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RFQ COPY

State of West Virginia
Department of Administration
Purchasing Division
2019 Washington Street East
Post Office Box 50130
Charleston, WV 25205 0120 Charleston, WV 25305-0130

RFQ NUMBER DEP13017

ADDRESS CORRESPONDENCE TO ATTENTION OF:

CHUCK BOWMAN 304-558-2157

ENVIRONMENTAL PROTECTION DEPT. OF CHARLESTON, WV

TYPE NAME/ADDRESS HERE OFFICE OF SPECIAL RECLAMATION 1 601 57TH STREET SE 25304 304-926-0499

DATE PRINTED 7	ERMS OF SALE	SHIP VIA	FOB	FREIGHT TERMS
04/06/2010				
BID OPENING DATE: 04/13,		BID C	PENING TIME 01	:30PM
LINE QUANTITY	UOP CAT.	ITEM NUMBER	UNITPRICE	AMOUNT
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	16			ATT DOWNS AND A STATE OF THE ATT AND A STATE
<u> </u>		 VERSE SIDE FOR TERMS AND COI	 NDITIONS	
SIGNATURE		TELEPHONE	DATE	
TITLE	FEIN	<u> </u>	ADDRESS CHANGES	TO BE NOTED ABOVE

GENERAL TERMS & CONDITIONS REQUEST FOR QUOTATION (RFQ) AND REQUEST FOR PROPOSAL (RFP)

- 1. Awards will be made in the best interest of the State of West Virginia.
- 2. The State may accept or reject in part, or in whole, any bid.
- 3. Prior to any award, the apparent successful vendor must be properly registered with the Purchasing Division and have paid the required \$125 fee.
- 4. All services performed or goods delivered under State Purchase Order/Contracts are to be continued for the term of the Purchase Order/Contracts, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise available for these services or goods this Purchase Order/Contract becomes void and of no effect after June 30.
- 5. Payment may only be made after the delivery and acceptance of goods or services.
- 6. Interest may be paid for late payment in accordance with the West Virginia Code.
- 7. Vendor preference will be granted upon written request in accordance with the West Virginia Code.
- 8. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.
- 9. The Director of Purchasing may cancel any Purchase Order/Contract upon 30 days written notice to the seller.
- 10. The laws of the State of West Virginia and the Legislative Rules of the Purchasing Division shall govern the purchasing process.
- 11. Any reference to automatic renewal is hereby deleted. The Contract may be renewed only upon mutual written agreement of the parties.
- 12. BANKRUPTCY: In the event the vendor/contractor files for bankruptcy protection, the State may deem this contract null and void, and terminate such contract without further order.
- 13. HIPAA BUSINESS ASSOCIATE ADDENDUM: The West Virginia State Government HIPAA Business Associate Addendum (BAA), approved by the Attorney General, is available online at www.state.wv.us/admin/purchase/vrc/hipaa.htm and is hereby made part of the agreement. Provided that the Agency meets the definition of a Cover Entity (45 CFR §160.103) and will be disclosing Protected Health Information (45 CFR §160.103) to the vendor.
- 14. CONFIDENTIALITY: The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures, and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in http://www.state.wv.us/admin/purchase/privacy/noticeConfidentiality.pdf.
- 15. LICENSING: Vendors must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, and the West Virginia Insurance Commission. The vendor must provide all necessary releases to obtain information to enable the director or spending unit to verify that the vendor is licensed and in good standing with the above entities.
- 16. ANTITRUST: In submitting a bid to any agency for the State of West Virginia, the bidder offers and agrees that if the bid is accepted the bidder will convey, sell, assign or transfer to the State of West Virginia all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the State of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to the bidder.

I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership, or person or entity submitting a bid for the same material, supplies, equipment or services and is in all respects fair and without collusion or Fraud. I further certify that I am authorized to sign the certification on behalf of the bidder or this bid.

INSTRUCTIONS TO BIDDERS

- 1. Use the quotation forms provided by the Purchasing Division. Complete all sections of the quotation form.
- 2. Items offered must be in compliance with the specifications. Any deviation from the specifications must be clearly indicated by the bidder. Alternates offered by the bidder as **EQUAL** to the specifications must be clearly defined. A bidder offering an alternate should attach complete specifications and literature to the bid. The Purchasing Division may waive minor deviations to specifications.
- 3. Unit prices shall prevail in case of discrepancy. All quotations are considered F.O.B. destination unless alternate shipping terms are clearly identified in the quotation.
- 4. All quotations must be delivered by the bidder to the office listed below prior to the date and time of the bid opening. Failure of the bidder to deliver the quotations on time will result in bid disqualifications: Department of Administration, Purchasing Division, 2019 Washington Street East, P.O. Box 50130, Charleston, WV 25305-0130
- 5. Communication during the solicitation, bid, evaluation or award periods, except through the Purchasing Division, is strictly prohibited (W.Va. C.S.R. §148-1-6.6).

