BID #WG20-17 SPECFICATIONS

These specifications shall be construed as minimum. Should manufacturer's current published data or specifications exceed these, such standards shall be considered minimum and furnished. All integral parts not specifically mentioned in the scope of these specifications that are necessary to provide a complete working product shall be furnished.

Bidder shall give a unit price as indicated on the Bid Response Form. The price shall include all applicable charges, to include but not limited to delivery, etc.

The use of specific names and numbers in the specifications is not intended to restrict the bidder or any seller or manufacturer's, but is solely for the purpose of indicating the type, size and quality of equipment considered best adapted to Baldwin County.

BID RESPONSE FORM

Each supplier should use the Response Form provided for their bid. Exceptions are to be attached to the back of the Response Form. The Bid Guarantee should be attached to the front of the Response Form. Each supplier should complete the Certification of Lobbying in the bid specifications and return with your Bid Response Form. Title 43 CFR Sec. 18 can be downloaded from the County website www.baldwincountyal.gov

A BID GUARANTEE OF \$500.00 MUST BE INCLUDED WITH YOUR BID RESPONSE.

DELIVERY

Delivery as soon as possible, but not more than ten (10) business days after receipt of order, **unless noted otherwise.**

A Purchase Order will be issued for the materials and quantities listed. Delivery shall be made to the location listed on the Purchase Order.

No bid may be withdrawn for a period of thirty (30) days following the bid opening unless approved by the Baldwin County Commission, Bay Minette, Alabama.

AWARD

The bid will be awarded to the lowest responsible bidder complying with the conditions of the bid invitation provided that said bid is reasonable and is in the best interest of Baldwin County. In addition to the lowest responsible bidder for the provision of Solid Sod, a secondary vendor will be awarded to next lowest responsible bidder. These specifications shall be construed as minimum. All integral parts not specifically mentioned in the scope of these specifications that are necessary to provide a complete working unit shall be furnished.

LAWS AND REGULATIONS

The bidder's attention is directed to the fact that all applicable federal and state laws, municipal ordinances, and rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the contract throughout, and they will be deemed to be included in the contract the same as though herein written out in full.

LEGAL COMPLIANCE

The Contractor shall at all times comply with all applicable federal, state, local and municipal laws and regulations, including but not limited to Title 43 CFR Sec. 12.76 paragraphs (b) through (i); Title 43 CFR Sec. 18 (Lobbying).

BUY AMERICAN REQUIREMENTS

The Contractor acknowledges to and for the benefit of Baldwin County Commission of the State of Alabama that it understands that some of the goods and services under this Agreement may be funded with <u>federal monies</u> made available by the U. S. Department of the Interior - Coastal Impact Assistance Program (CIAP) and such laws contains provision commonly known as "Buy American" that requires all of the iron, steel and manufactured goods used in the project be produced in the United States ("Buy American Requirements"), including iron, steel, and manufactured goods provided by the Contractor pursuant to this Agreement. The Contractor hereby represents and warrants to and for the benefit of the Baldwin County Commission that (a) the Contractor has reviewed and understands the Buy American Requirements, (b) all of the iron, steel, and manufactured goods used in the project will be and/or have been produced in the United States in a manner that complies with the Buy American requirements, unless a waiver of the requirements is approved, and (c) the Contractor will provide any further verified information, certification, or assurance of compliance with this paragraph, or information necessary to support a waiver of the Buy American Requirements, as may be requested by the County. As such, all products furnished by the CONTRACTOR under this contract must comply with, without limitations, the "Buy American" provisions of Title 43 CFR Sec. 12.700 through 12.830 U. S. Department of Interior.

BID # WG20-17 SPECIFICATIONS Solid Sod

Baldwin County requests bids for the provision of Solid Sod in accordance with Section 860.05 of the State of Alabama Highway Department Standard Specifications for Highway Construction, latest edition.

Bidders shall provide bids for the various types of sod they can supply on the Bid Response Form. The County requests bids for block sod, mini rolls and 30" rolls of sod. Bidders shall provide the cost per square yard for sod delivered by the bidder to various Baldwin County locations and the cost per square yard for sod picked up by the County at the supplier's place of business. Specify location for County pickup.

