



Richland County Council
ADMINISTRATION AND FINANCE COMMITTEE

MINUTES

September 24, 2024 – 6:00 PM

Council Chambers

2020 Hampton Street, Columbia, SC 29204

COMMITTEE COUNCIL MEMBERS PRESENT: Derrek Pugh, Yvonne McBride, Don Weaver, and Overture Walker.

NOT PRESENT: Paul Livingston

OTHERS PRESENT: Allison Terracio, Chakisse Newton, Gretchen Barron, Jesica Mackey, Cheryl English, Ashiya Myers, Angela Weathersby, Anette Kirylo, Patrick Wright, Ashley Fullerton, Tamar Black, Jennifer Wladischkin, Kyle Holsclaw, Jackie Hancock, Leonardo Brown, Michael Maloney, John Thompson, Stacey Hamm, Aric Jensen, Susan O’Cain, Michelle Onley, Kenny Bowen, and Syndi Castelluccio

1. **CALL TO ORDER** – Chairman Overture Walker called the meeting to order at approximately 6:00 PM.

Mr. Walker stated that Mr. Livingston had notified him he would not be able to attend tonight’s meeting due to attending a business meeting.

2. **APPROVAL OF MINUTES**

- a. July 23, 2024 – Mr. Weaver moved to approve the minutes as distributed, seconded by Mr. Walker.

In Favor: Pugh, McBride, Weaver, and Walker

Not Present: Livingston

The vote in favor was unanimous.

3. **ADOPTION OF AGENDA** – Ms. McBride moved to adopt the agenda as published, seconded by Mr. Weaver.

In Favor: Pugh, McBride, Weaver, and Walker

Not Present: Livingston

The vote in favor was unanimous.

4. **ITEMS FOR ACTION**

- a. Operational Services – Upper Ballentine Fire Station Architectural Services –The County Administrator, Leonardo Brown, stated staff requests that Council approve a contract with Becker Morgan Group for \$138,600 and to include a \$21,400 contingency for a total approved amount of \$160,000 for architectural services for the design and construction oversight of the proposed Upper Ballentine Fire Station. He indicated this has been on the Capital Improvement Plan for a while.

Ms. McBride moved to forward to Council with a recommendation to approve a contract with Becker Morgan Group for \$138,600 and to include \$21,400 in contingency for a total approved amount of \$160,000 to provide architectural services for the design and contract oversight of the proposed Upper Ballentine Fire Station to be located at TMS #R01700-02-02, seconded Mr. Weaver.

In Favor: Pugh, McBride, Weaver, and Walker

Not Present: Livingston

The vote in favor was unanimous.

- b. Department of Public Works – Solid Waste & Recycling Division – Roll- Off Container Hauling Services – Mr. Michael Maloney, Public Works Director, indicated the Solid Waste & Recycling Division recommends awarding Capital Waste Services (CWS) for the Roll-Off Container Hauling Service Agreement for on-demand hauling of various roll-off containers throughout the County. He stated the

award amount is not listed because the price will be regulated by the pull. Other bids were received, but they were not responsive bids. The existing budget will cover the annual cost of approximately \$400,000.

Mr. Weaver moved to forward to Council a recommendation to award the bid to Capital Waste Services (CWS) for the Roll-Off Container Hauling Service Agreement to provide on-demand hauling of various roll-off containers to designated locations throughout the County.

In Favor: Pugh, McBride, Weaver, and Walker

Not Present: Livingston

The vote in favor was unanimous.

- c. Department of Public Works – Solid Waste & Recycling Division – Mobile Waste Shredder Purchase – Mr. Maloney stated this item concerns density at the C&D Landfill. When we do not have density, we use our free air space. He indicated we were taking mattresses to a particular location, and that location is no longer permitted to them. With the mobile shredder, the County can recycle the metal springs and compact the other materials. He expressed that we would run out of air space if we continued to dispose of the mattresses in the manner we had been.

Ms. McBride moved to forward to Council with a recommendation to approve the purchase of a mobile waste shredder from National Equipment Dealers LLC through a finance agreement with annual payments of \$364,725.50 for four years, seconded by Mr. Pugh.

Mr. Weaver inquired if staff prefers using the diesel or electric model.

Mr. Maloney responded the electric model would have to be plugged in; therefore, since the desire is for it to be mobile, it would have to be the eco-friendly diesel model.

Ms. Newton asserted that if you contact the County, constituents can make an appointment to have their mattresses picked up for free.

Ms. Syndi Castelluccio, Solid Waste & Recycling Manager, declared we are losing air space quickly. Within a year, we went from 3.7 years to 1.9 years. They took in more than 7,500 units last year.

Ms. Terracio asked if there were any safety considerations related to this item.

Mr. Maloney maintained they take precautions with personal protective equipment (PPE).

In Favor: Pugh, McBride, Weaver, and Walker.

Not Present: Livingston.

The vote in favor was unanimous.

- d. Department of Public Works – Engineering Division – Hobart Road Realignment Project Award – Mr. Brown stated this is a jointly funded project between Richland County Public Works and the County Transportation Committee (CTC). The South Carolina Department of Transportation (SCDOT) will provide funds for signal equipment. Available funding is encumbered in the current budget. Staff recommends awarding the Hobart Road realignment project to Cherokee, Inc. for \$735,637.29, with a 15% contingency, for a total approved amount of \$845,982.88. The realignment project resulted from individuals utilizing an area not designed to be used, which was causing traffic concerns.

Ms. McBride moved to forward to Council with a recommendation to award the Hobart Road re-alignment project to Cherokee, Inc. for \$735,637.29 and a 15% contingency for a total approved amount of \$845,982.88, seconded by Mr. Pugh.

Mr. Pugh and Ms. Barron expressed their appreciation for Public Works' dedication on this endeavor.

Mr. Walker inquired about the anticipated start of the project.

Mr. Maloney responded the project is slated to begin in November 2024.

In Favor: Pugh, McBride, and Walker.

Recuse: Weaver (He owns property that backs up to Hobart Road)

Not Present: Livingston.

The vote in favor was unanimous.

5. **FOR INFORMATION/DISCUSSION**

- a. **Capital Projects Update – Columbia Place Mall** – Assistant County Administrator Lori Thomas gave a brief update on the 911 Call Center, Voter Registration, and Family Services Center projects at Columbia Place Mall.
- Currently, all projects are underway
 - Demolition at the Family Services Center begins this week
 - Construction of the Family Services Center is anticipated to take approximately two years
 - The Family Services Center will be roughly 174,000 sq. ft. and will house the Department of Public Health, the Department of Social Services, the Department of Health and Human Services, and the United Ways' Well Partners Vision and Dental Clinics
 - The Department of Juvenile Justice and Voter Registration should be able to move their operations into the facility by the end of 2025
 - The total capital project investment in the 911 Center is just under \$48M
 - The goal is to have the 911 Center fully operational by the end of FY25
 - The total combined cost for the three projects will be approximately \$107M

Ms. Mackey inquired about the next steps (i.e., staffing and moving)

Ms. Thomas replied Voter Registration and the Department of Juvenile Justice will be responsible for moving their current staff into the facility. As far as the 911 Center, Council will have to make some policy decisions so staff has direction when we start working on the budget. Staff is currently gathering pertinent information regarding personnel, operating costs, etc. This facility will house a lot of highly technical equipment; therefore, a lot of maintenance, electric costs, and utilities will be involved.

Ms. Mackey noted she wants to ensure that we address any staff needs ahead of time and that Council has a plan for that.

Ms. Thomas indicated the construction costs for all the projects were funded through two General Obligation Bonds, so there is no budget consideration this year. The larger question will be budget(s) for future years. She stated staff would be happy to hold a work session to discuss this in more detail.

Mr. Walker asked about the plan for Probation, Parole, and Pardons.

Ms. Thomas confirmed Probation, Parole, and Pardons will be housed in a space in the 911 Center.

Ms. Mackey requested the information staff is compiling be provided to Council members once finalized.

Mr. Brown suggested holding a work session to provide the requested information.

6. **ITEMS PENDING ANALYSIS: NO ACTION REQUIRED**

- a. **I move that 15% of each prior year's collections of accommodations tax be allocated for affordable housing in alignment with Sect. 6-1-530(7) of the SC Code of Laws', workforce housing and home ownership promotion requirement and Act 57 of 2023's "mortgage assistance" requirement. This allocation is to directly focus on down payment assistance for homeownership for Richland County employees, public safety, EMS and Richland One and Two teachers. [MACKEY, BARRON, and TERRACIO – September 10, 2024]**

Mr. Weaver inquired as to what the 15% approximately equates to.

Ms. Mackey responded she did not know. Staff will be providing that information.

Mr. Weaver asked where the Accommodations Tax has been going and what we are taking the funds away from.

Ms. Thomas stated the 15% would equate to approximately \$250,000. Currently, the funds are in the County's fund balance. If Council desires to amend the budget, it would require three readings and a public hearing. She maintained the amounts would change annually.

7. **ADJOURNMENT** – Mr. Pugh moved to adjourn the meeting, seconded by Mr. Weaver.

In Favor: Pugh, McBride, Weaver, and Walker

Not Present: Livingston

The vote in favor was unanimous.

The meeting adjourned at approximately 6:36 PM.

**RICHLAND COUNTY
ADMINISTRATION**

2020 Hampton Street, Suite 4069
Columbia, SC 29204
803-576-2050



Agenda Briefing

Prepared by:	Hayden Davis	Title:	Project Manager
Department:	Operational Services	Division:	
Date Prepared:	August 30, 2024	Meeting Date:	September 24, 2024
Legal Review	Elizabeth McLean via email	Date:	September 6, 2024
Budget Review	Maddison Wilkerson via email	Date:	September 10, 2024
Finance Review	Stacey Hamm via email	Date:	September 16, 2024
Approved for consideration:	Assistant County Administrator	John M. Thompson, Ph.D., MBA, CPM, SCEM	
Meeting/Committee	Administration & Finance		
Subject	Architectural Services – Upper Ballentine Fire Station		

RECOMMENDED/REQUESTED ACTION:

Staff requests Council approve a contract with Becker Morgan Group in the amount of \$138,600.00, to include \$21,400.00 in contingency, for a total approved amount of \$160,000.00, to provide architectural services for the design and contract oversight of the proposed Upper Ballentine Fire Station to be located at TMS # R01700-02-02 (next to the unmanned Fire Station #21).

Request for Council Reconsideration: Yes

FIDUCIARY:

Are funds allocated in the department’s current fiscal year budget?	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
If not, is a budget amendment necessary?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No

ADDITIONAL FISCAL/BUDGETARY MATTERS TO CONSIDER:

Funds were allocated and approved by County Council through the budget process. If approved, Richland County will enter into a contract with the recommended contractor, Becker Morgan Group Inc., in the amount of \$138,600.00 with an additional \$21,400.00 in contingency (15%), bringing the total project cost to \$160,000.00.