BUYER 2
CB-23
SPENDING UNIT
WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL

PROTECTION/SPECIAL RECLAMATION

WV-36a REV. 5-26-09 STATE OF WEST VIRGINIA PURCHASING CONTINUATION SHEET

CEM NO	QUANTITY	DESCRIPTION	UNIT PRICE	AMOUNT
	~~~	REVISED BID SCHEDULE PERMIT NAME: CHICOPEE COAL CO INC PERMIT NUMBER(S): S-73-85, O-6013-88, U-6018-86		
		<u>and O-6021-89</u>		
	The DEP documentati	reserves the right to request additional information and ion regarding unit prices when the unit price appears to be unro	supporting easonable.	
•		WATER QUALITY ABATEMENT		
1.0	LUMP SUM	MOBILIZATION/DEMOBILIZATION/PROJECT SIGN (5% Total Bid Maximum for this project)	LUMP SUM	\$
2.0		SPILL CONTAINMENT AREA (S.C.A.) (\$1,000.00 Maximum Bid for this project)	LUMP SUM	\$
3.0		HAULROAD/ACCESS ROAD UPGRADE	LUMP SUM	\$
4.0	LUMP SUM	CONSTRUCTION STAKEOUT (Limited to 5%of total bid for this project)	LUMP SUM	\$
5.0		REVEGETATION		
5.1	600 TONS	AGRICULTURAL LIME	\$ PER TON	\$
5.2	150 ACRES	FERTILIZER	\$PER ACRE	\$
5.3	150 ACRES	MULCH	\$PER ACRE	\$
5.4	150 ACRES	VEGETATIVE SPECIES	\$ PER ACRE	\$
6.0	<u>10,000</u> LF	SEDIMENT CONTROL STRUCTURES  (Maximum bid of \$5.00/LF of silt fence and hay bale material used on site.)	S PER LF	\$
7.0	2500 TONS	INCIDENTAL #1 STONE FOR ROAD UPGRADE	\$ PER TON	\$
8.0	NO BID ITEM	<u>UTILITIES</u>	NO BID ITEM	
9.0	LUMP SUM	STRUCTURE AND/OR DEBRIS REMOVAL	LUMP SUM	\$

BUYER 3
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SPENDING UNIT

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL

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WV-36a REV. 5-26-09 STATE OF WEST VIRGINIA

PURCHASING CONTINUATION SHEET

ITEM NO.	QUANTITY	DESCRIPTION	UNIT	AMOUNT
		PERMIT NUMBER: <u>S-73-85</u>	PRICE	
10.0	LUMP SUM	ELIMINATE BENCH SEDIMENT CHANNELS	LUMP SUM	\$
11.0	110 LF	LIMESTONE V-DITCH NUMBER FIVE (#5)	SPER LF	\$
12.0	110 LF	LIMESTONE V-DITCH NUMBER SIX (#6)	\$PER LF	\$
13.0	500 LF	LIMESTONE V-DITCH NUMBER SEVEN (#7)	SPER LF	\$
14.0	550 LF	LIMESTONE V-DITCH NUMBER EIGHT (#8)	\$PER LF	\$
15.0	300 LF	LIMESTONE V-DITCH NUMBER NINE (#9)	\$PER LF	\$
16.0	220 LF	LIMESTONE V-DITCH NUMBER TEN (#10)	\$PER LF	\$
17.0	400 LF	LIMESTONE V-DITCH NUMBER ELEVEN (#11)	\$PER LF	\$
18.0	2 EACH	WELL HEAD / BORE HOLE SEAL	\$ EACH	\$
19.0	660 LF	SIX (6) UNDERDRAINS	\$PER LF	\$
20.0	LUMP SUM	EROSION GULLY REPAIR	LUMP SUM	\$
21.0		BENCH SEDIMENT CHANNEL ELIMINATION with LIMESTONE ADDITION	LUMP SUM	\$
			TOTAL	\$
,		PERMIT NUMBER: <u>O-6013-88</u>		
22.0	LUMP SUM	REGRADE and COVER REFUSE PILE	LUMP SUM	\$
23.0	2,900 LF	GROUTED RIP-RAP CHANNEL NUMBER ONE (#1)	\$PER LF	\$

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PURCHASING CONTINUATION SHEET

ITEM NO.	QUANTITY	DESCRIPTION	UNIT PRICE	AMOUNT
24.0	325 LF	LIMESTONE RIP-RAP CHANNEL NUMBER THREE (#3)	SPER LF	5
25.0	900 LF	REWORK EXISTING GROIN DITCH	\$PER LF	\$
26.0	330 LF	GROUTED V-DITCH NUMBER ONE(#1)	S PER LF	\$
27.0	1,900 LF	LIMESTONE RIP-RAP CHANNEL NUMBER FOUR (#4)	\$PER LF	\$
28.0	550 LF	LIMESTONE CHANNEL SIX (6)	\$PER LF	\$
29.0	110 LF	LIMESTONE V-DITCH THREE (3)	S PER LF	\$
30.0	5000 LF	GROUTED RIP-RAP CHANNEL NUMBER TWO (#2)	\$PER.LF	\$
31.0	660 LF	GROUTED RIP-RAP V-DITCH NUMBER FOUR (#4)	\$PER LF	\$
32.0	LUMP SUM	ALKALINITY CELL ONE (1)	LUMP SUM	\$
33.0	300 LF	UNDERDRAIN FROM REFUSE TO ALKALINITY CELL	\$PER LF	\$
34.0.	LUMP SUM	CLEAN POND ONE (1)	LUMP SUM	\$
35.0	LUMP SUM	CLEAN POND FOUR (4)	LUMP SUM	\$
36.0	LUMP SUM	CLEAN POND FIVE (5)	LUMP SUM	\$
37.0	LUMP SUM	CLEAN POND SIX (6)	LUMP SUM	\$
38.0	LUMP SUM	CLEAN SUMP ONE (1)	LUMP SUM	\$
39.0	LUMP SUM	CLEAN SUMP TWO (2)	LUMP SUM	\$
40.0	5 EACH	ELIMINATE PONDS	\$ PER EACH	\$
41.0	5 EACH	INSTALL MINE SEALS	PER EACH	\$
42.0	LUMP SUM	ELIMINATE HIGHWALL	LUMP SUM	\$
43.0	LUMP SUM	ELIMINATE COAL STOCKPILE	LUMP SUM	\$
44.0	LUMP SUM	REWORK ROAD BOXCUT	LUMP SUM	
45.0	LUMP SUM	REWORK ACCESS ROAD	LOME SOM	Φ

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ITEM NO.	QUANTITY	DESCRIPTION	UNIT PRICE	AMOUNT
46.0	LUMP SUM	ACCESS ROAD DRIVE-THRU	LUMP SUM	\$
47.0	LUMP SUM	COVER BARE AREAS ON EXISTING REFUSE AREA	LUMP SUM	\$
			TOTAL	\$
		PERMIT NUMBER: <u>U-6018-86</u>		
48.0	600 LF	GROUTED RIP-RAP V-DITCH NUMBER TWO (#2)	S	\$
			TOTAL	<b>₩</b>
		PERMIT NUMBER: <u>O-6021-89</u>		
49.0	1 5/1/1/1	CONSTRUCT LIMESTONE RIP-RAP CHANNEL NUMBER		<i>€</i> .4
49.0	300 151	FIVE (#5)	PER LF TOTAL	· .
			TOTAL	Ψ
		PERMIT S-73-85 TOTAL	The second secon	6
				<b>.</b>
		PERMIT O-6013-88 TOTAL		<b>&gt;</b>
		PERMIT U-6018-86 TOTAL		\$
		PERMIT O-6021-89 TOTAL	}	\$
		TOTAL FOR ITEMS 1-9		\$
			-	
		TOTAL FOR ALL PERMITS		\$
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STATE OF WEST VIRGINIA

PURCHASING CONTINUATION SHEET

VENDOR:

#### BID ITEM TECHNICAL SPECIFICATIONS

#### 1.0 MOBILIZATION/DEMOBILIZATION/PROJECT SIGN PROJECT SIGN

A project sign shall be obtained or manufactured and installed as indicated on the attached specifications and details. Payment for this sign shall be incidental to the mobilization item. No separate payment will be made.