Copies of all sales order tickets shall be attached to invoices and mailed with a monthly statement to the Baldwin County Commission, Accounts Payable, 312 Courthouse Square, Suite 11, Bay Minette, Alabama, 36507, in order for invoices to be paid. The total amount of materials and the cost per square yard shown on invoices and sales tickets shall match and the cost per square yard shall be the same as listed on the Award Listing.

Delivery should be made as soon as possible, but not more than (24) hours after receipt of order.

In the event that the awarded bidders Facility is not open for business or cannot deliver the amount of material needed on the day of the order, the County at their sole discretion, may choose to pick up, or have delivered the material from the secondary awarded bidder thus becoming the prime supplier for that day. This will be noted by a notation being placed at the bottom of the request for materials by the County Representative that has contacted the awarded bidder, by doing so the County will not violate the Bid Specifications. This in no way relieves the bidder from delivering the materials to the County.

All Costs and expenses related to the supplier's failure to deliver material as and when specified, including without limitation the cost of the material itself, shall be borne solely by the supplier, and the County shall not be responsible or liable for any such cost or expenses.

Prices bid shall be applicable for Sod to be ordered between April 7, 2020 and April 7, 2021.

BID #WG20-	17 RESPO	DNSE FO	RM
Solid Sod			

Date:_____

Company Name_____

Address

Phone Number ()	
Fax Number ()	
Email:	

Authorized Signature_____

(please print or type Name)

Position_____

Location for County to Pickup Sod_____

		Price per Sq Yard Delivered to Various Baldwin	Price per Sq Yard Picked up by Baldwin County
Sod Type	Cuts	County Locations	Vehicle
Centipede	Block		
Centipede	Mini Rolls		
Centipede	30" Rolls		
Bermuda/Tifton	Block		
Bermuda/Tifton	Mini Rolls		
Bermuda/Tifton	30" Rolls		
Celebrations Bermuda	Block		
Celebrations Bermuda	Mini Rolls		
Celebrations Bermuda	30" Rolls		
St. Augustine	Block		
St. Augustine	Mini Rolls		
St. Augustine	30" Rolls		

BID # WG20-17 SPECIFICATIONS Grass Seeds

Grass Seeds shall be in accordance with Section 860.01 of the State of Alabama Highway Department Standard Specifications for Highway Construction, latest edition.

Seeds shall be certified by an Official Seed Certifying Agency. Seeds shall have been tested within nine months prior to use. Each kind of seed shall be separately packed and delivered in a seed-tight bag. Each bag shall bear a tag or label bearing the seal of the Official Seed Certifying Agency. The analysis of the seed (% pure seed, % germination, date tested, etc.) shall be attached to each bag.

Bidders shall provide cost per pound of grass seed delivered by the bidder (including shipping cost) to various Baldwin County locations and the cost per pound of grass seed picked up by the County at the supplier's place of business. The County Engineer or his designee will factor in the supply location in determining the low bidder for grass seed picked-up. A per-road mile truck operating cost will be multiplied times the road miles of the best route between the supply location and each "Maintenance Area" for all material picked up by Baldwin County. Specify location for County pickup.

Bid prices shall be applicable for Grass Seeds to be ordered between April 7, 2020 and April 7, 2021.

BID #WG20-17 RESPONSE FORM

Grass Seeds
Date:
Company Name
Address
Phone Number ()
Fax Number ()
Email:
Authorized Signature
(please print or type Name)

Title _____

Location for County to Pickup Grass Seeds

<u>Area 100</u>

Seed Type	Price per Pound Delivered to Various Baldwin County Locations	Price per Pound Picked up by Baldwin County
Annual Ryegrass	/Ib	/Ib
Tall Fescue	/Ib	/Ib
Crimson Clover	/Ib	/Ib
Brown Top Millet	/Ib	/Ib
Unhulled Bermuda Grass	/Ib	/Ib
Hulled Bermuda Grass	/Ib	/Ib
Pensacola Bahia Grass	/Ib	/Ib
Centipede	/Ib	/Ib
Kentucky 31 Fescue	/Ib	/Ib
Weeping Lovegrass	/Ib	/Ib
Annual Lespedeza (Kobe)	/Ib	/Ib