The contingency is requested to address any unforeseen conditions or required design additions (e.g. SCDOT requirements or unknown soil conditions). Contingency use must be requested in writing by the contractor and evaluated by the Richland County Department of Operational Services as a change order. Contingency use will be not approved without strict examination by Richland County staff and further evaluation of all facts and possible options by the project management team.

Applicable fund, cost center, and spend category: Fund: 1302
 Cost Center: 9950
 Loan: General Obligation Bond 2020B
 Spend Category: Professional Services
 Project: Upper Ballentine Fire Station

OFFICE OF PROCUREMENT & CONTRACTING FEEDBACK:

No comments from Procurement.

COUNTY ATTORNEY'S OFFICE FEEDBACK/POSSIBLE AREA(S) OF LEGAL EXPOSURE:

The County Attorney's Office has provided feedback on the proposal which has been shared with the County's Office of Procurement and Contracting as well as Operational Services.

REGULATORY COMPLIANCE:

There are no regulatory issues associated with this project.

MOTION OF ORIGIN:

There is no associated Council motion of origin.

STRATEGIC & GENERATIVE DISCUSSION:

Staff requests approval of a contract between Becker Morgan Group Inc. and Richland County to provide design services for the proposed Upper Ballentine Fire Station. This new fire station will better serve the local community by reducing response times in the area.

The design process proposed by Becker Morgan Group is the industry standard in developing construction documents.

If the request is approved, the County will contract with Becker Morgan to perform the design work identified in the contract. Once the contract is signed, the company will start the design and programming work. As each phase of the design process is completed, Operational Services will work with affected parties (Public Safety, Administration, and City of Columbia/Richland County Fire) to ensure the design meets County needs and requirements. Once the design work is completed, Becker Morgan will submit the construction documents for review by the appropriate parties, and once approved, the construction documents will be submitted to Procurement for solicitation.

The proposed new fire station is to be a manned fire station, which will provide around-the-clock staffing to reduce emergency response times, resulting in increased safety to area residents and property.

ASSOCIATED STRATEGIC GOAL, OBJECTIVE, AND INITIATIVE:

Goal 4: Plan for Growth

Objective: Create excellent facilities

ADDITIONAL COMMENTS FOR CONSIDERATION:

If County Council does not approve the contract but approves the project, the design services will need to be solicited by Procurement, which will incur additional cost and time to the project.

The current design team has the copyrighted construction documents from the last fire station that the County built. Using these already-existing documents will reduce the time and expense to develop new construction documents. Any new design team will have to start the design process from the beginning and will need to work through all the design phases (schematic design, design development, and construction development documents) to create a complete set of bid documents.

**RICHLAND COUNTY
ADMINISTRATION**

2020 Hampton Street, Suite 4069
Columbia, SC 29204
803-576-2050



Agenda Briefing

Prepared by:	Syndi Castelluccio	Title:	Manager
Department:	Public Works	Division:	Solid Waste & Recycling
Date Prepared:	August 16, 2024	Meeting Date:	September 24, 2024
Legal Review	Patrick Wright via email	Date:	September 10, 2024
Budget Review	Maddison Wilkerson via email	Date:	September 10, 2024
Finance Review	Stacey Hamm via email	Date:	September 16, 2024
Approved for consideration:	Assistant County Administrator	John M. Thompson, Ph.D., MBA, CPM, SCEM	
Meeting/Committee	Administration & Finance		
Subject	Solid Waste & Recycling Roll-Off Container Hauling Service Agreement		

RECOMMENDED/REQUESTED ACTION:

The Solid Waste & Recycling Division recommends award of the bid to Capital Waste Services (CWS) for the Roll-Off Container Hauling Service Agreement to provide on-demand hauling of various roll-off containers to designated locations throughout the County.

Request for Council Reconsideration: Yes

FIDUCIARY:

Are funds allocated in the department’s current fiscal year budget?	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
If not, is a budget amendment necessary?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No

ADDITIONAL FISCAL/BUDGETARY MATTERS TO CONSIDER:

Roll-Off Container Hauling contracted services were included in the FY25 budget; funding is adequate to cover the bid rates provided by CWS. Rates vary depending on location and range from \$167.23 to \$383.18 per pull, with a total annual cost of approximately \$400,000.

Applicable fund, cost center, and spend category: Fund: 2101
Cost Center: 3653
Cost Center: 3654,
Spend Category: Special Contracts

OFFICE OF PROCUREMENT & CONTRACTING FEEDBACK:

Request for Bid RD-640-B-24 was issued on January 31, 2024 with a close date of March 14, 2024. There were four submissions. The lowest bidder, Flash Disposal, did not bid the correct recycling containers and could not hold their pricing when requested to provide it. Their bid was deemed non-responsive. The next lowest bidder, Capital Waste Services, was deemed the lowest, responsive, responsible bidder.

COUNTY ATTORNEY’S OFFICE FEEDBACK/POSSIBLE AREA(S) OF LEGAL EXPOSURE:

There are no legal concerns regarding this matter.

REGULATORY COMPLIANCE:

Not applicable.

MOTION OF ORIGIN:

There is no associated Council motion of origin.

STRATEGIC & GENERATIVE DISCUSSION:

Request for bids were initiated by the Richland County Procurement Department to address an expiring contract and to allow for the uninterrupted hauling service to transport roll-off containers from all Solid Waste and Recycling facilities and special community recycling events to the appropriate designated landfill, recycle center, and/or material recovery facility. Roll-Off containers consist of construction and demolition debris, recycling commodities (plastic, cardboard, metal, glass, etc.), and waste tires.

This contract and service of providing, swapping, and hauling of roll-off containers and the materials collected are essential to the daily operations at the County’s drop-off centers and special events. There are no guaranteed minimum or maximum number of pulls; however, an example of the schedule of container pulls from each Solid Waste facility location is as follows:

Lower Richland Drop-Off Center	10531 Garners Ferry Rd:
1 Tire Roll Off @1070 Caughman Rd N RC Landfill	(1 pull per week)
9-10 C&D Roll Off @1047 Hwy Church Rd WM Landfill	(3-5 pulls Saturday) (1-3 pulls per day M/W/F)
Richland County Landfill/Drop-Off Center	1070 Caughman Rd N:
1-2 OCC Roll Off @ SONOCO 1132 Idlewilde Blvd	(1-2 pull(s) per week)
Clemson Rd Recycle Site	900 Clemson Rd Columbia SC
4 Recycle Roll Off @ SONOCO 1132 Idlewilde Blvd	(1-2 pull(s) per week)
Special Events @ Various Locations	As Needed

Richland County reserves the right to utilize this contract for type of service in other Richland County Departments.

Bid Rates (Per Can Pull) Proposed by Lowest Responsive/Responsible Bidder:

Location	Bid Rate	FY24 Rate
Lower Richland Drop-Off Center	\$383.18	\$268.00
Richland County Landfill/Drop-Off Center	\$167.23	\$250.00
Clemson Rd Recycle Site	\$251.64	\$250.00
Special Events/As Needed	\$287.75	\$291.20

Capital Waste Services, as the County’s current service provider, has proven to be reliable with scheduled pulls at each of the County’s drop-off center locations, and has been adaptable to operational changes as well as consistently committed to delivering high-quality service.

ASSOCIATED STRATEGIC GOAL, OBJECTIVE, AND INTIATIVE:

Goal 3: Commit to Fiscal Responsibility

Objective: Establish process to prioritize initiative to align with available resources.

ATTACHMENTS:

1. Bid Tab

Attachment 1

RC-640-B-24 Roll-Off Container Service
 Due: March 14, 2024 2:00PM

#	Items	Quantity Required	Unit of Measure	CIDS, LLC		Capital Waste Services		Flash Disposal, LLC		Waste Management of SC	
				Unit Price	Total Cost	Unit Price	Total Cost	Unit Price	Total Cost	Unit Price	Total Cost
#0-1	Lower Richland Drop-Off Center(LROC), 10531 Garners Ferry Road, Eastover, SC	1	LS	\$275	\$275	\$383.18	\$383.18	\$178.63	\$178.63	\$395	\$395
#0-2	Richland County Landfill Drop-off Center, 1070 Caughman Road North, Columbia, SC	1	LS	\$275	\$275	\$167.23	\$167.23	\$178.63	\$178.63	\$395	\$395
#0-3	Clemson Road Drop-Off Center, 900 Clemson Road, Columbia, SC	1	LS	\$275	\$275	\$251.64	\$251.64	\$178.63	\$178.63	\$395	\$395
#0-4	Special Recycling Events or Waste Collection Events	1	LS	\$275	\$275	\$287.75	\$287.75	\$178.63	\$178.63	\$395	\$395



Agenda Briefing

Prepared by:	Syndi Castelluccio	Title:	Manager
Department:	Public Works	Division:	Solid Waste & Recycling
Date Prepared:	September 3, 2024	Meeting Date:	September 24, 2024
Legal Review	Patrick Wright via email	Date:	September 10, 2024
Budget Review	Maddison Wilkerson via email	Date:	September 16, 2024
Finance Review	Stacey Hamm via email	Date:	September 16, 2024
Approved for consideration:	Assistant County Administrator	John M. Thompson, Ph.D., MBA, CPM, SCEM	
Meeting/Committee	Administration & Finance		
Subject	Approval for Purchase of Mobile Waste Shredder		

RECOMMENDED/REQUESTED ACTION:

Staff recommends Council approval for the purchase of a mobile waste shredder from National Equipment Dealers LLC through a finance agreement. The annual payments of \$364,725.50 are for four years.

Request for Council Reconsideration: Yes

FIDUCIARY:

Are funds allocated in the department’s current fiscal year budget?	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
If not, is a budget amendment necessary?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No

ADDITIONAL FISCAL/BUDGETARY MATTERS TO CONSIDER:

The purchase of an industrial shredder will help manage problematic waste types such as mattresses, shingles, and other bulky waste that negatively affecting the County’s compaction rates and rapidly decrease the life of the active landfill.

Staff has evaluated various alternatives through online state contracts and cooperative bids and has identified the TANA Shark 440DT Industrial Waste Shredder as best meeting the County’s operational needs. The County has received quotes for both the outright purchase of and a four-year Finance of the TANA Shark 440DT based on the North Carolina Sheriffs Association nationwide purchasing program for Heavy Equipment. Please see the attached quotes for details.

The TANA 440DT full purchase price with an additional set of knives and 5 yr./5000 hr. extended warranty to ensure proper care and maintenance is \$1,276,842.83. With a four-year finance option, the first annual proposed payment of \$364,725.50 would be covered using the Heavy Equipment budget line item. The subsequent three annual payments of \$364,725.50 will be budgeted for in future years and with offset by revenue generated from the recycling of recovered shredded metal material.

Applicable fund, cost center, and spend category: Fund: Solid Waste Enterprise
Cost Center: 21013654
Spend Category: Heavy Equipment

OFFICE OF PROCUREMENT & CONTRACTING FEEDBACK:

National Equipment Dealers, LLC was awarded a cooperative purchasing agreement in May of 2023 through the North Carolina Sheriff’s Association (NCSA) Heavy Equipment Procurement Program. All local government units are eligible to purchase under this contract vehicle. The NCSA publicly invited bids for heavy equipment and made award in a manner congruent with the County’s procurement process.