#### **MOBILIZATION**

This work shall consist of the performance of construction preparatory operations, including the movement of personnel, equipment and other facilities to the project site necessary to begin work on a substantial phase of the contract.

#### **DEMOBILIZATION**

Prior to demobilization, an inspection shall be conducted by the Department of Environmental Protection and the contractor to insure compliance with contract performance. Once compliance is ascertained, demobilization activities can be initiated and completed. Demobilization shall be totally completed before the invoice for payment shall be processed.

#### **PAYMENT**

The lump sum bid for this item shall not exceed 5% of the total bid for this permit. Payment shall be made in two 50% amounts, one upon completion of the mobilization and project sign items and the second payment at the completion of demobilization. No deduction shall be made nor shall any increase be made in the lump sum item amount, regardless of decreases or increases in the final total contract amount or any other reason.

#### 2.0 SPILL CONTAINMENT AREA (S.C.A.)

Spill containment measures shall be used for fuel and lubricant storage areas. All containers, barrels, buckets, cans, etc., are to be legally disposed of off site. Used lubricants are to be disposed of according to state law to minimize pollution to the local surface and ground water supplies. Spills are the responsibility of the contractor and need immediate clean up and maintained at no expense to the State. This S.C.A. shall be constructed in accordance with the typical drawing specification. (See Attachment) Alternate containment measures will be considered for approval by the Program Manager if acceptable results can be shown. Fuel tanks manufactured with secondary containment are desirable. Minimum secondary containment is 110 percent. (Bid limited to \$1,000.00 maximum)

# 3.0, 44.0, 45.0 HAULROAD/ACCESS ROAD UPGRADE

The contractor shall maintain and/or construct haulroad/access road(s) during the reclamation process to provide access on a well drained surface. Plan to upgrade the existing access road to the specifications and details as indicated in the Upgrade Access Road drawing. The access road on the reclamation site shall be graded, sloped, and maintained to drain to provide a road surface free of excessive mud and standing waters at all times while work is in progress. Upon completion of all reclamation activities, a final 3 inch layer of 1 ½ crusher run limestone shall be placed on the roadway. Roads which are below the project shall be guarded against rolling rock and removal of rocks done as necessary. Dust-control measures may be necessary if hauling creates airborne material. Snow removal is to be included in this item.

#### 7.0 INCIDENTAL #1 STONE FOR ROAD UPGRADE

During construction of culvert installations, roadway ditch improvements, and reshaping of the roadway, areas may need additional base layer stone. After any necessary re-compaction and re-grading work on roadways has been performed by the contractor, a six (6) inch layer of #1 limestone (3.5" to 1.5" size) shall be placed as needed. This stone shall be graded and tracked in with a dozer or other equipment to achieve a compacted base for the final top layer of 1 ½ inch crusher run limestone (separate bid item).

Payment shall be paid per ton of stone applied by weight ticket and will be made at completion of all work and acceptance by DEP.

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VENDOR:

# 44.0 CONSTRUCT NEW HAULROAD/ACCESS ROAD

Accompanying plans show the details of the construction of the road. The contractor shall provide all services, materials, construction layout, equipment, or other materials necessary to execute the work.

#### SITE PREPARATION

Any areas with soft unsuitable foundation materials shall be undercut to remove this material. The material removed shall be disposed of within the construction area at a site agreed to between the contractor and the DEP on site representative. Construction stake out shall be completed as necessary to complete that phase of the work being undertaken. Payment for the road construction stakeout is to be included in the road price.

