

State of Alabama )

County of Baldwin)

### **CONTRACT FOR CONSTRUCTION SERVICES**

This **Contract for Construction Services** ("Contract") is made and entered into by and between the Baldwin County Commission, the honorable governing body of Baldwin County, Alabama, a political subdivision of the State of Alabama (hereinafter called "COUNTY"), and **CrowderGulf, LLC**, (hereinafter referred to as "PROVIDER" or "CONTACTOR").

The Bid Specifications are fully set forth as part of this Contract and incorporated herein by reference.

### **WITNESSETH:**

**Whereas**, COUNTY is a political subdivision of the State of Alabama and the governing body of Baldwin County, Alabama; and

**Whereas**, PROVIDER is a company qualified to do business in the State of Alabama and to perform the services contemplated herein; and

**Whereas**, Baldwin County, Alabama, by reason of its geographical location on the northern Gulf Coast of the United States, remains subject to various natural disasters, including without limitation major hurricanes, which cause substantial destruction of property, structures, and infrastructure, which in turn produces great amounts of debris throughout Baldwin County, Alabama; and

**Whereas**, COUNTY desires to provide for the efficient and timely removal and disposal of such debris pursuant to certain terms and conditions more fully set out herein; and

**Whereas**, said natural disasters may strike or affect Baldwin County, Alabama, without notice or warning sufficient to allow COUNTY to select and retain debris removal and disposal services in a timely manner after the strike or effect of said natural disasters; and

**Whereas**, COUNTY therefore desires to select and retain such debris removal and disposal services prior to said natural disasters, all in accordance with all applicable federal and state requirements, including without limitation requirements and directives of the Federal Emergency Management Agency relating to and conditioning reimbursement of expenditures for such services, as the same may be amended and applicable from time to time; and

**Whereas**, COUNTY therefore prepared and advertised certain bid documents (nominated Competitive Bid #WG24-23, which are attached hereto and incorporated herein as Exhibit A) describing the terms and conditions of the Pre-Event Debris Removal & Disposal Services desired; and

**Whereas**, all responsive bids were opened by COUNTY on May 8, 2024, with PROVIDER thereafter being determined and accepted by COUNTY as the lowest responsible bidder at COUNTY's June 4, 2024, regular meeting; and

**Whereas**, PROVIDER represents that it is, and will remain during the term of this Contract, ready, willing and able to provide the said services, all as more fully set out herein and in accordance with the aforesaid federal and state requirements; and

**Whereas**, COUNTY and PROVIDER now wish to enter into this Contract, as contemplated

PROVIDER: CrowderGulf, LLC  
ATTN. Ashley Ramsy-Naile  
5629 Commence Blvd., East  
Mobile, AL 36619

COUNTY: Baldwin County Commission  
c/o Billie Jo Underwood, Chairman  
312 Courthouse Square  
Suite 12  
Bay Minette, AL 36507

- XVI. Services to be Rendered.** PROVIDER is retained by the COUNTY as a licensed and professionally qualified contractor. The general scope of work for the services will encompass the following activities and shall include all the terms and conditions of “**Competitive Bid #WG24-23**”, the same being expressly incorporated herein by reference, and without limitations will encompass:

**“All provision and conditions and/or specifications listed/stated in Competitive Bid #WG24-23, Pre-Event Debris Removal & Disposal Services for the County Rights-of-Way within unincorporated Baldwin County for the Baldwin County Commission.”**

- A. PROVIDER will provide ongoing communications with the COUNTY regarding this service, including updates, emails and etc. as requested. Additionally, PROVIDER will meet with COUNTY as needed or requested.
- B. PROVIDER is responsible for the professional quality, technical accuracy, timely completion and coordination of all services furnished by or in relation to this Contract.
- C. PROVIDER represents and warrants that its services shall be performed within the limits and standards provided by the COUNTY, in a manner consistent with the level of care and skill ordinarily exercised by similar providers under similar circumstances at the time the services are performed.

