



**BOARD OF TRUSTEES**  
**Special Meeting Agenda**  
205 East State Street  
**February 23, 2022, 12:00 Noon**

1. Roll Call
2. **Decision:** Review and approve proposal for rehabilitation of Well #7
3. *Closed Session Pursuant to Section 20.17 Subsection 3 of the Code of Iowa concerning Strategy Meeting of the Public Employer for Collective Bargaining Purposes*
4. **Decision:** Review and approval of Resolution to Approve Agreement Between Marshalltown Water Works and Teamsters Local 238
5. **Decision:** Review and approve purchase of 2024 dump truck

## QUOTATION

**Layne Christensen Company**

4601 North 252nd Street  
Valley, NE 68064  
Phone (402) 359-2042  
Fax (402) 359-2310

Date: 02/04/22

P.O. Number: \_\_\_\_\_

**Purchaser: Marshalltown Water Works**

205 E. State Street  
Marshalltown, IA 50158

Phone Number: (641) 753-7913

Mobile Number:

Email:

Job Number: \_\_\_\_\_

Job Description: Well #7 Rehabilitation

QNTY	UNITS	DESCRIPTION	PRICE	TOTAL
1	LS	Rehabilitation of Well #7 per the provided Scope of Work	56,900.00	56,900.00
1	LS	Deduct for generator rental if local power can be used to operate Layne's test pumping equipment	(2,800.00)	
1	LS	Deduct for crane service to remove building if completed by others in advance of Layne's arrival on site, and to install the building upon completion of the project.	(1,800.00)	
<b>NOTES:</b>				
1) We assume well site is accessible with a standard truck-mounted pump service rig.				
2) We assume removal of the building only includes removal of foundation anchor bolts, and that no other piping, power, electrical, etc., will need to be disconnected.				
3) Task 1 references removing accumulated material if the well depth is less than 230', including pieces of the pump assembly. Layne has not included removal of pump parts/pieces, only typical fill such as scale, fine sand, etc.				
4) We assume water is available for both mixing chemicals and for back-flushing the well for water clarity during the video survey process.				
5) We assume all neutralized chemicals can be discharged within 200 feet of the well site.				
6) If the building is removed in the winter in order to complete the well rehabilitation process, Layne has not included any measures to prevent the piping, controls, etc., from freezing.				
7) Payment terms Net 30 Days.				
8) Prices valid for 30 days from date of quotation.				
<b>TOTAL</b>				<b>\$56,900.00</b>

The undersigned Purchaser hereby instructs Layne Christensen Company (Contractor), to proceed with the work described with the understanding that the Terms and Conditions shown on the reverse are hereby incorporated as part of this Quotation and with the specific understanding that Contractor will not be held liable for any damage in any way whatsoever for failure to complete the described work, nor for any injury or damage resulting from Contractor's efforts to perform such work, or for delay on Contractor's part in completing same. All work described herein will be provided as quoted above or on a cost plus basis at the hourly rates provided. All quotes indicated, if any, are estimates based on the best information available prior to beginning work. As the scope of work changes, revised quotations will not be issued unless requested. Purchaser's pumps, motors, parts and/or accessories may be stored by the Contractor for thirty (30) days from the date of invoice or other written notice from Contractor. After said thirty (30) days, disposal of such equipment may be made by the Contractor without incurring any liability.

Purchaser

Contractor

**Marshalltown Water Works**

**Layne Christensen Company**

By: \_\_\_\_\_  
Title: \_\_\_\_\_  
Date: \_\_\_\_\_  
PO #: \_\_\_\_\_

By: *Terry Heiliger*  
Title: Area Manager  
Date: 02/04/22

Are you tax exempt? (Circle One)    YES    NO



## SITE SAFETY AND SITE CONDITIONS CHECKLIST

CUSTOMER NAME: Marshalltown Water Works  
QUOTATION DATE: 2/4/22  
PROJECT DESCRIPTION: Well #7 Rehabilitation

Please check any of the following site safety or general site concerns that may apply to the above referenced project, provide a brief explanation, and return with signed Confirming Order.

Overhead power, power drops, or other electrical concerns: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Site access concerns or challenges for service equipment: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Confined space issues: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Rooftop access hatch or building removal required: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Work hours restrictions: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Is there a water supply source available other than the well being worked on: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Other issues / concerns: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Other issues / concerns: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



## TERMS AND CONDITIONS

**LIABILITY OF CONTRACTOR:** Contractor shall not be liable for any bodily injury, death, or injury to or destruction of tangible property except as the same may have been caused by the negligence of Contractor. In no event shall Contractor be liable for any delays or special, indirect, incidental or consequential damages. Purchaser agrees that the total limit of Contractor's liability (whether based on negligence, warranty, strict liability or otherwise) hereunder, shall not exceed the aggregate amount due Contractor for services rendered under this contract. All claims, including claims for negligence or any other cause whatsoever, shall be deemed waived unless made in writing and received by Contractor within one (1) year after Contractor's completion of work hereunder.

**INSURANCE:** Contractor shall provide workers' compensation insurance, public liability and property damage insurance covering its employees and operation. Purchaser, at its option, may maintain such insurance as will protect it against claims arising out of the work.

**REIMBURSABLE COST:** In addition to the hourly charge provided on the face of this contract, Purchaser will reimburse Contractor for travel and living expenses necessarily incurred by the Contractor in the performance of the work, minor incidental expenses such as overnight mail, telephone and petty cash expenditures necessarily incurred, cost of removal of all debris if so directed by Purchaser, sales, consumer, use and similar taxes required by law and the cost of permits and all licenses necessary for the execution of the work. The foregoing costs shall be billed at actual cost plus fifteen percent (15%) unless otherwise agreed upon.