PreMix Summer Seed Blend	/Ib	/Ib
Crimson Clover 4.75%		
Brown Top Millet 19%		
Hulled Bermuda Grass 5%		
Pensacola Bahia Grass 16%		
Kentucky 31 Fescue 48%		
Annual Lespedeza (Kobe) 2%		
PreMix Winter Seed Blend	/Ib	/Ib
Crimson Clover 9%		
Gulf Rye 13%		
Unhulled Bermuda Grass 9%		
Pensacola Bahia Grass 9%		

Kentucky 31 Fescue 50%

<u>Area 200</u>

Seed Type	Price per Pound Delivered to Various Baldwin County Locations	Price per Pound Picked up by Baldwin County
Annual Ryegrass	/Ib	/Ib
<u>Tall Fescue</u>	/Ib	/Ib
Crimson Clover	/Ib	/Ib
Brown Top Millet	/Ib	/Ib
Unhulled Bermuda Grass	/Ib	/Ib
Hulled Bermuda Grass	/Ib	/Ib
Pensacola Bahia Grass	/Ib	/Ib
Centipede	/Ib	/Ib
Kentucky 31 Fescue	/Ib	/Ib
Weeping Lovegrass	/Ib	/Ib
Annual Lespedeza (Kobe)	/Ib	/Ib

PreMix Summer Seed Blend

Crimson Clover 4.75%	 /Ib	/Ib	
Brown Top Millet 19%			
Hulled Bermuda Grass 5%			
Pensacola Bahia Grass 16%			
Kentucky 31 Fescue 48%			
Annual Lespedeza (Kobe) 2%			
PreMix Winter Seed Blend			
Crimson Clover 9%	 /Ib	/Ib	
Gulf Rye 13%			
Unhulled Bermuda Grass 9%			
Pensacola Bahia Grass 9%			

<u>Area 300</u>

Kentucky 31 Fescue 50%

Seed Type	Price per Pound Delivered to Various Baldwin County Locations	Price per Pound Picked up by Baldwin County
Annual Ryegrass	/Ib	/Ib
Tall Fescue	/Ib	/Ib
Crimson Clover	/Ib	/Ib
Brown Top Millet	/Ib	/Ib
Unhulled Bermuda Grass	/Ib	/Ib
Hulled Bermuda Grass	/Ib	/Ib
Pensacola Bahia Grass	/Ib	/Ib
Centipede	/Ib	/Ib
Kentucky 31 Fescue	/Ib	/Ib
Weeping Lovegrass	/Ib	/Ib
Annual Lespedeza (Kobe)	/Ib	/Ib

PreMix Summer Seed Blend

Crimson Clover 4.75%	/Ib	/Ib
Brown Top Millet 19%		
Hulled Bermuda Grass 5%		
Pensacola Bahia Grass 16%		
Kentucky 31 Fescue 48%		
Annual Lespedeza (Kobe) 2%		
PreMix Winter Seed Blend		
Crimson Clover 9%	/Ib	/Ib
Gulf Rye 13%		
Unhulled Bermuda Grass 9%		
Pensacola Bahia Grass 9%		
Kentucky 31 Fescue 50%		

BID #WG20-17 SPECIFICATIONS

<u>Fertilizer</u>

Fertilizer shall be in accordance with Section 860.12 of the State of Alabama Highway Department Standard Specifications for Highway Construction, latest edition.

Fertilizer shall be tested by current methods adopted by the Association of Official Agricultural Chemists and shall comply with Alabama Fertilizer Laws, Title 2, Sections 282-300, Alabama Code of 1940 as amended.

Manufactured fertilizer shall be standard commercial products and shall contain not less than the percentages by weight {mass} of the ingredients set out in the following table:

ТҮРЕ	Nitrogen N	Phosphorus P2O5	Potash K2O
13-13-13	13	13	13
10-10-10	10	10	10
8-8-8	8	8	8

All fertilizers shall be transported in bags not to exceed 100 pounds.