**XVII. General Responsibilities of the COUNTY.**

- A. The COUNTY shall provide reasonable notice to PROVIDER whenever the COUNTY actually observes or otherwise actually becomes aware of any development that affects the scope or time of PROVIDER’s services hereunder or any defect or nonconformance in the work of PROVIDER.
- B. The COUNTY shall pay to PROVIDER the compensation as, and subject to the terms, set out below.

- XVIII. Termination of Services.** The COUNTY may terminate this Contract, with or without cause or reason, by giving written notice of such to the PROVIDER. Upon receipt of such notices, PROVIDER shall discontinue its work to the extent specified in the notice.

In the event of termination, the COUNTY shall pay PROVIDER for all services satisfactorily rendered, and for any expenses deemed by COUNTY to be a reimbursable expense incurred pursuant to this Contract and prior to the date of termination.

**XIX.** Compensation Limited. The compensation to be paid to the PROVIDER shall be the full compensation for all work performed by PROVIDER under this Contract. Any and all additional expenditures or expenses of PROVIDER, not listed in full within this Contract, shall not be considered as a part of this Contract and shall not be demanded by PROVIDER or paid by COUNTY.

**XX.** Direct Expenses. Compensation to PROVIDER for work shall be paid in accordance with the Contractors Bid approval by the County Commission. Said compensation shall be all inclusive, including without limitation, reimbursement of all cost, incidentals and operating expense associated with those directly engaged in performance of the requested services.

**XXI.** Method of Payment. PROVIDER shall submit invoices to the COUNTY for payment for work performed. Such invoices shall be accompanied by a detailed account of compensation to be paid PROVIDER.

Payment shall be made by the COUNTY within thirty (30) days of the approval of the invoice submitted by the PROVIDER. The COUNTY agrees to review and approve invoices submitted for payment in a timely manner.

**XXII.** Effective and Termination Dates. This Contract shall be effective and commence immediately upon the same date as its full execution, and the same shall terminate upon both the expiration of twenty-four (24) months, with an option to extend for one twelve (12) month period or until such time that a new contract can be bid and awarded. Any additional extension will be at the same prices, terms and conditions. Any successive contract(s) must have the written approval of both the County and the Contractor no later than thirty (30) days prior to the expiration of the original contract. Nothing herein stated shall prohibit the parties from otherwise terminating this Contract according to the provisions herein.

**XXIII.** Force Majeure. The Parties hereto shall incur no liability to the other if performance becomes impossible or impracticable by reason on an event or effect that the parties could neither have anticipated nor controlled. This allowance shall include both an act of nature and acts of third parties. Any costs that would otherwise be incurred and/or necessitated by the provisions herein shall be alleviated for either party by such event or effect.

**XXIV.** Indemnity and Hold Harmless. To the extent allowed by law, the **PROVIDER** shall indemnify, defend and hold harmless the County, and its Commissioners, State of Alabama, the Federal Government, and their officers, agents, employees and representatives from and against all claims, damages, losses, demands, payments, suits, actions, recoveries and judgments of every nature and description and expenses, including attorneys' fees and costs, arising out of, resulting from or related to the performance of the Work, provided that any such claim, damage, loss or expense: (1) is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property including the loss of use resulting therefrom; and (2) is caused in whole or in part by an act or omission of the **PROVIDER**, any subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder.

The **PROVIDER** shall assume all risk and bear any loss or injury to property or persons occasioned by neglect or accident during the progress of Work until the same shall have been completed and accepted. **PROVIDER** shall also assume all blame or loss by reason of neglect or violation of any state or federal law or municipal rule, regulation or order. The **PROVIDER** shall give to the proper authorities all required notices relating to the Work, obtain all official permits and licenses and pay all proper fees. **PROVIDER** shall

make good any injury that may have occurred to any structure or utility in consequence of the Work.