COUNTY ATTORNEY’S OFFICE FEEDBACK/POSSIBLE AREA(S) OF LEGAL EXPOSURE:

There are no legal concerns regarding this matter.

REGULATORY COMPLIANCE:

The purchase of this equipment and associated shredding practices will ensure compliance with the South Carolina Code of Regulations- Regulation 61-107.19 Part IV Solid Waste Management: Solid Waste Landfills and Structural Fill, which establishes the criteria for Class 2 Landfills.

MOTION OF ORIGIN:

There is no associated Council motion of origin.

STRATEGIC & GENERATIVE DISCUSSION:

Staff recommends the purchase of this equipment and shredding practice to address the increased waste volume and to improve compaction rates which are crucial to extend the remaining life of the landfill. This strategic investment will assist in extending the operational life of the active landfill and aligns with the County’s commitment to efficient waste management.

Richland County C&D Landfill Capacity Study: (Full FY24 Report Attached)

The recent capacity study, performed at the end of FY24, revealed a significant decrease in the landfill's compaction rate and in the current landfill's remaining life, attributed in part to equipment and increased waste volume, with the impact further exacerbated by the unexpected addition of mattresses to the waste stream.

The Mattress Factor: On June 10, 2024, Nine Lives Mattress Recycling informed Richland County Solid Waste of their decision to cease operations. In FY24, the County’s recycling program diverted approximately 7,500 mattresses, equating to an estimated 6,150 cubic yards (CY) of waste from the landfill. With the discontinuation of the mattress recycling program, this waste is now landfill bound and occupies valuable space.

FY24 Landfill Capacity Study Results:

Waste Disposal	52,063 Total Tons/117,935 CY
Compaction Rate	880 lbs./CY
Estimated Remaining Life	1.9 years

FY23 Landfill Capacity Study Results:

Waste Disposal	50,760 Total Tons/91,817 CY
Compaction Rate	1,100 lbs./CY
Estimated Remaining Life	3.7 years

Challenges with Burying Mattresses Intact:

Poor Compaction: Mattresses do not compact well, are designed to resist compression (only compress approximately 66%), and can quickly dominate airspace.

Equipment Damage: Mattress springs become entangled, damaging landfill equipment, slowing operations, and causing costly repairs.

Air Pockets: Mattresses leave air pockets that can trap methane gas and aid in the spreading of fires.

Increased Cover Dirt: Mattresses require more cover dirt—up to 12 inches—to manage properly.

Benefits of Shredding Mattresses and Bulky C&D Waste:

Overall Waste Volume Reduction: Shredded material is smaller and easier to manage, allowing for better compaction which increases usable airspace and extends the life of the landfill.

Enhanced Recycling Opportunities: This industrial shredder allows for the recovery and recycling of scrap metal and mattress springs, reducing waste and increasing revenue.

Improved Landfill Equipment Efficiency and Lifespan: Shredding C&D materials reduces material size and removes hazardous debris, which decreases wear and tear, repair needs, and equipment run time.

Regulatory Compliance: Shredding and proper processing of C&D materials will assist Richland County Solid Waste in the ability to comply with regulations and standards related to waste management.

Mobile Waste Shredder:

The TANA Shark 440DT Industrial Waste Shredder has been identified as best meeting the County's needs. Informational brochures attached.

Versatility: The 440DT shredder is designed to shred a wide variety of materials, including but not limited to mattresses, tires, C&D material, furniture, tree debris, and other challenging waste streams.

Productivity and Ease of Use: The 440DT has 12 preset operating programs for different types of waste (one specifically for mattresses that can shred 200 mattresses/hour) and interchangeable screen sizes that are easy to adjust and allow for particle output of 2" to 20". These features allow for the ability to control different waste streams and shredded debris size, while making operational time and costs more efficient.

Magnetic Separation/Metal Recovery: The 440DT is equipped with a magnet conveyer with side discharge for easy collection of ferrous metal material for recycling.

Local Service and Support: TANA Equipment has a local authorized TANA distributor, National Equipment Dealers NED located here in Columbia, SC. Authorized distributors offer technical support,

spare parts, and after-sales services. They are qualified to represent TANA locally throughout the machine's lifespan.

Industry Shredding Success Stories: Staff has researched and investigated similar situations, communicating with Mecklenburg County, NC, Pickens County, SC and Horry County, SC who all have invested in TANA shredders. Successful outcomes and proven results reported by these counties include reducing the volume of in-place waste, gaining valuable airspace, and significantly extending the life expectancy of their landfills.

ASSOCIATED STRATEGIC GOAL, OBJECTIVE, AND INTIATIVE:

Goal: Commit to fiscal responsibility.

Objective: Establish process to prioritize initiatives to align with available resources.

ADDITIONAL COMMENTS FOR CONSIDERATION:

The equipment installs a new process to extend the life of the landfill. This process also establishes a new or replacement funding source. Previously, the mattresses could be transported to a South Carolina recycler, but that option no longer exists, thus requiring the County to re-establish compaction and a revenue source. The fiber output of this equipment is highly compactible material that will remain at the active landfill near the site of the equipment. The metal output of this equipment will be transported to a Columbia area location for metal recycling.

ATTACHMENTS:

1. Richland County Capacity Study
2. TANA Waste Shredders Brochure
3. Shredder Options Sheet
4. National Equipment Dealers, LLC Quote

**CAPACITY ANALYSIS
FOR
RICHLAND COUNTY CLASS TWO PHASE 4 LANDFILL**

Prepared For:

**RICHLAND COUNTY SOLID WASTE DEPARTMENT
1070 CAUGHMAN ROAD NORTH
COLUMBIA, SC 29203**

Prepared By:

**CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
CHARLOTTE, NC**

CEC PROJECT 311-755

AUGUST 2024



August 15, 2024



Civil & Environmental Consultants, Inc.

TABLE OF CONTENTS

1.0	INTRODUCTION AND BACKGROUND	1
2.0	SCALEHOUSE DATA.....	2
3.0	VOLUME CALCULATIONS	3
4.0	DENSITY DETERMINATION.....	4
5.0	CLASS TWO LANDFILL REMAINING CAPACITY	5
6.0	CONCLUSION	6

TABLES

Table 6-1 – Class Two Landfill 2023 vs. 2024 Results

FIGURES

Figure 1 – June 2023 vs. June 2024

Figure 2 – June 2024 vs. Permitted Top of Waste Elevations

Figure 3 – Class Two Density Determination vs. Remaining Years of Capacity

1.0 INTRODUCTION AND BACKGROUND

Civil & Environmental Consultants, Inc. (CEC) has been retained by Richland County to conduct a capacity analysis on the Class Two landfill waste disposal operations at the Richland County Landfill. This study analyzes the Class Two landfill capacity from July 1, 2023, to June 28, 2024 (period of study). The following items outline the objectives for this study:

1. Determine the tonnage of Class Two waste disposed and the associated volume of airspace used during the period of study; and
2. Determine the remaining capacity as of June 28, 2024.

Figure 1 – June 2023 vs. June 2024 includes a plan view of the study area, which is based upon a survey surface of the active portion of the landfill performed by Richland County on June 28, 2024. Areas of fill are shown in green, blue, and purple on this figure.

2.0 SCALEHOUSE DATA

Richland County disposed of a total of 52,063 tons of Class Two waste during the period of study. The scalehouse data was supplied by Richland County Solid Waste & Recycling Department.

3.0 VOLUME CALCULATIONS

To determine the volume of air space used for this period of study, Richland County Landfill conducted an as-built survey of the active landfill area. From the survey, a topography map was generated. Using the topographical map, AutoCAD Civil 3D 2024 was used to calculate volumes for the study periods, relative to the proposed final closure contours. The volume reserved for the final cover system of the Class Two landfill was subtracted from the remaining airspace volume calculation. The area of study was set where the landfill waste filling operations are underway.

The calculations determined that Richland County utilized a net volume of 117,935 cubic yards (CY) of airspace in the Class Two Phase 4 landfill in the 2023-2024 study period and 1,110,198 cubic yards (CY) of airspace since it began operations. These volumes are presented in Table 6-1.

These calculations relied partially on digital files and historic data supplied by Richland County. The area and corresponding depths of fill for the 2023-2024 study period are presented in Figure 1 – June 2023 vs. June 2024. Areas of cut elevations are presented in red and yellow. Areas shown in green and blue in Figure 1 depict fill areas of 0 foot to 10 feet. The area shown in purple depicts fill areas of 10 feet to approximately 30 feet.

4.0 DENSITY DETERMINATION

The Density Determination (DD) provides a method for landfill operators to monitor the effectiveness of disposal operations. For the purpose of this report, DD is defined as weight in tons of waste disposed per cubic yard (CY) of airspace used for disposal. The DD is calculated by dividing the weight of waste disposed during the time period by the airspace used for disposal of the waste during that same time period. The DD relies on accurately calculating the airspace consumed. It should be noted that the DD calculation does not differentiate between airspace used for waste and that used for cover. Using the calculated volume of 117,935 CY and the total tonnage information provided by Richland County, CEC estimates the DD of the Class Two Phase 4 landfill for the 2023-2024 year is 0.44 tons/CY. This DD was calculated by dividing 52,063 tons of waste as calculated by 117,935 CY of airspace used.

5.0 CLASS TWO LANDFILL REMAINING CAPACITY

CEC compared the June 2024 topographical survey to the permitted top of waste grades to obtain the remaining capacity for the Class Two landfill as of June 28, 2024. Refer to Figure 2 – June 2024 vs. Permitted Top of Waste Elevations for this calculation. It is estimated that 224,900 CY of gross airspace, not including the final cover system, remain in landfill shown in the figure in shades of yellow, green, and blue. A volume of 6,095 CY in areas shaded in orange and red represent waste and/or soil placed above permitted top of waste. Prior to closing the landfill these areas should be checked to determine if some or all of the volume should be placed within the permitted waste grades. For the Class Two landfill, using the DD of 0.44 tons/CY, the landfill has approximately 96,593 tons of waste capacity remaining.

Using the current annual disposal rate of 52,063 tons per year, approximately 1.9 years of life remain in the Class Two landfill. Richland County should be prepared to initiate Class Two waste disposal operations in a new area by April 2026. This analysis is summarized in Table 6-1.

The remaining time for the landfill operations is proportional to incoming waste stream and DD. If the incoming Class Two waste stream remains consistent in volume and waste type, the life of the landfill increases with increasing DD. Figure 3 – Class Two Density Determination vs. Remaining Years of Capacity.