Agricultural limestone shall be crushed or ground to such a degree of fineness that 90 percent of the material will pass through a 10 $\{2.00 \text{ mm}\}$ mesh screen and not less than 50 percent of the material will pass through a 60 $\{250 \mu m\}$ mesh screen. All such limestone shall also have a neutralizing value of 90 percent calcium carbonate or better.

<u>Agricultural limestone bought in bulk shall include the rental of a buggy for transporting the</u> <u>material that can be pulled by a truck.</u>

Bidders shall provide cost per pound of fertilizer delivered by the bidder (including shipping cost) to various Baldwin County locations and the cost per pound of fertilizers picked up by the County at the supplier's place of business. Specify location for County pickup.

Bid prices shall be applicable for Fertilizers to be ordered between April 7, 2020 and April 7, 2021.

BID #WG20-17 RESPONSE FORM

<u>Fertilizer</u>
Date:
Company Name
Address
Phone Number ()
Fax Number ()
Authorized Signature
(please print or type Name)
Title

Location for County to Pickup Grass Seeds

Fertilizer Type	Price per Pound Delivered to Various Baldwin County Locations	Price per Pound Picked up by Baldwin County	
<u>13-13-13</u>	/Ib	/]	Ib
<u>10-10-10</u>	/Ib	/]	Ib
<u>8-8-8</u>	/Ib	/]	Ib
Agricultural Lime (Bag)	/Ib	/I	Ib
Agricultural Lime (Bulk)	/ton	/	ton

BID # WG20-17 SPECIFICATIONS

Silt Fence

Silt Fence shall be in accordance with Section 665.02 (i) of the State of Alabama Highway Department Standard Specifications for Highway Construction, latest edition.

Silt Fence shall meet or exceed these minimum standards as shown below. A list of qualified products can be found on the ALDOT approved list of Qualified Materials in the Materials, Sources & Devices with Special Acceptance Requirements Manual found on **Attachment A**.

Type "A" Silt Fence Kit

Shall meet Alabama Department of Transportation approved specifications for 48" wide Type "A" silt fence

Provide Alabama Department of Transportation Certification with each shipment Must be from an approved ALDOT sources list.

1. 34- 5' long painted steel posts with anchor plate for vertical stability

- 2. 1 roll of approved geotextile filter fabric
- 3. 1 roll of 39" wide 330' long 14 gage steel wire mesh
- 4. 200 each hog rings used to attach the geotextile fabric to the hog wire

5. 100 each "T" clips used to attach the hog wire to the posts

The components come in a kit form but unassembled.

Type "B" Silt Fence Kit

Shall meet Alabama Department of Transportation approved specifications with following as minimum.

- 1. 100' long rolls
- 2. 13 hardwood posts/roll
- 3. 36" wide
- 4. $1\frac{1}{2}$ " true size posts

C-Flex T Black Mesh Trash Fence

C-Flex T Fence shall meet or exceed these minimum standards as shown below

- 1. 6' x 330' Dimension
- 2. Weight: 36 lbs.
- 3. Polymer Type Polypropylene, Structure Quadrangular, Color Black
- 4. MD PITCH Unit inch 2.17, TD PITCH Unit inch 2.17
- 5. Tensile Strength 411.2 lbs./ft. per MD Elongation of 15
- 6. 8' x 330' Dimension
- 7. Weight: 49 lbs.
- 8. Polymer Type Polypropylene, Structure Quadrangular, Color Black
- 9. MD PITCH Unit inch 2.17, TD PITCH Unit inch 2.17
- 10. Tensile Strength 411.2 lbs./ft. per MD Elongation of 15

Wattles/Sediment Logs

A wattle/Sediment Log shall be a tubular shaped product specifically manufactured for erosion and sediment control. It shall be made from interwoven biodegradable plant material such as straw, coir, or wood shavings in biodegradable or photodegradable netting that is of sufficient strength to resist damage during handling, installation and use.