**PRICE ADJUSTMENT:** Any cost estimates or time frames stated herein are subject to equitable adjustment in the event of differing or unforeseeable conditions, changes in applicable laws after the date of this contract, unforeseeable delays or difficulties caused by acts of God, Purchaser or any third parties. Prices of goods acquired by Contractor from others shall be adjusted to reflect Contractor's price in effect at time of shipment. The price of Contractor's goods will be adjusted to the price in effect at time of shipment in accordance with Contractor's current escalation policies or as specifically covered in this contract.

**TERMS:** Thirty (30) days net from date of invoice. For extended projects, Contractor shall submit invoices on a monthly basis for any and all work completed and materials or equipment provided during the previous month. Past due invoices shall be subject to a delinquency charge of one and one-half percent (1-1/2%) per month (eighteen percent (18%) per annum) unless a lower charge is required under applicable law, in which case the lower rate shall apply. Purchaser agrees to pay all collection fees, attorneys' fees and costs incurred in the collection of any past due amounts arising out of this contract. Contractor shall have the right to immediately terminate this contract without further liability if Purchaser fails to make timely payment or otherwise materially breaches this contract.

**MATERIAL SHORTAGES AND COST INCREASES:** If any portion of materials or equipment which Contractor is required to furnish becomes unavailable, either temporarily or permanently, through causes beyond the control and without the fault of Contractor, then in the case of temporary unavailability any completion time frames shall be extended for such period of time as Contractor shall be delayed by such above-described unavailability, and in the case of permanent unavailability Contractor shall be excused from the requirement of furnishing such materials or equipment. Purchaser agrees to pay Contractor any increase in cost between the cost of the materials or equipment which have become permanently unavailable and the cost of the closest substitute which is then reasonably available.

**DELAYS:** If Contractor is delayed at any time in the progress of work by labor disputes, fire, unusual delays in transportation, unavoidable casualties, weather, or any cause beyond Contractor's reasonable control, then any completion time frames shall be extended by a reasonable period of time, at least equal to the period of delay.

**CHANGED CONDITIONS:** The discovery of any hazardous waste, substances, pollutants, contaminants, underground obstructions or utilities on or in the job site which were not brought to the attention of Contractor prior to the date of this contract will constitute a materially different site condition entitling Contractor, at its sole discretion to immediately terminate this contract without further liability.

**ESCALATION:** This contract is made with the understanding that Contractor will be able to begin and continuously proceed with its work on or before the proposed start date on the reverse side hereof. In the event Contractor is unable to commence its work on or before said date because the project is not ready for Contractor's work, Contractor will charge Purchaser the amount of increase in Contractor's cost attributable to such delay, plus Contractor's normal overhead percentage.

**GUARANTEE AND LIABILITY:** Contractor warrants that its labor supplied hereunder shall be free from defect and shall conform to the standard of care in effect in its industry at the time of performance of such labor for a period of twelve (12) months after substantial completion of Contractor's work. Contractor agrees, to the extent it is permitted, to pass on any warranties provided by the manufacturers of materials and/or equipment furnished under this contract. Contractor itself provides no warranty, express, implied or otherwise, on any such materials or equipment. Contractor will not be responsible for: work done, material or equipment furnished or repairs or alterations made by others.

*For any breach hereunder, Contractor shall be liable only for the value of the installation work or, if it wrongfully fails to install, then its liability is limited to the difference between the contract price herein, and the value of other similar installation work. If Contractor's breach damages any materials or equipment furnished hereunder, Contractor shall only be liable for the value of such materials or equipment. Under no circumstances will Contractor be liable for consequential, special or indirect damages, including without limitation, any crop loss or damage, damage to other equipment, structures or property, nor for any other similar or dissimilar damages or losses whether due to delay, failure to furnish or install, delay in installation, defective material or equipment, defective workmanship, defective installation, delay in replacing, nor for any cause or breach whatsoever. In any event, Contractor's total liability towards Purchaser for alleged faulty performance or nonperformance under this contract shall be limited to the total contract price. No materials, equipment or services contracted herein carries any guarantee not mentioned in this contract. THE ABOVE WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY DISCLAIMED.*

**TITLE AND OWNERSHIP:** In case of default on Purchaser's part, Contractor shall have the right to enter the premises upon which any material or equipment furnished herein have been installed and retake such goods not then paid for and pursue any further remedy provided by law, including recovery of attorneys' fees and any deficiency to the maximum extent and in the manner provided by law. Such materials and equipment shall retain their character as personal property of Contractor until payment in full is received by Contractor, regardless of their mode of attachment. Unless prior specific written instructions are received to the contrary, surplus and replaced materials and equipment resulting from repair or installation work shall become the property of Contractor.

**DELIVERY:** Shipment schedules and dates, expressed or implied, are contingent on normal conditions. Contractor will not be responsible for any delays in shipment or completion caused by factors beyond its control such as, but not limited to, suppliers' failures, accidents, work stoppages or operation of or changes in the law. Shipments will be made as promptly as Contractor's ability to obtain materials and/or equipment and scheduling will permit. No delay in shipments or variances from shipping schedule shall be cause of cancellation or any claim for damage. Any changes in layout or design requested after acceptance of this contract will be made at Purchaser's additional cost. Any such change and/or time taken to supply engineering data or to approve drawings will automatically extend shipping schedules. Equipment will be shipped "knocked down" to the extent Contractor considers necessary, with small parts stripped from equipment and crated. On and after delivery to the carrier for transportation to the Purchaser's site, Purchaser shall be responsible for all loss or damage to materials or equipment due to any cause, including but not limited to loss or damage resulting from casualty.