6.0 CONCLUSION

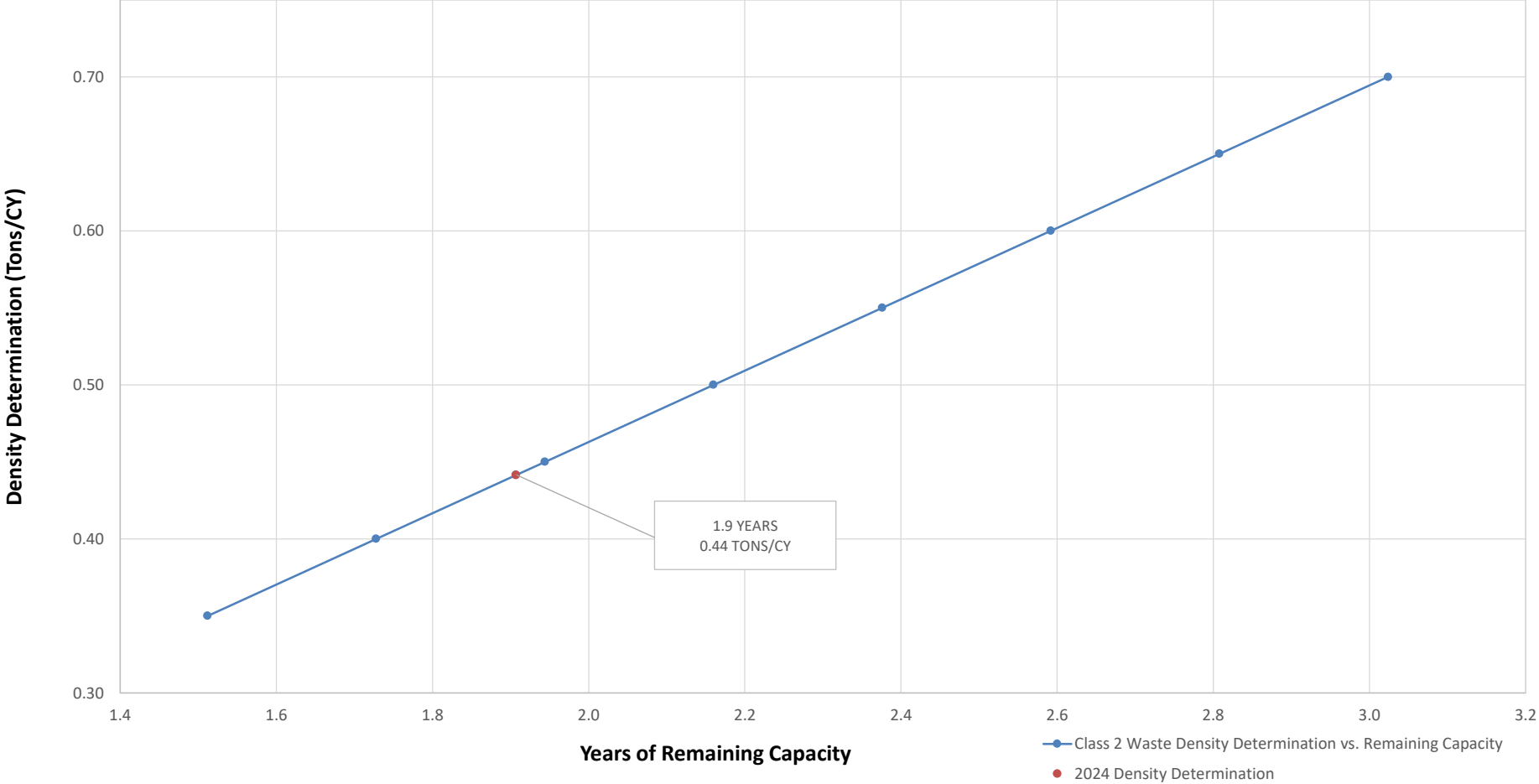
The factors most associated with a varying DD are waste compaction and operational cover. The Density Determination provides Richland County a tool for evaluating operational procedures to determine if improvement is necessary. At the average waste disposal rate of Class Two waste, Richland County should be prepared to initiate Class Two disposal operations in a new area by April of 2026.

Table 6-1 below provides a comparison summary of the 2023 and 2024 capacity study results.

Table 6-1 Class Two Landfill 2023 vs. 2024 Study Results		
	2023	2024
Airspace Used Since Start of Operations (CY)	992,263	1,110,198
Class Two Tonnage, Study Period (tons)	50,765	52,063
Class Two Volume, Study Period (CY)	91,817	117,935
Density Determination (tons/CY)	0.55	0.44
Remaining Capacity (CY)	339,406	218,805
Remaining Capacity (tons)	187,655	96,593
Remaining Years	3.7	1.9
Initiate new area by	February 2027	April 2026

FIGURES

Figure 3 - Class Two Density Determination vs. Remaining Years of Capacity



TANA

TANA WASTE SHREDDERS

TANA FROM WASTE TO VALUE®



Even more versatile than before

Unique versatility

Investing in a TANA shredder opens multiple opportunities. The TANA Shark is able to produce a homogenous particle size and has the capability to process the widest range of materials - even the toughest ones. Our 440 series shredders offer even more flexibility than before thanks to a wider variety of rotors, screen sizes and platforms. All our shredders are electric or diesel powered.

Ease of use

TANA shredders are extremely easy to adjust. Integrated screens are used to control the end product size and can be changed in just ten minutes. Non-crushables can be removed through the opening side wall. The TANA Control System (TCS) offers 12 preset operating programs for different types of waste. The touchscreen is state of the art, and software updates can be done remotely.

Ease of maintenance

Easy access to all service and maintenance points is one of the most appreciated features of TANA products. In addition to more efficient daily routines, optimal ergonomics maximize uptime. The opening side wall provides access to the rotor and the counter knives making rotor maintenance smooth and easy compared to other players on the market.



EQUIPMENT:
Customize to your needs



STRENGTHS:
Shreds practically anything

ROTORS:
7 different models

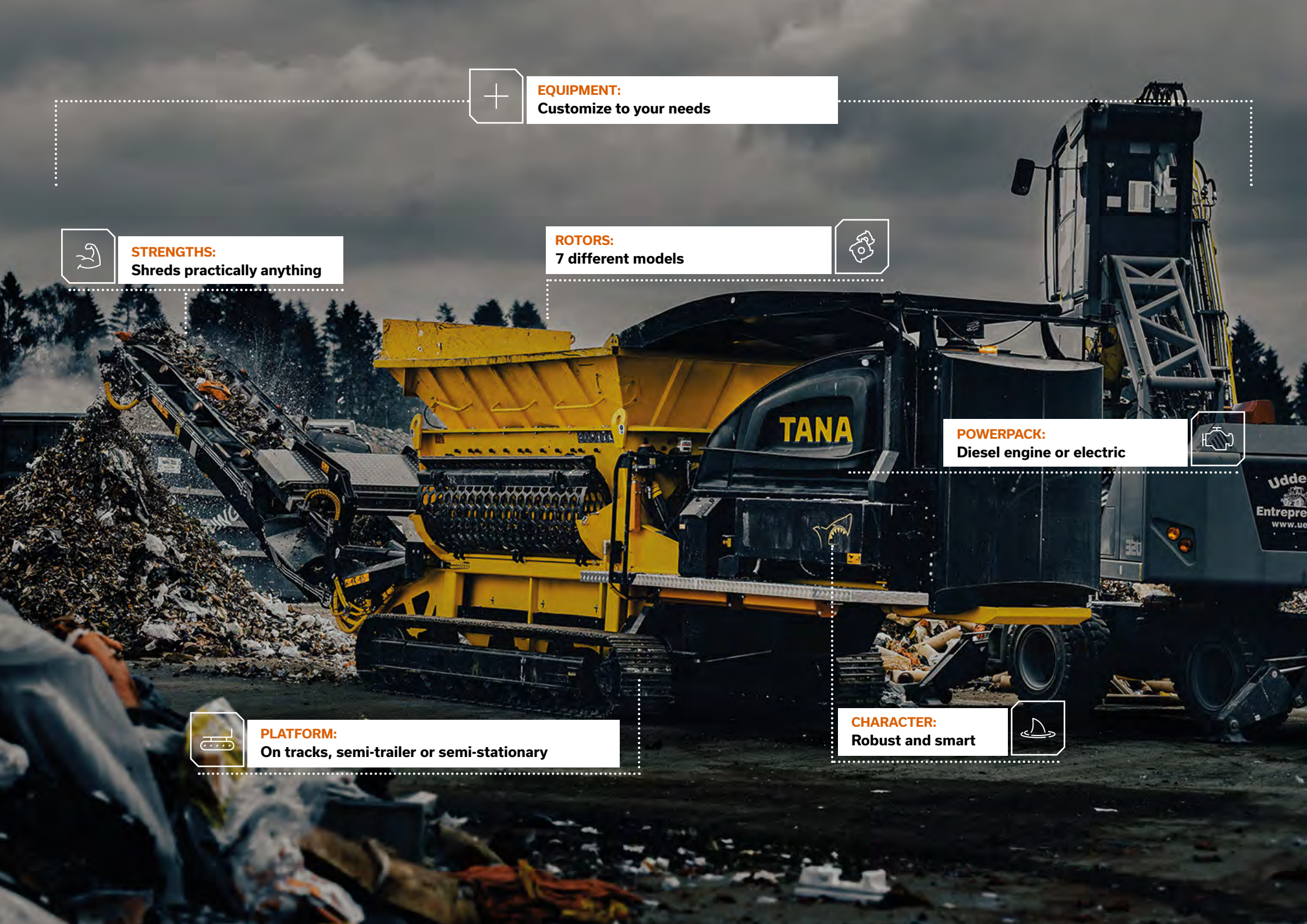


POWERPACK:
Diesel engine or electric



PLATFORM:
On tracks, semi-trailer or semi-stationary

CHARACTER:
Robust and smart



All you need to know

Best adjustability

With TANA you can make even-sized end products. You can adjust the particle size from 50 mm to 500 mm. The right screen size will be determined by the material characteristics and the required end product size.

Largest variety of materials

- Tyres
- Commercial & industrial waste (C&I)
- Construction and demolition waste (C&D)
- Municipal solid waste (MSW)
- Other types of special waste & side streams: ragged wire, plastics, pallets and waste wood, household waste, mattresses and furniture, paper, barbed wire, shingles

Most versatile use

- Pre-shredding
- Secondary shredding
- Final shredding

Material recovery & re-use

Waste can be transformed into valuable raw materials – with the right machine. Material recovery and re-use offer growing business opportunities. Reducing, re-using and recovering waste to manage waste sustainably can be done profitably with the TANA Shark.