In any and all claims against the County or its officers, agents, employees or representatives by any employee of the **PROVIDER**, any subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnification obligation under the "INDEMNITY PROVISIONS" shall not be limited in any way by any limitation on the amount or types of damages, compensation or benefits payable by or for the **PROVIDER** or any subcontractor under workmen's compensation acts, disability benefit acts or other employee benefit acts.

The indemnification obligations contained in this section shall survive the expiration or termination of this Contract.

**XXV. Number of Originals.** This Contract shall be executed with three (3) originals, each of which shall be equally valid as an original.

**XXVI: Governing Laws:** The Contract in all respects, including without limitation its formation, validity, construction, enforceability and available remedies, shall be governed by the laws of the State of Alabama, without regard to Alabama conflict of law principles.

IN WITNESS WHEREOF, the parties hereto, by and through their duly authorized representatives, have executed this Contract on the last day of execution by the COUNTY as written below.

COUNTY

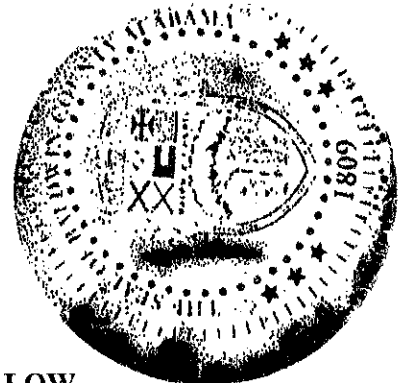
*Billie J. Underwood*  
BILLIE J. UNDERWOOD  
Chairman

*06/11/24*  
/Date

ATTEST:

*Roger H. Rendleman*  
ROGER H. RENDLEMAN  
County Administrator

*06/11/24*  
/Date



**NOTARY PAGE AND SIGNATURE PAGE TO FOLLOW**

State of Alabama)

County of Baldwin )

I, Tiffany A. Given, a Notary Public in and for said County, in said State, hereby certify that, Billie Jo Underwood, whose name as Chairman of Baldwin County Commission, and Roger H. Rendleman, whose name as County Administrator, are known to me, acknowledged before me on this day that, being informed of the contents of the Contract for Construction Services, they, as such officers and with full authority, executed same knowingly and with full authority to do so on behalf of said Commission.

GIVEN under my hand and seal on this the 11 day of June, 2024.

Tiffany A. Given  
Notary Public, Baldwin County, AL  
My Commission Expires  
May 25, 2027

PROVIDER:

CrowderGulf, LLC

Ashley Ramsay-Naile  
By Ashley Ramsay-Naile /Date 06/07/2024  
Its President

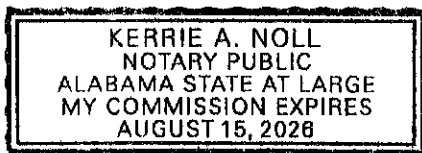


State of Alabama )

County of Mobile )

I, Kerrie Noll, Notary Public in and for said County and State, hereby certify that Ashley Ramsay-Naile as President of CrowderGulf, LLC, whose name is signed to the foregoing in that capacity, and who is known to me, acknowledged before me on this day that, being informed of the contents of the foregoing, he executed the same voluntarily on the day the same bears date for and as an act of said CrowderGulf, LLC.

GIVEN under my hand and seal on this the 7th day of June, 2024.



Kerrie Noll  
Notary Public, 8-15-2026  
My Commission Expires

The contractor will furnish a Performance Bond and a Labor and Materials Bond in the form and terms approved by the County in an amount not less than the estimated event cost for any and/or all events within 10 days of receiving the Notice to Proceed.

The cost of said bond premiums will not be an additional cost to the County. The contractor shall immediately furnish a Certificate of Insurance listing the Baldwin County Commission as additional insured through the end of the contract term (annually upon renewal) for limits stated in bid specifications.