**INDEMNIFICATION:** Purchaser agrees to indemnify and hold Contractor, its directors, officers, stockholders, employees, agents and subcontractors, harmless from and against any and all claims, demands, causes of action (including third party claims, demands or causes of action for contribution or indemnification), liability and costs (including attorneys' fees and other costs of defense) asserted and/or filed by Purchaser or any third party(ies), including without limitation Purchaser's employees, and arising out of or as a result of: (i) the presence of Contractor or its subcontractors at the job site, (ii) the work performed by Contractor or its subcontractors, or (iii) any negligent act or omission of Purchaser, its employees, agents, consultants, other contractors or any person or entity under Purchaser's control, except to the extent that such claims, demands, causes of action, liabilities or costs are caused by the negligence of Contractor or its subcontractors.

**INTERPRETATION:** This contract shall be governed by and construed in accordance with the laws of the state of the job site location. If any term, provision or condition contained herein shall, to any extent, be invalid or unenforceable, pursuant to state law or otherwise, the remainder of the terms, provisions and conditions herein (or the application of such term, provision, or condition to persons or circumstances other than those in respect of which it is invalid or unenforceable) shall not be affected thereby, and each term, provision and condition of this contract shall be valid and enforceable to the fullest extent permitted by law.

**ASSIGNMENT & SUBLETTING:** Purchaser shall not have the right to transfer or assign its rights and/or obligations under this contract to any third party, related or unrelated, without the express written consent of Contractor. Contractor shall have the right to transfer, assign or sublet all or any portion of its rights or obligations hereunder, but such transfer, assignment or subletting shall not relieve Contractor from its full obligations to Purchaser unless such transfer, assignment or subletting is pursuant to the sale of Contractor, or the division of Contractor responsible for this contract, to a third party.

**MISCELLANEOUS:** The terms and conditions set forth herein constitute the entire understanding of the parties relating to the work to be performed, and materials and equipment to be provided, by Contractor for the Purchaser. All previous proposals, offers, and other communications relative to the provisions of the subject work, oral or written, are hereby superseded, except to the extent that they have been expressly incorporated herein. Any modifications or revisions of any provisions herein or any additional provisions contained in any purchase order, acknowledgment, or other form of the Purchaser are hereby expressly objected to by Contractor and shall not operate to modify this contract. This contract shall take effect upon acceptance and execution by both parties.

**Well 7 Chemical Treatment – 2022  
Marshalltown Water Works, Marshalltown, Iowa**

**SCOPE OF WORK**

**The objective of the well rehabilitation work is to restore the Utility's Well 7 (well) back to 800 gallon per minute (gpm) with a specific capacity of 25 gallons per minute per foot (gpm/ft) or higher. It is also necessary to assess the current condition of the well pump and column pipe.**

**Construction Summary:**

- Constructed by Layne-Western in 1977
- Borehole diameter: Nominal 36-inches
- Screen: 40 feet of 16-inch ID, set 180 to 220 feet below top of original ground surface (bgs)
- Gravel packed with #3 Northern Sand & Gravel from 140 to 220 feet bgs
- Formation within screen interval described as:
  - 146 to 187' - fine to coarse grading to medium to coarse;
  - 187 to 190' - Blue-gray till;
  - 190 to 201 – medium to coarse gray sand with gravel, dirty;
  - 201 to 220' - medium to coarse gray sand and gravel with some broken limestone; and,
  - 220 to 230' – gray clay till, Broken limestone bedrock @ 230' bgs.
- Original Casing: 16-inch ID 3/8-inch mild steel
- Static water level (SWL) ~ 64' below top of well casing (bTOC) (~ 12' feet above ground surface)
- Last video inspection and rehabilitation in March 2012
  - Pretreatment medium mineral buildup observed down to 190' bTOC
  - Medium mineral build-up observed in slots of well screen both prior to and following rehabilitation efforts

**Well Rehabilitation Specification – Work to be completed by Contractor**

**Task 0** – Mobilization and demobilization of crew, equipment, and materials. Project Management

**Task 1**- Measure and record well depth. If well depth is less than 230 feet bTOC or if pieces of the pump assembly have fallen into the well, remove accumulated material.

**Task 2**- Mechanically clean the inside of the well casing and screen using a wire brush or approved alternate. Remove dislodged deposits from bottom of well and restore as

much of the original well depth as possible. Measure and record restored well depth as well as the amount of material removed.

**Task 3-** Video well. Summarize results and provide a verbal report to Utility Representative. All equipment installed in the well shall be disinfected prior to insertion.

**Task 4-** Install contractor's test pump and run a three-step variable-rate test on the well prior to treatment. Rates shall be approximately 400 gpm, 600 gpm, and 800 gpm. Each rate step shall be 30 minutes duration. Measure static water level prior to pumping and pumping water level during pumping. Measurements shall be measured using electronic water level meter and recorded. A minimum of five measurements shall be recorded for each variable rate step along with clarity, color, and volume of sand pumped (via Rossum Sand Tester and AWWA approved test procedure).

**Task 5-** Mix 31% active and inhibited Hydrochloric into a 13% solution based on 1.5 standing well volumes. Polymeric acid solution, like Johnson Screens NW 310, shall be added to the acid mixture according to manufacturer's directions (all chemicals put into the well shall have National Science Foundation (NSF) certification). Inject acid/polymer mixture into well and surge with double disk surge block for a minimum of 8 hours using continuous strokes. Each stroke should be equal to the length of screen.

Leave solution in well overnight.

Pump well and neutralize discharge to acceptable level to an acceptable storage container. Once discharge exhibits evidence of being free of residual chemicals and pH returns to background levels, pump well freely to waste.

**Task 6-** Air Burst or Bore Blast entire well screen interval to break up mineral deposits on and behind well screen. Remove dislodged deposits from bottom of well and restore as much of the original well depth as possible. Measure and record restored well depth as well as the amount of material removed

**Task 7-** Repeat entire Task 5.

**Task 8 -** Mechanically clean the inside of the well casing and screen a second time using a wire brush or approved alternate. Remove dislodged deposits from bottom of well and restore as much of the original well depth as possible. Measure and record restored well depth as well as the amount of material removed

**Task 9 -**Video well. Summarize results and provide a verbal report to Utility Representative. All equipment installed in the well shall be disinfected prior to insertion.