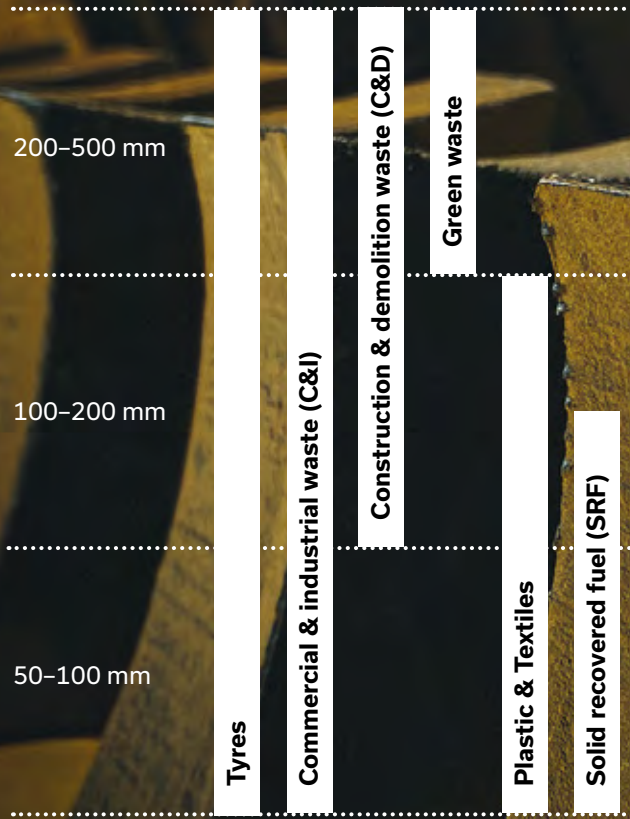
From waste to energy

Produce alternative fuel like SRF, RDF or TDF. The composition of waste streams changes constantly. The waste shredding process needs to be adjustable, as the quality of the source and end material vary. Commercial and industrial waste, tires, construction and demolition waste, and other types of waste can be crushed one after another and even mixed after shredding.

Traditional waste shredding process

TANA Shark waste shredding process

Particle sizes and waste types



Machines:

Costs: Fuel and people:

Machines:

Costs: Fuel and people:

Machines:

Costs: Fuel and people:

Machines:

Costs: Fuel and people:

Machines:

Costs: Fuel and people:

Machines:

Costs: Fuel and people:

For the best performance

Bolted cleaning combs

Cleaning combs at the back of the machine also affect the level of even quality of the end product size. Long cleaning combs help in producing a homogeneous particle size. Short combs are a good choice when working with heavily contaminated or difficult to shred materials. Bolt on cleaning combs are convenient to change and maintain.

Electrically controlled hydraulics

The electronic control of the rotor hydraulics allows faster and more precise control over the entire shredding process. TCS optimizes and adjusts the entire system, ensuring the best combination of performance and fuel economy. This way the performance and the capacity of the machine stay in balance with the operating costs at all times, from easily shreddable materials to the most challenging ones.

Power

Choice of two excellent options. Powerful and reliable Cummins diesel engines offer durable and efficient power generation and full mobility for all shredding purposes. Available for all marks in Tier IIIA and Stage V / Tier 4 Final versions.

Electrically driven powerpack offers VEM electric motors coupled together with proven TANA hydraulics for cases where electricity is available. Same performance, lower OPEX, zero CO2 local emissions, meets latest IE4 efficiency requirements.

TANA Control System

The TANA Control System (TCS) controls machine operations and automatically stops the machine in case of overloading, for example. TANA ProTrack® is a useful tool for taking care of timely and correctly scheduled maintenances. Critical alarm notifications may even prevent machine breakdowns.



Flexible operations

By adjusting the amount of counter knives, the end product size can be regulated, and with an adequate rotor screen, it can be fine-tuned and the optimal end product size-capacity ratio achieved. Both the rotor knives and the counter knives have two wearing surfaces that prolong their service life. Rotors and counter knives are also available with a carbide coating for extreme wear resistance.

Protecting your investments

The TANA Shark operates on a hydrostatic power transmission identical to the one used in TANA landfill compactors. The patented swing frame system protects the gearbox from overloading and possible damage.

Operational efficiency

Easy access to daily inspection points makes the routines more efficient and maximizes the machine's uptime. The removal of non-crushables is quick and easy through the opening side wall.

Ease of maintenance and service

Easily accessible service points improve ergonomics and save time, both of which are highly appreciated by TANA owners. Service kits including the needed filters and parts for each scheduled maintenance are delivered with TANA machines – convenient, rapid and easy.

Special features of TANA waste shredders



TANA Powerpack

Side-opening engine covers give easy access to service points that are designed to be user-friendly. Service platforms around the machine make daily maintenance more comfortable, efficient and safe.



Patented swing frame

The patented swing frame system protects the gearbox and prevents breakdowns.



TANA Control System (TCS)

TANA TCS has been updated with a new touchscreen display module. Choose one of the 12 preset shredding programs to ensure an optimized process.



TANA ProTrack®

TANA ProTrack® provides online access to your machine wherever you are. For maximizing machine uptime and optimizing your operations.



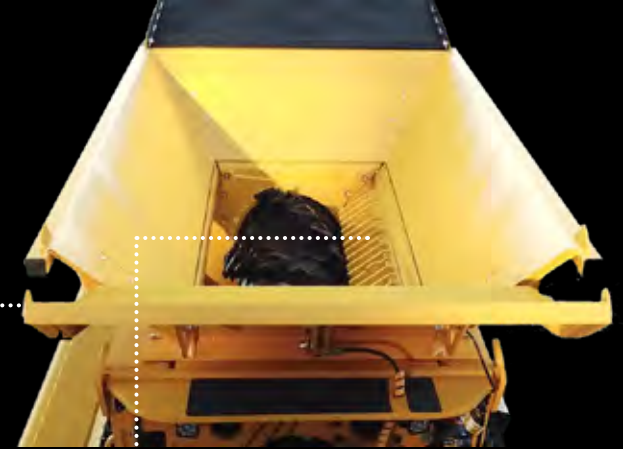
Overband magnet

Separating ferrous metals from the shredded material results in a cleaner end product and additional income. The height and direction can be controlled easily through TCS.



Folding hopper side wall

Prevents material from spilling from the hopper to the conveyor.



Bolted cleaning combs



11 different rotor screen sizes



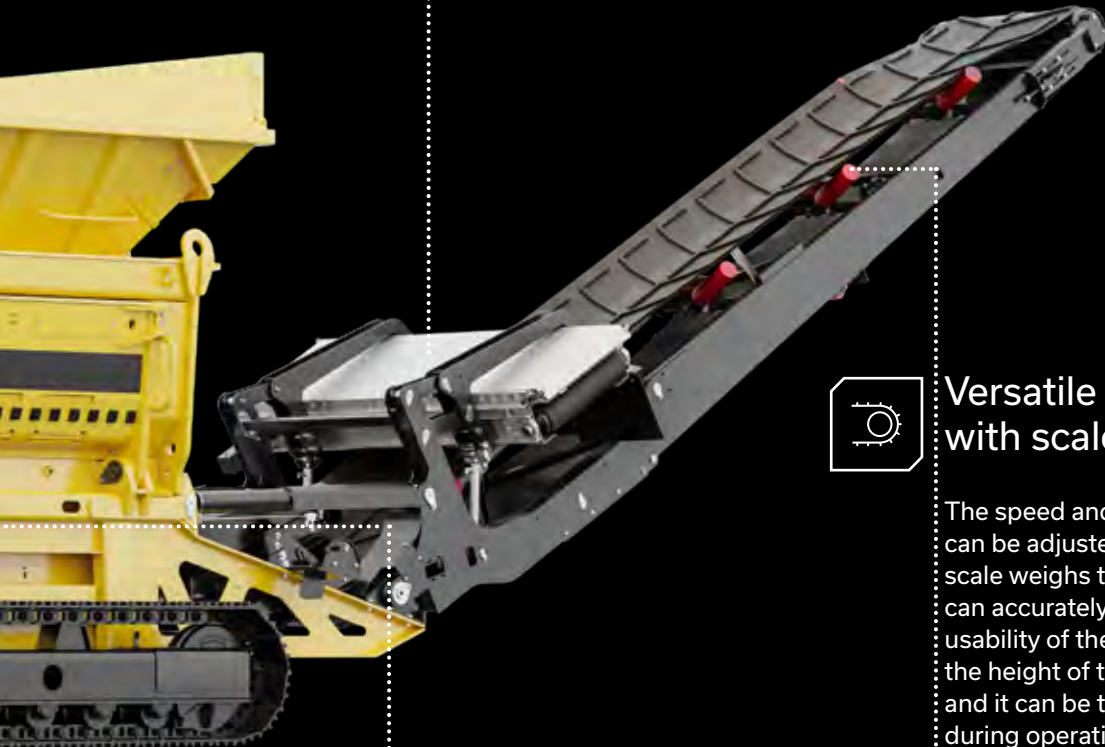
Versatile 2-part conveyor with scale

The speed and direction of each conveyor can be adjusted separately. The conveyor scale weighs the shredded material so you can accurately monitor your process. The usability of the magnet is state of the art – the height of the magnet can be adjusted and it can be turned off and back on again during operation. The direction of the magnet to the left or right can be chosen, which improves flexibility.



Torque and robustness

The highest torque on the market and robust structure ensure its capability to shred the toughest materials, like big tires and ragger wire.



Unique Intelligence



Control system optimizes and controls operation

The TANA Control System (TCS) monitors and controls the machine functions. The operating programs adjust the shredder functions to the optimal level needed for the shredding process in question. It is the key element in controlling operating costs.

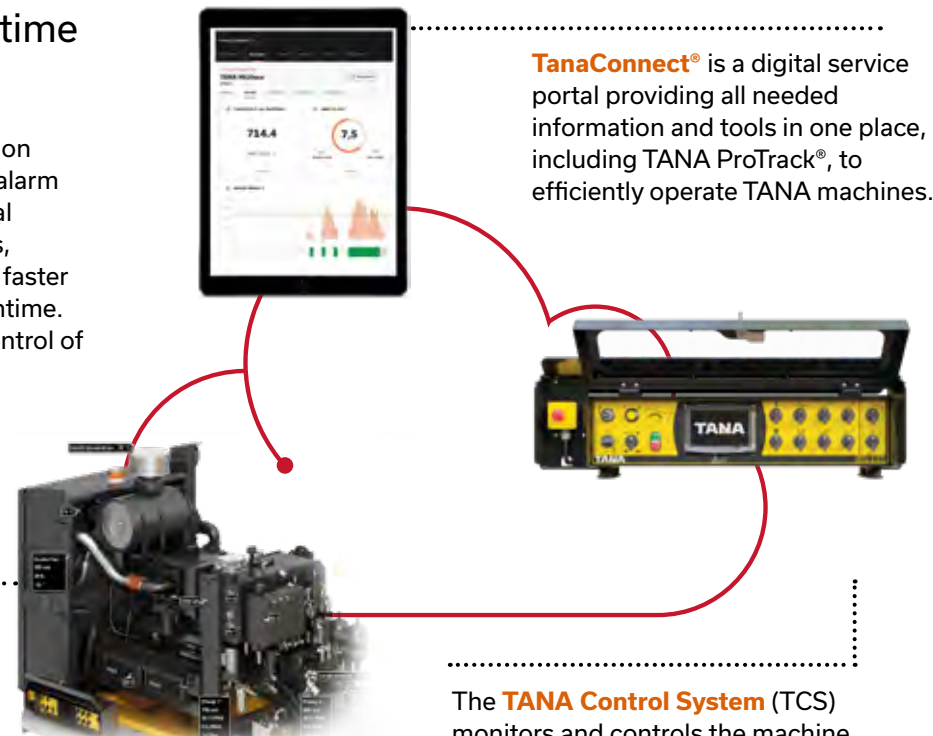
Integrated scale collects information

The integrated scale will keep you up to date on the amount of shredded waste. The scale automatically weighs the shredded materials and sends the information to the TANA ProTrack® Information Management System. Reports provide an overall understanding of the efficiency of your shredding process.