**BID #WG24-23 RESPONSE FORM**

**PRE-EVENT DISASTER DEBRIS REMOVAL & DISPOSAL SERVICES**

Date: 05/02/2024

Out of State        or   X   If yes,                       
                    Yes                    No                    Registration Number

Contractor's License Number 48313  
(License Issued by the Alabama State Licensing Board for General Contractors)

Company Name: CrowderGulf, LLC.                                     

Address: 5629 Commerce Blvd. E Mobile, AL 36619

Company Rep      Ashley Ramsay-Naile  
                                    (Rep. Name Typed or Printed)

*Ashley Ramsay-Naile*

Position:        President                     

Phone: 800-992-6207

Fax: 251-459-7433

Email: jramsay@crowdergulf.com

Financing through another agency beside yourself        or   X    
  Yes                    No

If yes, must attach a copy of the financing agreement and all conditions to this response form.

*[Signature]*  
Financing Agency Authorized Signature

17.0 **UNIT PRICES and PAYMENTS**

**DEBRIS REMOVAL AND DISPOSAL**

Item	Description of Service	**Estimated Quantities	Unit	Unit Price
1	Remove Vegetative Debris from Public Property ( <b>Right-of-Way</b> ) and Hauling to Debris Management Site 0-15 one-way miles	600,000	CY	\$7.65
2	Remove Vegetative Debris from Public Property ( <b>Right-of-Way</b> ) and Hauling to Debris Management Site 16-30 one-way miles	600,000	CY	\$7.75
3	Remove Vegetative Debris from Public Property ( <b>Right-of-Way</b> ) and Hauling to Debris Management Site 31-60 one-way miles	300,000	CY	\$7.97
4	Remove Vegetative Debris from Public Property ( <b>Right-of-Way</b> ) and Hauling to Debris Management Site +60 one-way miles	100,000	CY	\$8.70
5	Remove C&D Debris from Public Property ( <b>Right-of-Way</b> ) and Hauling to Debris Management Site 0-15 one-way miles	200,000	CY	\$7.65
6	Remove C&D Debris from Public Property ( <b>Right-of-Way</b> ) and Hauling to Debris Management Site 16-30 one-way miles	200,000	CY	\$7.75
7	Remove C&D Debris from Public Property ( <b>Right-of-Way</b> ) and Hauling to Debris Management Site 31-60 one-way miles	100,000	CY	\$7.97
8	Remove C&D Debris from Public Property ( <b>Right-of-Way</b> ) and Hauling to Debris Management Site +60 one-way miles	50,000	CY	\$8.70
9	Remove Vegetative Debris from Public Property ( <b>Parks, Facilities other than Right-of-Way, Etc...</b> ) and Hauling to Debris Management Site 0-15 one-way miles	10,000	CY	\$13.75
10	Remove Vegetative Debris from Public Property ( <b>Parks, Facilities other than Right-of-Way, Etc...</b> ) and Hauling to Debris Management Site 16-30 one-way miles	10,000	CY	\$14.75
11	Remove Vegetative Debris from Public Property ( <b>Parks, Facilities other than Right-of-Way, Etc...</b> ) and Hauling to Debris Management Site 31-60 one-way miles	10,000	CY	\$15.75