**Task 10-** Install contractor's test pump and run a three-step variable-rate test on the well following acid and Air Burst or Bore Blast treatments. Rates and step durations shall be the same as Task 4. Measure static water level prior to pumping and pumping water level during pumping shall be measured using electronic water level meter and recorded. A minimum of five measurements shall be recorded for each variable rate step.

**Task 11** -Disinfection should utilize a pH-adjusted chlorination treatment of 250 parts per million (ppm) chlorine level in a pH range of 6.5 to 7.0. The volume of the disinfection solution should be equivalent to 4 times the standing water volume. NSF approved chlorine enhancing chemicals, Johnson Screens NW-410 product is required and should be used in accordance with manufacturer's instructions. The chemicals shall be blended above ground and introduced into the well by a tremie pipe or similar treatment line. Effort should be made to disperse the disinfection solution throughout the well. Once the solution is placed into the well, it should be lightly agitated with the surge block. Following agitation, check the chlorine residual within the well to ensure sufficient strength is present. If the chlorine residual has diminished below 150 ppm, add additional sodium hypochlorite to raise it to that level.

Allow the chlorine solution to remain downhole overnight. Following this period, begin evacuation of the well from the bottom, working upward, until a minor residual (~50 ppm) is present, and all debris has been evacuated from the well, as identified by visible turbidity.

**Task 12** - Reinstall disinfected pump (restored to good condition). Run a final step-rate test in similar manner as Tasks 3 and 4. Measure chlorine residual after the step-rate test to ensure levels are acceptable to the plant operator. Compare results and report results to Utility Representative. Reinstall well to full operation with a new airline. Inspection of power wires is mandatory.

**Task 13** - Provide detailed report on well treatment/cleaning operations with specific capacity data prior and post treatment and data after each treatment; pump setting data including measurement for piping, airline, pump setting depth, etc.

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**From:** Heiliger, Terry <[Terry.Heiliger@gcinc.com](mailto:Terry.Heiliger@gcinc.com)>  
**Sent:** Thursday, February 17, 2022 7:18 AM  
**To:** Jared Wall; Shelli Lovell  
**Cc:** Stieb, Brendon  
**Subject:** RE: Marshalltown Water Works Well #7 Rehabilitation Proposal

Jared / Shelli,

Per our conversation yesterday, I wanted to confirm that all of Layne's reimbursable costs have been covered in our lump sum quote for this rehabilitation project. There will be no additional costs as defined in the third paragraph of our Terms and Conditions. Thank you again for considering Layne for this project, and we hope to be of service to you in the future.

**Terry Heiliger**

Area Manager – Central Region

Layne Christensen Company  
4601 N. 252<sup>nd</sup> Street  
Valley, NE 68064

**Direct: 515-986-3462 | Cell: 515-710-2560**  
**Email: [terry.heiliger@gcinc.com](mailto:terry.heiliger@gcinc.com)**

[www.graniteconstruction.com](http://www.graniteconstruction.com)





**RESOLUTION TO APPROVE AGREEMENT  
AMENDMENT FOR 2021-2022 AND  
APPROVE AGREEMENT FOR 2022-2023 BETWEEN  
MARSHALLTOWN WATER WORKS  
AND TEAMSTERS LOCAL UNION 238**

WHEREAS, there is herewith submitted to the Board of Trustees of the Marshalltown Water Works a tentative agreement with Teamsters Local 238, and

WHEREAS, the Board has examined same and has found same to be in the best interests of said Water Works and that same should be approved.

NOW THEREFORE, BE IT RESOLVED by the Board of Trustees of the Marshalltown Water Works:

Section 1. That the proposed agreement by and between the Marshalltown Water Works and the Teamsters Local 238, which immediately amends the agreement for 2021-2022 as proposed and proposes the 2022-2023 agreement effective July 1, 2022 through June 30, 2023, is hereby accepted and approved and the General Manager is hereby authorized and directed to execute same for and on behalf of said Water Works.

Passed this 23<sup>rd</sup> day of February 2022 and signed this 23<sup>rd</sup> day of February, 2022.

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Laura Eilers, Chairperson  
Water Works Board of Trustees

ATTEST:

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Shelli Lovell, Secretary

**Prepared For:**

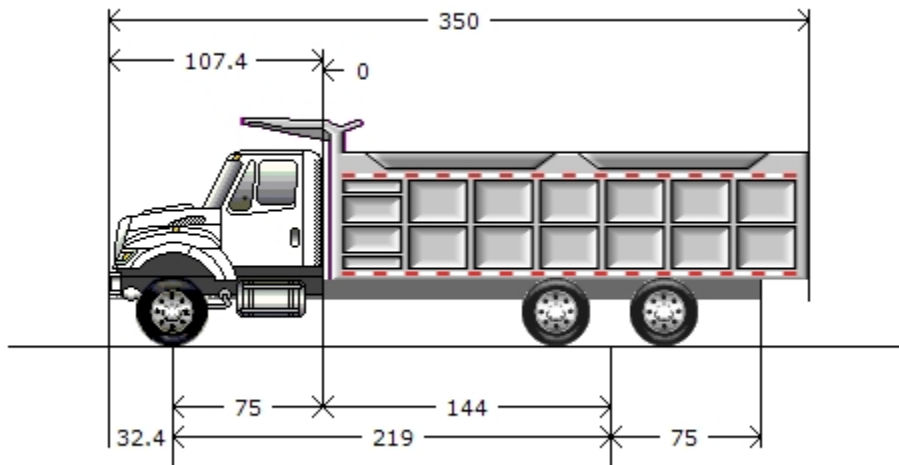
Marshalltown Water Works  
 Zach Maxfield  
 205 E State St.  
 Marshalltown, IA 50158-1715  
 (641)753 - 7913  
 Reference ID: N/A

**Presented By:**

O'HALLORAN INTERNATIONAL  
 Shane Broderick  
 3311 ADVENTURELAND DRIVE  
 ALTOONA IA 50009 -  
 (515)967-3300

THE FOLLOWING PRICING IS BASED OFF OF THE NATIONAL SOURCEWELL CONTRACT THAT IS HELD BY INTERNATIONAL AND HAS BEEN USED BY THE IOWA DOT TO PURCHASE THEIR PLOW TRUCK THE LAST SEVERAL YEARS.