Track processes in real-time with TANA ProTrack®

Through TANA ProTrack® the operation can be followed in real time. Critical alarm notifications help to prevent potential problems, and if something happens, troubleshooting and diagnostics are faster and more accurate, minimizing downtime. As a machine owner you will have control of the machine anywhere and anytime.

TANA ProTrack® is an integrated information management system that collects real-time and detailed data about the shredding process, amounts of shredded materials and the machine itself.



TanaConnect® is a digital service portal providing all needed information and tools in one place, including TANA ProTrack®, to efficiently operate TANA machines.

The **TANA Control System (TCS)** monitors and controls the machine functions.

Unique versatility

Choose the rotor for your needs.

Available rotors:

- Standard 33
 - Standard 33+
 - Heavy duty 33
 - Heavy duty 33+
 - Standard 44
 - Heavy duty 44
 - Heavy duty 44+
- The plus rotors can withstand up to six times more fatigue making them a safe, long-term choice for heavy applications with intensive wear.
 - The HD rotors offer ease of maintenance in the form of easily replaceable wear plates, which are available as individual pieces of full sets for the entire rotor.
 - 33 knife rotor offers flexibility and suitability for all applications and is meant especially for applications where the infeed material size is bulky or large.
 - 44 knife rotors offer increased performance and capacity in applications where the particle size is controlled with a screen and the infeed material is homogenous.



Heavy Duty Rotor
C&D



Standard Rotor+
C&I



Standard Rotor
Wood, green waste, MSW



Heavy Duty+ Rotor
Tires, ragger wire, mattresses

low wear

high wear

SHARK ON TRACKS

The most versatile mobile waste shredder with excellent capacity and productivity. You will get excellent performance with better fuel efficiency, lower machine operating costs and improved usability and serviceability.

440DT & 440DTeco

EU Stage IIIA/U.S. EPA Tier 3
Diesel

EU Stage V/U.S. EPA Tier 4(f)
Diesel

- Raised frame with more space to guarantee better material flow underneath the rotor
- Integrated scale for staying up to date on the amount of shredded waste
- Bolt-on cleaning combs for easier maintenance
- Magnet conveyor: discharge side selected from TCS + hydraulic magnet adjustment during operation
- Full mobility with tracks - move around by remote control



440ET

Electric, VEM / Lönne, IE4
Diesel, EU Stage V/U.S. EPA Tier 4(f)

- Full mobility - drives on diesel, shreds on electricity
- Effortless use of auxiliary power
- Shredding with less noise and zero emissions
- Quick couplings for power grid

220DTeco

EU Stage V/U.S. EPA Tier 4(f)
Diesel

- Equipped with all the well-known TANA features
- Affordable and safe investment
- Ease of use
- Low fuel consumption



SHARK ON SEMI-TRAILER

Easy to move. Choose diesel or 6 dB quieter electric engine with zero emission. TANA shredder's efficiency and unique versatility provide TANA owners with opportunities to increase profits and reduce costs.

440D

EU Stage IIIA/U.S. EPA Tier 3
Diesel

&

440Deco

EU Stage V/U.S. EPA Tier 4(f)
Diesel

- Integrated scale for staying up to date on the amount of shredded waste
- Standard frame (no raised frame)
- Bolt-on cleaning combs for easier maintenance
- Magnet conveyor improvements: discharge side selected from TCS + hydraulic magnet adjustment during operation



440EM

Electric, VEM / Lönne, IE4

- Electric semi-trailer TANA Shark offers the same versatility and reliability as its diesel equivalent, while being more ecofriendly in terms of emissions and noise.
- It provides a sustainable process with low operations costs, cleaner site and safer working environment.
- Easy and safe access to power grid is guaranteed with quick couplings



STATIONARY WASTE SHREDDER

Stays put and guarantees zero emissions. Less noise. TANA's exceptional reliability, efficiency and productivity.

440E

Electric, VEM / Lönne, IE4

- Electricity boosts the productivity while providing low operating and maintenance costs
- Easy and safe access to power grid is guaranteed with quick couplings
- Five different setup options to precisely match your requirement (e.g. without conveyor, with lower conveyor, lower and upper conveyor etc.)





General informaton	220DTeco	440DT 440DTeco	440D 440Deco
Operating weight, kg *	29700	30200 (440DT) / 30400 (440DTeco)	27300 (440D) / 27500 (440Deco)
Total length in transportation, mm**	10260	10260	10270
Total length in operation, mm	15750	15750	15680
Total width, mm	2550	2550	2530
Total height in transportation, mm	3600	3600	3970
Rotor shaft type	single shaft	single shaft	single shaft
Conveyor belt speed (max. m/s)	3	3	3
Conveyor width	1000	1000	1000
Discharge & transfer conveyor length (mm)	5480, 7050	5480, 7050	5480, 7050
Conveyor height on operation**	4290	4290	4720
Integrated scale	x	x	x
Remote control	x	x	option
Maximum velocity (models with tracks)	2,5 km/h	2,5 km/h	
Engine and power transmission			
Engine & emissions	Cummins X15 - Fulfills Tier 4 final, EU Stage V	Cummins X15 (440DT) - Fulfills Tier 3, EU Stage IIIA Cummins X15 (440DTeco) - Fulfills Tier 4 final, EU Stage V	Cummins X15 (440D) - Fulfills Tier 3, EU Stage IIIA Cummins X15 (440Deco) - Fulfills Tier 4 final, EU Stage V
Power rating (SAE J1995) (kW)	399	399	399
Displacement (l) & number of cylinders	15 - 6	15 - 6	15 - 6
Fuel tank (litres)	720	710	755
Urea tank (eco-models only)	56	56	56
Rotor drive gears, pcs	1	2	2
Nominal rotor torque, kNm	220	440	440
Infeed hopper			
Loading height (mm)	3170	3170	3400
Volume m3	5	5	5
Shredding tools			
Rotor shredding length, mm	3000	3000	3000
Rotor speed max, rpm	28	28	28
Rotor diameter, mm	920	920	920
Rotor knives, pcs	33 / 44 (option)	33 / 44 (option)	33 / 44 (option)
Counter knives, pcs	23	23	23
Rotor knife type	Bolt-on, reversible knife	Bolt-on, reversible knife	Bolt-on, reversible knife
Rotor knife size, mm	115x70	115x70	115x70
Examples of optional equipment:			
Overband magnet	x	x	x
Conveyor side covers	x	x	x
Rotor screen sizes (mm)	50, 76, 90, 100, 109, 120, 140, 167, 220, 275, special tyre shredding screen	50, 76, 90, 100, 109, 120, 140, 167, 220, 275, special tyre shredding screen	50, 76, 90, 100, 109, 120, 140, 167, 220, 275, special tyre shredding screen

Technical specification D120111/ 24.10.2023

Weights and measurements are given within normal tolerances limits. The manufacturer reserves the right for any changes.

* Operating weight includes the basic machine (fuel tank full)

** When at 30° nominal working angle

*** Underband, overband or both conveyors sold as an option for the 440E model

**** 50Hz / 400 V ***** 60 Hz / 480 V UL

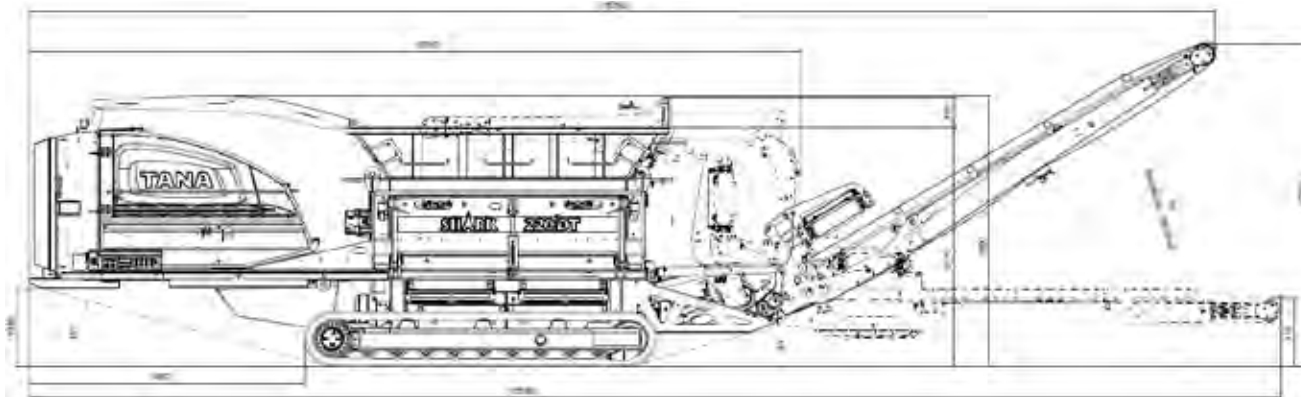
General informaton	440ET	440EM	440E
Operating weight, kg *	31900	27400	24500
Total length in transportation, mm**	10260	10060	6340
Total length in operation, mm	15750	15480	11900
Total width, mm	2550	2530	2420
Total height in transportation, mm	3600	3970	3340
Rotor shaft type	single shaft	single shaft	single shaft
Conveyor belt speed (max. m/s)	1,3	3	3
Conveyor width	1000	1000	1000
Discharge & transfer conveyor length (mm)	5480, 7050	5480, 7050	- ***
Conveyor height on operation**	4290	4730	-
Integrated scale	x	x	x
Remote control	option	option	option
Maximum velocity (models with tracks)	1,3 km/h		
Engine and power transmission			
Engine & emissions	VEM / Lönne, IE4 Doosan D34 3,4 liter, 4 cylinder engine	VEM / Lönne, IE4	VEM / Lönne, IE4
AUX diesel engine (440ET only)	- Fulfills Tier 4 final, EU Stage V		
Power rating (SAE J1995) (kW)	2 x 160 kW****/ 2 x 175 kW*****	2 x 160 kW****/ 2 x 175 kW*****	2 x 160 kW****/ 2 x 175 kW*****
Fuel tank litres (440ET only)	55	-	-
Electrical connection/earthing	TN-C	TN-C	TN-C
Main fuse size	630 A	630 A	630 A
Rotor drive gears, pcs	2	2	2
Nominal rotor torque, kNm	440	440	440
Infeed hopper			
Loading height (mm)	3170	3400	2296 (without the base)
Volume m3	5	5	5
Shredding tools			
Rotor shredding length, mm	3000	3000	3000
Rotor speed max, rpm	26/28	26/28	26/28
Rotor diameter, mm	920	920	920
Rotor knives, pcs	33 / 44 (option)	33 / 44 (option)	33 / 44 (option)
Counter knives, pcs	23	23	23
Rotor knife type	Bolt-on, reversible knife	Bolt-on, reversible knife	Bolt-on, reversible knife
Rotor knife size, mm	115x70	115x70	115x70
Examples of optional equipments:			
Overband magnet	x	x	x***
Conveyor side covers	x	x	x
Rotor screen sizes (mm)	50, 76, 90, 100, 109, 120, 140, 167, 220, 275, special tyre shredding screen	50, 76, 90, 100, 109, 120, 140, 167, 220, 275, special tyre shredding screen	50, 76, 90, 100, 109, 120, 140, 167, 220, 275, special tyre shredding screen

Technical specification D120111/ 24.10.2023
Weights and measurements are given within normal tolerances limits. The manufacturer reserves the right for any changes.