12	Remove Vegetative Debris from Public Property ( <b>Parks, Facilities other than Right-of-Way, Etc...</b> ) and Hauling to Debris Management Site +60 one-way miles	10,000	CY	\$16.00
13	Remove C&D Debris from Public Property ( <b>Parks, Facilities other than Right-of-Way, Etc...</b> ) and Hauling to Debris Management Site 0-15 one-way miles	5,000	CY	\$13.75
14	Remove C&D Debris from Public Property ( <b>Parks, Facilities other than Right-of-Way, Etc...</b> ) and Hauling to Debris Management Site 16-30 one-way miles	5,000	CY	\$14.75
15	Remove C&D Debris from Public Property ( <b>Parks, Facilities other than Right-of-Way, Etc...</b> ) and Hauling to Debris Management Site 31-60 one-way miles	5,000	CY	\$15.75
16	Remove C&D Debris from Public Property ( <b>Parks, Facilities other than Right-of-Way, Etc...</b> ) and Hauling to Debris Management Site +60 one-way miles	5,000	CY	\$16.00
17	Haul Reduced Debris from Debris Management Site to Final Disposal Site 0-15 one-way miles	150,000	CY	\$3.15
18	Haul Reduced Debris from Debris Management Site to Final Disposal Site 16-30 one-way miles	150,000	CY	\$4.20
19	Haul Reduced Debris from Debris Management Site to Final Disposal Site 31-60 one-way miles	50,000	CY	\$4.95
20	Haul Reduced Debris from Debris Management Site to Final Disposal Site +60 one-way miles	50,000	CY	\$6.00
21	Debris Management Site Supervision	1,500,000	CY	\$1.00
22	Processing (Grinding or Compaction of) of Vegetative Debris at TDMS	1,500,000	CY	\$2.55
23	Processing (Grinding or Compaction of) of C&D/Mixed Debris at TDMS	100,000	CY	\$2.85
24	Processing (Open Burning) of Debris at TDMS	100,000	CY	\$1.15
25	Processing (Burning) of Debris at TDMS using Air Curtain Incinerators	100,000	CY	\$1.90

26	Hazardous Tree removal 6"-12" trunk diameter ( <b>Right-of-Way</b> )	1,000	EACH	\$40.00
27	Hazardous Tree removal 6"-12" trunk diameter ( <b>Parks, Facilities other than Right-of-Way, Etc...</b> )	50	EACH	\$200.00
28	Hazardous Tree removal 6"-12" trunk diameter with root-ball attached ( <b>Right-of-Way</b> )	1,000	EACH	\$95.00
29	Hazardous Tree removal 6"-12" trunk diameter with root-ball attached ( <b>Parks, Facilities other than Right-of-Way, Etc...</b> )	50	EACH	\$300.00
30	Hazardous Tree removal 13"-24" trunk diameter ( <b>Right-of-Way</b> )	1,000	EACH	\$100.00
31	Hazardous Tree removal 13"-24" trunk diameter ( <b>Parks, Facilities other than Right-of-Way, Etc...</b> )	50	EACH	\$300.00
32	Hazardous Tree removal 13"-24" trunk diameter with root-ball attached ( <b>Right-of-Way</b> )	1,000	EACH	\$185.00
33	Hazardous Tree removal 13"-24" trunk diameter with root-ball attached ( <b>Parks, Facilities other than Right-of-Way, Etc...</b> )	50	EACH	\$400.00
34	Hazardous Tree removal 25"-36" trunk diameter ( <b>Right-of-Way</b> )	1,000	EACH	\$165.00
35	Hazardous Tree removal 25"-36" trunk diameter ( <b>Parks, Facilities other than Right-of-Way, Etc...</b> )	50	EACH	\$400.00
36	Hazardous Tree removal 25"-36" trunk diameter with root-ball attached ( <b>Right-of-Way</b> )	1,000	EACH	\$225.00
37	Hazardous Tree removal 25"-36" trunk diameter with root-ball attached ( <b>Parks, Facilities other than Right-of-Way, Etc...</b> )	50	EACH	\$500.00
38	Hazardous Tree removal 37"-48" trunk diameter ( <b>Right-of-Way</b> )	500	EACH	\$255.00
39	Hazardous Tree removal 37"-48" trunk diameter ( <b>Parks, Facilities other than Right-of-Way, Etc...</b> )	50	EACH	\$500.00
40	Hazardous Tree removal 37"-48" trunk diameter with root-ball attached ( <b>Right-of-Way</b> )	500	EACH	\$355.00
41	Hazardous Tree removal 37"-48" trunk diameter with root-ball attached ( <b>Parks, Facilities other than Right-of-Way, Etc...</b> )	50	EACH	\$600.00
42	Hazardous Tree removal > 49" trunk diameter ( <b>Right-of-Way</b> )	500	EACH	\$310.00
43	Hazardous Tree removal > 49" trunk diameter ( <b>Parks, Facilities other than Right-of-Way, Etc...</b> )	50	EACH	\$600.00

For tree removal line items (line items 26-47), our rate is for cut and drop only, resulting debris will be hauled for the corresponding haul rate. ROW hazardous trees will be hauled for ROW haul rate (line items 1-4). Parks, Facilities, Other than ROW hazardous trees will be hauled for their respect haul rate (line items 9-12).