#### ROAD CONSTRUCTION

Suitable foundation material shall then be placed in compacted layers not to exceed six (6) inches in thickness to obtain the desired grade and alignment. Compaction equipment is to be approved by DEP on site representative. Filter Fabric (Typar 3401, Mirafi 500X, or equivalent) shall be placed over the completed foundation and covered with a six (6) inch minimum layer of No. 1 limestone (3½ to 1½ inches). The No. 1 stone shall then be covered with 1½ inch crusher run limestone so that the surface is choked off and a three (3) inch minimum layer remains on top. The completed road shall have a minimum width of twelve (12) feet and the surface shall be crowned and sloped to both sides a minimum of 24-horizontal to 1 vertical. Any fill sections, if used, shall not impound water. The total length of roadside ditch shall be along the entire length of the road. A roadside drainage ditch shall be established along the hillside of the road, and shall be free draining to any culverts crossing under the road. The ditch shall be vegetated and constructed as indicated in the New Access Road drawing.

# 4.0 CONSTRUCTION STAKEOUT

This work shall consist of furnishing, placing, and maintaining construction layout stakes necessary for the proper execution of the work required under the Contract, production of as-built drawings, and of performing topographic surveys and obtaining surveyed cross-sections for accurate determination of pay item quantities. Construction stakeout shall be under the supervision of a Registered Professional Engineer or Licensed Land Surveyor and all drawings signed and/or sealed by such. The Department shall provide control points for initial layout of the work. (Shall not exceed 5% of the total bid for this permit.)

#### A. MATERIALS

Wooden stakes and other marking materials as described herein.

#### B. CONSTRUCTION METHODS

- B(1). The Contractor shall locate and reference the construction baseline within the limits of work and shall establish bench marks for the proper layout of the work. The Contractor shall make all calculations involved and shall furnish and place all layout stakes or markers.
- B(2). The Contractor shall provide field forces and shall set all additional stakes needed, such as offset stakes, reference point stakes, slope stakes, pavement and grade stakes, stakes for roadway drainage, subdrains, trench drains, fence, culverts or other structures, supplementary bench marks and any other horizontal or vertical controls necessary to secure a correct layout of the work.
- B(3). The location of the slope stakes for grading work shall be determined by a calculation method. Elevation control hubs with guard stakes shall be set, at a convenient distance outside the construction limits, and at all stations where original cross-sections are taken. The centerline station, the distance from centerline, and the elevation of the hub shall be recorded on each guard stake.

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B(4). The Contractor shall be responsible for having the layout staking work conform to the lines, grades, elevations, and dimensions called for on the Plans. The Contractor shall be responsible for reporting any discrepancies to the Supervisor for clarification. Minor adjustments to suit field conditions are anticipated and it shall be the responsibility of the Supervisor to make decisions regarding adjustments.

- B(5). The Contractor shall survey cross-sections and/or profiles in areas of on-site excavation, off-site excavation, and ditch construction as necessary to permit accurate determination of pay item quantities. The locations and spacing of cross-sections and profiles shall be as approved or as directed by the Supervisor. Cross-sections and profiles shall be surveyed:
  - a) prior to any excavation
  - b) at the completion of excavation

B(6). The Contractor shall furnish a copy of his survey records for the Supervisor and for the DEP's permanent file. These records shall be furnished as they are completed during the progress of the work. Any inspection or checking of the Contractor's layout by the Supervisor and the acceptance of all or any part of it shall not relieve the Contractor of his responsibility to secure the proper dimensions, grades and elevations of the required work.

## 5.0 REVEGETATION

The actual seeding date, within the work performance period, shall be at the discretion of the contractor, but a permanent vegetative cover must be established. Verification of materials used shall be required for payment. Seed bed preparation, unless otherwise approved, shall be conducted by industrial disks or tracking with heavy equipment with cleat marks across slope and parallel to the final contours. The surface shall be tracked, track to track. Seeding shall commence after seedbed preparation on a loose and uncompacted soil and with the approval of the Department of Environmental Protection. Contractor shall provide equipment as necessary to secure approval of the seedbed. Revegetation activities shall be carried out in a continuous, concurrent, timely and uniform manner. Failure to do this may result in nonpayment for portions of or the entire Revegetation item. Hydroseeding or broadcast seeding with the approved species is acceptable. The application rate may be increased but the ratio is to remain constant, but no additional monetary compensation will be awarded. Areas outside the limits of construction, disturbed by the contractor, shall be revegetated by the contractor at no expense to DEP. Water utilized for hydroseeding shall be free of injurious or other toxic substances harmful to plant life. The source of water is subject to the approval of the DEP Specialist. It shall be the vendor's responsibility to repeat the procedures under REVEGETATION until a permanent vegetation is established. The acreage quantities in this contract are for bidding purposes only.