* Operating weight includes the basic machine (fuel tank full)
** When at 30° nominal working angle

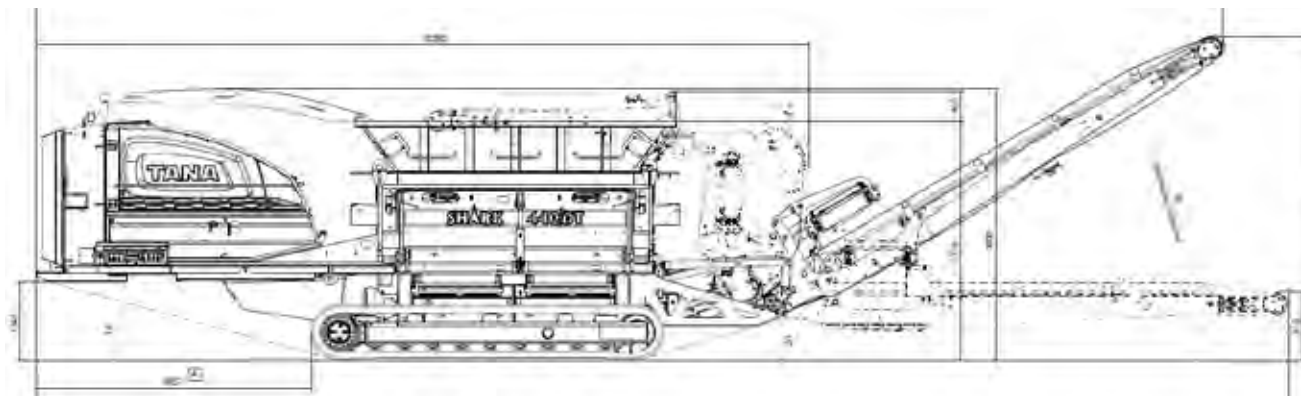
*** Underband, overband or both conveyors sold as an option for the 440E model
**** 50Hz / 400 V ***** 60 Hz / 480 V UL

Technical dimensions



220DT

EU Stage V/U.S. EPA Tier 4(f)
Diesel



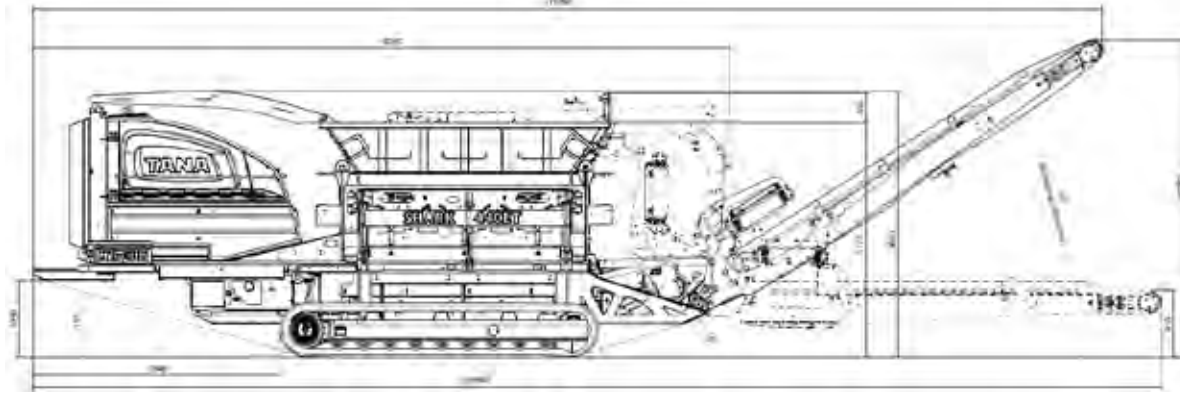
440DT

EU Stage IIIA/U.S. EPA Tier 3
Diesel

&

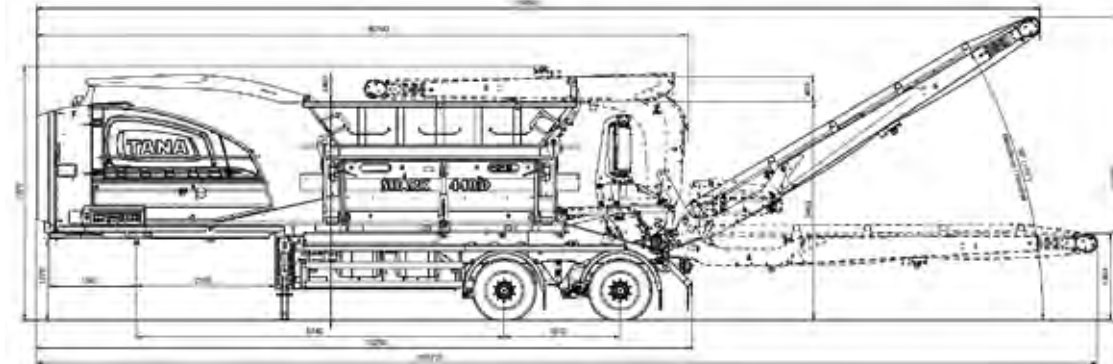
440DTeco

EU Stage V/U.S. EPA Tier 4(f)
Diesel



440ET

Electric



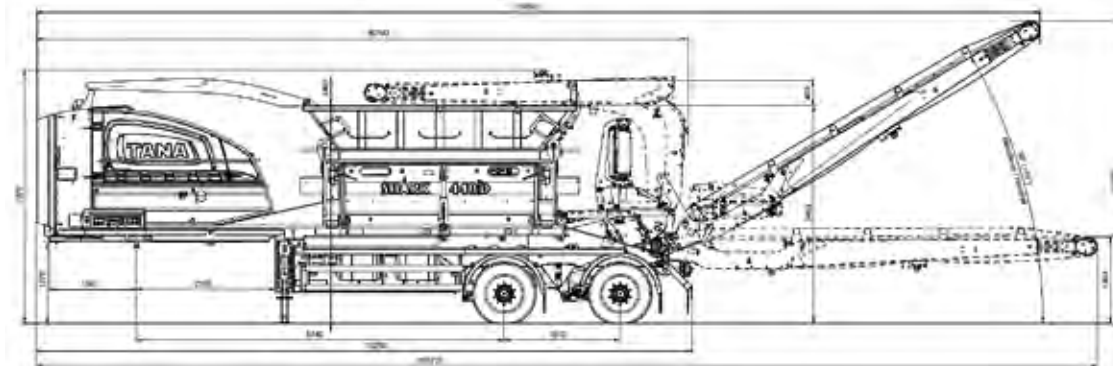
440D

EU Stage IIIA/U.S. EPA Tier 3
Diesel

&

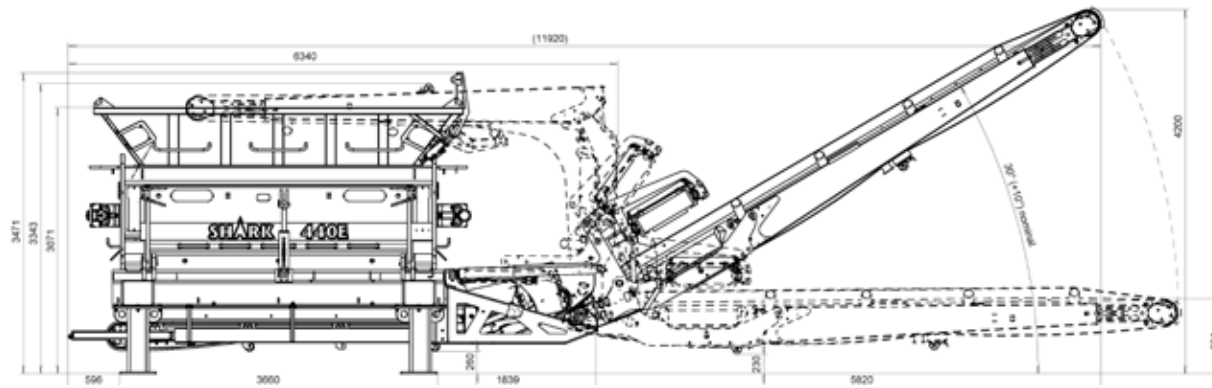
440Deco

EU Stage V/U.S. EPA Tier 4(f)
Diesel



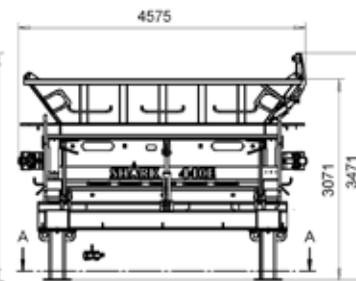
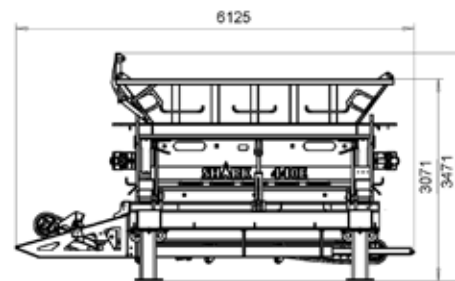
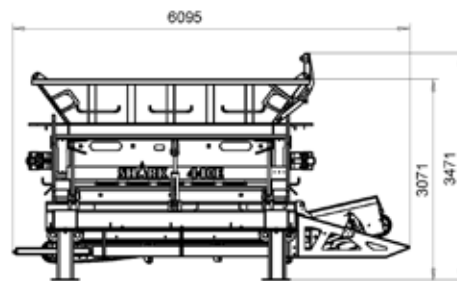
440EM

Electric



440E

Electric stationary



We are here for you.



We know our responsibility and machines

Tana Oy is an environmental technology company that promotes sustainable development by providing smart equipment and solutions for solid waste management. It is a matter of honor for us that our customers share the feeling of confidence. We put serious effort into proactive maintenance because we want to keep our promise. We ensure that the Authorized Tana Distributors around the world have the best tools for taking excellent care of Tana customers.

1970

The beginning

The first purpose build landfill compactor with two full-width iron drums was manufactured for an exhibition in Hannover.

1995-2006

Brave decisions and actions

Waste management changed and new solutions were needed. The first slow speed shredder was introduced in 2006.

2008

Intelligence

We wanted to be one step ahead with IoT and decided to equip our machines with intelligence. TANA ProTrack® was launched.

2021-2024

From Waste to Value

By developing our brand, we want to inspire both our staff, partners and customers to do their best in an easier and more efficient way.