44	Hazardous Tree removal > 49" trunk diameter with root-ball attached ( <b>Right-of-Way</b> )	500	EACH	\$400.00
45	Hazardous Tree removal > 49" trunk diameter with root-ball attached ( <b>Parks, Facilities other than Right-of-Way, Etc...</b> )	50	EACH	\$800.00
46	Trees with Hazardous Limbs > 2" ( <b>Right-of-Way</b> )	2,000	EACH	\$80.00
47	Trees with Hazardous Limbs > 2" ( <b>Parks, Facilities other than Right-of-Way, Etc...</b> )	100	EACH	\$175.00
48	Hazardous Stumps 24" - 36" diameter ( <b>Right-of-Way, Parks, and Other Public Facilities</b> ) (Extract or Grind in Place)	1,000	EACH	\$150.00
49	Hazardous Stumps 37" - 48" diameter ( <b>Right-of-Way, Parks, and Other Public Facilities</b> ) (Extract or Grind in Place)	1,000	EACH	\$225.00
50	Hazardous Stumps + 49" diameter ( <b>Right-of-Way, Parks, and Other Public Facilities</b> ) (Extract or Grind in Place)	1,000	EACH	\$315.00
51	Stump Fill Dirt	1,000	CY	\$12.00
52	Waterway Debris Removal – From Land	50,000	CY	\$28.00
53	Vehicle Removal	20	Each	\$150.00
54	Vessel Removal (land)	1000	LF	\$85.00
55	White Goods	1,000	Each	\$38.00
56	Freon Management	200	Each	\$40.00
57	Electronic Waste	1,000	Each	\$38.00
58	Pick up and Haul Household Hazardous Waste	1,000	LBS	\$9.00

For tree removal line items (line items 26-47), our rate is for cut and drop only, resulting debris will be hauled for the corresponding haul rate. ROW hazardous trees will be hauled for ROW haul rate (line items 1-4). Parks, Facilities, Other than ROW hazardous trees will be hauled for their respect haul rate (line items 9-12).