A warranty period of one (1) year shall commence upon completion and payment of the revegetation item of the contract. No payment will be made for additional seeding necessary to comply with warranty requirements. The warranty period will be extended for one (1) year from the date of the last augmented seeding done by the contractor. The performance bond and labor and materials bond shall remain in effect throughout the warranty period. The Standards for Evaluating Vegetative Cover as presented in Title 38, CSR2, Section 9 of the West Virginia Surface Mining Reclamation Regulations will apply.

Equipment for the retracking/scarification to eliminate rills and gullies shall be mobilized and utilized to produce slopes consistent with the regrading and topsoiling bid item prior to warranty reseeding. No additional payment will be made by DEP for this warranty work.

# 5.1 AGRICULTURAL LIME

Unless otherwise specified, all lime used shall be registered with the West Virginia Department of Agriculture, have an 85% minimum calcium carbonate equivalent, and meet the fineness classification no larger than that for ground lime. The following fineness classifications or combinations of lime are acceptable:

Pulverized -100% passing a U.S. Standard 20 mesh sieve

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70% passing a U.S. Standard 100 mesh sieve

Ground

- 90% passing a U.S. Standard 20 mesh sieve
- 50% passing a U.S. Standard 60 mesh sieve
- 35% passing a U.S. Standard 100 mesh sieve

Use of blends and low-grade agricultural liming materials shall require prior approval. Lime shall be spread as soon as possible after delivery to site. Lime shall be applied evenly and uniformly distributed over the treated area. Lime shall be thoroughly mixed into the soil material. Lime subjected to adverse conditions before spreading will be deemed unacceptable. Failure to complete this phase shall result in nonpayment of this bid item.

Lime shall be applied at 3 ton/acre.

# 5.2 FERTILIZER

Fertilizer rates given for REVEGETATION are for 1,000 lbs. of 10-20-20 per acre. These rates are minimum and for bidding purposes.

Fertilizer shall be applied evenly and uniformly distributed over the treated area. Common complete fertilizers which meet the minimum standards are acceptable.

#### 5.3 MULCH

Acceptable mulch for this project is wood fiber, hay, or straw.

Mulch: Wood Fiber @ 1.0 ton/Acre

Hay or straw mulch may be substituted at a rate of 2 tons/Acre

# 5.4 VEGETATIVE SPECIES

Seeding rate required is for pure live seed (pls) in pounds per acre. The use of annuals or cover crops will not be considered for vegetative success.

#### SOUTH MIX

VEGETATIVE SPECIES 1	RATE/ACRE 1
Orchard Grass	@ 30 lbs/acre
Birdsfoot Trefoil ²	@ 15 lbs/acre
Red Top	@ 10 lbs/acre
KY 31 Fescue	@ 10 lbs/acre
Perennial Ryegrass	@ 10 lbs/acre
Alsike Clover ²	@ 5 lbs/acre
Black Locust ³	@ 1 lbs/acre
Bicolor Lespedeza 4	@ 1/4 lbs/acre

- 1. Seeding rate required is for pure live seed in pounds (lbs) per acre.
- 2. Herbaceous legumes must be treated with the appropriate bacterium before seeding.
- 3. This species to be utilized only for woodland post-mining land-use projects.
- 4. This species to be utilized only for wildlife post-mining land projects.

#### NORTH MIX

VEGETATIVE SPECIES 1	RATE/ACRE 1
Orchard Grass	@ 15 lbs/acre
Birdsfoot Trefoil ²	@ 15 lbs/acre
Yellow Sweet Clover	@ 5 lbs/acre
Red Clover	@ 10 lbs/acre
Ky 31 Fescue	@ 15 lbs/acre
Foxtail Millet ³	@ 12 lbs/acre
Wheat or Rye⁴	@ 50 lbs/acre
Black Locust ⁵	@ 3 lbs/acre

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VENDOR:

- 1. Seeding rate suggested is for pure live seed (pls) in pounds per acre.
- 2. Herbaceous legumes must be treated with the appropriate bacterium before seeding.
- 3. Spring mix.
- 4. Fall mix.
- 5. Black locust used only for woodland land use.

#### 6.0 SEDIMENT CONTROL WITH SILT FENCE AND HAYBALE DIKE

Disturbed areas which have storm water runoff and does not pass through a sediment control structure shall utilize the following Best Management Practice (BMP) methods to manage storm water runoff. For more information on BMP methods go to the WVDEP website <a href="http://www.wvdep.org/dwwm/stormwater/BMP.htm">http://www.wvdep.org/dwwm/stormwater/BMP.htm</a> and click on BMP Manual. The WV Erosion and Sediment Control Best Management Practice Manual may be accessed or printed. This item has a maximum bid of \$5.00/LF of silt fence and hay bale material used on site.