TANA

CONTACT US

Tana Oy

P.O.Box 160
Schaumanin puistotie 1
FI-40101 Jyväskylä
Tel. +358 20 7290 240
mail@tana.fi
www.tana.fi

Your local Tana distributor:



TANA FROM WASTE TO VALUE®

Shredder Options				
Fire Extinguisher	TX11908		\$687.50	5-30 Days
Fire Suppression System	TX935095		\$35,416.67	5-30 Days
Fire Suppression System - DAFO - Installed at factory			\$21,875.00	5-30 Days
Dust Suppression System - installed at factory or parts only	T934633		\$13,611.11	
Electric preheater - engine & hydraulic	T924274		\$2,951.39	5-30 Days
Webasto - engine & hydraulic pre heater	T936906		\$12,291.67	5-30 Days
Protrack Access and Reporting Access - Per Year - This is included in ALL warranties (std & extended)	TX11912		\$1,527.78	5-30 Days
Preventive Maintenance Kits - 1,500 Hours - D Series Mobile Units - purchase with unit	TX11918		\$7,236.11	5-30 Days
Preventive Maintenance Kits - 1,500 Hours - E Series Electric Units - purchase with unit			\$2,214.00	5-30 Days
Remote Control - D Series Units	T937547		\$10,138.89	5-30 Days
Light Mast	T929878		\$2,187.50	5-30 Days
Overband Magnet			\$38,750.00	5-30 Days
Screen Support Bars (Banana Bars) - Set of 3			\$9,540.00	5-30 Days
Screens	VARIOUS	Range low	\$9,513.89	5-30 Days
	VARIOUS	Range high	\$10,833.33	5-30 Days
1 set of rotor knives - (440 with 33 knives)	T918704	Must be ordered with new unit from factory	\$3,133.33	5-30 Days
1 set of rotor support plates - brackets (440 with 33 knives)	T921525	Must be ordered with new unit from factory	\$819.44	5-30 Days
1 set of rotor knives - (440 with 44 knives)	T936088	Must be ordered with new unit from factory	\$4,177.78	5-30 Days
1 set of counter plates - brackets (440 with 44 knives)	T936093	Must be ordered with new unit from factory	\$1,092.59	5-30 Days
Arrow Style Counter Knives (Set of 21)	TX918270	TX918270 X 21 PCS	\$7,338.84	5-30 Days
Arrow Style TOUGH TOOTH Counter Knives (Set of 21)	TX10540	TX10540 X 21 PCS	\$9,609.73	5-30 Days
Ax Style Counter Knives (Set of 21)	TX930063	TX930063 X 21 PCS	\$8,834.31	5-30 Days
Ax Style TOUGH TOOTH Counter Knives (Set of 21)	TX11522	TX11522 X 21 PCS	\$11,215.97	5-30 Days
Half Style Counter Knives (Set of 2)	TX918663	TX918663 X 2 PCS	\$609.26	5-30 Days
Tana HD Wear Rotor - 30 mm rotor	T929876		\$47,765.28	5-30 Days
Tana HD Wear Rotor - 44 Rotor Knives - 30 mm rotor	T935538		\$70,795.83	5-30 Days
Tana HD Wear Rotor - 50 mm	T933230		\$61,375.00	5-30 Days
Tana HD Wear Rotor - 50 mm with 44 Rotor Knives	T937289		\$84,404.17	5-30 Days
Tana HD Door	T936099		\$18,393.06	5-30 Days
Extended Warranty Options		ONLY through TMR		

CUSTOMER: Richland County SC Landfill 1070 Caughman Road North Columbia, SC 29203	DELIVER TO: Richland County SC Landfill 1070 Caughman Road North Columbia, SC 29203	DATE: 8/23/2024
CONTACT: Syndi Castelluccio PHONE: (803)518-4560	PICK UP LOCATION:	SALESMAN: Mark Zegilla Expiration: 45 Days

Thank you for the opportunity to quote the following items.
Please review the quotation and contact us with any questions.

UNIT	QTY.	NEW OR USED	YEAR	MAKE	MODEL	PRICE
	1	NEW	2024	TANA	Shark 440DT	\$1,126,238.35
DESCRIPTION & SPECIFICATIONS	Operating Weight: 77,900lbs. Cummins X15 Diesel Engine One Screen					
ATTACHMENT/OPTION	Webasto-Engine and Hydraulic Pre Heater					
ATTACHMENT/OPTION	Light Mast					
ATTACHMENT/OPTION	5 Years Protrack Access and Reporting					
ATTACHMENT/OPTION	TANA HD Wear Rotor - 50mm with 44 Rotor Knives					
ATTACHMENT/OPTION	TANA HD DOOR					
ATTACHMENT/OPTION	Additional set of Rotor and Counter Knives and HDWE					\$20,000.00
ATTACHMENT/OPTION	Break in Service included					
PM SERVICE CONTRACT						
STANDARD WARRANTY	1 Year / 1500 Hours Full Machine					
EXTENDED WARRANTY	5 Year / 5,000.00					\$36,023.53

FOB: Customer	CONTRACT #: NCSA# 24-08-0421R	TOTAL CASH PRICE	\$1,182,261.88
----------------------	--------------------------------------	-------------------------	-----------------------

*Rates may vary** Based on delivery date & credit approval process* AFG RATE (SUBJECT TO CHANGE!)

FINANCE OPTIONS			
MONTH	RATE	PAYMENT EST	PLEASE CHECK & INITIAL
			<input type="checkbox"/>
			<input type="checkbox"/>
			<input type="checkbox"/>
			<input type="checkbox"/>

Trade In Equipment - Purchases herby bargains, sells and conveys unit Seller the above described Trade-In Equipment and certifies it to be free and clear of liens, encumbrances, and security interests except to the extend shown below.	I agree to pay all taxes and other charges and settle for the purchase price as follows:	
	1. Total Cash Price	1,182,261.88
	2. Discount/Rebate/Down Payment	
	3. Unpaid Cash Payment	1,182,261.88
	4. Sales Tax	8.00% 94,580.95
	5. DOC Fees or Charges	
	6. Total Taxes and Fees	94,580.95
	7. Cash Due on Delivery	1,276,842.83
<small>In the event Buyer fails to pay any portion of the amount identified above, Buyer shall be responsible, and must reimburse Seller, for any costs (including litigation costs and attorney's fees) incurred by Seller collecting the outstanding balance. Any past due amounts owing under this Bill of Sale shall accrue interest at 1 1/2 % per month until the entire balance is paid in full.</small>		

Order Taken By: <u>Mark Zegilla</u>	Purchaser Name: <u>Syndi Castelluccio</u>
Seller Signature: <u>Mark Zegilla</u>	Purchaser Signature:



**RICHLAND COUNTY
ADMINISTRATION**

2020 Hampton Street, Suite 4069
Columbia, SC 29204
803-576-2050



Agenda Briefing

Prepared by:	Michael Maloney	Title:	Director
Department:	Public Works	Division:	
Date Prepared:	August 27, 2024	Meeting Date:	September 24, 2024
Legal Review	Patrick Wright via email	Date:	September 6, 2024
Budget Review	Maddison Wilkerson via email	Date:	September 16, 2024
Finance Review	Stacey Hamm via email	Date:	September 16, 2024
Approved for consideration:	Assistant County Administrator	John M. Thompson, Ph.D., MBA, CPM, SCEM	
Meeting/Committee	Administration & Finance		
Subject	Hobart Road Re-alignment Project Award		

RECOMMENDED/REQUESTED ACTION:

Staff recommends the award of the Hobart Road re-alignment project to Cherokee, Inc. The bid price is \$735,637.29. Staff recommends a 15% contingency for a total approved amount of \$845,982.88.

Request for Council Reconsideration: Yes

FIDUCIARY:

Are funds allocated in the department’s current fiscal year budget?	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
If not, is a budget amendment necessary?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No

ADDITIONAL FISCAL/BUDGETARY MATTERS TO CONSIDER:

This is a jointly funded project between Richland County Public Works and the County Transportation Committee (CTC). The South Carolina Department of Transportation (SCDOT) will provide funds for signal equipment. Available funding in the current budget is encumbered in requisition REQ-00000100:

Type	Amount
CTC Grant	\$560,000
2020A Go Bond	\$500,000

Applicable fund, cost center, and spend category: Fund: 1200; 1301
Cost Center: 9923; 9950
Spend Category: construction

OFFICE OF PROCUREMENT & CONTRACTING FEEDBACK:

The bid tab has been included as an attachment.

COUNTY ATTORNEY’S OFFICE FEEDBACK/POSSIBLE AREA(S) OF LEGAL EXPOSURE:

There are no legal concerns regarding this matter.

REGULATORY COMPLIANCE:

Not applicable.

MOTION OF ORIGIN:

There is no associated Council motion of origin.

STRATEGIC & GENERATIVE DISCUSSION:

The current alignment of Hobart Rd at this railroad crossing requires drivers to acknowledge stop signs at the industrial tracks and the mainline track. Sightlines at both tracks can be improved by creating a perpendicular roadway crossing. The close proximity of two unsignalized crossings creates the potential for an inexperienced or distracted driver to become stopped on the tracks if s/he disregards proper traffic safety protocols. The existing crossing was closed by the South Carolina Department of Transportation (SCDOT) and Richland County.

Public Works has completed all permitting and property acquisition, and has a responsive contractor for this project. This new alignment will provide automated gates with audible and visual safe guards on the mainline track, increased sightlines, additional signage and pavement markings on all tracks. This project is a joint effort with SCDOT, who will assist with the railroad crossing signalization of the mainline track and improve the intersection with signalization at Farrow Rd and Hobart Rd.

ASSOCIATED STRATEGIC GOAL, OBJECTIVE, AND INTIATIVE:

Goal: Plan for Growth through Inclusive and Equitable Infrastructure

Objective: Create excellent facilities

ADDITIONAL COMMENTS FOR CONSIDERATION:

The Federal Railroad Administration (FRA) inventory report for the crossing at Hobart Rd (715906J), operated by Norfolk Southern, documents the operating speed of trains through this crossing to be between 40-50mph. This crossing is marked with signage only (crossbucks, advanced warning, and stop signs). There are no railroad crossing pavement markings or signalized warnings present.

Two reports were found for the crossing at Hobart Road:

- August 2008 a train moving at 43mph collided with a vehicle that failed to stop resulting in two fatalities and two injuries.
- April of 2022 a train moving at 42mph collided with a vehicle that failed to stop resulting in the fatality of the vehicle's driver.

ATTACHMENTS:

1. Bid Table
2. Map

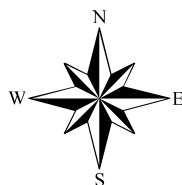
RC-672-B25		Palmetto Sitework Services	
Hobart Road Re-alignment			Cherokee, Inc.
Re-advertisement	Total Cost	\$958,844.80	\$735,637.29
Due 8/ 9/2024 @ 2 pm			

Hobart Road Railroad Crossing Relocation



Legend

- Roads
- +— Railroads



1 inch = 500 feet



PUBLIC WORKS

Richland County Department of
Public Works 2022