\$102,038.00 2024 HV507 370HP CUMMINS ENGINE WITH ALLISON AUTOMATIC TRANSMISSION  
 \$48,645.00 EQUIPMENT FROM HAWKEYE TRUCK EQUIPMENT QUOTE 24414 INCLUDES VIBRATOR  
 -----  
 \$150,683.00  
 (\$28,000.00) TRADE ALLOWANCE FOR 2013 INTERNATIONAL 4400  
 -----  
 \$122,683.00 FINAL COST LESS ALL TRADES



**Model Profile**  
**2023 HV507 SFA (HV507)**

**AXLE CONFIG:** 6X4  
**APPLICATION:** Construction Dump  
**MISSION:** Requested GVWR: 58000. Calc. GVWR: 58000. Calc. GCWR: 80000  
**DIMENSION:** Wheelbase: 219.00, CA: 144.00, Axle to Frame: 75.00  
**ENGINE, DIESEL:** {Cummins L9 370} EPA 2021, 370HP @ 2100 RPM, 1250 lb-ft Torque @ 1200 RPM, 2100 RPM Governed Speed, 370 Peak HP (Max)  
**TRANSMISSION, AUTOMATIC:** {Allison 3000 RDS} 5th Generation Controls, Close Ratio, 6-Speed with Double Overdrive, with PTO Provision, Less Retarder, Includes Oil Level Sensor, with 80,000-lb GVW and GCW Max, On/Off Highway  
**CLUTCH:** Omit Item (Clutch & Control)  
**AXLE, FRONT NON-DRIVING:** {Meritor MFS-18-133A} Wide Track, I-Beam Type, 18,000-lb Capacity  
**AXLE, REAR, TANDEM:** {Meritor MT-40-14X-4DCR-P} Single Reduction, 40,000-lb Capacity, with Lube Oil Pump, .433"(11mm) Wall Housing Thickness, Driver Controlled Locking Differential in Forward-Rear and Rear-Rear Axle, R Wheel Ends Gear Ratio: 5.86  
**CAB:** Conventional, Day Cab  
**TIRE, FRONT:** (2) 315/80R22.5 Load Range L HSC 3 (CONTINENTAL), 481 rev/mile, 68 MPH, All-Position  
**TIRE, REAR:** (8) 11R22.5 Load Range G HDR2+ (CONTINENTAL), 491 rev/mile, 75 MPH, Drive  
**SUSPENSION, REAR, TANDEM:** {Hendrickson RT-403} Walking Beam, 40,000-lb Capacity, 54" Axle Spacing, Multileaf Springs, with Rubber Center Bushings

**FRAME REINFORCEMENT:**

Full Outer C-Channel, Heat Treated Alloy Steel (120,000 PSI Yield), 10.813" x 3.892" x 0.312" (274.6mm x 98.8mm x 7.9mm), 480.0" (12192mm) OAL

**PAINT:**

Cab schematic 100WK

Location 1: 9219, Winter White (Std)

Chassis schematic N/A

<u>Code</u>	<u>Description</u>
HV50700	Base Chassis, Model HV507 SFA with 219.00 Wheelbase, 144.00 CA, and 75.00 Axle to Frame.

### AXLE CONFIGURATION

1AND	AXLE CONFIGURATION {Navistar} 6x4  <u>Notes</u> : Pricing may change if axle configuration is changed.
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### ENGINE

12ESR	ENGINE, DIESEL {Cummins L9 370} EPA 2021, 370HP @ 2100 RPM, 1250 lb-ft Torque @ 1200 RPM, 2100 RPM Governed Speed, 370 Peak HP (Max)
12XCS	CARB EMISSION WARR COMPLIANCE Federal, Does Not Comply with CARB Emission Warranty
12WZE	CARB IDLE COMPLIANCE Federal, Does Not Comply with California Clean Air Idle Regulations
12VJC	EMISSION, CALENDAR YEAR {Cummins L9} EPA, OBD and GHG Certified for Calendar Year 2022
12UWZ	RADIATOR Aluminum, Cross Flow, Front to Back System, 1228 Ssqln, with 1167 Ssqln Charge Air Cooler, Includes In-Tank Oil Cooler  <u>Includes</u> : DEAERATION SYSTEM with Surge Tank : HOSE CLAMPS, RADIATOR HOSES Gates Shrink Band Type; Thermoplastic Coolant Hose Clamps : RADIATOR HOSES Premium, Rubber
12THT	FAN DRIVE {Horton Drivemaster} Two-Speed Type, Direct Drive, with Residual Torque Device for Disengaged Fan Speed  <u>Includes</u> : FAN Nylon
12VBB	AIR CLEANER Dual Element
12703	ANTI-FREEZE Red, Extended Life Coolant; To -40 Degrees F/ -40 Degrees C, Freeze Protection
12849	BLOCK HEATER, ENGINE 120V/1000W, for Cummins ISB/B6.7/ISL/L9 Engines  <u>Includes</u> : BLOCK HEATER SOCKET Receptacle Type; Mounted below Drivers Door
12XBM	ENGINE CONTROL, REMOTE MOUNTED Provision for; Includes Wiring for Body Builder Installation of PTO Controls and Starter Lockout, with Ignition Switch Control, for Cummins B6.7 and L9 Engines
12VXU	THROTTLE, HAND CONTROL Engine Speed Control for PTO; Electronic, Stationary Pre-Set, Two Speed Settings; Mounted on Steering Wheel