Wattles/Sediment Logs products shall meet or exceed these minimum standards as shown below. A list of qualified products can be found on the ALDOT approved list of Qualified Materials in the Materials, Sources & Devices with Special Acceptance Requirements Manual found on **Attachment B**.

	Wattles	Sediment Logs			
Nominal Diameter	12 in.	20 in. 12 in. 20 in.			
Minimum Diameter	11.5 in	19.0 in	11 in	18 in	
Length (<u>+</u> 10 %)	10 ft	10 ft	10 ft	10 ft	
Weight (<u>+</u> 10 %)	30 lb	60 Ib	20 Ib	30 Ib	
Density (<u>+</u> 10 %)	3.80 Ib/ft ³	2.75 Ib/ft ³	2.54 Ib/ft ³	1.38	

Bidders shall provide cost per foot of Wattles/Sediment logs delivered by the bidder (including shipping cost) to various Baldwin County locations and the cost per foot of Wattles/Sediment logs picked up by the County at the supplier's place of business. Specify location for County pickup.

Bid prices shall be applicable for Wattles/Sediment logs to be ordered between April 7, 2020 and April 7, 2021.

Rolled Erosion Control Products (RECPs)

Erosion Control Blankets shall be in accordance with Section 860.11 of the State of Alabama Highway Department Standard Specifications for Highway Construction, latest edition. Rolled Erosion Control products shall meet or exceed the minimum performance standards as required for ECP's for slope and channel protection. A list of qualified products can be found on the ALDOT approved list of Qualified Materials in the Materials, Sources & Devices with Special Acceptance Requirements Manual found in **Attachment C.**

Bidders shall provide bids for the various types of Rolled Erosion Control Products they can supply on the Bid Response Form for each functional longevity. Bidders shall provide cost per square yd of Rolled Erosion Control Products delivered by the bidder (including shipping cost) to various Baldwin County locations and the cost per square yd of Rolled Erosion Control Products picked up by the County at the supplier's place of business. Specify location for County pickup.

Bid prices shall be applicable for Rolled Erosion Control Products to be ordered between April 7, 2020 and April 7, 2021.

Sod Staples

Sod Staples shall be 11-gauge galvanized steel, 6-inch U-shaped staples with 6-inch legs, and 1-inch crown. 1000/Box

Bidders shall provide cost per box of Sod Staples delivered by the bidder (including shipping cost) to various Baldwin County locations and the cost per box of Sod Staples picked up by the County at the supplier's place of business. Specify location for County pickup.

Bid prices shall be applicable for Sod Staples to be ordered between April 7, 2020 and April 7, 2021.

Geotextiles (Filter Fabric)

Geotextiles shall be in accordance with Section 810 of the State of Alabama Highway Department Standard Specifications for Highway Construction, latest edition.

Geotextiles shall consist of long-chain synthetic polymers, composed of at least 85 percent by weight polyolefins, polyesters, or polyamids that shall be formed into a network such that the filaments or yarns retain dimensional stability relative to each other.

Property	Method	Nonwoven 4.0 oz/sy Requirement	Nonwoven 8.0 oz/sy Requirement
Grab Strength (Ibs)	ASTM D 4632	90	200
Elongation (%)	ASTM D 4632	50	50
Puncture Strength (Ibs)	ASTM D 4833	60	100
Trapezoid Tear (Ibs)	ASTM D 4533	40	80
UV Resistance , % Retained	ASTM D 4355	70	70
Permittivity (Sec ⁻¹)	ASTM D 4491	2.00	1.40

Geotextiles shall meet or exceed the following minimum values:

Property	Method	Woven Requirement
Grab Strength (Ibs)	ASTM D 4632	270
Elongation (%)	ASTM D 4632	15
Puncture Strength (Ibs)	ASTM D 4833	100
Trapezoid Tear (Ibs)	ASTM D 4533	100
UV Resistance , % Retained	ASTM D 4355	70
Permittivity (Sec ⁻¹)	ASTM D 4491	0.08

Geotextile filter fabric will be purchased by the roll.