- 1. Silt fence shall be utilized on perimeter barriers and shall be properly removed after permanent vegetation has been established. See attached drawing for further details.
- 2. For slope stability, place bales on the contour; at the top of cuts; and at the toe of slopes. Bales shall be placed in a row with ends tightly abutting the adjacent bales.
- 3. Bales shall be securely anchored in place by stakes or rebars driven through the bales. Rebar to be removed at the direction of DEP. The first stake in each bale shall be driven toward previously laid bale to force the bales together.
- 4. Construction of sediment control sumps before culvert inlets and/or rock check dams in ditch lines may become necessary to supplement the silt fence and hay bale dikes. These items shall be installed upon request of the DEP onsite representative. Sumps and rock check dams shall be incidental to this bid item.

### 8.0 UTILITIES

Utilities shall be relocated at the direction of the utility company and reimbursed actual cost to the contractor. This is a "No Bid" item due to the method of reimbursement. It is the contractor's responsibility to determine the exact location of each utility in the project area where these utilities would be interrupted or damaged by performing work.

#### 9.0 STRUCTURE AND/OR DEBRIS REMOVAL

All existing man-made items particular to the site and not to be utilized in the total reclamation of this site shall be demolished (if necessary) and disposed of in a legal manner. All iron, steel, aluminum, or any other metal, plastic, or any other man made material, including but not limited to I-Beams, Angle Iron, Channel Iron, Corrugated Metal, Flat Metal, Floc Drums, Water Tank, Grease Drums, Pipe or Conduit is to be dismantled, removed and properly disposed of off site and according to state, local, and federal requirements.

# 10.0, 20.0, 21.0, 22.0, 40.0, 42.0, 43.0, 47.0 REGRADING AND TOPSOILING

Concurrent regrading and topsoiling shall immediately follow backfilling and shall distribute topsoil or the best available material to support vegetation, as identified by the Department of Environmental Protection contact person, on the surface of the backfill in a smooth, uniform manner. This item shall include the elimination of all rills and gullies, the construction of sediment control sumps, the removal of sediment control sumps, the grading of spoil and/or fill materials. Surface shall be free of all rock exceeding six (6) inches in diameter and shall be tracked, track to track. Topsoil presently stockpiled on site shall be preserved and spread on the fill surface. In the absence of stockpiled topsoil, material which can be used as a topsoil substitute shall be identified, segregated, and stockpiled for spreading on the surface. If necessary to manufacture fines, mechanical treatment to pulverize the surface layer

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shall be required. Regrading and topsoiling shall be conducted prior to and in preparation for the revegetation item.

# 11.0, 12.0, 13.0, 14.0, 15.0, 16.0, 17.0, 24.0, 25.0, 27.0, 28.0, 29.0, 49.0 OPEN LIMESTONE CHANNEL

Provide all materials, excavate and construct Ditch as indicated on the attached typical plans, cross-section, specifications, and as discussed at the Pre-Bid Showing. Limestone riprap to be used. Ditches shall be free draining upon completion of construction. Length of ditch may be adjusted to meet on site conditions. (See riprap specifications)

# 11.0, 12.0, 13.0, 14.0, 15.0, 16.0, 17.0, 24.0, 25.0, 27.0, 28.0, 29.0, 49.0 RIPRAP DITCH OR CHANNEL

Provide all materials, excavate and construct ditch or channel as indicated on the attached typical plans, cross-section, specifications, and as discussed at the Pre-Bid Showing. Channels and ditches shall be free draining upon completion of construction. Length of channel may be adjusted to meet on site conditions. (See riprap specifications) R-5 limestone riprap shall be used at a thickness of 1 ½ feet.

#### 18.0 BOREHOLE SEALING

This item consists of furnishing all supervision, labor, power, fuel, equipment, materials and performing all operations in connection with the stabilization program. This is to provide handling, transportation, storage, mixing, and placement of concrete, cleanup of the area upon completion of the work, overall site safety, and all other operations which are incidental to the work as specified herein.

It is the Contractor's responsibility to provide methane gas monitoring during the stabilization activities, the frequency of which is at the discretion of the DEP. The DEP and Engineer accept no responsibility of accidents or personal injury resulting from the presence of methane gas, or from any other aspects of the stabilization program.