### TRANSMISSION

13AVR	TRANSMISSION, AUTOMATIC {Allison 3000 RDS} 5th Generation Controls, Close Ratio, 6-Speed with Double Overdrive, with PTO Provision, Less Retarder, Includes Oil Level Sensor, with 80,000-lb GVW and GCW Max, On/Off Highway
13WUC	ALLISON SPARE INPUT/OUTPUT for Rugged Duty Series (RDS) and Regional Haul Series (RHS), General Purpose Trucks, Construction, Package Number 223
13WVV	NEUTRAL AT STOP Allison Transmission Shifts to Neutral When Service Brake is Depressed and Vehicle is at Stop; Remains in Neutral Until Service Brake is Released
13XAL	PTO LOCATION Customer Intends to Install PTO at Left Side of Transmission
13WYU	SHIFT CONTROL PARAMETERS {Allison} 3000 or 4000 Series Transmissions, Performance Programming

<u>Code</u>	<u>Description</u>
13WLP	TRANSMISSION OIL Synthetic; 29 thru 42 Pints
13WET	TRANSMISSION SHIFT CONTROL Column Mounted Stalk Shifter, Not for Use with Allison 1000 & 2000 Series Transmission

### CLUTCH

11001	CLUTCH Omit Item (Clutch & Control)
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### REAR AXLES, SUSPENSIONS

14GVL	AXLE, REAR, TANDEM {Meritor MT-40-14X-4DCR-P} Single Reduction, 40,000-lb Capacity, with Lube Oil Pump, .433"(11mm) Wall Housing Thickness, Driver Controlled Locking Differential in Forward-Rear and Rear-Rear Axle, R Wheel Ends . Gear Ratio: 5.86
14UHD	SUSPENSION, REAR, TANDEM {Hendrickson RT-403} Walking Beam, 40,000-lb Capacity, 54" Axle Spacing, Multileaf Springs, with Rubber Center Bushings
14WMJ	AXLE, REAR, LUBE {EmGard FE-75W-90} Synthetic Oil; 50 thru 64.99 Pints
14WBS	TRANSVERSE TORQUE RODS {Clevite} Standard, Transverse Rod Only

### FRONT AXLES

2ARZ	AXLE, FRONT NON-DRIVING {Meritor MFS-18-133A} Wide Track, I-Beam Type, 18,000-lb Capacity
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### FRONT SUSPENSIONS

3ADG	SUSPENSION, FRONT, SPRING Parabolic Taper Leaf, Shackle Type, 18,000-lb Capacity, with Shock Absorbers
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### CABS, COWLS, BODIES

16030	CAB Conventional, Day Cab
16ZBT	ACCESS, CAB Steel, Driver & Passenger Sides, Two Steps per Door, for use with Day Cab and Extended Cab
16BAM	AIR CONDITIONER with Integral Heater and Defroster
16VKB	CAB INTERIOR TRIM Classic, for Day Cab  <u>Includes</u> : CONSOLE, OVERHEAD Molded Plastic with Dual Storage Pockets, Retainer Nets and CB Radio Pocket; Located Above Driver and Passenger : DOME LIGHT, CAB Door Activated and Push On-Off at Light Lens, Timed Theater Dimming, Integral to Overhead Console, Center Mounted : SUN VISOR (2) Padded Vinyl; 2 Moveable (Front-to-Side) Primary Visors, Driver Side with Toll Ticket Strap
16WSK	CAB REAR SUSPENSION Air Bag Type
16WLS	FRESH AIR FILTER Attached to Air Intake Cover on Cowl Tray in Front of Windshield Under Hood
16GED	GUAGE CLUSTER Base Level; English with English Electronic Speedometer  <u>Includes</u> : GAUGE CLUSTER DISPLAY: Base Level (3" Monochromatic Display), Premium Level (5" LCD Color Display); Odometer, Voltmeter, Diagnostic Messages, Gear Indicator, Trip Odometer, Total Engine Hours, Trip Hours, MPG, Distance to Empty/Refill for : GAUGE CLUSTER Speedometer, Tachometer, Engine Coolant Temp, Fuel Gauge, DEF Gauge, Oil Pressure Gauge, Primary and Secondary Air Pressure

<u>Code</u>	<u>Description</u>
	: WARNING SYSTEM Low Fuel, Low DEF, Low Oil Pressure, High Engine Coolant Temp, Low Battery Voltage (Visual and Audible), Low Air Pressure (Primary and Secondary)
16HHE	GAUGE, AIR CLEANER RESTRICTION {Filter-Minder} with Black Bezel, Mounted in Instrument Panel
16HGH	GAUGE, OIL TEMP, AUTO TRANS for Allison Transmission
16XJP	INSTRUMENT PANEL Wing Panel
16HKT	IP CLUSTER DISPLAY On Board Diagnostics Display of Fault Codes in Gauge Cluster
16SNS	MIRRORS (2) Aero Pedestal, Power Adjust, Heated, Black Heads and Arms, 6.5" x 14" Flat Glass, Includes 6.5" x 6" Convex Mirrors, for 102" Load Width
	<u>Notes</u>
	: Mirror Dimensions are Rounded to the Nearest 0.5"
16JNT	SEAT, DRIVER {National 2000} Air Suspension, High Back with Integral Headrest, Vinyl, Isolator, 1 Chamber Lumbar, with 2 Position Front Cushion Adjust, -3 to +14 Degree Angle Back Adjust
16SMN	SEAT, PASSENGER {National} Non Suspension, High Back, Fixed Back, Integral Headrest, Vinyl
16WJU	WINDOW, POWER (2) and Power Door Locks, Left and Right Doors, Includes Express Down Feature