Geogrid

Geogrid shall be in accordance with section 243 of the state of Alabama Highway Department standard specifications for highway construction, latest edition. Geogrid shall meet or exceed the minimum performance standards as required for Geosynthetics for slope and soft soil reinforcement. A list of qualified products can be found on the ALDOT approved list of qualified Materials in the Materials, Sources, & Devices with Special Acceptance Requirements Manual.

The applicable test methods required for measuring strength and creep must meet ASTM D 4595, ASTMD 5262 AND ASTMD 6637.

Reinforcement for soil slopes shall be any geosynthetic whose strength in the machine direction equals or exceeds the values shown in the following table:

SOIL SLOPE	CREEP REDUCED STRENGTH AT A 10 %	
REINFORCEMENT	TOTAL STRAIN LIMIT	TEST
TYPE	(minimum) pounds per foot {kN/m}	METHOD *
1	1000 {14.6}	
2	2500 {36.5}	ASTM D 5262
3	3400 {49.6}	
* Ultimate Strength measured in accordance with ASTM D 4595 or D 6637.		

Reinforcement for soft soil stabilization shall be any geosynthetic whose strength equals or exceeds values shown in the following table:

		ULTIMATE		STRENGTH AT	
	ULTIMATE	STRENGTH,	STRENGTH AT	5% STRAIN,	
	STRENGTH,	CROSS	5% STRAIN,	CROSS	
	MACHINE	MACHINE	MACHINE	MACHINE	
SOFT SOIL	DIRECTION	DIRECTION	DIRECTION	DIRECTION	
STABILIZATION	(minimum)	(minimum)	(minimum)	(minimum)	
REINFORCEMENT	pounds per	pounds per	pounds per	pounds per	TEST
TYPE	foot {kN/m}	foot {kN/m}	foot {kN/m}	foot {kN/m}	METHOD
1	900 {13.1}	900 {13.1}	500 {7.3}	500 {7.3}	ASTM D 6637
2	1300 {19.0}	1300 {19.0}	800 {11.7}	800 {11.7}	ASTM D 4595
3	2100 {30.7}	2100 {30.7}	1200 {17.5}	1200 {17.5}	A31M D 4393

Bidders shall provide a bid for the Geogrid they can supply on the bid response form. Bidders should provide cost per square yard of geogrid delivered by the bidders "including shipping cost" to various county locations and the cost per square yard of Geogrids picked up by the county at the supplier's place of business. Specify locations for county pick up.

Bid prices shall be applicable for Geogrid to be ordered between April 7, 2020 and April 7, 2021.

BID #WG20-17 RESPONSE FORM

Erosion Control Materials
Date:
Company Name
Address
Phone Number ()
Fax Number ()
Email
Authorized Signature
(Please print or type Name)
Title

Location for County to Pick up Erosion Control Materials

DELIVERED F.O.B. BALDWIN COUNTY Description

Price

Product

Type "A" Silt Fence Kit Type "B" Silt Fence Kit 6' C-Flex T Fencing 8' C-Flex T Fencing Wattles (12 in.) Wattles (20 in.) Sediment Logs (12 in.) Sediment Logs (20 in.) Type S3 RECPs- 3 month Type S3 RECPs- 12 month Type S2 RECPs- 12 month Type S1 RECPs- 24 month Type S1 RECPs- 36 month Type S1 RECPs- Perm Type C2 RECPs- 12 month Type C2 RECPs- 24 month Type C2 RECPs- 36 month Type C6 RECPs- Perm Type C10 RECPs- Perm Sod Staples Nonwoven Geotextile 4.0 oz/sy (Filter fabric) Nonwoven Geotextile 8.0 oz/sy (Filter fabric)

\$ L. F.	PD	
\$ L.F.	PD	_
\$ L.F.	PD	_
\$ L.F.	PD	
\$ S.Y.	PD	
\$ Box	PD	
\$ S.Y.	PD	
\$ S.Y.	PD	

Woven Geotextile (Filter fabric)	\$ S .Y.	PD
Soil Slope Reinforcement Type 1	\$ S.Y.	PD
Soil Slope Reinforcement Type 2	\$ S.Y.	PD
Soil Slope Reinforcement Type 3	\$ S.Y.	PD
Soft Soil Reinforcements Type 1 "Geogrid"	\$ S.Y.	PD
Soft Soil Reinforcements Type 2 "Geogrid"	\$ S.Y.	PD
Soft Soil Reinforcements Type 3 "Geogrid"	\$ S.Y.	PD