### EQUIPMENT RATES

Equipment Description	Unit	Unit Price
JD 544 Wheel Loader with debris grapple (or equivalent)	Hour	\$ 145.00
JD 644 Wheel-Loader with debris grapple (or equivalent)	Hour	\$ 165.00
Extendaboom Forklift with debris grapple (or equivalent)	Hour	\$ 115.00
753 Bobcat Skid Steer Loader with debris grapple (or equivalent)	Hour	\$ 95.00
753 Bobcat Skid Steer Loader with bucket (or equivalent)	Hour	\$ 95.00
753 Bobcat Skid Steer Loader with street sweeper (or equivalent)	Hour	\$ 95.00
30 - 50 HP Farm Tractor with box blade or rake (or equivalent)	Hour	\$ 55.00
2 - 2 1/2 cu. yd. Articulated Loader with bucket (or equivalent)	Hour	\$ 145.00
3 - 4 cu. yd. Articulated Loader with bucket (or equivalent)	Hour	\$ 165.00
JD 648E Log Skidder, or equivalent (or equivalent)	Hour	\$ 120.00
CAT D4 Dozer (or equivalent)	Hour	\$ 85.00
CAT D6 Dozer (or equivalent)	Hour	\$ 115.00
CAT D8 Dozer (or equivalent)	Hour	\$ 170.00
CAT125 - 140 HP Motor Grader (or equivalent)	Hour	\$ 110.00
JD 690 Trackhoe with debris grapple (or equivalent)	Hour	\$ 100.00
JD 690 Trackhoe with bucket & thumb (or equivalent)	Hour	\$ 100.00
Rubber Tired Trackhoe with debris grapple (or equivalent)	Hour	\$ 100.00
JD 310 Rubber Tire Backhoe with bucket and hoe (or equivalent)	Hour	\$ 100.00
Rubber Tired Excavator with debris grapple (or equivalent)	Hour	\$ 120.00
210 Prentiss Knuckleboom with debris grapple (or equivalent)	Hour	\$ 130.00
Self-Loader Scraper Cat 623 or equivalent (or equivalent)	Hour	\$ 195.00
Hand Fed Debris Chipper (or equivalent)	Hour	\$ 25.00
300 - 400 Tub Grinder (or equivalent)	Hour	\$ 420.00
800 -1,000 HP Diamond Z Tub Grinder (or equivalent)	Hour	\$ 600.00
30 Ton Crane (or equivalent)	Hour	\$ 180.00
50 Ton Crane (or equivalent)	Hour	\$ 200.00
100 Ton Crane (8 hour minimum) (or equivalent)	Hour	\$ 275.00
40 - 60' Bucket Truck (or equivalent)	Hour	\$ 100.00
Service Truck (or equivalent)	Hour	\$ 95.007
Water Truck (or equivalent)	Hour	\$ 0.00
Portable Light Plant (or equivalent)	Hour	\$ 25.00
Equipment Transports (or equivalent)	Hour	\$ 130.00
Pickup Truck, unmanned (or equivalent)	Hour	\$ 20.00
Self-loading Dump Truck with knuckleboom and debris grapple (or equivalent)	Hour	\$ 190.00
Single Axle Dump Truck, 5 - 12 Cu. Yd. (or equivalent)	Hour	\$ 50.00
Tandem Dump Truck, 16 - 20 Cu. Yd. (or equivalent)	Hour	\$ 75.00
Trailer Dump Truck, 24-40 Cu. Yd. (or equivalent)	Hour	\$ 85.00
Trailer Dump Truck, 41-60 Cu. Yd. (or equivalent)	Hour	\$ 105.00
Trailer Dump Truck, 61 - 80 Cu. Yd. (or equivalent)	Hour	\$ 130.00
Power Screen (or equivalent)	Hour	\$ 225.00
Stacking Conveyor (or equivalent)	Hour	\$ 40.00