**FRAMES**

1CBU	FRAME RAILS Heat Treated Alloy Steel (120,000 PSI Yield); 10.125" x 3.580" x 0.312" (257.2mm x 90.9mm x 8.0mm); 480.0" (12192) Maximum OAL
1GBP	FRAME REINFORCEMENT Full Outer C-Channel, Heat Treated Alloy Steel (120,000 PSI Yield), 10.813" x 3.892" x 0.312" (274.6mm x 98.8mm x 7.9mm), 480.0" (12192mm) OAL
1LLA	BUMPER, FRONT Swept Back, Steel, Heavy Duty
1MEJ	FRAME, SPECIAL EFFECTS Dimple on Left and Right Top Flange of Frame Rail to Reference Rear Axle Centerline
1570	TOW HOOK, FRONT (2) Frame Mounted
1LEH	LICENSE PLATE HOLDER Single Plate, Swing Type, Mounted Below Front Bumper
1WGB	WHEELBASE RANGE 177" (450cm) Through and Including 226" (575cm)

**BRAKES**

4091	BRAKE SYSTEM, AIR Dual System for Straight Truck Applications
	<u>Includes</u>
	: BRAKE LINES Color and Size Coded Nylon
	: DRAIN VALVE Twist-Type
	: GAUGE, AIR PRESSURE (2) Air 1 and Air 2 Gauges; Located in Instrument Cluster
	: PARKING BRAKE CONTROL Yellow Knob, Located on Instrument Panel
	: PARKING BRAKE VALVE For Truck
	: QUICK RELEASE VALVE On Rear Axle for Spring Brake Release: 1 for 4x2, 2 for 6x4
	: SPRING BRAKE MODULATOR VALVE R-7 for 4x2, SR-7 with relay valve for 6x4/8x6
4AZA	AIR BRAKE ABS {Bendix AntiLock Brake System} 4-Channel (4 Sensor/4 Modulator) Full Vehicle Wheel Control System
4XDT	BRAKES, FRONT {Meritor 16.5X6 Q-PLUS CAST} Air S-Cam Type, Cast Spider, Fabricated Shoe, Double Anchor Pin, Size 16.5" X 6", 20,000-lb Capacity
4EXV	BRAKE CHAMBERS, FRONT AXLE {Bendix} 24 Sqn
4LAG	SLACK ADJUSTERS, FRONT {Gunitex} Automatic

<u>Code</u>	<u>Description</u>
4WBX	DUST SHIELDS, FRONT BRAKE for Air Cam Brakes
4XDR	BRAKES, REAR {Meritor 16.5X7 Q-PLUS CAST} Air S-Cam Type, Cast Spider, Fabricated Shoe, Double Anchor Pin, Size 16.5" X 7", 23,000-lb Capacity per Axle
4EXU	BRAKE CHAMBERS, REAR AXLE {Bendix EverSure} 30/30 Sqln Spring Brake
4LGG	SLACK ADJUSTERS, REAR {Gunitex} Automatic
4XEE	PARK BRAKE CHAMBERS, ADDITIONAL (2) Spring Brake Type
4WDM	DUST SHIELDS, REAR BRAKE for Air Cam Brakes
4SPA	AIR COMPRESSOR {Cummins} 18.7 CFM
4EBS	AIR DRYER {Bendix AD-9} with Heater
4VKC	AIR DRYER LOCATION Mounted Inside Left Rail, Back of Cab
4VKJ	AIR TANK LOCATION (2) Mounted Under Battery Box, Outside Left Rail, Back of Cab, Perpendicular to Rail
4732	DRAIN VALVE {Berg} with Pull Chain, for Air Tank
4619	TRAILER CONNECTIONS Four-Wheel, with Hand Control Valve and Tractor Protection Valve, for Straight Truck
	<u>Notes</u>
	: When electronic stability control is ordered with trailer connections on a 4x2 truck, please check the operator manual for trailer weight restrictions.

#### **STEERING**

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5PTB	STEERING GEAR (2) {Sheppard M100/M80} Dual Power
5710	STEERING COLUMN Tilting and Telescoping
5CAW	STEERING WHEEL 4-Spoke; 18" Dia., Black

#### **DRIVELINES**

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6DGT	DRIVELINE SYSTEM {Dana Spicer} SPL170 Main Driveline with SPL170 Interaxle Shaft, for 6x4
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#### **EXHAUST SYSTEMS**

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7BLW	EXHAUST SYSTEM Horizontal Aftertreatment System, Frame Mounted Right Side Under Cab, for Single Vertical Tail Pipe, Frame Mounted Right Side Back of Cab
7BEV	AFTERTREATMENT COVER Steel, Black
7WDM	EXHAUST HEIGHT 10'
7WDN	MUFFLER/TAIL PIPE GUARD (1) Aluminum
7WAZ	TAIL PIPE (1) Turnback Type

#### **ELECTRICAL SYSTEMS**

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8000	ELECTRICAL SYSTEM 12-Volt, Standard Equipment
	<u>Includes</u>
	: DATA LINK CONNECTOR For Vehicle Programming and Diagnostics In Cab
	: HAZARD SWITCH Push On/Push Off, Located on Instrument Panel to Right of Steering Wheel
	: HEADLIGHT DIMMER SWITCH Integral with Turn Signal Lever
	: PARKING LIGHT Integral with Front Turn Signal and Rear Tail Light

