		<u> </u>	

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# YC4C4



Range-taking compression tap connector made of pure copper. Designed to be gripped in the jaws or dies of installation tool, then slipped directly over line for easy installation. Also used for deadending.

Image | Line Art | 3D Model | Video | **Customer Drawing** 

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# Dimensional General Conductor(s) Physical Approvals / Certifications Other Features

Dimensional

Length (Fraction)

5/8

General

Product Description

Range-taking compression tap connector made of pure copper. Designed to be gripped in the jaws or dies of installation tool, then slipped directly over line for easy installation. Also used for deadending.

Conductor(s)

Copper Tap Range

4 AWG

Copper Stranded Run (Range)

6 AWG-4 AWG

Copper Solid Tap (Range)

6 AWG-4 AWG

Copper Solid Run Size (Range)

6 AWG-4 AWG

**Physical** 

Type of Plating Unplated

Plated (Yes or No) N

Product Material Copper

Approvals / Certifications

UL Listed Y

CSA Certified Y

ROHS Compatible Compliant

UL Recognized N

CULUS N

Industry Standards UL486B,UL 486A

**Other Features** 

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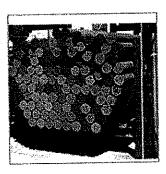


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Phone:918-627-3188 • Fax:918-627-2676

E-Mail: sales@mesaproducts.com • Web site:www.mesaproducts.com

# Item # GS-4x80, 4 x 80 Graphite Solid Rod Anode



# 4 x 80 Graphite Solid Rod Anode

Cathodic protection grade graphite is an especially good material for use as an anode. Graphite is an excellent conductor of electricity, is chemically resistant, and is easy to machine. Excellent long term performance histories and economics have made the solid graphite anode very popular for impressed current systems.

MESA manufactures a complete line of graphite anodes which are produced in accordance with strict quality control guidelines. The anodes are composed of high quality petroleum coke which is mixed with coal tar binders and extruded into various diameter rods. The rods are heated repeatedly at temperatures in excess of 2600 degrees C and then cooled. The end result of this manufacturing process is an anode with a high percentage of carbon, which can deliver effective protection at a relatively low consumption rate. In buried soil electrolytes, this consumption rate varies between 0.4 and 2.0 pounds/amp-year. The recommended current density for graphite anodes is 0.5 amps/square foot.

Because graphite is porous, anode life can be increased by filling the pores with an impregnant. MESA treats its graphite anodes with a microcrystalline wax. This impregnation limits any electrochemical activity to the surface of the anode and reduces any tendency for the reaction to occur in the pores of the anode itself. It also acts as a barrier against moisture intrusion which could cause deterioration of the anode and possibly the anode connection.

### **SPECIFICATIONS**

- Size 4 x 80 in
- Untreated Weight: 65 lb
- Treated Weight: 72 lb
- Area 7.0 ft<sup>2</sup>
- Max. Recommended Amps for Backfill 2.0 4.0
- Max. Recommended Amps for Saltwater 4.0
- Max. Recommended Amps for Freshwater 2.0
- Treatment :Paraffin Wax
- Connections
  - Center Connected o
  - **End Connected** 0
- Seal/CAP
  - o Ероху Сар
  - Heat Shrink Cap 0
  - Tri-Seal (Standard)
- Cable
  - #8 or #6 AWG 0
  - **HMWPE** Insulation
  - **Dual Extrusion Insulation**

# TYPICAL APPLICATIONS

While graphite anodes will operate in aqueous environments, they perform best under dry soil conditions. Use of a backfill effectively increases the graphite anode's discharge surface area and lowers anode-to-earth resistance. The anodes have been successfully used in both conventional and deep groundbed applications, and demonstrate exceptional protection in high chloride environments.

# STANDARD CONNECTION

All graphite anodes are precision drilled to customer's specified depths using MESA's custom-built "gun drill". Anode wires secured to lead ferrules are installed in the anodes using a pneumatic press and specialized tooling is automatically regulated to insure sufficient expansion of the ferrule without over stressing the anode. This specialized machinery helps assure a quality, fault-free connection each and every time. The ferrule connection that MESA uses has more than 50 years proven history in the industry. The maximum electrical resistance of the connection is 0.004 ohms and the minimum pullout strength is 1000 pounds (more than double the breaking strength of #8 AWG cable.)



RS-3®

RAPID SINKING and SUPER CONDUCTING EARTH CONTACT BACKFILL

Loresco RS-3<sub>®</sub> is a surface modified, blended, and sized carbon backfill with surfactants.