## ATTACHMENT 3

**EQUIPMENT RATE SCHEDULE**

Equipment Description	Unit	Unit Price
JD 544 Wheel Loader with debris grapple (or equivalent)	Hour	\$ 145.00
JD 644 Wheel-Loader with debris grapple (or equivalent)	Hour	\$ 165.00
Extendaboom Forklift with debris grapple (or equivalent)	Hour	\$ 115.00
753 Bobcat Skid Steer Loader with debris grapple (or equivalent)	Hour	\$ 95.00
753 Bobcat Skid Steer Loader with bucket (or equivalent)	Hour	\$ 95.00
753 Bobcat Skid Steer Loader with street sweeper (or equivalent)	Hour	\$ 95.00
30 - 50 HP Farm Tractor with box blade or rake (or equivalent)	Hour	\$ 55.00
2 - 2 1/2 cu. yd. Articulated Loader with bucket (or equivalent)	Hour	\$ 145.00
3 - 4 cu. yd. Articulated Loader with bucket (or equivalent)	Hour	\$ 165.00
JD 648E Log Skidder, or equivalent (or equivalent)	Hour	\$ 120.00
CAT D4 Dozer (or equivalent)	Hour	\$ 85.00
CAT D6 Dozer (or equivalent)	Hour	\$ 115.00
CAT D8 Dozer (or equivalent)	Hour	\$ 170.00
CAT125 - 140 HP Motor Grader (or equivalent)	Hour	\$ 110.00
JD 690 Trackhoe with debris grapple (or equivalent)	Hour	\$ 100.00
JD 690 Trackhoe with bucket & thumb (or equivalent)	Hour	\$ 100.00
Rubber Tired Trackhoe with debris grapple (or equivalent)	Hour	\$ 100.00
JD 310 Rubber Tire Backhoe with bucket and hoe (or equivalent)	Hour	\$ 100.00
Rubber Tired Excavator with debris grapple (or equivalent)	Hour	\$ 120.00
210 Prentiss Knuckleboom with debris grapple (or equivalent)	Hour	\$ 130.00
Self-Loader Scraper Cat 623 or equivalent (or equivalent)	Hour	\$ 195.00
Hand Fed Debris Chipper (or equivalent)	Hour	\$ 25.00
300 - 400 Tub Grinder (or equivalent)	Hour	\$ 420.00
800 -1,000 HP Diamond Z Tub Grinder (or equivalent)	Hour	\$ 600.00
30 Ton Crane (or equivalent)	Hour	\$ 180.00
50 Ton Crane (or equivalent)	Hour	\$ 200.00
100 Ton Crane (8 hour minimum) (or equivalent)	Hour	\$ 275.00
40 - 60' Bucket Truck (or equivalent)	Hour	\$ 100.00
Service Truck (or equivalent)	Hour	\$ 95.00
Water Truck (or equivalent)	Hour	\$ 70.00
Portable Light Plant (or equivalent)	Hour	\$ 25.00
Equipment Transports (or equivalent)	Hour	\$ 130.00
Pickup Truck, unmanned (or equivalent)	Hour	\$ 20.00
Self-loading Dump Truck with knuckleboom and debris grapple (or equivalent)	Hour	\$ 190.00
Single Axle Dump Truck, 5 - 12 Cu. Yd. (or equivalent)	Hour	\$ 50.00
Tandem Dump Truck, 16 - 20 Cu. Yd. (or equivalent)	Hour	\$ 75.00
Trailer Dump Truck, 24-40 Cu. Yd. (or equivalent)	Hour	\$ 85.00
Trailer Dump Truck, 41-60 Cu. Yd. (or equivalent)	Hour	\$ 105.00
Trailer Dump Truck, 61 - 80 Cu. Yd. (or equivalent)	Hour	\$ 130.00
Power Screen (or equivalent)	Hour	\$ 225.00
Stacking Conveyor (or equivalent)	Hour	\$ 40.00

# ATTACHMENT 4

## APPENDIX E: STUMP CONVERSION TABLE

### Diameter to Volume Capacity

FEMA quantifies the number of cubic yards of debris for each size of stump based on the following formula:

$$\frac{[(\text{Stump Diameter}^2 \times 0.7854) \times \text{Stump Length}] + [(\text{Root-Ball Diameter}^2 \times 0.7854) \times \text{Root-Ball Height}]}{46,656}$$

0.7854 is one-fourth Pi and is a constant.

46,656 is used to convert cubic inches to cubic yards and is a constant.

The formula used to calculate the cubic yardage used the following factors, based upon findings in the field:

- Stump diameter measured 2 feet up from the ground
- Stump diameter to root-ball diameter ratio of 1:3.6
- Root-ball height of 31 inches

Stump Diameter (Inches)	Debris Volume (Cubic Yards)	Stump Diameter (Inches)	Debris Volume (Cubic Yards)
6	0.3	46	15.2
7	0.4	47	15.8
8	0.5	48	16.5
9	0.6	49	17.2
10	0.7	50	17.9
11	0.9	51	18.6
12	1	52	19.4
13	1.2	53	20.1
14	1.4	54	20.9
15	1.6	55	21.7
16	1.8	56	22.5
17	2.1	57	23.3
18	2.3	58	24.1
19	2.6	59	24.9
20	2.9	60	25.8
21	3.2	61	26.7
22	3.5	62	27.6
23	3.8	63	28.4
24	4.1	64	29.4
25	4.5	65	30.3
26	4.8	66	31.2