The Contractor shall seal the borehole immediately above the coal seam or the Contractor may opt to inject concrete into the mine void until the borehole is sealed. Staging of concrete injection shall allow the concrete to set up before additional concrete is injected. Staging requirements will be based on the subsurface conditions encountered and as directed by the on-site DEP inspector.

All equipment used for mixing and injecting concrete shall be furnished by the Contractor and shall be maintained in proper operating condition at all times. The power and equipment, and the layout thereof, shall meet all applicable requirements of local, State and Federal regulations and codes, both safety and otherwise.

Equipment shall have sufficient instrumentation to accurately control and monitor the volume of concrete placed. Payment will not be made for excessive material injected due to inadequate control by the Contractor. The inside diameter of any hoses and supply lines used shall not be less than 2.0 inches.

Methane monitor(s) shall be maintained in good operating, including calibration, for the life of the project. Repair and/or replacement of monitor(s) shall be made within 24 hours of notice from the DEP. If methane is detected above one (1) percent anywhere in the proximity of the project site, the Contractor shall provide for the installation of suitable stand pipes, flame arrestors, and all other required equipment of abatement of the methane. There will be no separate payment or additional compensation to the contractor for this service.

Concrete shall be Class D or equivalent.

Concrete deposited under water shall be carefully placed in a compact mass in its final position by means of a tremie, a closed bottom dump bucket, or other approved method and shall not be disturbed after being deposited.

Concrete Placement: All filling will require use of a pump and tremie tube. The filling material will have to be

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staged, based on the subsurface conditions encountered, and as directed by the on-site DEP inspector.

The final concrete elevation shall be adjusted to within 2 ft. of the ground or pavement surface.

Grout and concrete elevations shall be monitored for any sudden drop in elevation, or "bleeding", for a minimum of 24 hours after completion, and adjusted if any observable difference in elevation is realized. The holes will require temporary covers until they are completed with the appropriate material. Monitoring and covering of the holes is the responsibility of the contractor.

Quality control shall be the responsibility of the contractor. Qualified personnel shall be provided by the contractor for the operation of equipment. The contractor shall have a competent superintendent, satisfactory to the DEP, on-site at all times during working hours with full authority to act for him. Borehole sealing is to be certified as required by the Groundwater Protection Act under Section 47 CSR 59.

# 19.0, 33.0 UNDERDRAIN

Collection underdrains shall be constructed to collect all seep water for conveyance to the treatment sites. The collection underdrain shall be 4 ft. X 4 ft. in cross-section. Stone for the underdrain shall be non-calcareous with a size of 3" to 6" in diameter. The drain shall be wrapped with filter fabric (Typar 3401 or equivalent). Filter fabric may be omitted from areas where the seepage enters the underdrain if approved by the DEP on site representative. A 12" (OR 6") perforated SDR-35 PVC pipe shall extend the length of the underdrain and connect to solid pipe. The solid pipe shall daylight to the V-ditch leading into the collection pond. An animal guard shall be installed on the exit of the pipe. The perforated end of the 12" (OR 6")pipe seep collector shall extend to the surface as a clean-out and may be reduced to 6" diameter pipe with a cap.

Cover the underdrain with a minimum of 1 ft. of material and grade the surface so it is well drained. Material on the downslope side of the drain shall be impervious to prevent leakage from the underdrain to the surface. Provide all fittings necessary for installation. Refer to the attached drawing for further details. All materials specified above and on the attached drawing shall be incidental to this bid item. Payment for each underdrain is for complete installation and verified by DEP with photo.

# 19.0, 33.0, 44.0, 45.0 **ENGINEERING FABRIC**

General: Engineering fabric shall be of the nonwoven or woven type and consists of a pervious sheet of polymeric fibers oriented into a stable network such that the fibers retain their relative positions with respect to each other. The fabric shall be mildew and rot resistant, and shall be free of any treatment or coating which might detrimentally alter its physical properties. The fabric, including the edges or the ends of the rolls, shall be protected during shipment and storage from ultra violet rays, temperature greater than 140° F and contaminants such as mud, dust, etc.