PICKUP BY BALDWIN COUNTY Description

Type "A" Silt Fence Kit Type "B" Silt Fence Kit C-Flex T Fencing Wattles (12 in.) Wattles (20 in.) Sediment Logs (12 in.) Sediment Logs (20 in.) Type S3 RECPs- 3 month Type S3 RECPs- 12 month Type S2 RECPs- 12 month Type S1 RECPs- 24 month Type S1 RECPs- 36 month Type S1 RECPs- Perm Type C2 RECPs- 12 month Type C2 RECPs- 24 month Type C2 RECPs- 36 month Type C6 RECPs- Perm Type C10 RECPs- Perm Sod Staples Nonwoven Geotextile 4.0 oz/sy (Filter fabric) Nonwoven Geotextile 8.0 oz/sy (Filter fabric) Woven Geotextile (Filter fabric) Sole Slope Reinforcement Type 1 Sole Slope Reinforcement Type 2 Sole Slope Reinforcement Type 3 Soft Soil Reinforcements Type 1 "Geogrid" Soft Soil Reinforcements Type 2 "Geogrid" Soft Soil Reinforcements Type 3 "Geogrid"

<u>Price</u>		<u>Product</u>
\$ L. F.	PD	
\$ L.F.	PD	
\$ S.Y.	PD	
\$ <u>S.Y.</u>	PD	
\$ <u>S.Y.</u>	PD	
\$ S.Y.	PD	
\$ S.Y.	PD	
\$ <u>S.Y.</u>	PD	
\$ Box	PD	
\$ S.Y.	PD	
\$ <u>S.Y.</u>	PD	
\$ S.Y.	PD	
\$ 	PD	

Any brochures or specification material that shows the materials that is being offered should be attached to this Response Form.

BID # WG20-17 SPECIFICATIONS

Articulating Concrete Block Mats

Articulating Concrete Block Mats shall be pre-manufactured as an assembly of concrete blocks when connected into mattresses by the use of revetment cables. The individual grid blocks shall consist of a homogeneous mass of consolidated concrete and shall be machined-made by a vibration and compression process, and composed of approved aggregates with a no-slump concrete mix. Cement shall conform to ASTM C 150 (Portland Cement) and Aggregates to ASTM C 33 requirements.

The interlocking Articulating Concrete blocks shall meet the following physical characteristics requirements:

Compressive Strength (min)	3,500 psi @ 28 Days	ASTM C 140
Maximum Water Absorption (Ib/ft ³)	9.1	ASTM C 140
Minimum Unit Coverage (ft ²)	1.5	
Percentage Open Area	10-20 %	

Revetment cables shall be galvanized steel cables that exhibit resistance to mild concentrations of acids, alkalis, and solvents. Revetment cables shall extend through two or more tunnels in each block in a manner that provides for binding of the mattresses in both the longitudinal and lateral directions that conform to ASTM D 4268-93 requirements. The cables inserted into the mats shall form lifting loops at one end of the mat with the corresponding cable ends spliced together to form a lifting loop at the other end of the mat. Selection of cable size and fittings shall be made in a manner that insures a safe design factor for mats being lifted from both ends.

Anchors shall be galvanized steel and have a minimum pull resistance of 2,000 pounds.

The cellular concrete mats shall have the ability for fabrication in various lengths and widths.

The bidder shall furnish the manufacturer's certificates of compliance for cellular concrete block mats, revetment cable, and any revetment cable fittings and connectors. The bidder shall also furnish the manufacturer's specifications for placement of cellular concrete block mats.

Bidders shall provide all costs, including freight per square foot of Articulating Concrete Block Mats delivered by the bidder to various Baldwin County locations and the cost excluding freight per square foot of Articulating Concrete Block Mats picked up by the County at the supplier's place of business. Specify location for County pickup.