<u>Code</u>	<u>Description</u>
	: STARTER SWITCH Electric, Key Operated
	: STOP, TURN, TAIL & B/U LIGHTS Dual, Rear, Combination with Reflector
	: TURN SIGNAL SWITCH Self-Cancelling for Trucks, Manual Cancelling for Tractors, with Lane Change Feature
	: WINDSHIELD WIPER SWITCH 2-Speed with Wash and Intermittent Feature (5 Pre-Set Delays), Integral with Turn Signal Lever
	: WINDSHIELD WIPERS Single Motor, Electric, Cowl Mounted
	: WIRING, CHASSIS Color Coded and Continuously Numbered
8GXD	ALTERNATOR {Leece-Neville AVI160P2013} Brush Type, 12 Volt, 160 Amp Capacity, Pad Mount, with Remote Sense
8RPR	ANTENNA for Increased Roof Clearance Applications
8VUL	BATTERY BOX Steel, with Plastic Cover, 18" Wide, 2-4 Battery Capacity, Mounted Left Side Back of Cab
8MSG	BATTERY SYSTEM {Fleetrite} Maintenance-Free, (3) 12-Volt 1980CCA Total, Top Threaded Stud
8HAB	BODY BUILDER WIRING Back of Day Cab at Left Frame or Under Sleeper, Extended or Crew Cab at Left Frame; Includes Sealed Connectors for Tail/Amber Turn/Marker/ Backup/Accessory Power/Ground and Sealed Connector for Stop/Turn
8XAH	CIRCUIT BREAKERS Manual-Reset (Main Panel) SAE Type III with Trip Indicators, Replaces All Fuses
8518	CIGAR LIGHTER Includes Ash Cup
8WPH	CLEARANCE/MARKER LIGHTS (5) {Truck Lite} Amber LED Lights, Flush Mounted on Cab or Sunshade
8XNY	HEADLIGHTS Halogen
8XHN	HORN, AIR Single Trumpet, Black, with Lanyard Pull Cord
8VAY	HORN, ELECTRIC Disc Style
8WWJ	INDICATOR, LOW COOLANT LEVEL with Audible Alarm
8XHR	POWER SOURCE, ADDITIONAL Auxiliary Power Outlet (APO) with USB Port, Located in the Instrument Panel
8RPT	RADIO AM/FM/WB/Clock/USB Input/Auxiliary Input
8RPB	RADIO, AUXILIARY CONTROLS Mounted in Steering Wheel, Radio Function Control Switch, Includes Volume Up/Down, Mute, Forward/Back and Bluetooth Answer/Disconnect
8RMV	SPEAKERS (2) 6.5" Dual Cone Mounted in Doors
8WTK	STARTING MOTOR {Delco Remy 38MT Type 300} 12 Volt, Less Thermal Over-Crank Protection
8TMG	TRAILER CONNECTION SOCKET {Phillips} 7-Way, Mounted at Rear of Frame, Wired for Turn Signals Combined with Stop, Compatible with Trailers with Combined Stop, Tail, Turn Lamps
8XGT	TURN SIGNALS, FRONT Includes LED Side Turn Lights Mounted on Fender

#### **FRONT END**

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9WBC	FRONT END Tilting, Fiberglass, with Three Piece Construction, for WorkStar/HV
9WAC	BUG SCREEN Mounted Behind Grille
9HBM	GRILLE Stationary, Chrome
9HBN	INSULATION, SPLASH PANELS for Sound Abatement
9HAN	INSULATION, UNDER HOOD for Sound Abatement
9AAB	LOGOS EXTERIOR Model Badges
9AAE	LOGOS EXTERIOR, ENGINE Badges



<u>Code</u>	<u>Description</u>
<b>SPEEDOMETER, TOOLS, MISC</b>	
10TEM	CUSTOMER IDENTITY for TEM 250 Program
10060	PAINT SCHEMATIC, PT-1 Single Color, Design 100  <u>Includes</u> : PAINT SCHEMATIC ID LETTERS "WK"
10761	PAINT TYPE Base Coat/Clear Coat, 1-2 Tone

**FUEL TANKS**

15SGJ	FUEL TANK Top Draw, Non-Polished Aluminum, D-Style, 16" Tank Depth, 50 US Gal (189L), Mounted Left Side, Under Cab
15WDG	DEF TANK 7 US Gal (26L) Capacity, Frame Mounted Outside Left Rail, Under Cab
15LNS	FUEL/WATER SEPARATOR {Racor 400 Series} 12 VDC Electric Heater, Includes Pre-Heater, with Primer Pump, Includes Water-in-Fuel Sensor, Mounted on Engine

**WHEELS, TIRES - FRONT**

27DUL	WHEELS, FRONT {Accuride 29300} DISC; 22.5x9.00 Rims, Powder Coat Steel, 5-Hand Hole, 10-Stud, 285.75mm BC, Hub-Piloted, Flanged Nut, with Steel Hubs
7792545438	(2) TIRE, FRONT 315/80R22.5 Load Range L HSC 3 (CONTINENTAL), 481 rev/mile, 68 MPH, All-Position

**WHEELS, TIRES - REAR**

28DUK	WHEELS, REAR {Accuride 29169} DUAL DISC; 22.5x8.25 Rims, Powder Coat Steel, 5-Hand Hole, 10-Stud, 285.75mm BC, Hub-Piloted, Flanged Nut, with .472" Thick Increased Capacity Disc and Steel Hubs
7372135444	(8) TIRE, REAR 11R22.5 Load Range G HDR2+ (CONTINENTAL), 491 rev/mile, 75 MPH, Drive

**BODY INTEGRATION**

60AAG	BDY INTG, REMOTE POWER MODULE Mounted Inside Cab Behind Driver Seat, Up to 6 Outputs & 6 Inputs, Max 20 amp per Channel, Max 80 amp Total; Includes 1 Switch Pack with Latched Switches
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**Services Section:****WARRANTY**

40128	WARRANTY Standard for HV507, HV50B, HV607 Models, Effective with Vehicles Built July 1, 2017 or Later, CTS-2025A
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**Body/Allied Equipment**

<u>Code</u>	<u>Description</u>
<b>Goods Purchased</b>	
<u>Code</u>	<u>Description</u>
	2023 model surcharge