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IMPRESSED CURRENT BACKFILLS
L RS-3
REPLACEABLE DEEP ANODE SYSTEMS
ELECTRICAL GROUNDING BACKFILLS
HOT LINKS
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THE BOOK



Certified to NSF/ANSI Standard 60 Loresco RS-3<sub>®</sub> is the newest and most innovative super conducting earth contact backfill in the Loresco product line. RS-30 combines the characteristics of superior low resistivity and high bulk density with a remarkably rapid sinking ability to provide the latest in conductive carbon backfill technology. Because of the new rapid sinking ability RS-3<sub>®</sub> is able to achieve maximum compaction quickly. Rapid sinking allows for a faster construction completion time and faster energizing of the anode system. Rapid sinking allows for pouring when pumping is not an option. RS-3<sub>®</sub> is able to handle the demands of stringent field requirements. This is the first time a conductive carbon backfill combining pumping ability and pouring ability has been available in one bag. RS-30 is manufactured under a new process which creates a new surface with superior conductive properties. This manufacturing process is exclusive to conductive carbon formulations designed for cathodic protection. The new manufacturing process ensures the impressed current anode and RS-3<sub>®</sub> system have increased electronic flow performance to further increase the life of the anode system. Loresco RS-30 is produced specifically for cathodic protection applications using an exclusive multi-step process.

First, a very high quality base carbon with desired characteristics is selected. Next, this carbon is calcined to a minimum temperature of 1250° C under very exacting and controlled standards. This step results in semi-graphitized carbon particles with excellent conductivity. All particles shaped and surface modified for maximum electrical conductivity and high-current applications. Then, to further improve the bulk conductivity, the surfaces of the individual particles are modified to enhance the contact conductance in a process exclusive only to the corrosion industry. This breakthrough in surface alteration ensures maximum electronic current transfer with positive anode contact. Finally, a specially formulated surfactant is added to reduce particle surface tension for compact settling under water.

Loresco RS-3<sub>®</sub> has a bulk density of 68 lbs per cubic foot. The fixed carbon content is greater than 99% by weight. The bulk density and high fixed carbon content

coupled with the assured low resistivity medium allows for longer groundbed life at a lower operating cost.

### Installation:

Loresco RS-3<sub>®</sub>, due to its maufacturing process, is simple to install by either mixing and pumping or by pouring dry. With deep anode systems, pumping from the bottom up is recommended. Loresco RS-3<sub>®</sub> has superb pumping qualities due to the addition of surfactants and when agitated in water, takes on the characteristics of super heavy mud. Time before energizing is greatly reduced after installing RS-3<sub>®</sub>. The modified surface of the carbon particles coupled with the action of the surfactants in RS-3<sub>®</sub> will achieve positive electrical contact by settling. Vibrating or compacting is not necessary. See installation section on cd or in the catalog for additional pumping data.

## **Material Description:**

Loresco RS-3<sub>®</sub> is a surface modified, blended, and sized carbon backfill with surfactants.

## **Specifications:**

- Bulk Density: 68 lbs. per cubic foot
- All particles shaped and surface modified for maximum electrical conductivity and high-current applications
- Particle sized to facilitate pumping and pouring applications with rapid settling
- Maximum particle size 2.5mm
- Minimum calcination temperature of base materials is 1250° C
- Base materials are calcined under ISO 9002:2000 quality control
- No de-dusting oils are used during the manufacture of base particles

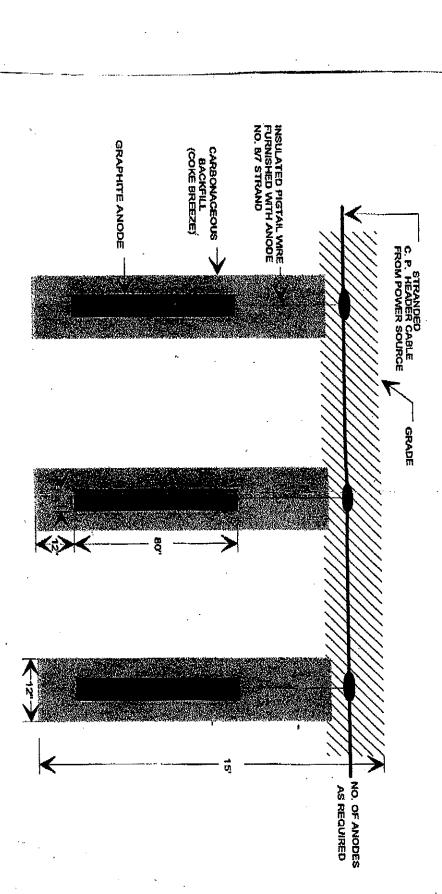
### **Shipping Data:**

Loresco RS-3<sub>®</sub> is shipped in fifty (50) pound (22.7 kg) coated, woven polypropylene bags. RS-3<sub>®</sub> may be stored outside for limited periods (not to exceed four hundred hours of sunlight). Pallets are available with fifty bags per pallet. Proven export packaging is also available.

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TYPICAL VERTICAL GROUNDBED INSTALLATION