Engineering Fabric for Subsurface Drainage and Separation:

The engineering fabric for subsurface drainage shall be the nonwoven type and the engineering fabric for separation may be the nonwoven or woven type meeting the following requirements:

PROPERTY	MINIMUM REQUIRED	TEST METHOD
	VALUE	
Permeability	$1 \times 10^2$ cm/sec	AH, 20 cm. to 10 cm.
Equivalent Opening Size ²	#50 U.S. Std. Sieve	COE CW-02215
Grab Tensile Strength ³	100 lbs.	ASTM D-1682
Grad Tensile Elongation ³	30%	ASTM D-1682
Puncture Strength ⁴	35 lbs.	ASTM D-3787
Burst Strength	130 psi	ASTM D-3786
Trapezoid Tear	35 lbs.	ASTM D-1117

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- 1. All numerical values represent minimum average roll values (i.e., any roll in a lot shall meet or exceed the minimum value in the table)
- 2. No greater opening than a #50 U.S. Sieve.
- 3. Minimum in weakest principal direction.
- 4. Tension testing machine with ring clamp, steel ball replaced with 5/16 inch diameter solid steel cylinder with either a flat or hemispherical tip centered within the ring clamp.

# 23.0, 24.0, 26.0, 30.0, 31.0, 48.0 GROUTED RIPRAP DITCH

Unless otherwise noted shall be durable rock placed in a 1.5 foot thick blanket. Twenty-five percent (25%) of the rock will be 18 inches or larger. Ten percent (10%) of the rock shall be no smaller than six (6) inches. The remaining sixty-five percent (65%) of the rock shall be well graded between six (6) and eighteen (18) inches. In-place rammed or hammered rock shall be acceptable.

The grout filler shall be composed of a mixture of one part Type II (sulfate resistant) portland cement and three parts sand, mixed with water to produce a workable consistency. The stone shall be thoroughly wet immediately before grout is applied. As soon as the grout is deposited on the surface, it shall be thoroughly worked into the joints. The stones shall then be brushed, so that their top surfaces are exposed. Grout shall penetrate 100% of the riprap thickness.

# 32.0 OPEN LIMESTONE ALKALINITY CELLS

Provide all materials, excavate and construct Cells as indicated on the attached typical plans, cross sections, specifications, and as discussed at the Pre-Bid showing. Limestone number eight (#8) and number fifty seven (#57) gravel is to be used on the floor of the cells and standard limestone rip-rap is to be used for construction of the check dams. Length and width of the cells will be determined by site conditions and DEP representative on-site (see attached specifications and/or plans).

# 34.0, 35.0, 36.0, 37.0, 38.0, 39.0 CLEAN OUT CONSTRUCTED WATER TREATEMENT STRUCTURES

Ponds shall be constructed as per attached detailed plans. Ponds shall have compacted dikes which will be constructed in two foot (2') maximum lifts for optimum compaction. Compaction shall be achieved by tracking with a D-6 or larger dozer. Dikes constructed with loosely stacked material to final height and then tracked will not be accepted. This item will be a one-time payment. Cleanout and maintenance, during the life of the contract, shall be conducted by the contractor at no expense to DEP (see attached specifications and/or plans).

# 41.0 DEEP MINE SEALS (Wet Type (Acid Producing Seams))

A seal shall be constructed to conform to the plans and specifications as shown in drawing titled <u>"Typical Wet Seal Drawing"</u> payment of each seal is for complete installation and verification by DEP performance with photo.

Cover the underdrain with a minimum of 1 ft. of material and grade the surface so it is well drained. Material on the downslope side of the drain shall be impervious to prevent leakage from the underdrain to the surface. Provide all fittings necessary for installation. Refer to the attached drawing for further details. All materials specified above and on the attached drawing shall be incidental to this bid item. Payment for each underdrain is for complete installation and verified by DEP with photos.

#### 42.0 BACKFILLING

Areas of this project subject to backfilling to achieve the post-mining land-use shall: be accomplished in a continuous concurrent manner on all surface disturbances within the original permit and associated disturbed areas as existing at bid showing; be filled by mechanical methods to eliminate highwall and rock outcropping, to produce slopes of consistent lines and of the approximate original contour; be free of protruding rock and debris; be

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compacted in a progressive backfilling manner with mechanical equipment to ensure stability of backfill material. The maximum acceptable slope of any backfill face shall not exceed two (2) horizontal to one (1) vertical, unless otherwise stated. Backfilling shall cease during periods of adverse site conditions. (For example: excessive soil moisture)