Bid prices shall be applicable for Articulating Concrete Block Mats to be ordered between April 7, 2020 and April 7, 2021.

BID #WG20-17 RESPONSE FORM

Articulating Concrete Block Mats
Date:
Company Name
Address
Phone Number ()
Fax Number ()
Email
Authorized Signature
(Please print or type Name)
Title

Location for County to Pick-up Erosion Control Materials

DELIVERED F.O.B. BALDWIN COUNTY

	H x W x L	
Open Cell	4.75 x 15.5 x 17.4	S.F.
Open Cell	6.0 x 15.5 x 17.4	S.F.
Open Cell	8.0 x 15.5 x 17.4	S.F.
Closed Cell	4.75 x 15.5 x 17.4	S.F.
Closed Cell	6.0 x 15.5 x 17.4	S.F.
Closed Cell	8.0 x 15.5 x 17.4	S.F.
Anchors		EA.

PICKUP BY BALDWIN COUNTY

	H x W x L	
Open Cell	4.75 x 15.5 x 17.4	S.F.
Open Cell	6.0 x 15.5 x 17.4	S.F.
Closed Cell	4.75 x 15.5 x 17.4	S.F.
Closed Cell	6.0 x 15.5 x 17.4	S.F.
Anchors		EA.

BID # WG20-17 SPECIFICATIONS

Standard Flexamats – Tied Concrete Block Mats

Flexamat is manufactured from individual concrete blocks tied together with high strength polypropylene biaxial geogrid. Each block is tapered, beveled and interlocked and includes connections that prevent lateral displacement of the blocks within the mats when they are lifted for placement.

Tied Concrete Block Mats shall be Flexamat, manufactured by Motz Enterprises, Inc. or approved equal.

Blocks. Furnish blocks manufactured with concrete conforming to the cement requirements of ASTM C150 and to the aggregate requirements of ASTM C33. Meet a minimum compressive strength of 5,000 psi at 28 days. Furnish blocks that have a minimum weight of 3 lb. per block. Blocks shall be placed no further than 2 in. apart.

Polypropylene Bi-Axial Geogrid. Provide revetment mat that is constructed of a high tenacity, low elongating, and continuous filament polypropylene fibers that is securely cast into and embedded within the base of the concrete blocks and obtains connection strength greater than that of the geogrid. Ensure the geogrid meets the requirements of Table 1:

Polypropylene Bi-Axial Geogrid	
Description	Requirement
UV Stabilization	2% Carbon Black
Ultimate Tensile Strength	2055 lb/lf

The Flexamat shall have the ability for fabrication in various lengths and widths.

The bidder shall furnish the manufacturer's certificates of compliance for Flexamats. The bidder shall also furnish the manufacturer's specifications for placement of Flexamat.

Bidders shall provide all costs, including freight per square foot of Flexamat delivered by the bidder to various Baldwin County locations and the cost excluding freight per square foot of Flexamat picked up by the County at the supplier's place of business. Specify location for County pickup.

Bid prices shall be applicable for Flexamat to be ordered between April 7, 2020 and April 7, 2021.

<u>BID #WG20-17 RESPONSE FORM</u> Standard Flexamats – Tied Concrete Block Mats

Date:

Company Name

Address _____

Phone Number ()

Fax Number ()

Email _____

Authorized Signature

(Please print or type Name)

Title _____

Location for County to Pick-up Erosion Control Materials

DELIVERED F.O.B. BALDWIN COUNTY

8' x 30'	S.F.
8' x 40'	
8' x 50'	
12' x 30'	
12' x 40'	
12' x 50'	
16' x 30'	
16' x 40'	
16' x 50'	
Anchors	EA.

PICKUP BY BALDWIN COUNTY

	LXW	
8' x 30'		S.F.
8' x 40'		S.F.
8' x 50'		S.F.
12' x 30'		S.F.
12' x 40'		<u>S.F.</u>
12' x 50'		<u>S.F.</u>
16' x 30'		S.F.
16' x 40'		S.F.
16' x 50'		<u></u> S.F.
CUSTOM SIZE		S.F.
Anchors		EA.